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Diag. Chart No.
78-2

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: *Virginia*

DESCRIPTIVE REPORT.

Hys Sheet No. *3003*
3003a
3003b

LOCALITY:
Chesapeake Bay
Rappahannock River

1909

CHIEF OF PARTY:
O. W. Ferguson

C. & G. SURVEY
LIBRARY / DEPARTMENT OF COMMERCE
SEP 10 1905
ACC No.

3003

U.S. GOVERNMENT PRINTING OFFICE

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LIBRARY AND ARCHIVES.
SEP 10 1909
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GEODETTIC SURVEY

COAST AND
GEODETTIC SURVEY

SEP 11 1909

10

REFERRED TO:

DEPARTMENT OF COMMERCE AND LABOR.

COAST AND GEODETTIC SURVEY.

O. H. TITTMANN, Superintendent.

Resurvey of the Chesapeake Bay, Virginia.

Revision of the Rappahannock River.

ON ORIGINAL DOCUMENT

TITLE SHEET.

Descriptive Report of Topographical and Hydrographic

Sheet No. 408.

3003

Western Shore Chesapeake Bay, between

Latitude 37° 37' to 37° 41' N.

Longitude 76° 30' to 76° 35' W.

SCALE 1:10000.

From June 5, 1909 to August 9, 1909.

SCHOONER "MATCHLESS".

O. W. Ferguson, Assistant, C. & G. S. In Command.

OBSERVERS.

O. W. Ferguson, Assistant, T. L. Warner, Deck Officer,

James B. Marsh, Mate, John W. Clift, Chief Writer,

C. P. Holland, C. B. M.

RECORDERS.

John W. Clift, Chief Writer; H. W. Godsey, W. 2cl.

LEADERS.

C. P. Holland, C. B. M.; B. E. Powell & A. C. Pinder, Seamen.

TIDE OBSERVERS.

C. P. Holland, C. B. M.; W. W. Holland & J. R. Ireland, Seamen.

POST-OFFICE ADDRESS: TAPPAHANNOCK, VA.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

3003

Department of Commerce and Labor

COAST AND GEODETIC SURVEY, SCHOONER "MATCHLESS",

TAPPAHANNOCK, VA., SEPTEMBER 4, 1909.

MR. O. H. Tittmann,
Superintendent, C. & G. Survey,
Washington, D. C.

3003

Sir:-

I have the honor to make the following Descriptive Report for Sheet No. 603, Register No., being the revision of the Topography and Hydrography of the Rappahannock River about 19 miles from its mouth.

2. For the revision of the topography and hydrography of the original sheets of the Rappahannock, first a tracing of each sheet showing shoreline meridians and parallels (just as they are on these sheets) and all objects, was made on Doric paper and then transferred to Boat Sheet paper. This is taken into the field to verify and complete topography and locate on it sufficient objects for hydrographic signals. This is then used for a Boat Sheet after a tracing is made on velum of this new shoreline, topography and objects-and, ^{the velum} is also used as a smooth sheet for hydrography.

3. All new features, as Villas, Towns, wharfs and Piers and buildings near shore have been located and incorporated in this revision and the old features that have disappeared have been left off.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

3003

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

SCHOONER "MATCHLESS",

TAPPAHANNOCK, VA., SEPT. 4, 1909.

LIST OF NAMES OF HYDROGRAPHIC SIGNALS USED ON SHEET #603 ³⁰⁰³
RAPPAHANNOCK RIVER, VA.

NORTH SHORE

DID

BLAKE

BOX

TOL

SOUTH SHORE

BUN

WAR

BAN

PET

BALL

WEST

DOW

TWO

WAT

BIG

BER

BUN

THESE LOCATIONS ARE ALL BY PLANE TABLE

O. W. F.

2.

Desc. Rept. Sheet 603 ³⁰⁰³ O.W.F. Sept. 4, 1909.

4. Sufficient soundings have been taken to adequately verify the old charts, develop the bars and show the channel.

5. The contouring on old charts is usually good and sufficient.

6. The shoreline is quite indented, the ground is undulating and rising to heights of 20 feet.

7. Steamboat landings are URBANNA, and WEST URBANNA.

8. Only one village of importance, URBANNA, where there is a large industry in Oystering and some fishing carried on. It has also a packing factory, an Excelsior Mill and a Shirt Factory, and is the summer home of Senator Cochran of Pennsylvania,

8. SAILING DIRECTIONS.

Follow the Day Marks, in the main channel of the river, 30 feet can be carried, and into Urbanna Creek a draft of 10 ft. over the bar.

