



3425

C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
MAR 21 1913  
Acc. No. \_\_\_\_\_

Diag. Cat. No. 78-2

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

\_\_\_\_\_  
Superintendent.

State *Va*

DESCRIPTIVE REPORT.

*Hjd* Sheet No. *3425*

LOCALITY:  
*Whitehouse to Horn-  
leyp Ferry*

\_\_\_\_\_  
1912-13

CHIEF OF PARTY:  
*O. W. Ferguson*

11-4645

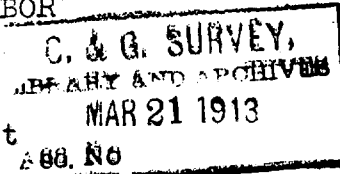
3425

# 3425

DEPARTMENT OF COMMERCE AND LABOR

COAST AND GEODETIC SURVEY

O.H. Tittmann, Superintendent



Survey of the Pamunkey River, Virginia.

-----  
TITLE SHEET.  
-----

For Hydrographic Sheet I,  
Extending from White House to 4 1/2 miles above New  
Castle, Virginia.

-----  
between

Latitude 37° 34' and 37° 42'

Longitude 77° 00' " 77° 13'

Scale 1 : 20,000

From Nov. 16th, 1912 to February 19th, 1913

SCHOONER "MATCHLESS".

O.W. Ferguson, Assistant, C.&G.S. in command.

-----  
Observers  
-----

O.W. Ferguson, Assistant; James E. Marsh, Mate ;  
Henry B. Campbell, and James S.S. Jones, Aids.

1.

DEPARTMENT OF COMMERCE AND LABOR.

COAST AND GEODETIC SURVEY

O.H.Tittmann, Superintendent.

3425

C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
MAR 21 1913  
Acc No

Survey of the Pamunkey River, Virginia.

Descriptive Report

For Hydrographic Sheet I,

Extending from White House to 4 1/2 miles above New Castle, Va.

between

Latitude  $37^{\circ} 34'$  and  $37^{\circ} 42'$

Longitude  $77^{\circ} 00'$  and  $77^{\circ} 13'$

Scale 1: 20,000

O.W.Ferguson, Assistant, C.&G.S. in command.

Observers

O.W.Ferguson, Assistant; James E. Marsh, Mate ;  
Henry B. Campbell, and James S.S. Jones, Aids.

Recorder.

H.W. Godsey, C.W.

Leadsman.

John Jacobsen, S.M.M. and A.C. Rowe, Sea.

Coxswain.

W.H. Buckmaster.

Tide Observers.

H.H. Thomas, C.V. Rhea, Trigue Sjursen, and Einer Englesen.

## Descriptive Report.

) ) ) )

For Hydrographic Sheet I,

3425

-----

This sheet continues over a portion of the river that has not been charted before and is not supplied with Day Marks; but; the navigation has been carried on by men well acquainted with the channel and by the help of Indian Pilots. This sheet extends from White House, where the Southern Railroad leaves the river, to four and a half miles above New Castle where the channel is greatly obstructed with logs and trees, making navigation dangerous, a distance of 25 miles, and 57 above West-point. New Castle Bridge, 19.6 miles above White House, is the official Head of Navigation as maintained by the War Department.

This sheet has very much the same characteristics as the sheet below only narrower in scope. It is very crooked, winds down a basin about a mile wide about White House, and 2/10 mile wide at its upper end.

The marshes are much smaller and mostly covered with a growth of trees, Gum, Ash and Maple.

-----  
Shores.  
-----

The shores show small strips of grassy marsh, here and there, but are generally wooded; about 2/3 being low woods ~~only~~ a foot or two above ordinary high water. The high ground shores are silt, sand, and clay, or marl higher up; no rocks ~~are~~ found, reducing very materially, the danger to navigation.

3.  
DESCRIPTIVE REPORT.

For Hydrographic Sheet I,

-----  
WATER.  
-----

Over this entire sheet the water is fresh and is used directly from the river by the schooners and tug boats, but it must contain plenty of fever germs. There is artesian water found at White House and Poplar Grove, but farther up the character changes, no artesian water but plenty of good springs.

-----  
CURRENTS.  
-----

The tidal currents continue strong, 1.32 K. at Northbury Landing and 1.05 K. at New Castle, though the latter was partly due to fresh water.

This sheet shows the maximum range of tides, namely, at White House 3.03 feet and at Northbury Landing 3.12 feet, from the latter place it diminishes rapidly; being 2.80 feet at Carters Landing and 1.75 at New Castle Bridge.

