

9672a

Diag. Cht. No. 5101-4

NOAA FORM 76-35A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT (HYDROGRAPHIC)	
Type of Survey .....	Hydrographic
Field No. ....	FA-5-3-77 (1978) Addendum
Office No. ....	H-9672a
LOCALITY	
State .....	California
General Locality .....	Long Beach Harbor
Locality .....	Queensway Bay
.....	
<u>1978</u>	
CHIEF OF PARTY Bruce I. Williams	
LIBRARY & ARCHIVES	
DATE .....	May 11, 1979

9672a

10-1-2  
10-1-1

HYDROGRAPHIC TITLE SHEET

H-9672 a

INSTRUCTIONS - 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.

FA-5-3-77 (1978) Addendum

State CALIFORNIA

General locality ~~SAN PEDRO BAY~~ LONG BEACH HARBOR

Locality QUEENSWAY BAY  
~~LONG BEACH HARBOR~~

Scale 1:5,000 Date of survey 3 to 17 April 1978

Instructions dated 11 November 1977 Project No. OPR-L100 (411)-FA-78

FAIRWEATHER  
Vessel Launches FA-3(2023), FA-4(2024), FA-5(2025)

Chief of party CDR Bruce I. Williams

Surveyed by ENS L. Roberts, ENS M. Finke

Soundings taken by echo sounder, ~~and lead line~~ Ross Fathometers (1054, 1046, 1036)

Graphic record scaled by Ross Digitizers (1047, 1046, 1036)

Graphic record checked by MF

Positions verified

~~Checked~~ by Thelma O. Jones Automated plot by PMC Xynetics Plotter

Soundings

Verification by Thelma O. Jones

Soundings in ~~XXXXXX~~ feet at ~~XXXXX~~ MLLW

REMARKS: All hydrographic records were kept on GMT. All field edit  
records were kept on local time (+8).

Miss. items have been removed from this DR and are filed with the field records.

Appd to std.  
WST 8-16-(79)

ADDENDUM TO DESCRIPTIVE REPORT  
FOR  
HYDROGRAPHIC SURVEY H-9672a  
(FIELD NO. FA-5-3-77)  
NOAA SHIP FAIRWEATHER S220

PROJECT

This survey was conducted in accordance with Project Instructions OPR-L100(411)-FA-78, Southern California Coast, dated November 11, 1977, Change 5 dated March 2, 1978, and the PMC OORDER. ✓

AREA SURVEYED

Sounding lines were run in the mouth of the Los Angeles River, from the Ocean Blvd. bridge to a north south line tangent to the stern of the Queen Mary. ✓

SOUNDING VESSELS

Hydrography was accomplished by launches FA-3(2023), FA-4(2024), and FA-5(2025). ✓

SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

A TRA corrector of +1.5 ft., based on measured draft and bar checks, was used for each launch. Sound velocity correctors were determined from one Martek Cast taken in the outer harbor. For more information, see Report on Corrections to Echo Soundings, OPR-L100(411)-FA-78. ✓

Sounding Equipment :

<u>Vessel</u>	<u>Instrument</u>	<u>S/N</u>
FA-3	Ross Fineline Fathometer	1054
	Ross Digitizer	1047
	Ross Transceiver	1054
	Ross Invertor	1046
FA-4	Ross Fineline Fathometer	1046
	Ross Digitizer	1046
	Ross Transceiver	1045
	Ross Invertor	1053
FA-5	Ross Fineline Fathometer	1036
	Ross Digitizer	1036
	Ross Transceiver	1048
	Ross Invertor	1054

HYDROGRAPHIC SHEETS

One plotting sheet was used. A copy of the parameter tape printout is appended. ✓

CONTROL STATIONS

The electronic control stations used were Mary, 1977 and Ranger, 1977. No electronic offsets were used. Triangulation stations, Fixed aids to Navigation and landmarks were used for sextant fixes. The positions of some signals were scaled from the 1:5000 scale topographic manuscripts of the area in cases where no published positions could be found. ✓

HYDROGRAPHIC POSITION CONTROL

The sole method of sounding line position control used was Range-Azimuth Miniranger.

	<u>FA-3</u>	<u>FA-4</u>	<u>FA-5</u>
Miniranger Console and T/R Unit S/N	702	701	703 ✓

Transponder #702 was used with all launches.

CROSSLINES

The 18.1n.m. of hydrography include 3.3 n.m. of crossline. This accounts for 18% of all hydrography. Crossings agree to within 2 feet. ✓

JUNCTIONS

The additional hydrography done, <sup>Junctions</sup> ~~junctions~~ with the hydrography obtained in 1977 only at the southeast edge of the survey. We suspect the cause to be due to the heavy rains that <sup>occurred</sup> ~~occurred~~ during the winter of 1977-1978 in Southern California which caused heavy runoff through the Los Angeles River-Flood Control Channel. ✓

COMPARISON WITH PRIOR SURVEYS

The following items were marked on a section of chart <sup>18751</sup> ~~H-9672~~, California; Los Angeles and Long Beach Harbor; 1:12,000, with the annotation: "Circled Items do not appear on Class I Topo-sheets. Verify or disprove. Recommend disposal." ✓

#1 - "1 Pile", 33°45'46.5"N, 118°12'06"W

This item was investigated by a diver and was not found. There is, however, a shoal buoy at this position. The pile symbol should be removed from the chart and replaced by a buoy symbol. ✓

#2 - "2 Piers", 33°46'18"N, 118°12'41"W

The two piers in question are not there and should be removed from the chart.

