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1912

# 3424

C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
MAR 21 1912  
Acc. No

Diag. Cht. No. 78-2

Department of Commerce and Labor COAST AND GEODETIC SURVEY	
_____ Superintendent.	
State: <u>Va</u>	
DESCRIPTIVE REPORT.	
<u>Hyd.</u>	Sheet No. <u>3424</u>
LOCALITY:	
<u>Pamunkey River</u>	
_____ 1912	
CHIEF OF PARTY:	
<u>O. H. Ferguson</u>	

11-4645

3424

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DEPARTMENT OF COMMERCE AND LABOR.

COAST AND GEODETIC SURVEY.

O.H. Tittmann, Superintendent.

C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
MAR 21 1912  
NO. NO.

Survey of the Pamunkey River, Virginia.

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TITLE SHEET  
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For Hydrographic Sheet H.

Extending from two miles above Westpoint Va.

to the Bridge at White House.

between

Latitude  $37^{\circ} 31'$  and  $37^{\circ} 36'$

Longitude  $76^{\circ} 48'$  "  $77^{\circ} 02'$

Scale, 1/20,000

From July 28th, 1912 to Nov. 15th, 1912

SCHOONER "MATCHLESS".

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

OBSERVERS.

O.W. Ferguson, Assistant; James E. Marsh, Mate ;

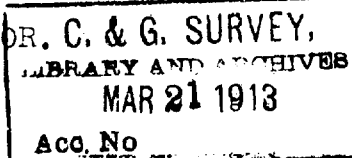
H.B. Campbell, Aid & James S.S. Jones, Aid.

# 3424

DEPARTMENT OF COMMERCE AND LABOR

COAST AND GEODETIC SURVEY.

O.H. Tittmann, Superintendent.



Survey of the Pamunkey River, Virginia.

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DESCRIPTIVE REPORT.  
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For Hydrographic Sheet H.

Extending from two miles above Westpoint Va. to the  
Bridge at White House.

between

Latitude 37° 31' and 37° 36'

Longitude 76° 48' " 77° 02'

Scale 1/20000.

From July 28th, to Nov. 15th, 1912.

SCHOONER "MATCHLESS"

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

OBSERVERS.

O.W. Ferguson, Assistant; James E. Marsh, Mate; Henry B. Campbell  
& James S.S. Jones, Aids. M.L. Taber, C.B.M. & A.S. Bristow, S.M.M.

RECORDERS.

H.W. Godsey, C.W., J.H. Dukes., and C.V. Rhea, W. 2Cl.

LEADSMEN.

A.S. Bristow, S.M.M., M.L. Tabor, C.B.M., W.H. Buckmaster, Sea  
and A.C. Rowe, Sea.

COXSWAINS.

M.L. Tabor, A.S. Bristow, and W.H. Buckmaster.

## DESCRIPTIVE REPORT.

For Hydrographic Sheet H,

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Since finishing the Survey of the Mattaponi River a Road Bridge has been projected across the Mattaponi River at the upper end of Westpoint and a half mile below Chain Ferry supplied ~~WITH~~ a draw; expected to be completed about ~~May~~ 1913.

This is the first sheet of the Pamunkey River above Westpoint, Va. ~~there~~ and extends to White House, a distance by river of 32 ~~1/2~~ miles. It is a river of good width and depth for navigation, averaging a little over a quarter of a mile wide, and depth at low water from 12 to 60 feet. The river ~~claims~~ has a bed of marsh and all of from two to 2 1/2 miles wide. It is a long river with wide bays and many sloughs, and of consequent strong tides.

There is a large volume of sediment carried into this river which during the long past has filled up and made marshes of much of the area, but this stream seems yet able to digest this sediment with the aid of the tides, and preserves a channel which from generation to generation shows no noticeable deterioration.

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SHORES

) ) ) ) ) ) ) ) )

About two-thirds of the shore line is marshy, flat and muddy, the marshes being covered with tall grass for about fifteen miles above Westpoint, when the marshy shores become wooded with gum, ash and maple trees. The river winds from side to side of its basin, reaching high ground on the outside of every bend where the ~~the~~ shores are of silt, sand and clay.

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WATER

Brackish water reaches the Cumberland Landing; artesian water is found in a good flow all over this sheet.

## DESCRIPTIVE REPORT.

For Hydrographic Sheet H,

3424

## CURRENTS.

) ) ) ) ) ) ) ) )

The tides are marked increasing in range as we advance to

the river.

## - - -LANDINGS.- - -

The Landings are :	Distance in miles to Westpoint:
Taylor	4.6
Oak	4.8
Palmer	5.4
Romancoke	9.6
White Oak	14.8
Cousaic	15.5
Sweet Hall	16.7
Brick House	18.0
Chestnut Grove	20.5
Morgans	20.4
Cook	21.8
Cumberland	22.4
Riverview	24.8
Johnson	26.3
Gordon	26.4
White	26.8
Lester Manor	24.9
White House	32.0

3424

DESCRIPTIVE REPORT.