-----  
Table of Distances in miles from Westpoint.  
-----

Place	Miles.	Place	Miles
Poplar Grove	33.1	Retreat	40.9
Williams Ferry	33.8	Cherry Cook	41.8
Gregory Landing	34.1	Grimes Landing	43.2
Liberty Hall	35.3	Pipe in Tree Ferry	43.9
Dr. Gregory	36.0	Carters Landing	45.5
Water Loo	36.8	Jackson "	48.3
Putney	37.3	Tylers "	48.4
Laceys	37.7	Lumber Landing	51.3
Montagues Landing	38.2	New Castle Bridge	51.6
Montagues Upper "	39.0	Wormleys Ferry	54.8
Northbury Landing	39.9	End of Survey	57.0
Wood Landing	40.9		

Descriptive Report for Hydrographic Sheet I ,

-----  
NAVIGATION/.

There is no line of steamers plying this river, but there is a good deal of commerce carried on by flat boats, barges and small power boats.

The tugs Clara Bell, Lucerne and James E. Lee, are quite constantly engaged on this river.

Seven feet at low water can be carried to Northbury Landing, 39.9 miles from Westpoint, and five feet to New Castle, 51.6 miles above Westpoint. On high tides eight feet can be carried to New Castle.

By dredging a few spots especially above Northbury Landing 6 1/2 feet could be carried at low water to New Castle.

There are no day marks on this sheet but pilots can be found at White House and at other places.

There should be a black spar buoy placed at the lower end of the mud island, often submerged, 450 meters above Poplar Grove; Latitude 37° 35' 670 meters and Longitude 77° 03' 48 meters, also a black spar buoy at the narrow channel and wide mud flat, half the time covered with water, a mile above Poplar Grove, at Latitude 37° 35' 1498 meters and Longitude 77° 03' 105 meters.

The Pamunkey is a good river for navigation and should be used more than it is, and probably will be before long. It is too narrow for sailing, the short and overhanging trees require close work; but it has good tides and is especially adapted to gasoline boats or to boats with gasoline auxiliary power. Gasoline can be gotten at Westpoint and Richmond and shipped to most any place on the river.

Descriptive Report for Hydrographic Sheet I ,  
-----  
-----

Besides the railroad bridge at White House which has a draw and a man there to tend it, there is a bridge at New Castle also with a draw but seldom opened. There is a clearance under the bridge of from 9 to 15 feet, generally<sup>1</sup> as much as 14, but at freshet stages of the river it might, for a short time be reduced to seven feet.

Date 1912	Letter	vol	Positions	Soundings	Miles Statute	Vessels.
December 17	a	1	48	233	4.50	Whaleboat
" 18	b	1	44	138	3.75	"
1913 January 6	c	1	24	221	4.25	"
" 6	a	1	34	217	5.75	Launch
" 22	d	1	130	388	8.25	Whaleboat
" 24	e	1	72	215	3.85	"
February 10	b	1	42	187	4.50	Launch
" 12	c	1	183	948	23.95	"
" 15	d	1	30	178	4.50	"
" 17	e	1	69	391	10.50	"
Total.	10		676	3116	73.80	

*Following are nine sheets of Geographic Positions*

*C. W. F.*



## GEOGRAPHIC POSITIONS.

For Hydrographic Sheet # 2.

*For middle part - sheet - all on sheet I, called 2*

Track		37	34	1453.9	77	01	554.2
Center of Draw 0		37	34	1450.0	77	01	453.0
Signal pole # 2 0		37	34	1444.0	77	01	305.0
Road		37	34	1430.3	77	01	99.3
Yants	<i>From oversight - no carbon</i>	37	34	1535.7	77	00	1103.8
Bur	<i>was made for duplicate</i>	37	34	1727.8	77	01	292.7
Hind	<i>O. W. 4.</i>	37	35	272.3	77	00	1139.9
Bay		37	35	383.6	77	01	321.4
Hatch		37	34	1770.9	77	01	622.3
Saw		37	35	164.7	77	01	720.4
Pith		37	35	139.6	77	01	1411.0
Meadow		37	35	442.0	77	01	1346.2
Poplar		37	35	259.3	77	02	504.0
Grove		37	35	436.6	77	02	412.9
Snag "Old tree" 0		37	35	437.0	77	02	487.0
Shanty		37	35	378.0	77	02	869.6
Brace		37	35	737.9	77	02	633.1
Williams		37	35	1131.5	77	02	901.4
Bough		37	35	1026.1	77	02	1053.0
Greg		37	35	1495.1	77	02	1334.3
Green		37	35	1391.7	77	03	80.3
Sup		37	36	6.8	77	03	271.1
Sail		37	35	1705.2	77	03	775.7
Ferry "boat 0		37	36	96.0	77	03	610.0
Ship		37	36	109.7	77	03	723.7
Ray		37	35	1826.1	77	03	1042.8
Hope		37	36	210.2	77	03	992.3
Elect		37	36	205.1	77	03	1298.9

