

4657

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Form 504					
DEPARTMENT OF COMMERCE					
U. S. COAST AND GEODETIC SURVEY					
....., Director					
<table border="1"><tr><td>G. & G. SURVEY</td></tr><tr><td>L. & A.</td></tr><tr><td>OCT 1 1927</td></tr><tr><td>Acc. No.</td></tr></table>		G. & G. SURVEY	L. & A.	OCT 1 1927	Acc. No.
G. & G. SURVEY					
L. & A.					
OCT 1 1927					
Acc. No.					
State: Washington					
DESCRIPTIVE REPORT					
Topographic Hydrographic	Sheet No. 4657				
LOCALITY					
Puget Sound					
Everett					
1927					
CHIEF OF PARTY					
G. C. Jones					

C. & G. SURVEY
L. & A.
SEP 27 1927
Acc. No.

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet Register No.....

Field No. 1

EVERETT, WASHINGTON

M. V. NATOMA.

G. C. JONES, COMDG.

APRIL 1927.

Instructions dated March 23, 1927.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET
REGISTER No.....

Field No.1

EVERETT, WASHINGTON.

Instructions - Limits. This survey was undertaken in accordance with the instructions of the Director to the Commanding Officer of the Motor Vessel NATOMA, dated March 23, 1927. It includes an examination of Everett Harbor east of meridian 122 16' and some soundings on the shoal making out to the eastward of Gedney Island on a scale of 1:10,000.

Changes. Little if any change is noticeable in the shoal extending southeast of Gedney Island. The slight deepening may be due to differences in the tidal datum.

A marked silting up of the area inside the jetty and immediately south east of it is apparent from the conditions shown on Chart 6448 Edition of 1920. The one and the three fathom curves have extended southward considerably without much change in the five fathom curve.

Range. A limiting range which just clears this shoal off the south end of the jetty is the north side of the large white oil tank (Standard Oil) immediately under the south side of a high light colored building. (Medical Dental Bldg.).

Survey Methods. The sounding was done with the usual bronze center hand lead line with 10 lb. lead and a hand machine with stranded wire and a 12 lb. lead.

The boat used, Motorsailer 8610 has a turning radius of but ten meters at sounding speed. On this account the error due to zig-zagging without two fixes at the turn of the line, while possibly noticeable on the 10,000 field sheet, will not be appreciable when reduced to the 40,000 chart.

The engine of the boat, though muffled, was very noisy. The recorder was entirely inexperienced at the start of the work. These two causes were responsible for the scarcity of remarks and for a number of mistakes in the the record. These mistakes were corrected as far as possible as noted in the remarks column of the record.

The soundings off Gedney Island were taken on the recommendation of the Inspector of the Seattle Field Station to clear up a reported extension of the shoal.

Vessels alongside wharves and log booms prevented sounding certain areas especially the Oriental Wharf (Pier 3) and the General Petroleum Co. Wharf.

Forwarded approval recommended

H. C. Jones
Comdr. Natoma

October 7, 1927.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 4657

Locality: POSSESSION SOUND, WASHINGTON.

Chief of Party: G. C. Jones, 1927.
Plane of reference is M L L W
3.8 ft. on tide staff at Everett

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.

act. H. H. Mearns
Chief, Division of Tides and Currents.

Section of Field Records.

Report on Sheet No. 4557. Surveyed in April 1927.

Chief of Party - G. C. Jones.

Surveyed by - G. C. Jones.

Protracted by - A. F. Jankowski.

Soundings plotted by - A. F. J.

Verified and Inked by - N. R. Rounds.

1. The records failed to conform to the requirements of the General Instructions in that the time intervals were very uncertain and also uneven. Failure to record the time of starting ahead in several instances, causes the position of the sounding to be doubtful.

2. The plan and character of the development fulfill the requirements of the General

Instructions.

3. The sounding line crossings are adequate and in most places very good.
4. The usual depth curves can be drawn.
5. The field plotting was completed to the extent prescribed in the General Instructions.