Respectfully yours,

O. W. Ferguson

Assistant, C. & G. Survey,

Commanding.

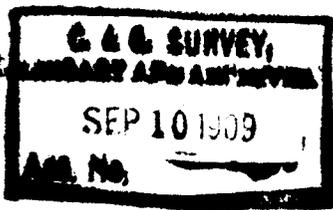
U.S. Sloop, Matchless

COAST AND
GEODETIC SURVEY

3003^a

COAST AND
GEODETIC SURVEY
SEP 10 1909
10

DEPARTMENT OF COMMERCE AND LABOR



COAST AND GEODETIC SURVEY.

O. H. TITTMANN, Superintendent.

REFERRED TO:

Resurvey of the Chesapeake Bay, Virginia.

ON ORIGINAL DOCUMENT

Revision of the Rappahannock River.

TITLE SHEET.

Descriptive Report of ~~Topographic~~ Hydrographic

Sheet No. 602.

3003^a

Western Shore Chesapeake Bay, between

Latitude 37° 39' to 37° 46' N.

Longitude 76° 31' to 76° 38' W.

SCALE 1:10000.

From July 29, 1909 to August 10, 1909.

SCHOONER "MATCHLESS".

O. W. Ferguson, Assistant, C. & G. S. In Command.

OBSERVERS.

O. W. Ferguson, Assistant, E. E. Smith, Aid,

James E. Marsh, Mate, C. P. Holland, C.B.M.

RECORDERS.

H. W. Gossay, Writer 2d.

LEADSMEN.

A. C. Pinder, Seaman.

TIDE OBSERVERS.

W. W. Holland, Seaman.

POST-OFFICE ADDRESS: TAPPAHANNOCK, VA.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

3003^a

Department of Commerce and Labor

COAST AND GEODETIC SURVEY, Schooner "MATCHLESS",

TAPPAHANNOCK, VA., SEPTEMBER 4, 1909.

Mr. O. H. Tittmann,
Superintendent, C. & G. Survey,
Washington, D. C.

Sir:-

I have the honor to make the following Descriptive Report of the ~~Topographic and~~ Hydrographic Sheet 602, Register number.

No old stations were recovered on the sheet, some old houses located on original sheets were found and were very useful. "Most important among these are",

- (1) The old house called "Bun" on hydrographic sheet,
- (2) Old house at Monaskin,
- (3) Old house near Deep Creek called Bewdley Hall.

Positions were all located by the Plane Table, weights being given and corrections made with known points in every direction. A sextant triangulation would not be so good from its several kinds of errors of ^{position and} eccentricity and imperfect pointings.

A list of the hydrographic signals used is furnished with this report.

Diligent search was made for old stations causing some loss of time. They were generally proven to have been washed

3003^a

into the river.

The hydrographic development was in transverse lines about a mile apart; This showed no difficulty in the channel. The bar off Smoky Point a mile below Waterview was developed closely with a view also of locating a buoy as requested by citizens of Waterview in petition presented herewith.

On all of these charts many new landings and piers are found not mentioned on old sheets. These in every case are located with proper names, all buildings near the shore are located, by one azimuth and distance from the shore if no better method is at hand.

The watch houses and oyster houses are always located by intersections as they are helpful to the hydrography.

The old names not now used, the old houses obliterated and the stations not found are not placed on the tracings of corrected topography and which also serve as smooth sheets for the hydrography.

The landings Monaskan on the east side and Waterview on the west side are where a considerable quantity of products are shipped, and goods received, but so small that they could not be called villages.

The surface is undulating, rising to heights of 10 to 20 feet and farther back to greater heights. The surface is cut up a good deal by banks, declivities and wet streaks-with some timber everywhere but in lessened quantities.

The occupation of the people is farming, oystering and fishing. The land increases in productiveness as we ascend the

3. Desc.Rept. ~~2003~~ H. Sheet 602. OWF. 9/4/1909.

river. Products as Wheat, Corn, Chickens, Turkeys, some Potatoes, Tomatoes, and some ship's load⁺ of lumber, etc., are the principal ones.

