

# 9258

## WIRE DRAG

Diag. Cht. No. 1211-3.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
COAST AND GEODETIC SURVEY

### DESCRIPTIVE REPORT

Type of Survey WIRE DRAG

Field No. RH-10-1-71 <sup>WD</sup> Office No. \_\_\_\_\_

#### LOCALITY

State RHODE ISLAND - CONNECTICUT

STAMFORD, CONNECTICUT

General locality BLOCK ISLAND, RHODE ISLAND

STAMFORD HARBOR

Locality SOUTHWEST OF BLOCK ISLAND

1971

#### CHIEF OF PARTY

LCDR MERRITT N. WALTER

#### LIBRARY & ARCHIVES

DATE 3/10/72

USCOMM-DC 37022-P66

*1211*  
*1108* Applied 5-1-72 JLP  
April 11-17-72 RFC

**9258**  
**WIRE DRAG**

**HYDROGRAPHIC TITLE SHEET**

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.  
RH 10-1-71WD

State RHODE ISLAND

General locality BLOCK ISLAND SOUND

Locality WEST OF BLOCK ISLAND

Scale 1:10,000 Date of survey 13 Apr. to 4 May 1971

Instructions dated 9 APRIL 1971 Project No. SP-AMC-4-RU-HE-70

Vessel RUDE - HECK

Chief of party MERRITT N. WALTER

Surveyed by G.R. SCHAEFER, A.Y. BRYSON & J.J. MORLEY

Soundings taken by echo sounder, hand lead, pole WIRE DRAG

Graphic record scaled by NA

Graphic record checked by NA

DRAG STRIPS PLOTTED BY: L.E. PICKENS  
 Protracted by B.J. STEPHENSON Automated plot by \_\_\_\_\_

DRAG STRIPS INKED BY: \_\_\_\_\_

Soundings penciled by B.J. STEPHENSON

Soundings in fathoms feet at MLW MLLW \_\_\_\_\_

REMARKS: \_\_\_\_\_

*Ref. CL-797 (71)*

<i>Rock</i>	<i>Descriptive Report</i>	<i>Rock</i>
<i>Stamford Hbs.</i>		<i>Great Salt Pond</i>
L-581A(71)		L-518 (71)
L-227 (71)		L-581 (71)
L-1011 (71)		
BP81080		

*Applied to stls 3/17/72*

*128*

*R.W.W. 11/1/72*

DESCRIPTIVE REPORT  
TO ACCOMPANY  
WIRE DRAG FIELD NO. RH-10-1-71  
PROJECT SP-AMC-4-RU-HE-70  
STAMFORD, CONNECTICUT  
AND

BLOCK ISLAND, RHODE ISLAND  
1971

LCDR MERRITT N. WALTER  
NOAA SHIPS RUDE & HECK

*Item at Stamford  
was plotted on chart  
221 and is covered by  
a separate report 1441?*

- A. AUTHORITY - Sailing orders dated 9 April 1971 ordered an investigation be conducted to determine position and depth of an uncharted rock at the harbor entrance, Stamford, Connecticut. Project instructions, SP-AMC-4-RU-HE-70, wire drag, dated 9 April 1971. \*
- B. CHARACTER AND LIMITS OF THE WORK - The purpose of the project at Stamford, Connecticut was to determine the position and depth of an uncharted rock at the harbor entrance. The purpose of Project SP-AMC-4-RU-HE-70 was to drag an area of one mile radius about a reported obstruction at LAT  $41^{\circ}06'53''N$ , LONG  $71^{\circ}41'15''W$  shown on C&GS Chart 271. Also a least depth over a charted 46 foot sounding in LAT  $41^{\circ}06'13''N$ , LONG  $71^{\circ}40'35''W$  as shown on C&GS Chart 271 was required. \*
- C. CONTROL - Visual control was used on A DAY, 13 April 1971, for the Stamford, Connecticut Project. Raydist control was utilized at all times on Project SP-AMC-4-RU-HE-70. \*
- A listing of all signals used is given in Attachment I.
- D. DATE OF SURVEY - Investigation of the uncharted rock at the harbor entrance, Stamford, Connecticut began and was completed on 13 April 1971. Dragging for SP-AMC-4-RU-HE-70 began on 19 April 1971 and was completed 4 May 1971.
- E. TIDAL REDUCERS - Preliminary reduction of A DAY, 13 April 1971 at Stamford, Connecticut was made using predicted tides for the standard tide gauge at Bridgeport, Connecticut for Eastern Standard Time. *See tide notes*