Number of positions - - - 714

Positions checked - - - 400

Positions corrected - - - 12.

Number of soundings - - 2858

6. The field drafting was complete, of good quality, neat, and legible.

Respectfully submitted,

W. R. Rounds.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

October 29, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4657

Everett, Washington

Surveyed in 1927

Instructions dated March 23, 1927.

Chief of Party, G. C. Jones.

Surveyed by G. C. J.

Protracted and soundings plotted by A. F. Jankowski.

Verified and inked by D. R. Rounds.

1. The records conform to the requirements of the General Instructions, except that the time intervals between soundings were uncertain in several cases, and the times of changes in courses were frequently obscure. Both of these faults resulted in doubt as to the exact locations of some soundings, but none of them were vital.
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 considering the uneven character of the bottom.
4. The information is sufficient for drawing the usual depth curves.
5. The usual field plotting was done by the field party. The only adverse criticism of it was the frequent failure to allow for the outward swing of the sounding lines in sharp changes in courses.
6. There is no recent work adjoining this sheet.
7. There are two soundings of some importance that appear to be erroneous:

The 18 foot sounding (between 5 and 6 G day) 1/2 mile west of Everett Jetty Light is 340 meters outside of the 18 foot curve with surrounding depths of 26 to 29 feet.

The 48 foot sounding 140 meters northeast of signal Doll appears

illogical. On the previous survey, made in 1886, the depth on this spot is 4 feet.

8. With the exception of the two spots noted in the previous paragraph, no additional surveying is needed as the area is well covered.
9. The character and scope of the surveying and field drafting are excellent.
10. Reviewed by E. P. Ellis, October, 1927.

Approved:

A 19 ft spot just west of signal West is in an important location and should be verified.

Chief, Section of Field Records (Charts)

Instruction issued for additional work, Nov. 4 1927

L. A. Colbat

Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON August 24, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4732

Off Willapa Bar, Washington

Instructions dated March 5, 1927

Chief of Party, T. J. Maher (GUIDE) (92)

Surveyed by T. J. Maher.

Protracted and soundings plotted by V. M. Gibbens.

Verified and inked by J. T. Jarman.

1. This hydrography was evidently done without transferring the limits of previous hydrography. Consequently a large portion of the sheet is overlap. Since the Chief of Party recommends that other sheets be given preference in regard to overlap a laage part of the work hasn't much value. Practically all the work south of $46^{\circ} 36'$ is overlap. The diagonal hand lead lines overlap H. 4620 from one-half mile to a mile. However, the overlapping lines from H. 4728 to the north will hardly fill the blank spaces.
2. This work could have been done much more economically on the boat sheet for H. 4634 or H. 4728 which were in the possession of the field party at that time.
3. Sounding lines were run parallel to the depth curves. The spacing called for in the specific instructions was exceeded.
4. Paragraph 4 of the Instructions for the Use of Depth Recorders for Hydrographic Surveying was not complied with in regard to additional work required where two consecutive "misses" have occurred.
5. One line of soundings from position 16 D - 30 D was rejected because it did not agree with a line run nearby on H day and trouble was being had with the tubes. Considerable difficulty was experienced with all the tube work on this sheet. The following shows the amount of rejected tube soundings on this sheet:

Day	Total No. of Tube Soundings	Tube Soundings Rejected
A	199	12
B	26	1
C	18	2
D	172	72
E	193	24
F	126	75
H	32	14
J	42	13
G	Hand lead	--