SAILING DIRECTIONS/

The sailing directions of this part of the river are easy, following the channel about 1/3 of the width from Eastern shore until above Monaskon then the center of the river to end of sheet.

Respectfully yours,

O. W. Ferguson.

Assistant, C. & G. Survey,

Commanding.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

U.S. Schooner "Matchless"
3003^a

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

SCHOONER "MATCHLESS",

TAPPAHANNOCK, VA., SEPT. 4, 1909.

LIST OF NAMES OF HYDROGRAPHIC SIGNALS USED ON SHEET # ~~602~~ *3003^a*

NORTH SHORE

BLAKE
DID
DON
NE#
TOP
MID
CUP
CAR
ASK
AN
SUL
BULL & BEW
NAN
FLAG

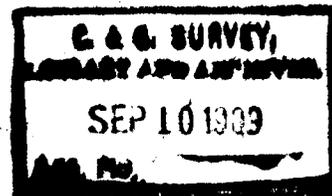
SOUTH SHORE

NETT
GAR
BOW
PILE
WIN
TER
HUN
BULL
WHITE
YES
OLD
BUN
BAN
PET

THESE LOCATIONS ARE ALL BY PLANE TABLE

O. M. F.

3003^b



COAST AND
GEODETIC SURVEY

SEP 10 1909

REFERRED TO: 1909

DEPARTMENT OF COMMERCE AND LABOR.

COAST AND GEODETIC SURVEY.

O. H. TITTMANN, Superintendent.

Resurvey of the Chesapeake Bay, Virginia.

Revision of the Rappahannock River.

TITLE SHEET.

Descriptive Report of ~~Topographic~~ Hydrographic

Sheet No. 529.

Western Shore Chesapeake Bay, between

Latitude $37^{\circ} 43'$ to $37^{\circ} 49'$ N.

Longitude $76^{\circ} 34'$ to $76^{\circ} 41'$ W.

SCALE 1:10000.

From August 10, 1909 to August 12, 1909.

SCHOONER "MATCHLESS".

O. W. Ferguson, Assistant, C. & G. S. In Command.

OBSERVERS.

O. W. Ferguson, Assistant; E. E. Smith, Aid;

James E. Marsh, Mate; C. P. Holland, C. B. M.

RECORDERS.

H. W. Godsey, Writer 2cl.

LEADSMEN.

A. C. Pinder, Seaman.

TIDE OBSERVERS.

W. W. Holland, Seaman.

ON ORIGINAL DOCUMENT

3003^b

POST-OFFICE ADDRESS: TAPPANNOCK, VA.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

3003^b

Department of Commerce and Labor

COAST AND GEODETIC SURVEY, SCHOONER "MATCHLESS",
TAPPANNOCK, VA., SEPTEMBER 4, 1909.

Mr. O. H. Tittmann,
Superintendent, C. & G. Survey,
Washington, D. C.

Sir:-

I have the honor to make the following Descriptive Report of the ~~Topographic~~ and Hydrographic Sheet 520, Register Number.

The positions for control of this sheet were Old positions; Stations Downman, Garnett and Jones were, approximately found, though, in each case, the station was washed away. The old castles, "Bewdley Hall" and "Moradica Hall", were intact, also an old building a quarter of a mile above Δ Garnett. The bank of South side is generally high and not cut away very much, though somewhat all along. All Hydrographic signals were located by Plane Table.

Over the length of this sheet the Rappahannock maintains a width of over two miles and is approximately four miles wide in the widest place.

On the tracing of topography and which serves for smooth sheet for hydrography all new topographic features have been shown, those shown on the original sheets not found now have been left off.

3003^u

2. Desc.Rept. ~~474~~ H. Sheet 520. OWF. 9/4/1909.

In the hydrography the system of lines one mile apart has seemed sufficient, the large bar in front of Farnham & Moradica Creeks just above Whealton was thoroughly developed.

The hydrographic stations are all located and named on the sheet in red, and a list furnished with this report.