For Hydrographic Sheet H,

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- - NAVIGATION. - -  
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There is no regular line of Steamers plying on this river, but there is a good deal of commerce carried on by tugs ~~with~~ flat boats and barges and small power boats. The tugs Clara Bell, Lucerne and James E. Lee, with head quarters at Westpoint, are quite constantly engaged on this river. 16 feet can be carried to Cumberland and 12 feet on up to end of sheet, White House.

There are no day marks placed on this river but pilots can be found at Westpoint, Lester manor. Indian Reservation and White House . . .

The Indians were sorry to see the Survey made as they feared that it would hurt their business. A spar buoy should be placed on the middle ground 244 meters south of station Snake.

And 245 meters S.E. of the center of the mouth of Cumberland Thoroughfare on the shoal middle ground, in center<sup>of</sup> river, should be placed<sup>a</sup> red middle-ground Beacon. On both sides of this shoal there is a good channel, 11 feet on either side. 582 meters N.W. 1/2 W from center<sup>r</sup> of head of Cumberland Thoroughfare, and a chain of black spar buoys from Beacon to Thoroughfare. A black spar buoy should be placed in the Cumberland Thoroughfare at Latitude 37° 33' 1200 meters and Longitude 76° 58' 430 meters, and a red spar Buoy would be of great service at Latitude 37° 34' 220 meters and Longitude 76° 59' <sup>25</sup> meters.

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SHIPPING.  
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The Schooners and barges carry out grain, watermelons, wood, ties lumber and piling.

## DESCRIPTIVE REPORT.

For Hydrographic Sheet H,  
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Nothing is shipped in, excepting fertilizer. In former times mansions were built along near the river of brick bought from England and carried up this river.

Accompanying this sheet is a list of Objects and Signals used on the Hydrographic Sheet, giving their geographical positions, also a table of statistics.

*O. W. Ferguson.*  
*Assistant.*

Survey of the Pamunkey River.  
 GEOGRAPHIC POSITIONS  
 For Hydrographic sheet #H.

1.

Red	37	31	1362.0	76	47	1455.0
Bank	37	31	1594.0	76	47	1209.0
Bank	37	31	1680.0	76	84	930.0
Pine	37	32	674.0	76	48	618.0
Center	37	32	512.0	76	49	930.0
Mar	37	32	1133.0	76	48	1436.0
Low	37	32	1137.0	76	49	202.0
Rail	37	33	395.0	76	49	309.0
Red	37	32	1752.0	76	49	834.0
Stake	37	33	11.0	76	49	1222.0
Club	37	32	1354.0	76	50	295.0
Mid	37	32	729.0	76	49	1134.0
Up	37	32	776.0	76	50	875.0
Thor	37	32	149.0	76	50	252.0
Oak	37	31	886.0	76	51	96.0
Palm	37	31	584.0	76	51	1275.0
Bob	37	31	834.0	76	52	365.0
Near	37	31	871.0	76	52	339.0
Point	37	31	1576.0	76	52	877.0
West	37	32	533.0	76	52	1025.0
Tie	37	32	1002.4	76	52	541.1
Musk	37	32	1052.0	76	51	1323.0
Mid	37	32	1712.0	76	52	26.0
Snag	37	32	1673.0	76	51	946.0
Custis	37	32	1797.0	76	51	971.7
Barrel "pine"	37	32	1436.0	76	50	1447.0
D.	37	33	816.0	76	51	1093.0
F.	37	33	603.0	76	51	708.0
E.	37	33	1479.0	76	51	398.0

*I find only this one copy and a letter pen copy on board, so a copy of this will not be found with the duplicate - (copy) O.W.F.*

**NO. 1427**



Survey of the Pamunkey River.  
GEOGRAPHIC POSITIONS.

2.