37  
34  
35  
36

Survey of the Pamunkey River.  
GEOGRAPHIC POSITIONS  
For Hydrographic Sheet # 2.

2.

Woods	37	36	301.7	77	03	1244.3
war	37	36	368.3	77	04	41.2
Liberty	37	36	537.3	77	04	54.4
" " "hall" ①	37	36	505.0	77	04	220.0
Bail	37	36	452.9	77	04	252.7
Ring	37	36	231.9	77	04	226.6
Polk	37	36	162.9	77	04	364.4
Move	37	35	1773.1	77	04	358.1
Cabin ①	37	35	1784.0	77	04	234.0
Negro	37	35	1654.0	77	04	272.4
On	37	35	1479.9	77	04	377.7
Oppo	37	35	1528.0	77	04	594.6
Doctor	37	35	1396.3	77	04	643.9
High "barn" ①	37	35	1310.0	77	04	783.6
Week	37	35	1379.0	77	04	803.8
Raw	37	35	1489.5	77	04	902.4
Pen	37	35	1529.5	77	04	1121.4
Hog	37	35	1416.1	77	04	1269.0
Greg "Ho" ①	37	35	1178.0	77	04	853.0
Buck	37	35	1702.0	77	04	1434.7
Boyd	37	35	1688.5	77	05	219.7
Roof ①	37	35	1844.0	77	05	360.0
Water	37	35	1836.4	77	05	369.8
Black	37	36	116.8	77	05	257.0
Mutton	37	36	245.7	77	05	397.8
Loo	37	36	214.8	77	05	555.6
Briar	37	36	292.3	77	05	670.9
Rat	37	36	375.6	77	05	595.5
Jones "Ho" ①	37	36	333.0	77	05	798.0

## GEOGRAPHIC POSITIONS

For Hydrographic Sheet #2.

Pike	37	36	494.6	77	05	770.6
Mink	37	36	494.8	77	05	659.1
Putneys "Mill" ①	37	36	607.0	77	05	869.0
Gar	37	36	710.9	77	05	855.9
Lic	37	36	738.2	77	05	659.6
Mire	37	36	1226.2	77	05	867.8
Trap	37	36	1121.5	77	05	683.1
Fire	37	36	1402.8	77	05	569.6
Keep "out" ①	37	36	1548.0	77	05	721.0
Monte	37	37	223.6	77	05	561.7
Montegue "Ho" #1 ①	37	37	438.0	77	05	600.0
Log "on shore" ①	37	37	143.0	77	05	858.0
Web	37	36	1822.0	77	05	944.9
Gue	37	36	1793.2	77	05	1267.5
Wax	37	37	125.5	77	05	1298.3
Richard	37	37	41.4	77	05	1442.6
Chy "on Ho" ①	37	36	180.4	77	06	302.0
Mop	37	37	399.6	77	06	280.0
Con	37	37	506.9	77	06	115.3
Corn	37	37	699.9	77	06	239.7
Dike	37	37	618.8	77	06	393.6
Field	37	37	921.5	77	06	393.5
Montegue # 2 ①	37	37	1196.0	77	06	34.0
Buz	37	37	784.2	77	06	775.8
Crow	37	37	928.7	77	06	940.6
Notice "on point" ①	37	37	893.0	77	06	1041.0
1 ①	37	37	726.1	77	06	1331.2
2 ①	37	37	739.2	77	07	66.6

Survey of the Pamunkey River.  
 GEOGRAPHIC POSITIONS/  
 For Hydrographic Sheet # 2.

4.