The surface of this ground is rolling with many banks, declivities, sloughs and stretches of marsh land. On the north side the ground rises and to heights of 35 feet. The land is productive and farming is generally carried on; formerly the country was divided up into numerous farms of from 300 to 1500 acres and still many of them are large but they are gradually breaking up into smaller farms. On the south side the land is higher and not as productive. Oyster-
ing is generally pursued all over this stretch and many are shipped from here each winter. Fishing is also followed by a good many persons. Lumber is still found here a little and there a little, and more farther away from the river. The products of the farm are Corn, wheat, peas, potatoes, tomatoes, and in live stock, Chickens, turkeys and some cattle and sheep. Tributary to this sheet are landings Waterview, Bay Port and Sharps. The latter is a smart little village with a bank and a large canning plant, also several large oyster houses. There was not one house on this site in 1860.

All of these wharves depend quite exclusively on the steamers of the Md., Del. & Va. Railway Co., which is generally understood to belong to the Pennsylvania Rail Road Co.

3. Deso. Rpt. ~~Sheet~~ H. Sheet 520 ^{3003^h} OWF. 9/4/1909.

SAILING DIRECTIONS.

Ascending the river follow the channel about $\frac{2}{5}$ of the width from north bank and pass the black spar buoy one mile South of Whealton wharf, thence NW X W $\frac{3}{4}$ W. $1 \frac{3}{4}$ miles and pass red spar buoy, thence NW X W $\frac{1}{2}$ W. $1 \frac{3}{8}$ miles to black spar buoy carrying 30 feet all the way easily. All of the way in from near the black spar buoy to Sharps wharf there is not less than 12 feet.

Respectfully yours,

O. W. Ferguson.

Assistant, C. & G. Survey,

Commanding.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

3003^b

Department of Commerce and Labor

COAST AND GEODETIC SURVEY

SCHOONER "MATCHLESS",

TAPPAHANNOCK, VA., SEPT. 4, 1909.

LIST OF NAMES OF HYDROGRAPHIC SIGNALS USED ON SHEET #520.

3073

NORTH SHORE

SOUTH SHORE

BEW & BALL

JONES

NAN

LAY

ARK

JES

MUL

HIG

FLAG

BAY

MAR

SAW

RAT

NET

TAR

GAR

BOW

WATER

ALL LOCATIONS ARE BY PLANE TABLE

O. W. F.

V.E.C.
Oct.9,1909.

HYDROGRAPHIC SHEET NO. 3003.

Urbanna to Long Point, Rappahannock River,
Virginia, by Asst. O. W. Ferguson in 1909.

TIDES.

	Whealton ft.
Mean low water, or plane of reference on staff	3.2
Lowest tide observed " "	2.9
Highest " " " "	5.9
Mean range of tide	1.8

Coast and Geodetic Survey
OCT 9 1909
TIDAL DIVISION.

V.E.C.
Oct. 9, 1909.

HYDROGRAPHIC SHEET NO. 3003a.

Beach Point to Belle Isle, Rappahannock River,
Virginia, by Asst. O. W. Ferguson in 1909.

TIDES.

	Wheaton ft.
Mean low water, or plane of reference on staff	3.2
Lowest tide observed " "	2.9
Highest " " " "	5.9
Mean range of tide	1.8

Coast and Geodetic Survey
OCT 9 1909
TIDAL DIVISION.

V.E.C.
Oct.9,1909.

HYDROGRAPHIC SHEET NO. 3003^b.

From Deep Creek to Tarpley's Point, Rappahannock River,
Virginia, by Asst. O. W. Ferguson in 1909.

TIDES.

	Whealton ft.
Mean low water, or plane of reference on staff	3.2
Lowest tide observed " "	2.9
Highest " " " "	5.9
Mean range of tide	1.8

Coast and Geodetic Survey
OCT 9 1909
TIDAL DIVISION.

POST OFFICE ADDRESS: ANNAPOLIS, MD.

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

Duplicate
Orig. in Subst. Office

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

COAST AND
GEODETIC SURVEY

APR -2 1910

REFERRED TO:

Dist. Agent

SCHOONER "MATCHLESS",

ANNAPOLIS, MD., 3/28/1910.

C. & G. SURVEY,
LIBRARY AND ARCHIVES
APR 2 -1910
Acc. No. _____

Mr. O. H. Tittmann,
Superintendent, C. & G. Survey,
Washington, D. C.

Sir:-

I have the honor to report the completion of the work ordered by your instructions dated December 30th., 1909.