For Hydrographic sheet # H

Look 0	37	34	263.0	76	51	550.0
Clay 0	37	34	942.0	76	51	277.0
House 0	37	34	1084.0	76	51	214.0
Tree 0	37	34	1112.0	76	51	270.0
Barn 0	37	34	1188.0	76	51	194.0
C. 0	37	34	1780.0	76	52	166.0
Crow 0	37	34	1276.0	76	52	689.0
House 0	37	34	1592.0	76	52	1002.0
A. 0	37	34	1010.0	76	52	1306.0
House 0	37	34	699.0	76	53	472.0
Creek	37	33	1686.1	76	52	1418.1
Gull 0	37	33	816.0	76	52	847.0
Gove 0	37	33	742.0	76	52	422.0
Gas	37	33	280/0	76	52	1272.0
Snag 0	37	32	1675.0	76	52	1180.0
First "above" 0	37	32	1763.0	76	53	609.0
Tree 0	37	32	1496.0	76	53	304.0
House "use" 0	37	32	1486.0	76	53	826.0
First "below" 0	37	32	1486.0	76	53	1438.0
Big "chy" 0	37	33	438.0	76	54	676.0
Mill	37	33	1206.6	76	54	146.0
Wobley 0	37	33	1164.0	76	54	77.0
Old 0	37	33	1473.0	76	54	547.0
Hall	37	33	1517.7	76	53	1230.0
Shack 0	37	34	284.0	76	54	483.0
Sweet	37	34	308.6	76	54	498.4
Pipe 0	37	34	253.0	76	54	565.0
Corner 0	37	34	122.0	76	54	788.0
Dark "window" 0	37	34	417.0	76	54	1121.0
Bunch 0	37	34	132.0	76	55	215.0
X "cross on tree" 0	37	34	337.0	76	55	640.0
Red 0	37	33	1712.0	76	55	756.0
Wible	37	34	71.9	76	55	1215.0

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

3..

Lost	37	33	1029.1	76	55	1039.3
Lilly 0	37	33	1362.0	76	56	62.0
Johnson	37	33	1319.4	76	56	719.3
Peck 0	37	33	1189.0	76	56	592.0
Found	37	33	908.8	76	56	695.6
Cave	37	33	893.4	76	56	1058.2
Trunk	37	33	278.1	76	56	692.7
Cohoake	37	33	99.5	76	56	1139.3
Chandler	37	32	1534.9	76	56	692.7
Chestnut	37	32	302.1	76	56	769.9
Iso	37	32	569.3	76	56	1147.9
Morgan	37	32	261.4	76	56	1023.0
Slide	37	32	138.5	76	56	1206.0
Chinq	37	32	353.1	76	57	1414.3
Soby	37	32	476.8	76	57	236.4
Pin	37	32	111.7	76	57	427.7
Snake	37	32	761.4	76	57	852.0
Cook	37	32	555.6	76	58	105.4
Land	37	32	950.5	76	58	329.2
Point	37	32	1003.5	76	58	694.0
Cumber	37	32	862.1	76	58	787.6
Fontleroy	37	32	1143.8	76	58	940.1
Walnut	37	32	1429.6	76	58	913.2
Pete	37	32	1450.5	76	58	629.7
Owens	37	32	1682.1	76	58	592.1
Turkey	37	32	1611.2	76	58	205.2
Ferry	37	33	386.4	76	57	1384.9
Blind	37	33	258.6	76	57	560.0
Transit	37	33	566.0	76	57	1259.0
Chute	37	33	843.3	76	57	969.5
Anchor	37	33	851.3	76	57	393.1

## Survey of the Pamunkey River.

4.

## GEOGRAPHIC POSITIONS.

For Hydrographic Sheet # H.

Gum	37	33	1411.8	76	57	612.8
Resident	37	33	1344.6	76	57	381.7
Dunk	37	33	1781.6	76	57	590.6
Cannon	37	33	1802.9	76	57	393.8
West	37	34	354.5	76	57	680.6
Riverview	37	34	423.7	76	57	488.6
Bell	37	34	794.0	76	57	753.0
Ash	37	34	993.3	76	57	835.6
Slip	37	34	1306.7	76	57	1010.7
Whale	37	34	1511.6	76	57	1330.8
Blue	37	35	12.6	76	57	1361.4
Eden	37	35	166.6	76	57	1219.9
James	37	35	230.2	76	58	219.1
Dansy	37	35	416.4	76	58	65.9
Gordon	37	35	455.1	76	58	548.9
Twin	37	35	7.7	76	58	1094.3
White	37	35	440.2	76	58	1208.2
Lester	37	34	1549.5	76	59	368.8
Manor	37	34	1791.3	76	59	676.0
Dukes	37	34	1465.4	76	59	785.8
Beach	37	34	1440.3	76	59	1027.9
Papoose	37	34	1234.6	76	59	562.3
Squaw	37	34	919.0	76	59	662.1
Raft	37	34	1138.8	76	58	1074.0
Sunk	37	34	557.0	76	59	212.4
Bark	37	34	204.6	76	59	148.1
Gun	37	33	1547.4	76	58	764.2
F. 0	37	33	1181.0	77	58	946.0
E. 0	37	33	915.0	77	58	659.0

Survey of the Pamunkey River.  
GEOGRAPHIC POSITIONS.

5.