See Sec. VII  
of the Verifiers  
Report.

#3 - "2 Piles", 33°46'22"N, 118°12'31"W

The two piles in question are not there and should be removed from the chart. This item could not be investigated by divers since there was a barge over the charted position of the "piles".

see Sec. VII  
of the Verifiers  
Report

#4 - "1 Pile", 33°46'20"N, 118°12'37"W

The pile is not there and should be removed from the chart. This item could not be investigated by divers since there was a barge over the charted position.

See Sec. VII  
of the Verifiers  
Report

#5 - "1 Pile", 33°46'15"N, 118°12'47"W

This item was investigated by divers and was found. However, it extends less than one foot above the bottom at a depth of 35 ft. This item should be removed from the chart as it does not present a hazard to navigation. ✓

#6 - "1 Pier", 33°46'26"N, 118°13'02"W

The pier shown on the chart is not there and should be removed from the chart. The pier<sup>ruins</sup> and pile shown on the field manuscript and visible in the photograph are correct and should be transferred to the chart. In addition, there is a submerged pile between the pile and the pier-- for further information, see Sounding Volume FA-3, Long Beach Harbor, page 11.

see Section  
VII of the  
verifiers  
report

#7 - "2 Piles" & "1 Pier", 33°46'21"N, 118°13'03"W

The area around these items is shown correctly on the field manuscript and the photograph and should be transferred to the chart. The "2 piles" and "1 pier" are no longer there and should be removed from the chart.

See Sec. VII  
of the Verifiers  
Report

#8 - "2 Piles", 33°46'24"N, 118°12'56"W

The two piles are there and should remain on the chart. The piles and the pier between are visible on the photograph. ✓

#9 - "2 Piles" & "1 Pier & Ruins", 33°46'29"N, 118°12'43"W

The two piles and one pier are no longer there and should be removed from the chart. There are several barges over their charted positions. The ruins are present, but are not as extensive as shown on the chart. This area is shown correctly on the field manuscript and should be transferred to the chart. See Sec. VII of the Verifier's Report

#10 - "Ruins", 33°46'35"N, 118°12'33"W

This item was investigated by divers and there are extensive submerged ruins present, extending two to three feet above the bottom. The ruins should remain on the chart. ✓

#11 - "1 Pile", 33°46'36"N, 118°12'34"W

This item was investigated by divers and was not found. The pile symbol should be removed from the chart.

See Sec. VII of the Verifier's Report

#12 - "1 Pile", 33°46'35"N, 118°12'39"W

This item was investigated by divers and was not found. The pile symbol should be removed from the chart. ✓

#13 - "1 Pile", 33°46'33"N, 118°12'42"W

This item was investigated by divers and was not found. The pile symbol should be removed from the chart. ✓

#14 - "1 Pier" & "5 Dolphins", 33°44'38"N, 118°12'08"W

The pier is not there and should be removed from the chart. The dolphins were investigated by divers and found. The dolphins have been cut off level with the bottom and should be removed from the chart. ✓

#15 - "1 Pier", 33°44'21"N, 118°12'13"W

The pier is not there, however, three cement piles are. The pier should be removed from the chart and replaced by the three cement piles. For further information, see Sounding Volume FA-3, Long Beach Harbor, p. 17. ✓

#16 - "Ruins", 33°45'20"N, 118°13'05"W

This item was investigated by divers and no significant ruins were found. These ruins should be removed from the chart.

see Sec. VII of the Verifier's Report

#17 - "Ruins", 33°45'42"N, 118°13'10"W

This item was investigated by divers and no ruins were found. The ruins should be removed from the chart. ✓

#18 - "1 Pier", 33°45'47"N, 118°13'13"W

At the charted position, the only indication that there was a pier is a cement bulkhead instead of rockry. The area near the cement bulkhead was searched by divers and no evidence of submerged ruins were found. This pier should be removed from the chart.

See Sec. VII  
of the Verifier's  
Report

#19 - "Overhead Cable", 33°45'42"N, 118°11'30"W

There is an overhead cable at this position and it should be <sup>retained as presently</sup> charted as shown on the field manuscript. For more information, see Sounding Volume FA-3, Long Beach Harbor, p. 19.

#20 - "1 Pier", 33°45'45"N, 118°11'53"W

This item is correctly charted and should remain as charted.

See Sec. VII  
of the  
Verifier's  
Report

#21 - "3 Piles", 33°45'47"N, 118°11'55"W

The two piles charted between pier floats #4 & 5 are not there and should be removed from the chart\*. The pile indicated on the chart at the end of pier float #1 is a dolphin and is shown correctly on the field manuscript and on the photograph. \*There was no dive investigation. The referenced piles should be charted as submerged piles

#22 - "2 Piles", 33°44'07"N, 118°13'41"W

These two piles were originally part of a degaussing range. The piles and the degaussing station have been removed and should be deleted from the chart. This area was investigated by divers and only a pile of rocks and some rubble is left where the degaussing station was. A least depth and position were taken. For further information, see Sounding Volume FA-3, Long Beach Harbor, p. 33. A least tide-corrected depth of 32 ft should be charted at the site of the charted degaussing station.