2. The examination of creeks tributary to the Rappahannock which enter above Occupacia Creek had been examined on the general revision as instructions to examine creeks were received just after passing Occupacia.

3. From the 1st. to the 17th. of January the Matchless was held in Fredericksburg by the ice. On the 18th. the ice cleared so that I got away and anchored off Tappahannock on the 19th.; during this time the office work of the general revision was about completed. On the 20th. the examination of creeks below Occupacia was taken up.

4. On the 7th. of February, the weather was very cold and ice had been making remarkably fast. The ice had crowded the Launch ashore, and seemed dangerous, so I got away in the path of two steamers and found refuge in Carters Creek.

5. After completing the creeks below, I sailed back to Tappahannock and finished all of the creeks on March 25th., 1910.

2.

Seasons Report O.W.F. 3/28/1910.

6. In this work all creeks, of any importance, lying above La Grange Creek, Latitude 37°-40', to and including Occupacia Creek, Latitude 38°-02' have been examined, by doing both the topography and the hydrography where needed. Totouskey Creek, however, lying in this belt was not surveyed, for, though one of the largest creeks, I was notified by your letter of Jan'y 17, 1910, that you had received a blue print of a recent survey of this creek made by the U. S. Engineers.

7. The topography of Urbana and Robinsons Creeks were done while in Carters Creek for ice harbor, and while waiting instructions.

8. Hydrographic examination was made of 19 creeks and further topography done on 17 creeks. These examinations extended from 1/2 to 8.9 miles above their mouths.

9. Lancaster Creek which runs around back of Whealton, between Lancaster and Richmond Gounties has been erroneously published as Moradica Creek. Moradica Creek is but a short distance farther west and runs back of "Moradica Hall" and plantation.

10. The Post Office map shows Doctors Creek a mile above Naylor's as a large creek, but shows none where Cat Point Creek enters. Doctors Creek is very small and the large creek was shown above instead of below Naylor's, 1 1/4 miles out of place.

11. A list of all of these creeks is given on the last page of this report, showing also their locations. *Sheet 4*

12. A Statistical sheet and a Descriptive Report of each Creek examined accompanies this report.

13. My Semi-Annual report at the end of the Calendar year, under date of January 8th., 1910 gave a complete report of the general revision of the Rappahannock River, as the field work at ^{that} time

was all finished.

14. The river and especially the creeks show conclusive evidence of silting up. This is evidenced by the great belts of Marsh on the river, beginning above Tappahannock, and along the creeks, where there is three times as much area of Marsh as of open water. This silting up has been going on for thousands of years, but more rapidly since the land has been cultivated. At many places along the river, as at Tappahannock, Lewis Landing, Port Royal and Falmouth, people living at those places tell that within their memory "large ships" used to load where now there is only 1 1/2 feet of water at low tide.

15. I have been assisted on this work of examination by James E. Marsh, Mate and E. E. Smith, Aid throughout, and by I. F. Walsh, Aid from beginning to February 22d.

Respectfully Submitted,

O. W. Ferguson.

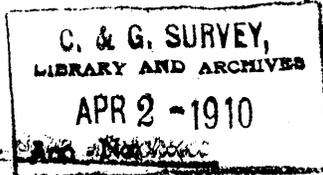
Assistant.

~~sub. name, [unclear]~~

Sheet # was not copied for this duplicate

Refers to number on
tabular statement,
sheet 5, of my report.
O. M. F.

744-3000



Position of Mouth

$\phi = 37^{\circ} 38' 22''$ N.
 $\lambda = 76^{\circ} 33' 52''$ W.

Examination of Creeks Rappahannock River Va
February 1910.

Descriptive Report of Urbana Creek.

Leaving run the Malchler to Carter's Creek to escape the ice and pending instructions I extended the topography to include all of the town and the topography of the shore line $\frac{3}{4}$ of a mile farther up, reaching a point $\frac{1}{2}$ mile above the Draw Bridge. However the instructions directed me to confine my work to Creeks above La Grange Creek; so, I dropped this topography and did no additional hydrography.

Urbana is the center of some industry, it is a town of about 500 inhabitants. Many oystermen sail out of this creek daily. It has an excellent mill and a quite large shirt-factory.

There is a beacon at the entrance and the steamer run past this to the wharf near by.

The creek furnishes an excellent harbor for small boats.