6. Between positions 18 J and 19 J a 15 fathom tube sounding was obtained which when reduced gave 10 $\frac{5}{6}$ fathoms. This sounding should have been investigated or the line of soundings from positions 14 J to 22 J should have been rerun, using vertical casts. However, it is thought that the sounding is in error and no danger exists here as it is at the limit of accuracy of the tubes and a large tube correction of -17 feet was used.
7. Before a decision is made in regard to additional work on this sheet it is recommended that the adjoining sheets be verified and inked as a number of lines on adjoining sheets cross this area and many more extend almost half way across it.
8. Field drafting was good. Changes of time interval were not noted in plotting soundings by the field party. A number of soundings were incorrectly plotted. Office drafting was very good.
9. The surveying on this sheet was carried on at times of poor visibility. The character of the surveying was poor.
10. Reviewed by W. M. Gibson, May 12, 1928.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4657

HYDROGRAPHIC TITLE SHEET

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

Field No. 1

REGISTER NO. **4657**

State WASHINGTON

General locality ~~POSSIBILITY SOUND~~ Puget Sound

Locality MYRTLE

Scale 10,000 Date of survey April, 1927

Vessel H. A. TOMA

Chief of Party E. G. JONES

Surveyed by E. G. JONES

Protracted by A. F. JANKOWSKI

Soundings penciled by A. F. JANKOWSKI

Soundings in ~~fathoms~~ feet

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by D. B. Rounds

Verified by D. B. Rounds

Instructions dated March 23, 1927, 192

Remarks:

4657 Add'l Wk
(1927 & 1928)

4657 Add'l Wk (1927 & 1928)

Form 304

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

....., Director

U. S. SURVEY
L. & A.
FEB 11 1928
Acc. No.

State: Washington

DESCRIPTIVE REPORT

Topographic } Sheet No. **4657 Add'l Work**
Hydrographic }

LOCALITY

Puget Sound

Everett

1927

CHIEF OF PARTY

G.C. Jones

SUPPLEMENT TO DESCRIPTIVE REPORT ACCOMPANYING

HYDROGRAPHIC SHEET No. 4657 Addl Work on Orig. Sh.

Field No. 1

EVERETT,

WASHINGTON.

The additional work covered by this report is called for in Director's letter of November 4-th 1927.

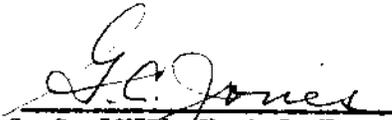
The range mentioned in paragraph 2 of above letter was relocated and drawn in with plane table alidade and is now shown on the sheet.

The 18 foot sounding one half mile west of Everett jetty light was thoroughly investigated and is incorrect. This sounding should be rejected.

The 48 foot sounding one hundred and forty meters of signal Doll should also be rejected. Both were undoubtedly recorded incorrectly due to the noisy engine then in the motorsailer (since replaced by new engine). See descriptive report forwarded with sheet.

The 19 foot shoal shown 300 meters west of signal Mast was incorrect. The wrong right object was taken for both positions 36 f. and 37 f. An examination in the field shows that the wrong flag pole was taken for signal flag. The smoothplotter attempted to adjust on signal Mast, thus throwing those soundings some 200 meters from their true position. The 19 foot indication was not called to my attention and was overlooked when examining the sheet before transmitting. A close development was made to replace the rejected soundings and that is shown on a 1:5000 insert. Position 7 j. was plotted on the 1:10000 and transferred on account of having used signal Twin.

The engine in the motorsailer at the time of the original survey made it practically impossible to sound properly around the docks. A new engine had been installed at the time the additional work was done and the dock lines were rerun. Vessels, logs and scows prevented doing so completely, but practically all dock faces were run with close soundings.


G. C. JONES, H. & G. E.
Commanding NATOMA.

Section of Field Records.

Report on Additional Work on Sheet No. 4657.

Surveyed Dec. 14, 1927.

C
C Chief of Party. G. C. Jones.

Surveyed by - G. C. Jones.

Projected by. A. F. Jankowski

Soundings plotted by - A. F. Jankowski

Verified and Inked - D. R. Rounds.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the development fulfills the requirements of the General Instructions.
3. The sounding line crossings are very good.
4. The additional work makes possible the completion of the depth curves in close to the docks.
5. The field plotting was completed to the extent prescribed in the General Instructions.