#### COMPARISON WITH THE CHART

Comparison was made with the soundings from chart 18751 1:12,000, Long Beach and Los Angeles Harbors, 22nd edition, April 3, 1976. Variation between soundings was less than 1 foot from the Ocean Blvd bridge to Lat. 33°45'45" and along the eastern limit of hydro. However, the soundings are as much as 19 feet shoaler elsewhere, particularly under the bridge near the Navy Landing Harbor. The extensive shoaling is believed due as previously explained to the heavy rains that occurred during the winter of 1977-78 in Southern California.

#### ADEQUACY OF SURVEY

In the rectangular area from Lat. 33°45'40"N to 33°45'47"N and Long. 118°12'00"W to 118°12'10"W, there is a small holiday. The water in this area was too shoal to run a launch and is adequately marked by shoal buoys. There is a slight disagreement between the shoreline hydrography and the shoreline taken from the field manuscripts. For more information, see Field Edit Report, OPR-411-FA-77. This survey is adequate to supersede prior surveys for charting.

AIDS TO NAVIGATION

All buoys within the limits of hydrography were located. (See positions 8153-8166 & 8381.) ✓

STATISTICS

	<u>FA-3</u>	<u>FA-4</u>	<u>FA-5</u>
Total number of positions	84	138	42
Nautical miles of soundings	3.5	12.4	2.2

Total area - 0.25 sq.n.m.

MISCELLANEOUS

Greenwich Mean Time was used for all hydrography. ✓  
Local Time (+8) was used for all field edit.

RECOMMENDATIONS

It is recommended that this survey be accepted and used for charting purposes. ✓

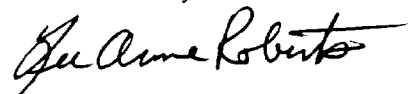
AUTOMATED DATA PROCESSING

All hydrography run by launches FA-3(2023) and FA-4(2024) was acquired using FA-181, Range Azimuth Logger, version 2-23-78. Hydrography run by FA-5(2025) was acquired with an ASI Logger. The Logger format tapes were reformatted into Range Azimuth master tapes using RK 330, Reformat and Data Check, vers. 5-4-76. The smooth field sheet was plotted using RK 212, Visual Station Table Load, vers. 4-1-74 and RK 216, Range Azimuth Non-Real Time Plot, vers. 2-5-76. ✓

REFERRAL TO REPORTS

Report on Corrections to Echo Soundings, OPR-L100(411)-FA-78 ✓  
Horizontal Control Report, OPR-L100(411)-FA-78  
Field Edit Report, OPR-411-FA-77

Submitted by:



Ens. LeeAnne Roberts, NOAA



FIELD TIDE NOTE

OPR-L100(411)-FA-78

H-9672

All Field tide reductions are based on Los Angeles Outer Harbor tides, and were interpolated by a PDP 8/e computer utilizing AM500 program. All times of predicted tides are GMT.

Velocity Table  
Long Beach, Calif.  
Sound Velocity Corrector Abstract

The following sound velocity correctors are to be applied to all soundings in feet from a fathometer on surveys H-9670, H-9671, H-9672, and H-9673 for all soundings taken in 1978.

Depth in Feet	Corrector (Feet)
0.0 - 4.9	+ 0.0
5.0 - 11.8	0.2
11.9 - 18.9	0.4
19.0 - 25.8	0.6
25.9 - 33.5	0.8
33.6 - 41.4	1.0
41.5 - 49.6	1.2
49.7 - 57.8	1.4
57.9 - 66.0	1.6
66.1 - 72.2	1.8

SIGNAL TAPE

002	0	33	43	54002	118	16	33909	139	0000	000000
019	4	33	44	40003	118	12	59706	139	0000	000000
027	4	33	45	09055	118	11	12207	139	0000	000000
047	0	33	45	46635	118	12	16725	250	0000	000000
052	2	33	45	59324	118	11	22544	139	0000	000000
053	2	33	45	57177	118	10	54257	139	0000	000000
054	5	33	45	09796	118	11	12234	250	0000	000000
058	4	33	45	03455	118	12	51434	139	0000	000000
060	2	33	44	45283	118	20	07286	139	0000	000000
061	4	33	44	31430	118	14	26450	139	0000	000000
062	4	33	44	25478	118	13	49046	139	0000	000000

002 - SAN PEDRO POINTS OF CALL SKYTOWER 1974

019 - CARTER 1977

027 - MARY 1977

047 - RANGER 1977

(3) 052 - LONG BEACH BREAKERS HOTEL TOWER 1932

050 - LONG BEACH VILLA RIVIERA HOTEL TOWER 1932 (1977)

054 - MARY K/2 1977

050 - LIND P-3 (LAG)

060 - PALOME

061 - HOLE LIGHT #4

062 - HOLE LIGHT #2

SIGNAL TAPE

002	0	33	43	54802	118	16	33909	139	0000	000000
019	4	33	44	40003	118	12	59796	139	0000	000000
027	4	33	45	09855	118	11	12207	139	0000	000000
047	0	33	45	46665	118	12	16725	250	0000	000000
052	2	33	45	59324	118	11	22544	139	0000	000000
053	2	33	45	57177	118	10	54257	139	0000	000000
054	5	33	45	09796	118	11	12234	250	0000	000000
058	4	33	45	03455	118	12	51434	139	0000	000000
060	2	33	44	45283	118	20	07266	139	0000	000000
061	4	33	44	31430	118	14	26458	139	0000	000000
062	4	33	44	25478	118	13	49046	139	0000	000000