O. M. Ferguson.

U. S. GEOLOGICAL SURVEY

Q 37 39 08
 λ 76 34 20

Examination of Creeks, Rappahannock River, Va.

February, 1910

Descriptive Report of Robinsons Creek.

Having run the Malchen into Carlen's Creek to escape the ice and while waiting instructions I extended the topography to the head of this creek; 1.7 miles. The average width is 250^m. Then instructions were received to confine examinations to creeks above La Grange and no hydrography was done.

At the mouth of this creek or, a little below, is West Urbana Wharf and on the upper side at mouth is Balls Point - and Kilmore Pier.

O. W. Ferguson.

U. S. Geol. Survey

φ	37° 42' 03"
λ	76 35 34

Examination of Creeks, Rappahannock River, Va.March, 1910Descriptive Report of Weeks Creek.

Weeks Creek, five miles above Urbana, is about 120^m wide at its mouth and $\frac{3}{4}$ miles long. It affords a depth of two feet at low water at mouth, and from 5 to 6 feet inside. There is no traffic on this creek; the shores are low but rises to a height of ten or twelve feet back 15 or 20 meters from shore.

O. W. Ferguson.

$$\begin{array}{r} \phi \ 37^{\circ} \ 42' \ 52'' \\ \lambda \ 76 \ 35 \ 15 \end{array}$$
J. D. Schr. MatchlessExamination of Creeks, Rappahannock River, Va.March, 1910Descriptive Report of Henry Gorge Creek.

This is a small creek with muddy flats,
furnishing but two feet of water at the bar at
its mouth and but five feet inside.

O. M. Ferguson.

~~U.S. Geol. Survey~~

φ	37	43	48"
λ	76	36	50

Examination of Creeks, Rappahannock River, Va
March, 1910

Descriptive Report of Parrotts Creek.

This creek is a half mile above Waterview Wharf; it averages about 170^m wide and 1 1/4 miles long.

It affords a depth of four feet at its entrance at low water but of only two to three feet on up throughout its length.

Lumber is towed out of this creek on scows by gasoline launchers.

This is rather a good looking creek with ground on the south side rising above twenty feet and with low shores to the north but gently rising.

O. W. Ferguson.

ϕ 37° 44' 16"
 λ 76° 36' 57"

U. S. GEO. SURV. ALABAMA

Examination of Creeks of the Rappahannock River
March, 1910

Descriptive Report of Muna Creek.

This creek is a wide and irregular belt of shallow water; the channels having silted full. It covers an area of about 600 x 900^m. There is no navigation, only at high tide for scows.

O. W. Ferguson.

$\phi = 37^{\circ} 46' 10''$
 $\lambda = 76^{\circ} 34' 57''$

U. S. GEOLOGICAL SURVEY

Examination of the Creeks, Rappahannock River

February, 1910.

Descriptive Report of Deep Creek.

It is $2\frac{3}{4}$ miles below Wheaton, about 260^m wide and $1\frac{1}{4}$ miles long, being forked up into five large prongs of equal size.

It affords a depth of two feet, over the bar, at its mouth at low water - and from two to six feet - inside.

It is a nice creek, with banks of from a few feet - to above ten feet in height.

It is head quarters for several oystermen with boats, and scows are used to take lumber out of the creek for loading on vessels.

O. W. Ferguson.

$\phi = 37^{\circ} 47' 06''$
 $\lambda = 76^{\circ} 36' 52''$

U. S. GEOLOGICAL SURVEY

Examination of Creeks, Rappahannock River, Va.

February - 1910

Descriptive Report of Mulberry Creek.

It is $\frac{3}{4}$ of a mile below Wheaton, Va, averages a width of 200^m and is $1\frac{1}{2}$ miles long.

It affords a depth of $4\frac{1}{2}$ feet across the bar at its mouth - and from 3 to 7 feet inside, all at low water.

There are a few marshy points, but the shores are generally dry rising to the height of only a few feet.

It is a harbor for oysterboats, and scows are used to convey commodities in and out.

O. W. Ferguson.

U. S. GEO. SURV.

 $\phi = 37^{\circ} 47' 40''$
 $\lambda = 76^{\circ} 37' 52''$

Examination of Creeks, Rappahannock River, Va.

February, 1910.