3. 0	37	37	820.5	77	07	45.1
4. 0	37	37	834.2	77	07	360.1
Lumber "chute" 0	37	37	970.3	77	07	519.1
5. 0	37	37	1039.1	77	07	464.2
Sign "keep out" 0	37	37	1397.4	77	07	782.4
6. 0	37	37	1178.9	77	07	743.0
Sign "keep out" 0	37	37	1188.3	77	07	603.3
Boat "Ho" 0	37	37	1384.5	77	07	895.5
7. 0	37	37	1471.7	77	07	844.5
Shanty 0	37	37	1453.1	77	07	968.1
Sign 0	37	37	1674.9	77	07	1059.6
Sign "posted" 0	37	37	1784.7	77	07	967.3
8. 0	37	37	1761.0	77	07	1089.0
9. 0	37	38	162.8	77	07	1117.1
10. 0	37	38	240.4	77	07	1205.4
House "on hill" 0	37	38	306.7	77	07	1193.7
11. 0	37	38	486.2	77	07	794.3
12. 0	37	38	384.4	77	07	665.1
13. 0	37	38	339.1	77	07	509.8
14. 0	37	38	316.9	77	07	140.3
15. 0	37	38	245.4	77	07	60.3
16. 0	37	38	290.6	77	06	1288.3
17. 0	37	38	623.5	77	06	1331.4
18. 0	37	38	844.9	77	07	151.9
19. 0	37	38	1121.9	77	07	59.6

Survey of the Pamunkey River.  
GEOGRAPHIC POSITIONS.

1.

For Hydrographic Sheet I. = Eye

*For last Book-Sheet  
All on Hydrographic Sheet I*

Monte "Ho #2" 0			1196.0	77	06	34.0
Con						
Corn			506.9	77	06	115.3
Field			699.9	77	06	239.7
			921.5	77	06	393.5
Dike			618.8	77	06	393.6
Buz			784.2	77	06	775.8
Buz						
Crow			928.7	77	06	940.6
Notice "onpoint" 0			893.3	77	06	1041.0
1. 0			726.1	77	06	1331.2
2. 0			739.2	77	07	66.6
3. 0			820.5	77	07	45.1
4. 0			834.2	77	07	360.1
5. 0			1039.1	77	07	464.2
Lumber "chute" 0			970/3	77	07	519.1
Keep "out" 0			1397.4	77	07	782.4
6. 0			1178.9	77	07	743.0
Keep "out sign" 0			1188.3	77	07	603.3
7. 0			1471.7	77	07	844.5
Boat "house" 0			1384.5	77	07	895.5
Shanty 0			1453.1	77	07	968.1
Notice 0			1674.9	77	07	1050.6
8. 0			1761.0	77	07	1089.0
Posted 0			1784.7	77	07	967.3
9. 0			162.8	77	07	1117.1
10. 0			240.4	77	07	1205.4
House "on hill" 0			306.7	77	07	1193.7
11. 0			486.2	77	07	794.3
12. 0			384.4	77	07	665.1
13. 0			339.1	77	07	509.8
14. 0			316.9	77	07	140.3

## GEOGRAPHIC POSITIONS.

For Hydrographic Sheet I.

15.	0	37	38	245.4	77	07	60.3
16.	0	37	38	290.6	77	06	1288.3
17.	0	37	38	623.5	77	06	1331.4
18.	0	37	38	844.9	77	07	151.9
19.	0	37	38	1121.9	77	07	59.6
20.	0	37	37	1371.1	77	07	9.0
21.	0	37	38	1674.4	77	06	1092.4
House	0	37	38	1694.0	77	06	925.0
22.	0	37	39	180.6	77	06	992.7
23.	0	37	39	407.6	77	06	795.7
House "at Grimes Landing"	0	37	39	505.0	77	06	752.0
24.	0	37	39	603.4	77	06	865.3
25.	0	37	39	901.0	77	06	699.3
26.	0	37	39	1084.6	77	06	778.1
27.	0	37	39	1262.0	77	06	758.1
28.	0	37	39	1582.4	77	06	984.6
House "at Point"	0	37	39	1627.0	77	06	943.0
28 1/2.	0	37	39	1506.4	77	06	1260.1
29.	0	37	39	1333.6	77	07	15.0
30.	0	37	39	1094.6	77	07	176.6
31.	0	37	39	1154.9	77	07	442.5
Dolphin	0	37	39	1146.9	77	07	606.8
32.	0	37	39	1187.5	77	07	841.0
33.	0	37	39	1336.1	77	07	1180.9
34.	0	37	39	1341.5	77	07	1421.1
35.	0	37	39	1507.6	77	08	209.9
36.	0	37	40	23.3	77	08	213.8
Posted	0	37	40	84.0	77	08	425.3
37.	0	37	40	64.4	77	08	538.9

Survey of the Pamunkey River.  
 GEOGRAPHIC POSITIONS.  
 For Hydrographic Sheet I.