002 - SAN PEDRO POINTS OF CALL SKYTOWER 1974

019 - CARTER 1977

027 - MARY 1977

047 - RANGER 1977

137 052 - LONG BEACH BREAKERS HOTEL TOWER 1932

053 - LONG BEACH VILLA RIVIERA HOTEL TOWER 1932 (1977)

054 - MARY H/E 1977

058 - LEND P-3 (LAG)

060 - FADOME

061 - HOLE LIGHT #4

062 - HOLE LIGHT #2

APPROVAL SHEET

Field Number : FA-5-3-77(1978) Addendum  
Register Number : H-9672

This field sheet and all accompanying records are hereby approved.  
This survey was conducted under my supervision and the survey is  
complete and adequate for charting purposes.



CDR Bruce I. Williams  
Commanding Officer  
NOAA Ship FAIRWEATHER S220

August 22, 1978

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 941-0660, Los Angeles, CA

Period: March 31-April 17, 1978.

HYDROGRAPHIC SHEET: H-9672 (1978 work)

OPR: L100

Locality: San Pedro Bay, California

Plane of reference (mean lower low water): 3.74 ft.

Height of Mean High Water above Plane of Reference is  
4.7 ft.

Remarks: Zone Direct

Don Spallman 8/23/78  
85 Chief, Tides Branch

GEOGRAPHIC NAMES

H-9672a

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;">A ON CHART NO. 18751</div> <div style="width: 15%;">B ON PREVIOUS SURVEY NO.</div> <div style="width: 15%;">C ON U.S. QUADRANGLE MAPS</div> <div style="width: 15%;">D FROM LOCAL INFORMATION</div> <div style="width: 15%;">E ON LOCAL MAPS</div> <div style="width: 15%;">F P.O. GUIDE OR MAP</div> <div style="width: 15%;">G RANDOMLY ATLAS</div> <div style="width: 15%;">H U.S. LIGHT LIST</div> </div>									
	FLOOD CONTROL CHANNEL	X								
LONG BEACH (P.P.)	X									2
<del>NAVY LANDING</del>									X	3
QUEENSWAY BAY ✓										4
QUEEN MARY ✓										5
										6
										7
										8
										9
										10
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										23
										24
										25

Approved:

Chief Geographer

# 00383

HYDROGRAPHIC SURVEY STATISTICS

H-9672 a

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS & PRELIMINARY OVERLAYS		244	
DESCRIPTIVE REPORT		1	SMOOTH OVERLAYS: POS. ARC, EXCESS		3	
DESCRIP-TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	21 - with all printouts, vol. & misc. data					
VOLUMES	1					
BOXES						
T-SHEET PRINTS (List) TP-00394, TP-00393						
SPECIAL REPORTS (List)						

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS		
	PRE-VERIFICATION	VERIFICATION	TOTALS
POSITIONS ON SHEET			2947-3316
POSITIONS CHECKED		2947-3316	
POSITIONS REVISED		-899-9003	
SOUNDINGS REVISED		-259-306	
SOUNDINGS ERRONEOUSLY SPACED			
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED			
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	47		
VERIFICATION OF CONTROL		44-48	
VERIFICATION OF POSITIONS		72-87	
VERIFICATION OF SOUNDINGS		70-102	
COMPILATION OF SMOOTH SHEET		28-45	
APPLICATION OF TOPOGRAPHY		33-44	
APPLICATION OF PHOTOBATHYMETRY			
JUNCTIONS		87	
COMPARISON WITH PRIOR SURVEYS & CHARTS		18-24	
VERIFIER'S REPORT		62-87	
OTHER		24-34	
<b>TOTALS</b>	<b>4</b>	<b>352-478</b>	

Pre-Verification by James S. Green	Beginning Date 7/22/77	Ending Date 7/22/77
Verification by Dennis L. Duffy & THELMA O. JONES	Beginning Date 8/23/77	Ending Date 12/178-2/12/79
Verification Check by A.E. Eichelberger & J.S. Green	Time (Hours) 25 39	Date 2/6/78
Marine Center Inspection by HIT	Time (Hours) 14 30	Date 3/29/79
Quality Control Inspection by K.W. Wellman	Time (Hours) 39	Date 5-22-79
Requirements Evaluation by B. Steels	Time (Hours) 1	Date 7-12-79

10/19/79 5/29/79



REGISTRY NO. \_\_\_\_\_

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE \_\_\_\_\_ TIME REQUIRED \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

REGISTRY NO. H-9172a

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE \_\_\_\_\_ TIME REQUIRED \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

Digitize revised positions for soundings 817301-817305, 824701-824705, and 818201-818205.

