

4221
4222

G. & S. SURVEY
NOV 5 1922

Diag. Cht. No. 5502-1

4221
4222

Form 504
 DEPARTMENT OF COMMERCE
 U. S. COAST AND GEODETIC SURVEY

State: *California*

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. *4221*

LOCALITY:

Napa River -
Vallejo to
Railroad Draw bridge
to Napa

99
1922

CHIEF OF PARTY:

O. W. Swanson

Descriptive Report to accompany
4222 4221
Hydrographic Sheets Field Nos H & I.
Napa River, California

The hydrographic survey shown on these two sheets constitute a resurvey called for in instructions dated June 1 1921.

So many changes in depth were found that a complete survey was made. These changes show from one to twelve feet less depth south of the railroad drawbridge at Brazos and up to ten feet more above the bridge.

The increased depth above the drawbridge is perhaps in some cases caused by gravel dredgers.

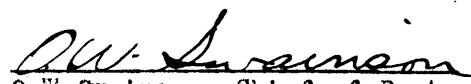
The channel remains approximately in the same place.

The character of the bottom has not been completely indicated on the sheets. In general on Sheet "I" it is mud, and on sheet "H" gravel except as indicated.

The character of the lights are not shown as they are the same as given by the Bureau of Lighthouses.

No sailing directions are needed as the river is navigated only by those with local knowledge who follow the aids to navigation.

The only dangers to navigation are the mud flats, which are especially troublesome between the red spar buoy S 6 and black can buoy C 3.


O.W. Swainson, Chief of Party
Commanding, U.S.S. Natoma.

Statistics to accompany Hydrographic Sheet H.

Date 1922	Letter	Vol	Pos	Sound	Miles	Vessel.
May 10	a	1	19	146	2.7	M.S.
11	b	1	44	291	6.5	
17	c	1	92	439	8.2	
18	d	1	<u>98</u>	<u>751</u>	<u>14.7</u>	
			253	1627	32.1	

Unit of Soundings	ft.	
Plane of Reference		M L L W
Tide gauge at	Brazos I.	Napa (d day)
Plane of Reference on gauge	3.29	2.94
Lowest tide " " "	-1.25	-1.33
Highest " " "	8.10	8.15

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
WASHINGTON May 15, 1923.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4222

Surveyed in 1922.

Instructions dated June 1, 1921.

Chief of Party, O. W. Swainson.

Surveyed by M. O. Witherbee.

Protracted by M. O. Witherbee.

Soundings plotted by R. W. Byrns.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions except that boat's courses are omitted throughout and the beginnings and endings of lines are not described.
2. The plan and character of development fulfill the requirements of the General Instructions and satisfy the specific instructions.
3. The sounding line crossings are adequate.
4. The information is sufficient for drawing the usual depth curves.
5. The junction with H. 4221 is satisfactory.
6. The field plotting was completed to the extent prescribed in General Instructions.
7. No further surveying is required within the limits of the sheet.
8. The character and scope of the surveying and field drafting are good.
9. Reviewed by E. P. Ellis, May, 1923.

Hydrographic Sheet No 4222
"California"

The work covered by this sheet is a development of "Napa" River from the R. R. Drawbridge on the South to the town of "Napa"

In this work the lines run and soundings taken are sufficient for a good development yet there may be some question as to the accuracy in some of the lines due to fixes used or location of positions by some shore object such as house or wharf not shown on this sheet. It may be that the field party developed a Topographic sheet covering this location and that the shore lines were taken from it but the office does not show any Topographic sheet for this locality later than 1858 No 777.

A Topographic sheet is referred to in a note on the sheet but indefinite as to whether it refers to the one of 1858 or a new one.

John D. Torrey
Feb. 20. 1923.

Section of Field Records

Sheet no. 4221

Surveyed in 1922

Report on sheet 4221

Chief of party - Q.W. Swanson

Surveyed by - M.O. Witherbee

Protracted by - R.W.B. Soundings Pl. by - R.W.B.

Unified & Aided by - H.E.M.