3.

● 8.	0	37	39	1660.8	77	08	712.3
39.	0	37	39	1773.0	77	08	886.1
40.	0	37	40	165.1	77	08	697.0
41.	0	37	40	364.8	77	08	1054.9
42.	0	37	40	579.9	77	08	987.7
43.	0	37	40	884.8	77	08	1207.1
44.	0	37	40	983.2	77	08	1402.0
45.	0	37	40	772.0	77	09	65.0
45	1/2. 0	37	40	590.0	77	09	5.1
46.	0	37	40	276.2	77	08	1357.0
47.	0	37	40	110.0	77	08	1347.5
48.	0	37	40	5.7	77	08	1265.5
49.	0	37	39	1622.1	77	08	1347.4
50.	0	37	39	1487.9	77	09	72.9
51.	0	37	39	1620.6	77	09	444.5
52.	0	37	40	154.2	77	09	67.6
53.	0	37	40	286.2	77	09	619.6
54.	0	37	40	93.9	77	09	666.6
55.	0	37	39	1841.6	77	09	581.9
56.	0	37	39	1709.7	77	09	653.4
57.	0	37	39	1731.9	77	09	884.5
58.	0	37	39	1833.5	77	09	853.6
59.	0	37	40	1.9	77	09	1004.8
60.	0	37	39	1758.4	77	09	1084.1
61.	0	37	40	41.7	77	09	1218.3
62.	0	37	40	162.2	77	09	1209.4
63.	0	37	40	171.5	77	09	1362.1
64.	0	37	39	1641.2	77	09	1293.3
64	1/2. 0	37	39	1460.2	77	09	1433.9

Survey of the Pamunkey River.  
 GEOGRAPHIC POSITIONS.  
 For Hydrographic Sheet I.

65.	0	37	39	1148.0	77	10	156.9
66.	0	37	39	1088.5	77	10	557.0
67.	0	37	39	992.5	77	10	693.6
68.	0	37	39	1009.7	77	10	1108.5
69.	0	37	39	771.8	77	11	0.1
70.	0	37	39	824.5	77	11	343.1
71.	0	37	39	1038.0	77	11	595.2
72.	0	37	39	1197.5	77	11	563.4
73.	0	37	39	1386.2	77	11	788.0
74.	0	37	39	1709.4	77	11	870.2
75.	0	37	40	81.5	77	11	856.3
76.	0	37	40	65.9	77	11	646.4
77.	0	37	40	219.9	77	11	495.6
78.	0	37	40	324.7	77	11	535.5
79.	0	37	40	458.3	77	11	391.8
80.	0	37	40	450.3	77	11	304.0
81.	0	37	40	648.9	77	11	109.5
82.	0	37	40	771.5	77	11	68.7
83.	0	37	40	832.2	77	10	1452.6
84.	0	37	40	1003.9	77	11	249.2
85.	0	37	40	1139.7	77	11	227.0
86.	0	37	40	1244.2	77	11	70.2
87.	0	37	40	1708.5	77	11	36.7
88.	0	37	41	239.9	77	11	96.2
89.	0	37	41	461.1	77	11	250.2
90.	0	37	41	314.2	77	11	411.6
91.	0	37	41	338.8	77	11	562.9
92.	0	37	41	605.9	77	11	665.6
93.	0	37	41	805.1	77	11	961.5



## GEOGRAPHIC POSITIONS.

For Hydrographic Sheet I.

94.	0	37	41	835.9	77	11	1157.1
95.	0	37	41	748.4	77	11	1294.1
96.	0	37	41	752.4	77	12	71.6
97.	0	37	41	508.7	77	12	291.5
98.	0	37	41	213.0	77	12	357.8
99.	0	37	40	1785.3	77	12	187.0
100.	0	37	40	1335.2	77	12	306.6
101.	0	37	40	1150.6	77	12	603.4
102.	0	37	40	1191.1	77	12	967.2
103.	0	37	40	1126.9	77	12	1143.1

Hyd. Sheet No. 3425.

This sheet together with Hyd 3424, comprise, a complete survey of the Pamunkey River. The work on a whole is good, the ground thoroughly covered and the average crossings good.

The work would have been much plainer, if plotted on a larger scale.

R. L. Johnston

Soundings shown in feet.