PACIFIC MARINE CENTER  
VERIFIER'S REPORT

REGISTRY NO: H-9672a

FIELD NO: FA-5-3-77 (1978)

California, San Pedro Bay, Long Beach Harbor

SURVEYED: 3-17 April 1978

SCALE: 1:5,000

PROJECT NO: OPR-L100 (411)-FA-78

SOUNDINGS: Ross 5000  
Fineline Fathometer

CONTROL: Range-Azimuth  
Mini-Ranger

Chief of Party . . . . . CDR B. I. Williams  
Surveyed by . . . . . ENS L. Roberts, ENS M. Finke  
Automated plot by . . . . . PMC Xynetics Plotter  
Verified by . . . . . Thelma O. Jones  
Cartographic Technician

I. INTRODUCTION

The original survey was accomplished in the spring of 1977. This survey is additional work to verify or disprove charted items that were not located on the original survey and ~~were~~ not on the topographic manuscripts. Additional hydrography ~~was~~ also requested to complete a small holiday near Lat.  $33^{\circ}45'37''$ , Long.  $118^{\circ}12'00''$ . The ship noting significant changes in depths resulting from extreme runoff from the heavy winter rains, resurveyed the flood control channel area. This information is plotted as additional work to H-9672.\* This additional work is in accordance with Project Instructions dated 11 November 1977 and Change No. 5, dated 2 March 1978, and PMC letter dated 9 January 1978. (Registered as H-9672a)

II CONTROL AND SHORELINE

(See Q.C. Report - item 3)

The shoreline was transferred from class I unreviewed manuscript TP-00394 of 1972-75.

Apparently there have been more recent photos of the area since 1972. The chart (18751 22nd Ed. 1976) has been updated incorporating items concurred by the 1978 Descriptive Report, but are not indicated on the existing manuscript.

### III. HYDROGRAPHY

- A. Crosslines are in excellent agreement, within a foot.
- B. Standard depth curves could be adequately drawn.
- C. The basic hydrography is adequate to delineate bottom configuration and to determine least depths.
- D. The small holiday defined in the Descriptive Report, "ADEQUACY OF SURVEY" is insignificant and should be disregarded.

### IV. CONDITION OF SURVEY

The hydrographic records, overlays, smooth sheet and reports are adequate and conform to the requirements of the Hydrographic Manual, except for the following:

- A. Fathometer was not working properly, resulting in many erroneous and missed depths.
- B. Hydrography was not complete enough to effect an overlapping junction with the adjoining survey H-9673 (1977-78) *additional work of 1978 on the*
- C. Standard procedures were not used in writing and assembling the Descriptive Report.
- D. Many positions had to be adjusted manually in order to effect an accurate portrayal of lines of hydrography.
- E. Many detached positions for field edit purposes were not logged or plotted.
- F. *(See Q.C. Report-item 5)*

### V. JUNCTIONS

This survey junctions to the east with H-9673 (1977-78). The junction with H-9673 *additional work of 1978*, was in excellent agreement. Two 30 ft. shoals ~~and~~ two 31 ft. shoals were transferred to this survey.

The junction with H-9673 (1977) shows the sounding to be 1 to 12 ft. shoaler on H-9672a(1978). The probable cause of this variance is due to the runoff caused by the heavy rains in the area during the winter of 1977-78.

Due to the great difference in soundings, H-9672a(1978) will supersede H-9673 (1977) in the junction area as portrayed on the attached section of the smooth sheet\*. A 29 ft. shoal was transferred from H-9673 to supplement the supersession. It is recommended that quality control make the necessary adjustments to the H-9673 smooth sheet previously submitted.

\**The referenced section has been removed*

### VI. COMPARISON WITH PRIOR SURVEY

The original survey H-9672 (1977) is considered the prior survey.

From the channel entrance, <sup>at the northern limits of the present survey development</sup> and along the northwest side to approximate Long.  $118^{\circ}12'07''$ , the soundings are 1 to 5 ft. shoaler on the prior survey. On the remainder of the survey, the soundings are consistently shoaler on the present survey. The greatest difference is in the area bounded by Lat.  $33^{\circ}45'30''$  to  $33^{\circ}45'45''$ , Long.  $118^{\circ}11'45''$  to Long.  $118^{\circ}12'00''$ , where the present soundings are shoaler by as much as 20<sup>5</sup> ft. These varying depths are probably due to the conditions discussed in paragraph 2 of the preceding section, *ie. natural causes*

There is no mention of the prior survey special purpose buoys. Recommend the present survey buoys supersede prior survey buoys. One additional mooring buoy was located at Lat.  $33^{\circ}45'24''$ , Long.  $118^{\circ}11'45''$ .

No hydrography was run in the Navy Landing area. On the field sheet, there is a dashed line, labeled dredge pipe, across the landing area entrance. Although there is no confirmation in the Descriptive Report, there is a possibility that a dredging operation was in progress at the time of the survey.

In the Navy Landing area, the prior survey soundings were transferred for completeness of the survey.

This survey is adequate to supersede prior survey H-9672 (1977) in areas of common hydrography.

VII. COMPARISON WITH CHART 18751, <sup>24th</sup> ~~22nd~~ Ed. <sup>March 18 1978</sup> ~~3 April 1976~~, 1:20,000  
(See Q.C. Report-item 7)

A. Hydrography

Most of the charted soundings originated <sup>with</sup> ~~from~~ unknown sources. The soundings in the Navy Landing area are from BP-80024 (LBHD 1803-6).

The soundings showed the same shoaling pattern as described previously in Section VI, paragraph 2.

Of the 22 field edit items investigated, the verifier concurs with the hydrographer's recommendations, with the exception of the following:

Item 2. Investigation not conclusive. Recommend the piers be charted as ruins.

Item 3. No dive investigation. Recommend piles be charted as submerged piles.