Tidal data for A DAY, 13 April 1971 was then corrected based on Stamford Harbor High Water (+0h 04m and +0.5 ft) Low Water (+0h 06m and 0.0 ft). *See tide notes*

Preliminary reduction of all other days data was made using predicted tides for the standard tide gauge at New London, Connecticut for Eastern Standard and Daylight Savings Time.

*See tide  
Note -*

Tidal data for all days except A DAY was then corrected based on Montauk Point, north side - High Water (-1h 13m and -0.6 ft) Low Water (-1h 31m and 0.0 ft).

Actual tidal data was furnished by the Rockville Office as stated in Attachment II.

- ✓ F. JUNCTIONS - The wire survey formed no junctions with other surveys.
  - ✓ G. SPLITS - All areas within the project limits were covered without splits. All strips have sufficient overlap.
  - ✓ H. GROUNDINGS AND HANGS - See Attachment IV, List of Groundings and Hangs.
  - ✓ I. GENERAL NOTES - A DAY, 13 April 1971, at Stamford, Connecticut, is recorded only in smooth tester Volum I. Data based on predicted tides from the investigation of this item was passed via phone line to Mr. W. Ward, Rockville, Md.
- ✓ All work on SP-AMC-4-RU-HE-70 is done on a scale of 1:10,000.

Morning and evening raydist calibrations at Block Island, Rhode Island (SP-AMC-4-RU-HE-70) were made by running the range of Great Salt Pond breakwater outer end light and Great Salt Pond breakwater inner end light at the entrance to Great Salt Pond and turning the left angle to Block Island North Lighthouse. See Attachment I of list of signals.

- ✓ J. CURRENTS - Drag strips planned with the use of C&GS tidal current and tide tables gave satisfactory results. Excessive lift resulted when strips were attempted before the direction of current had fully changed to the direction of the drag.
  - ✓ K. DISCREPANCIES AND COMPARISON WITH PREVIOUS SURVEY AND CHARTS - See Attachment V.
  - ✓ L. PERSONNEL AND EQUIPMENT - During this project the Ships RUDE & HECK acted as guide and end vessels respectively. The RUDE & HECK launches equipped with DE-723 fathometers were alternated as the drag tender. Cuts to the end buoy and opposite vessel were made by gyro repeater and are true readings unless otherwise stated.
- ✓ The distance from the mast to the end buoy was 265 meters when an 800 ft. towline was used, and 204 meters when a 600 ft. towline was used.

*In 1971  
Ground level = 1/4"  
Supp. should may have been added*

✓ Standard wire drag equipment was used throughout the survey. Maximum length of drag was 9600 feet while 2400 feet was the minimum.

✓ Officers onboard during 1971 work on SP-AMC-4-RU-HE-70 were: LCDR M.N. Walter, LT G.R. Schaefer, LTJG A.Y. Bryson, LTJG J.J. Morley.

✓ M. MISCELLANEOUS - Greenwich Mean Time was used throughout the project.

✓ A list of floating aids to navigation with their location is given in Attachment III.

✓ N. RECOMMENDATIONS - This survey is considered adequate with respect to the wire drag requested.

Submitted by,

*J.J. Morley*  
LTJG J.J. Morley

APPROVAL SHEET

All records of this survey, prior to smooth plotting are hereby approved. This project was personally supervised by the undersigned, and the boat sheet and records were inspected daily. This survey is considered complete and adequate for charting. No additional field work is recommended.