6. The surveying was well executed and
the protracting and plotting of soundings
very good.

Respectfully submitted,
Dean R. Rounde.

(11)

Copy for Section of Field Records files.

June 6, 1928

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in

1 volume of sounding records for

HYDROGRAPHIC SHEET 4687 224'1.

Locality: **FUGET SOUND, EVERETT HARBOR, WASHINGTON.**

Chief of Party: **R. E. Lukens, 1928.**

Plane of reference is **M L L W**

7.4 ft. on tide staff at **Seattle**

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.

E. F. Rude

Chief, Division of Tides and Currents.

Attach to BR 4657

10-rs

April 9, 1922.

To: Inspector, Coast and Geodetic Survey,
808 Burke Building,
Seattle, Washington.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: INSTRUCTIONS.

The original hydrographic sheet #4657 covering a survey of Everett Harbor made by a party in the NATOMA will be forwarded to you under separate cover. On the 1:10,000 scale insert, there are plotted two soundings of 19 and 30 feet which were obtained while sounding on a line running in a westerly direction. The diagonal lines shown were run at a later date with the intention of developing these indications.

It is not considered that sufficient development was made to disprove the existence of this possible shoal. All soundings taken in the development are shown. There is no record that the party "felt around" the spot to make sure that the area was not missed with the soundings taken while running on the lines.

You will please make necessary arrangements and issue instructions for a close development to be made of this area. The necessary personnel and equipment shall be obtained from the SURVEYOR and the examination made before the departure of that party.

E. Lester Jones

Director.

DEPARTMENT OF COMMERCE

AND REFER TO No. 11-DEM

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

July 5, 1928

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4657 (Additional Work 1928)

Everett, Washington

Surveyed in 1928

Instructions dated April 9, 1928 (Inspector, Seattle)

Chief of Party, R. R. Lukens.

Surveyed by P. A. Smith.

1. This examination was made to definitely disprove the existence of several shoal soundings off the docks at Everett Harbor, that were found on the first survey made in 1927 (H. 4657). The Chief of Party's explanation that on two of the positions (36 and 37 f), the wrong right object was used, seems to be borne out by the present examination. The 19 and 20 foot soundings on the first 1917 survey are well covered by depths of 39-42 foot soundings and there seems to be no question that these were erroneously located. The 27 foot sounding which was located about 40 meters to the westward of the above mentioned 19 does not appear to be as well covered on the present survey as the 19 and 20. This, however, may be due to the fact that only the shoalest soundings were located (see note on 1:5,000 scale tracing attached to this descriptive report). Furthermore, since the 19 and 20 foot soundings are proved to have been out of position, it necessarily follows that the 27 (pos. 36 f, first 1927 work) which controlled the location of the 19 and 20 was located in an erroneous position. It, too, should therefore be omitted. In accordance with the Chief of Party's statement in the descriptive report for H. 4657 (Ad. Work 1927) all the soundings that are dependent on positions 36 f and 37 f were rejected.
2. The work is shown in blue on the smooth sheet. As only a few soundings could be shown here, all the work was plotted on a 1:10,000 scale tracing and it is attached to the descriptive report. The original tracing (1:5,000 scale) on which the

field party plotted the work is also attached to this report, since it contains information of value and since no descriptive report for the work was submitted.