- Item 4. No dive investigation. Recommend piles be charted as submerged.
- Item 6. The submerged pile found by the hydrographer is 1.5 meters from a visible pile. Due to the scale of this survey (1:5,000), the submerged pile is too near the existing pile to be depicted on the smooth sheet. Recommend the existing pile <sup>and pier ruins</sup> ~~continue to be charted as shown~~ <sup>on H-9672 (1977)</sup> ~~and the charted pier ruins be enlarged to include the submerged pile.~~
- Item 7. No dive investigation. Recommend charting as ~~submerged piles~~, per H-9672 (1977).
- Item 9. Not conclusive. No fix data for barges. Recommend continued charting as shown. Disregard. Hydrographer's recommendations are considered valid.
- Item 11 & 12. With the poor visibility encountered by the divers and no positional data, the investigation is considered inconclusive. Recommend the piles remain as charted. Disregard. Hydrographer's recommendations are considered valid.
- Item 16. The hydrographer does not specify what constitutes a significant ruin; therefore, the investigation is considered inadequate. Recommend the ruins remain as charted.
- Item 18. The methods and length of time <sup>(5 minutes)</sup> utilized by the divers are considered insufficient to do an adequate investigation. Recommend the pier ~~remain as~~ <sup>be</sup> charted, as submerged ruins.
- Item 19. The verifier concurs with the hydrographer, but the actual height of the cable should have been ascertained.
- Item 20. The information in the volume contradicts the hydrographer's recommendation. It is the verifier's recommendation that the information in the volume be disregarded. The pier is not on the existing photogrammetric manuscript, and there is insufficient data for plotting on smooth sheet. Recommend the pier ~~continue to be charted as shown~~, submerged ruins.
- Item 21. No discernible investigation. No positional data for plotting of dolphin on smooth sheet. Recommend retention <sup>of the dolphin</sup> as charted.

BØ. Aids to Navigation

Charted aids to navigation adequately mark the features for which they are intended. However, some discrepancies exist between aids on H-9672 and charted aids.

Positional data was not available for the following charted aids:

Daybeacon<sup>"B"</sup><sub>A</sub> - Lat. 33°45'55". Long. 118°12'<sup>13</sup>20"  
 Daybeacon<sup>"A"</sup><sub>A</sub> - Lat. 33°45'55". Long. 118°12'<sup>20</sup>30"

Recommend these aids remain as charted.

The position of the Navy Landing Entrance Light and Horn charted at Lat. 33°45'40", Long. 118°11'54" appears to be in error. Verifier recommends the position of the Navy Entrance Landing Light and Horn be charted according to the class I manuscript and smooth sheet.

The following are uncharted <sup>privately maintained</sup> buoys located by <sup>the</sup> present survey.

- Cylindrical - Lat. 33°45'<sup>39</sup>51", Long. 118°11'57"
- Spherical - Lat. 33°45'38", Long. 118°11'56"
- " - Lat. 33°45'37", Long. 118°11'55"
- " - Lat. 33°45'36", Long. 118°11'54"
- \*Spherical - Lat. 33°45'35", Long. 118°11'55"
- \*" - Lat. 33°45'34", Long. 118°11'55"
- \*" - Lat. 33°45'32", Long. 118°11'56"
- \*Cylindrical - Lat. 33°45'27", Long. 118°11'33"
- \*" - Lat. 33°45'24", Long. 118°11'16"
- \*" - Lat. 33°45'46", Long. 118°12'06"
- Mooring - Lat. 33°45'23", Long. 118°11'44"
- " - Lat. 33°45'23", Long. 118°11'47"
- " - Lat. 33°45'24", Long. 118°11'46"
- " - Lat. 33°45'24", Long. 118°11'45"

Recommend buoys be charted as shown on the smooth sheet.

The Navy Landing West Light is not located on the photogrammetric manuscript, and no positional data was given for plotting on smooth sheet. The sketch on Pg. 22 of the Sounding Volume shows a position that is different than the charted position. Recommend the position source be researched and the light charted accordingly.

This survey is adequate to supersede charted hydrography of common areas. (See Q.C. Report-item 8)

VIII. COMPLIANCE WITH PROJECT INSTRUCTIONS

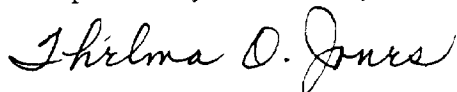
This survey adequately complies with Project Instructions dated 11 November 1977, Change No. 5, dated 2 March 1978.

The ship is to be commended for recognizing a need for a resurvey of the flood control channel. However, in order to achieve a complete supersession of the prior survey, hydrography should have been extended to the junction area with H-9673 (1977-78). Prior survey H-9672 (1977) is considered to be completely superseded within the common area.

IX. ADDITIONAL FIELD WORK

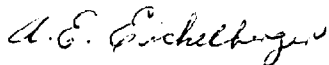
This is a good survey. No additional field work is necessary.

Respectfully submitted,



Thelma O. Jones  
Cartographic Technician  
February 16, 1979

Examined and approved,



*for* James S. Green  
Chief  
Verification Branch

APPROVAL SHEET  
FOR  
SURVEY H- 9672

- A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position print-out has been made. A new final sounding print-out has been made.
- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the verifier's report.