Descriptive Report of Lancaster Creek.

This creek, that empties above and runs in back of Wheaton, between Lancaster and Richmond Counties, has been erroneously printed as Moradica Creek on published maps.

It is a half mile wide at its mouth and gradually narrows to about 25 meters at Woodhouse Landing four miles above.

A good many oysters are planted about the mouth.

The shores are partly low with marshy areas increasing in extent as we ascend the creek; but much of the shore is dry and of good height, rising at one hill to 105 feet.

It furnishes a depth of 5 feet across the bar at the mouth, ^{at low water} which decreases in the channel inside to 2 feet at a point 1/2 mile above the mouth, but deeper above. A large part of the land is cultivated, there are several timber landings along the creek, shown, and a large saw mill and stove factory at Woodhouse Landing.

Scows are used every day for transporting commodities.

C. M. Ferguson

$\phi = 37^{\circ} 48' 10''$ $\lambda = 76^{\circ} 38' 00''$

U.S. GEOLOGICAL SURVEY

Examination of Creeks, Rappahannock River, Va.February, 1910.Descriptive Report of Moradica Creek.

This Creek enters the river just-west-of and alongside of Loucasler Creek and skirts the east- and North-sides of Moradica Plantation.

It is from 150 to 350 meters wide and furnishes navigation for a distance of $1\frac{1}{4}$ miles.

The shores are favorable and dry, the land nearby rising to heights of from a few feet to over twenty.

The west-shore is fringed with woods and the east-shore are usually grassy and the land is generally cultivated.

The entrance furnishes three feet at low water and only from two to three feet inside. There is a considerable of oyster industry around the mouth of this creek.

D. W. Ferguson.

Statistics for Hyd. Sheets 3003, 3003^a, 3003^b, 3003^c, 3003^d & 3003^e

Department of Commerce and Labor

Statistics for Hyd. Sheet 3003

Date	Letter	Volume	Positions	Soundings	Miles	Vessel
July 28, 1909.	f	2	44	339	9.1	Steam Launch
" 31, "	h	2	9	104	2.8	" "
August 9, "	k	2	12	90	2.4	" "
Totals		1	65	533	14.3	

Statistics for Hyd. Sheet 3003^a

Date	Letter	Volume	Positions	Soundings	Miles	Vessel
June 5, 1909.	c	1	13	88	2.7	Steam Launch
July 29, "	g	2	13	83	2.3	" "
August 4, "	i	2	54	408	11.2	" "
" 9, "	k	2	12	95	2.5	" "
" 10, "	l	3	13	98	2.6	" "
March 2, 1910.	e	Supplemental Vol. 1	36	234	4.2	Whaleboat
Totals		4	141	1006	25.5	

Statistics for Hyd. Sheet 3003^b

Date	Letter	Volume	Positions	Soundings	Miles	Vessel
August 10, 1909.	l	3	62	497	12.1	Steam Launch
" 11, "	m	3	73	529	13.0	" "
" 12, "	n	3	46	344	8.5	" "
Totals		1	181	1370	33.6	

Statistics for Hyd. Sheet 3003^c

Date	Letter	Supplementary Vol. No.	Positions	Soundings	Miles	Vessel
March 1, 1910	d	1	41	262	5.9	Whaleboat
Totals		1	41	262	5.9	

Statistics for Hyd. Sheet 3003^d

Date	Letter	Supplementary Vol. No.	Positions	Soundings	Miles	Vessel
Feb. 25, 1910	a	1	43	292	5.0	Whaleboat
Totals		1	43	292	5.0	

Statistics for Hyd. Sheet 3003^e

Date	Letter	Supplementary Vol. No.	Positions	Soundings	Miles	Vessel
Feb. 25, 1910.	a	1	38	334	6.0	Whaleboat
" 26, "	b	1	39	417	7.5	"
" 28, "	c	1	84	571	11.5	"
Totals		1	161	1322	25.0	

Hyd Sheets 3003, a, b, c, d + e

While the work on these sheets is not very close, the crossings seem to be fairly good.

All of the hydrographic signals used in the records, were not shown on the sheets and some of those shown were not well located. As signal "Blake" was re determined, all the positions depending on it were reprotracted using the corrected position. The line from pos. 11c to pos 25c, shown on Hyd. 3002a, was reprotracted on Hyd 3003, which overlaps it. It plots in an entirely different position on Hyd. 3003, than it does on Hyd. 3002a, although it was protracted on both sheets using the same set of signals. As a number of signals were not shown, many of the positions must have been transferred from the boat sheet.