For Hydrographic Sheet # H

D. 0	37	33	1079.0	77	58	565.0
C. 0	37	33	1234.0	77	58	302.0
B. 0	37	33	869.0	77	58	35.0
A. 0	37	33	745.0	77	58	01.0
Godsey	37	33	1314.1	76	59	785.7
Tus	37	33	1627.2	76	59	1199.1
SLIP "pole" 0	37	33	1213.0	76	59	1408.0
Snag 0	37	33	1006.0	76	59	1373.0
Cut	37	33	1267.1	77	00	468.0
Skin	37	33	1509.6	77	00	484.6
Ontree "bug" 0	37	33	1597.0	77	00	658.0
Hornet	37	33	1409.8	77	00	1234.4
Nest	37	33	1807.7	77	00	1075.7
Rock "hawk chy" 0	37	33	1544.0	77	01	60.0
Point 0	37	34	40.0	77	01	16.0
Center "crib house" 0	37	34	32.0	77	01	308.0
Crib	37	34	97.6	77	01	383.5
Goose	37	34	251.6	77	01	166.2
In "cove" 0	37	34	592.0	77	01	314.0
Plum	37	34	561.3	77	01	844.1
Round	37	34	676.2	77	01	656.0
On "corner" 0	37	34	787.0	77	01	782.0
Glit	37	34	885.5	77	01	994.0
High	37	34	854.8	77	01	695.2
Track	37	34	1453.9	77	01	554.2
Window 0	37	34	1425.0	77	01	554.0
Center "of draw" 0	37	34	1450.0	77	01	453.0
Signal # 2. 0	37	34	1444.0	77	01	305.0
Road	37	34	1430.3	77	01	99.3
Yants	37	34	1535.7	77	00	1103.8

## GEOGRAPHIC POSITIONS.

For Hydrographic sheet # H

Bur	37	34	1727.8	77	01	292.7
Hind	37	35	272.3	77	00	1139.9
Bay	37	35	383.6	77	00	321.4
Saw	37	35	164.7	77	01	720.4
Hatch	37	34	1770.9	77	01	622.3

STATISTICS SHEET H.

Date 1912	Letter	Vol	Positions	Soundings	Miles Statute	Vessels.
December 12	a	1	24	132	2.20	Whaleboat
" 13	a	1	17	73	2.00	Launch
February 29	b	1	94	577	16.00	"
March 8	c	1	63	343	12.00	"
" 11	b	1	28	208	3.75	Whaleboat
" 11	d	1	95	715	18.75	Launch
" 13	e	2	101	560	15.75	"
October 19	f	2	48	333	9.00	"
" 21	c	1	68	435	9.25	Whaleboat
" 22	d	1	41	248	4.30	"
" 22	g	2	65	557	11.80	Launch
" 23	e	1	72	369	6.50	Whaleboat
" 24	h	2	74	557	13.60	Launch
" 24	f	2	25	118	2.50	Whaleboat
" 25	g	2	69	230	4.00	"
" 25	i	3	58	420	10.25	Launch
" 28	h	2	80	419	9.25	Whaleboat
" 29	k	3	94	621	19.00	Launch
" 29	i	2	24	106	2.90	Whaleboat
" 30	k	2	49	323	5.90	"
" 30	l	3	54	418	11.70	Launch
November 1	l	2	31	218	3.75	Whaleboat
January 6, 1913	m	2	9	65	1.10	"
February 18	m	4	92	517	13.75	Launch
	24		1375	8662	214.00	

STATISTICS SHEET H.

Date	1913	Letter	Vol	Positions	Soundings	Miles Statute	Vessels.
February	26	n	4	76	543	15.00	Launch
"	26	n	2	19	84	2.00	Whaleboat
<b>Total</b>		26		1470	9289	231.00	

*Following are six sheets of Geographic Positions*  
*O.W. H.*



HYDROGRAPHIC SHEET 3424.

Pamunkey River, Virginia, by Assistant O. W. Ferguson

in 1912.

TIDES.

	West Point:	Morgan:	Lester Manor:	White House:
	ft.	ft.	ft.	ft.
Mean low water, or plane of reference on staff	2.3	2.9	2.9	2.7
Lowest tide observed " "	0.6	2.7	1.8	1.7
Highest " " " "	7.4	6.2	6.9	6.1
Mean range of tide	2.9	2.5	2.8	3.0

Coast and Geodetic Survey  
**MAY 10 1913**  
 FEDERAL DEVISION.



Hyd Sheet No 3424

This work would have appeared to better advantage, if it had been plotted on a larger scale.

As a whole, the work is good and the ground thoroughly covered. The sheet is not very reliable owing to the careless manner in which it was protracted. In some cases, an entire days work was found to be wrong, although protracted correctly, the position numbers were confused and the error carried out <sup>to</sup> the end of the day. As there was not time to reprotract the entire sheet, only such lines as appeared questionable were reprotracted and corrected.

There were a number of "impossible" soundings in the record, which were rejected.

The lines in the various creeks are very unreliable, owing to poor control.

R. A. Cornston

Signal "Use", was found to be about 75 meters out of position. This was not enough to affect the hydrography controlled by it.

Soundings shown in feet.