*Merritt* *Walter*  
Merritt N. Walter  
LCDR NOAA

TABLE OF ATTACHMENTS

- I. CONTROL SIGNALS
- II. TIDAL NOTE
- III. FLOATING AIDS TO NAVIGATION
- IV. GROUNDINGS AND HANGS
- V. ITEM INVESTIGATION
- VI. STATISTICS

## ATTACHMENT I

## CONTROL SIGNALS

LIGHT LIST NO.	STATION	SOURCE	YEAR
At Stamford, Connecticut			
1187	Stamford Harbor Ledge Obstruction Lt. (Fl 4 sec. 80 ft.)	From Charted Position C&GS 117-SC	
1188	Stamford Harbor West Breakwater Lt. (Fl G 5 sec. 47 ft. 10m)	From Charted Position C&GS 117-SC	
1189	Stamford Harbor East Breakwater Lt. Fl R 4 sec. 28 ft.)	From Charted Position C&GS 117-SC	
	Radio Tower (WSTC)	From Charted Position C&GS 117-SC	
	Greens Ledge Lt. Ho. 2	G-5366	1942
At Block Island, Rhode Island			
801	Block Island North Lt. Ho.	G-1246	1943
811	Great Salt Pond breakwater, outer end light	G-6294	1941
812	Great Salt Pond breakwater, inner end light	G-6294	1941
	Coast Guard Cupola at entrance to Great Salt Pond	From Charted Position C&GS 269	



## ATTACHMENT J con't.

LIGHT LIST  
NO.

STATION

SOURCE

YEAR

✓ Northeast rear measured mile marker	From Charted Position C&GS 269	
✓ RED RAYDIST - PT. JUDITH, R.I. LAT 41°21'39".596N LONG 71°28'53".458W	Third Order Traverse Established by AMC	1971
✓ GREEN RAYDIST - WATCH HILL, R.I. LAT 41°18'15".542N LONG 71°51'32".370W	Third Order Traverse Established by AMC	1970



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

Date: March 1, 1972

Reply to  
Attn of: C3312-71-MCFOA

Subject: Long Island Sound

To: Mr. Hugh L. Proffitt  
CAM31

In reply to your phone request of February 29, 1972,  
I list below computed water levels for two locations:

Block I 4/22/71 2000Z 2.3 ft. above MLW  
41° 11'46" N. 71° 35'20" W

Stamford 4/13/71 2046Z 4.1 ft. above MLW  
41° 00'46" N 73° 32'03" W

*Saul C. Berkman*

Saul C. Berkman  
Acting Chief, Processing Section  
Tides Branch  
Oceanographic Division

ATTACHMENT II

TIDAL NOTE

Hourly tide heights were supplied by the Washington Office, <sup>PORT JEFFERSON</sup> (Chief, Tides Section, C-3312-186-NOASS), for ~~Bridgeport, Conn.~~ <sup>NEW YORK</sup> ~~Connecticut~~ and Montauk, Fort Pond Bay, Long Island, New York.

Tidal data for A DAY, 13 April 1971 was obtained by using the tides from ~~Bridgeport, Connecticut~~ <sup>PORT JEFFERSON, NEW YORK</sup> and correcting them based on Stamford Harbor, Connecticut as follows:

high water +0h 04m +0.5 ft.  
low water +0h 06m 0.0 ft.

*Superseded*

Tidal data for all days except A DAY was obtained by taking the tides from Montauk Fort Pond Bay, Long Island and correcting them for the working area four miles southwest of Block Island, Rhode Island as follows:

high water  
low water

*New London, Connecticut with a -14 min correction for the working area was used in place of +6 min mentioned in this tidal note. No range correction required.*

*B.T.S.*

ENDORSEMENT

VERIFICATION BRANCH, AMC

MARCH 2, 1972

Tide corrections for drag work done on RH 10-1-71WD were compiled from hourly heights - Reference Station New London, Conn. - furnished by Chief, Tide Section.