Great discrepancies in shoreline and topography exist between Hyd. 3003b and Hyd. 3003e, which cover the same area. In these cases Asst. Ferguson recommends that Hyd 3003e be accepted, as this is the later work and more carefully done.

Some of the supplemental work in the different creeks is unreliable. In Harry George Crk, considerable change in shoreline is shown, while the shoreline of Weeks Crk, adjoining it, is identical with the old survey, Top. 602.

The hydrography at the mouth of Weeks Creek is very conflicting. This place was adjusted as well as possible
(over)

and then left in pencil.

R. L. Johnston
Draftsman
8/1/10.

Hyd. sheets 3002 + 3002^a

Some of the hydrographic signals used in the records were not shown on the sheets and others were not well located. Nearly all of these signals were located approximately by taking cuts on them and are now on the sheets. The line from pos. 11c to pos. 25c, which is shown on Hyd. 3002^a, was protracted on Hyd. 3003 and it plotted in a different position, although it was protracted on both sheets using the same set of signals. Many of the positions were transferred from the boat sheet, in cases where one or more signals were off sheet.

R. L. Johnston.

Draftsman.

8/2/10.

3003^e

STATISTICS

Date 1910.	Letter	Vols.	Positions	Soundings	Miles Statute	Vessel.
February 25	a	1	81	626	11.0	Whaleboat
26	b	1	39	417	7.5	
28	c	1	84	571	11.5	
March 1	d	1 1	41	262	5.9	
2	e	1	36	234	4.2	
4	f	2	36	316	5.0	
5	g	2	41	287	5.2	
Total		7 2	378	2713	50.3	

CREEKS

a Deep Creek,	Sheet 3003d
Mulberry Creek	" 3003e
b Moradica "	" 3003e
c Lancaster Creek,	" 3003e
d Parrotts & Mud Creeks	" 3003e
e Weeks & Harry George Crks.	" 3003e 3003 <u>a</u>
f Corbins & Farnham Creeks	" 3009a & 3009b
g Farnham Creek,	3009 a.

3003^c = Boat Sheet 3003^a

STATISTICS Sheets Nos. ~~3003^a, 3003^b, 3003^c~~

DATE 1910.	Letter	Vols.	Positions	Soundings	Miles Statute	Vessel.
February 25	a	1	81	626	11.0	Whaleboat
26	b	1	39	417	7.5	
28	c	1	84	571	11.5	
March 1	d	1	41	262	5.9	
2	e	1	36	234	4.2	
4	f	2	56	316	5.0	
5	g	2	41	287	5.2	
Total	7	2	378	2713	50.3	

C R E E K S.

- a Deep Creek, Sheet, 3003^a^d,
 - Mulberry Creek, " 3003^b^e,
 - b Moradica " " 3003^b^e,
 - c Lancaster Creek, " 3003^b^e,
 - d Parrotts & Mud Creeks " 3003^a^c,
 - e Weeks & Harry George Crks 3003^a^a,
 - f Corbins & Farnham Creeks 3009^a + 3009^b
 - g Farnham Creek, 3009^a.
- } Attach to boat sheet
3003^e for the present

3003d

STATISTICS

Date 1910.	Letter	Vols.	Positions	Soundings	Miles	Vessel.	
					Statute		
February 25	a	1	43 81 38	292 626 334	5.0	Whaleboat	
					11.0		
					6.0		
26	b	1	39	417	7.5		
28	c	1	84	571	11.5		
March	1	d	1 1	41	262	5.9	
	2	e	1	36	234	4.2	
	4	f	2	36	316	5.0	
	5	g	2	41	287	5.2	
Total		7	2	378	2713	50.3	

CREEKS

a Deep Creek,	Sheet 3003d
Mulberry Creek	" 3003e
b Moradica "	" 3003e
c Lancaster Creek,	" 3003e
d Parrotts & Mud Creeks	" 3003e
e Weeks & Harry George Crks.	" 3003e 3003d
f Corbins & Farnham Creeks	" 3009a & 3009b
g Farnham Creek,	3009 a.