Date: 5 Mar 1979

Signed: 

Title: Chief, Verification Branch





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
Pacific Marine Center  
1801 Fairview Avenue East  
Seattle, Washington 98102

DATE : April 13, 1979  
TO : OA/CPM - Eugene A. Taylor  
FROM : OA/CPM3 - *Glen R. Schaefer*  
SUBJECT: PMC Hydrographic Inspection Team Report  
for Supplemental Survey H-9672

This survey is supplemental to the basic hydrographic survey of Long Beach Harbor, San Pedro Bay, California. This survey was conducted by NOAA Ship FAIRWEATHER in 1978 in accordance with Project Instruction OPR-L100(411)-FA-78 dated 11 November 1977 and Change No. 5 dated 2 March 1978.

This supplemental survey does not fully comply with the intent of the project instructions. Specifically, the supplemental survey was to clarify all items not adequately disposed of in the basic survey conducted in 1977. The supplemental survey has not accomplished this.

The condition of the survey is portrayed in the verifier's report.

Additional information on the dive investigations of PSR items should have been provided. Information describing the procedures employed and the thoroughness of the search were not included in survey data or the descriptive report.

The inspection team finds the supplemental work on H-9672 to be of fair quality. The 1977 and 1978 work when combined are adequate to supersede common areas of prior surveys and charted hydrography. Administrative approval is recommended.

*David B. MacFarland, Jr.*  
David B. MacFarland, Jr.

*Glen R. Schaefer*  
for Patrick D. Harmon

*James W. Steensland*  
James W. Steensland

*James L. Stringham*  
James L. Stringham



ADMINISTRATIVE APPROVAL  
H-9672 (Supplemental)

The smooth sheet and reports of this supplemental survey have been examined. The survey (1977) and the supplemental survey (1978) when combined are adequate for charting and to supersede common areas of prior surveys.

*E. A. Taylor*

\_\_\_\_\_  
E. A. Taylor, RADM  
Director  
Pacific Marine Center

*13 April 1979*  
\_\_\_\_\_  
Date



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

OA/C352:KWW

May 22, 1979

TO: *for RHCarrington*  
A. J. Patrick  
Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch

FROM: K. W. Wellman *K. W. Wellman*  
Quality Evaluator

SUBJECT: Quality Control Report for H-9672a (1978), California, Long Beach Harbor, Queensway Bay

A quality control inspection of H-9672a was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths and navigation hazards, junctions, shoreline transfer, decisions and actions by the verifier, and cartographic presentation of data.

The recommended work pertaining to the completion of the junction with H-9673 (1977) was accomplished during the quality control inspection of the present survey.

In general, the present survey was found to conform to National Ocean Survey standards and requirements except as discussed in the Verifier's Report, the HIT Report, and as follows:

1. Two bridges within the survey area were not delineated on the smooth sheet during verification. Indeed, the topography in the vicinities of the bridges, as shown during verification, was misleading in that the interrupted shoreline might have been interpreted as tributary waterways. Appropriate revisions were effected during quality control inspection.
2. The piling in the vicinity of latitude 33°45.79', longitude 118°11.91' should have been appropriately annotated as such during verification. (See section 7.3.7.8 of the Hydrographic Manual--Fourth Edition.) An appropriate annotation was added to the smooth sheet during quality control inspection.
3. The required comments pertaining to the origin of the control are not included in the Verifier's Report. (See section 6.6(7) of the Hydrographic Manual--Fourth Edition.)



Section II of the Verifier's Report is supplemented by the following:

The origin of the control is adequately discussed in the Descriptive Report.

4. A few sounding line segments were considered to be plotted in error due to anomalous depths in the areas. The computer plotted such line segments as straight lines; however, it is considered likely that the lines were run parallel to curved sections of the shoreline. As a result, the straight line automated plot of the referenced line segments caused some displacement of the associated soundings. Appropriate revisions were effected during quality control inspection.

5. Section IV of the Verifier's Report is supplemented by the following:

F. The section of the Descriptive Report entitled "Comparison With Prior Surveys" does not include any indication that such a comparison was actually accomplished. (See section 5.3.4(K) of the Hydrographic Manual--Fourth Edition.)

6. Prior survey H-9672 shows a log boom in the vicinity of latitude  $33^{\circ}45'42''$ , longitude  $118^{\circ}11'30''$ . The continued existence of this log boom is not addressed in the Descriptive Report and it may still be extant. The referenced log boom has been carried forward to supplement the present survey.

7. The appropriate edition of chart 18751 was not used by either the hydrographer or the verifier. It is required that the survey be compared with the ". . . latest edition of the largest scale chart of the area . . ." current at the time of the survey. (See section 5.3.4(L) of the Hydrographic Manual--Fourth Edition.) At the time of the survey there were two editions of the chart dated subsequent to the 22nd edition of 1976 which was used by the hydrographer and verifier. The 24th edition of chart 18751 (March 18, 1978) should have been used during verification. The appropriate chart edition was utilized and the Verifier's Report was appropriately annotated during quality control inspection.

8. Reference section VII of the Verifier's Report:

It is a preferred practice to include the chart supersession statement at the end of subsection A (Hydrography) of the referenced section of the Verifier's Report. (See section 6.6(12-a) of the Hydrographic Manual--Fourth Edition and the memorandum dated March 21, 1977, from the Office of Marine Surveys and Maps entitled "Verifier's Report Format.") Such a supersession statement, placed at the end of the entire section, implies that the aids to navigation discussed in subsection B are also superseded. This is not the intended purpose of the supersession statement.