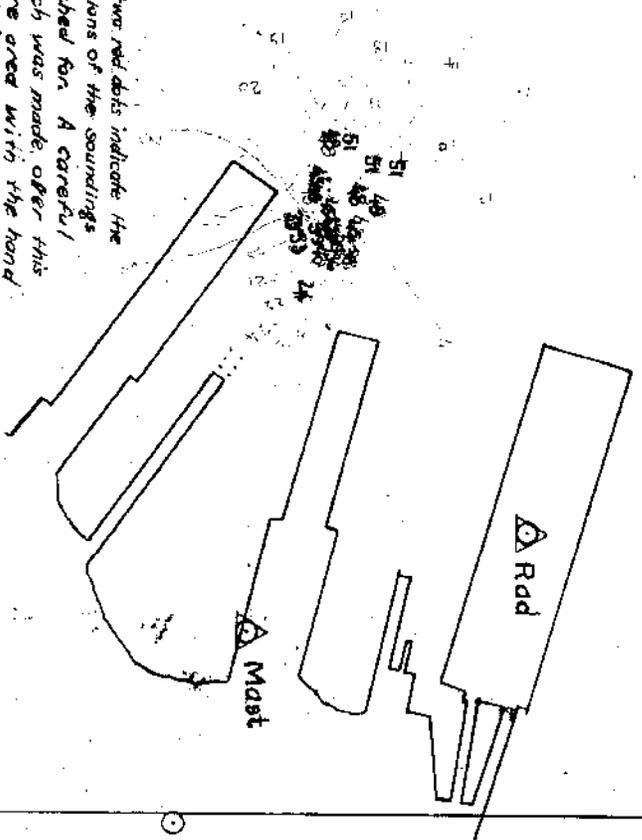
3. Reviewed by A. L. Shalowitz, July, 1928.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

The two red dots indicate the positions of the soundings searched for. A careful search was made over this entire area with the hand lead from a staff. Only the shallowest soundings were located.



△ Con

○ Field

H. 4657

Additional work on Apr. 20, 1928

Scale 1-5000

(un-reduced)

Showing soundings made on April 20, 1928 according to the instructions of April 9, 1928 to supplement Sheet No 4657 of Everett Harbor.

47° 59'



cont. 45 feet 209.

Scale 1-10,000

47° 58'

122° 14'

4657 Additional Work 1928
 Chief of Party R.R. Wokens
 Verified by J.T. Walker

122° 13'

4657

Seal

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

August 25, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4657 (Additional Work)

Washington - Puget Sound - Everett Harbor

Instructions dated March 23, 1927

Surveyed by G. C. Jones.

Chief of Party, G. C. J.

Protracted and soundings plotted by A. F. Jankowski.

Verified and inked by D. R. Rounds.

1. Instructions for the work were well carried out. Close developments amounting to resurveys were run over the questionable areas.
2. The development is adequate enough to show the questionable soundings to be in error.

The 48 foot sounding 140 meters N.N.E. of \odot Doll is incorrect. The additional work shows 26 feet in this area. The original record shows that the figure first put down for this sounding was afterwards changed.

The 18 foot sounding 1/2 mile west of Everett jetty light was evidently incorrectly recorded or incorrectly taken. A 28 foot sounding was found very close to the position of the 18.

The 19 foot shoal shown 300 meters west of \triangle Mast is probably in error. A close development was made of this area and soundings of 26 to 34 feet obtained in the vicinity. The original record seems to be in error as regards time and there is some question as to upon which sounding the position was obtained. The field party states that the position is in error due to a wrong right object. This assumption is apparently incorrect as the soundings can not be swung in to agree with the revision work using the left angle and time. It is recommended that

position 36 j be placed upon the previous sounding (43 feet) and that the soundings between position 36 j and 37 j be rejected. The error was probably due to poor recording.

3. Inking - neat and good.
4. Reviewed by E. R. McCarthy, March 21, 1928.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4657 Add'l. Wk.

HYDROGRAPHIC TITLE SHEET

Prepared at Office - F.R.

Additional Work of 1928 shown on tracing with orig. Sh.

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

Field No. 4657 Add'l. Wk. 1928

REGISTER NO.

State Washington

General locality Puget Sound

Locality Everett

Scale 50,000-10,000 Date of survey April 20, 1928

Vessel Surveyor

Chief of Party R.R. Lukens

Surveyed by

Protracted by

Soundings penciled by

Soundings in fathoms feet

Plane of reference

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated April 9, 1928

Remarks: Copy of Instructions of Apr. 9, 1928 attached to orig. Desc. Rep.