1. The records conform to the requirements of the general instructions. Throughout no "readings by compass" were given in the records.
2. The plan and character of the development fulfil the general instructions.
3. Sounding line crossings are adequate. Note: in the small channels but on line of sounding was taken - following the channel.
4. The usual depth curves can be drawn.
5. Field plotting was completed to the extent prescribed in the general instructions.
6. The office draftsman did not have to do over any work done by the field party.
7. The junction with adjacent sheets are satisfactory.
8. No further surveying is required.
9. Remarks: In some instances sounding lines are not completely controlled by fixes. Particularly in small channels lines are run parallel to shoreline around curves with no means of establishing the exact relation of the sounding ^{between points} ~~line~~ to the shore when their field plotting.
10. Character & scope of surveying - Excellent. H. W. Allen

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. 4222 Field No. H

State . California

General locality . Napa River

Locality . Railroad drawbridge to Napa

Chief of party . . O. W. Swainson

Surveyed by M. O. Witherbee, H. & G. Eng.

Date of survey . . . May, 1922

Scale 1 ; 10,000

Soundings in . . Feet

Plane of reference . Mean lower low water

Protracted by M. O. W. . . . Soundings in pencil by R. W. Byrns

Inked by J. D. Torrey . . . Verified by J. D. Torrey

Records accompanying sheet (check those forwarded):

Des. report, 2 Tide books, Marigrams, 1 Boat sheets,

1 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks:

H. 4221 applied in part to Reconn. 5533 1954. Napa R. area superseded.

G. & G. SURVEY
L. & A.
NOV 9 1922
Acc. No.

4221

Diag. Chy. No. 5502-1 & 2

4221
See H. 4222

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

11-5613 State: *California*

DESCRIPTIVE REPORT.

Hydros. Sheet No. *4221*

LOCALITY:

Napa River

Kaligo St

R.R. Draw bridge

1922

CHIEF OF PARTY:

O. W. Swanson

Statistics to accompany Hydrographic Sheet I.

Date 1922	Letter	Vol	Pos	Sound	Miles	Vessel.
Apr. 6	a	1	149	783	19.7	M.S
7	b	1&2	182	1074	22.0	
10	c	2	26	164	4.0	
11	d	2	128	713	14.6	
12	e	2&3	102	547	11.6	
13	f	3	95	508	11.3	
May 9	g	3	23	145	2.2	
10	h	3	56	375	6.0	
11	i	3&4	71	398	8.8	
23	j	4	61	294	5.5	
			<u>893</u>	<u>5001</u>	<u>105.7</u>	

Unit of Soundings	ft.	
Plane of Reference	Mare Island	Brazos I. (d, e, f, g, h, & i days)
Tide gauge at		
Plane of Reference on gauge	0.36	3.29
Lowest tide "	-0.26	-1.25
Highest " "	2.15	8.10

Feb. 9, 1923.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 4221.

Locality: **Napa River, San Pablo Bay, Cal.**

Chief of Party **O. W. Swinson, in 1922**

Plane of reference is **mean lower low water**

0.4 ft. on tide staff at **Mare Island, (Navy Auto. gauge)**
3.3 " " " " " **Grases drawbridge.**

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
- ✓ 3. Time meridian not given at beginning of day's work.
- ✓ 4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

H. H. Harnes
Acting Chief, Division of Tides and Currents.

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

WASHINGTON May 15, 1923.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4221

Surveyed in 1922

Instructions dated June 1, 1921.

Chief of Party, O. W. Swainson.

Surveyed by M. O. Witherbee.

Protracted and soundings plotted by R. W. Byrns.

Verified and inked by H. E. MacEwen.

1. The records conform to the requirements of the General Instructions except that boat's courses are not given and the beginnings and endings of sounding lines are not described.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and character of development satisfy the specific instructions.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. The junction with H. 4222 is satisfactory.
7. The field plotting was completed to the extent prescribed in the General Instructions. On some shoal areas soundings were plotted in fractions contrary to the General Instructions.
8. No further surveying is required within the limits of the sheet.
9. The character and scope of the surveying and field drafting are good.
10. Reviewed by E. P. Ellis, May, 1923.

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. 4221 Field No. I

State . California

General locality . . Napa River

Locality Vallejo to Railroad Drawbridge

Chief of party O. W. Swainson

Surveyed by . M. O. Witherbee, H. & G. Eng.

Date of survey . . April and May, 1922

Scale . . 1 : 10,000

Soundings in . feet

Plane of reference . . Mean Lower Low Water

Protracted by . R. W. B. Soundings in pencil by R. W. B.

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. Report, 2 Tide books, _____ Marigrams, 1 Boat sheets,

4 Sounding books, _____ Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

* Hourly readings taken from Navy marigram

Remarks:

636
125
7.57