9. Reference the hydrographer's comments pertaining to investigation item 22 on page 5 of the Descriptive Report:

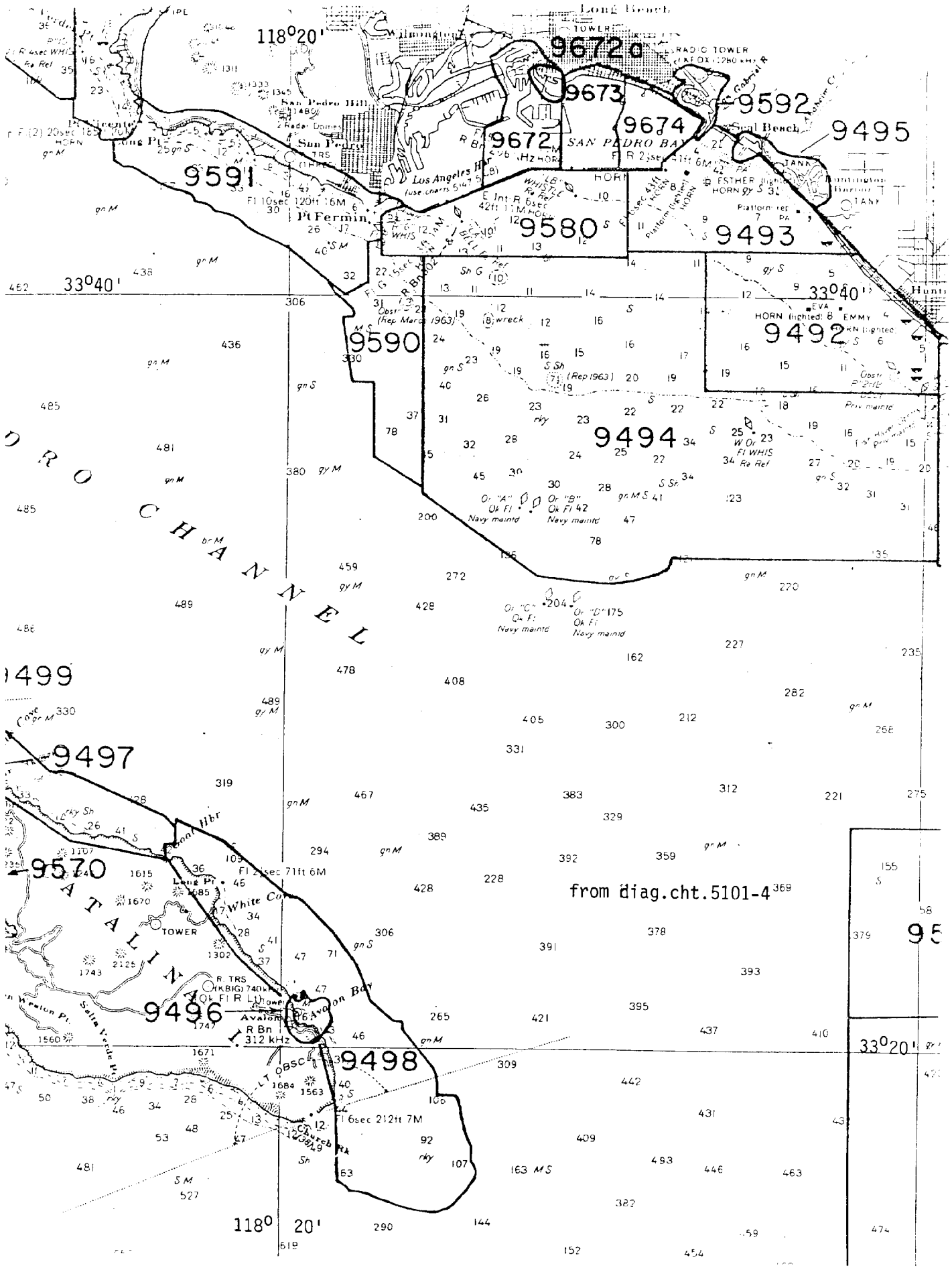
Since a least depth is mentioned, it should have been appropriately corrected and included in the Descriptive Report to facilitate its application to the chart. The actual magnitude of the referenced depth was not indicated by either the hydrographer or the verifier. The Descriptive Report was appropriately annotated during quality control inspection.

10. The title of the survey, as shown in the title block on the smooth sheet, is not in accordance with the preferred format. The automated title block should be revised to provide sufficient space to show the survey title on three separate lines. (See figure 7-9 in the Hydrographic Manual--Fourth Edition.) In addition, the title of the present survey should have been judiciously selected to differentiate the present survey from prior survey H-9672 (1977) and to identify the present survey area more precisely. Appropriate revisions were effected during quality control inspection.

11. Reference section VII-B of the Verifier's Report:

The privately maintained buoys discussed in the referenced section of the Verifier's Report were all designated as spherical buoys. Such an assumption is considered misleading since the survey records imply that only the three shoal buoys are spherical. The only indications of the type of buoys are the sketches in the raw data printout which indicate that the shoal buoys are spherical and that the speed buoys are cylindrical. The referenced section of the Verifier's Report as well as the smooth sheet have been appropriately annotated.

cc:  
OA/C35  
OA/C351



from diag. cht. 5101-4

95

33° 20'

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9672a

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

- 1. Letter all information.
- 2. In "Remarks" column cross out words that do not apply.
- 3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
18751	8/27/79	Hamilton WW	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 48
18749	8/27/79	Hamilton WW	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 49
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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