Range correction was 00  
Time correction was -1hr 40min

Hourly heights and smooth tide correctors are included in this report.

7a:

Lat.  $41^{\circ}06'53''N$   
Long  $71^{\circ}41'15''W$  } Area

- 1 hr 40 min

Same Range as N.L.

draw ←  
(M. WINN  
Rockville)

NATIONAL OCEAN SURVEY (NOAA)  
TIDES, HIGH AND LOW WATERS (FEET)

NEW LONDON CONNECTICUT APR 1971 TM 75.00W

DAY	TIME		HEIGHT		DAY	TIME		HEIGHT	
	HIGH	LOW	HIGH	LCW		HIGH	LOW	HIGH	LOW
1	1.2	8.2	6.45	3.37	17	1.4	8.0	6.26	3.76
	13.9	20.9	5.65	3.72	18	14.7	20.4	5.85	4.25
2	2.8	9.9	5.95	3.62	19	2.4	9.7	6.45	3.78
	15.2	20.9	5.55	4.33	20	15.8	22.0	5.85	4.26
3	3.6	10.5	5.88	3.41	21	3.1	10.1	6.63	4.06
	16.9	23.2	5.38	3.87	22	16.9	22.7	6.41	4.37
4	4.9	11.6	5.61	3.69	23	5.1	11.2	6.52	3.97
	17.6	—	5.43	—	24	17.7	—	6.96	—
5	6.4	0.1	5.24	3.72	25	5.8	0.0	6.61	4.31
	18.7	12.3	5.60	3.64	26	18.7	12.3	7.10	3.94
6	7.2	0.9	5.47	3.72	27	6.7	0.7	6.64	3.85
	19.4	12.9	6.63	3.98	28	18.9	13.1	7.08	3.72
		23.7		5.48	29	7.4	1.7	6.26	3.22
7	6.8	14.1	8.17	2.50	30	19.9	13.7	6.97	3.09
	19.9		5.37			8.5	2.6	6.61	3.09
8	8.0	2.2	5.80	3.78		21.0	14.6	8.02	3.77
	20.3	14.2	5.79	3.29		9.0	3.5	5.82	2.72
9	8.7	2.9	5.65	3.23		21.5	15.4	7.15	3.14
	20.8	14.7	6.11	3.50		9.8	4.3	6.17	2.90
10	9.7	3.2	6.10	3.50		22.2	16.2	7.23	3.53
	21.1	16.0	5.87	3.73		10.8	5.3	6.14	3.01
11	9.7	4.0	5.35	3.01		23.0	16.5	7.02	3.71
	22.1	15.5	6.23	3.58		11.7	6.0	6.07	3.16
12	9.6	4.5	5.62	3.29		—	17.7	—	3.98
	22.5	16.3	6.61	3.64		0.1	6.1	7.33	4.19
13	11.0	5.2	5.94	3.64		12.4	18.9	6.58	4.27
	23.3	16.8	6.78	4.06		0.9	7.9	6.73	3.79
14	11.1	5.8	5.82	4.02		13.5	20.5	5.90	4.19
	23.5	17.7	5.86	3.83					
15	12.3	6.4	5.20	2.98					
	—	18.1	—	3.81					
16	0.8	7.2	6.20	3.68					
	13.3	19.0	5.77	4.00					

MHW 6.23 MLW 3.68 MSL 5.01 MN 2.55 MTL 4.96

MTL-MSL -0.05 MHHW MLLW DHQ DLQ

GT (DRL)TL (DRL)TL-MSL

GMHWI 2.05 HRS GMLWI 8.44 HRS

HIGHEST TIDE 8.17 6.8 HRS APR 7

LOWEST TIDE 2.50 14.1 HRS APR 7

DATUM IS 3.43 ft below MLLW

S 7500W 30 1 30 -9.62 20788.3 \* ( ) ARE INFERRED

TIDES FOR SP-AMC-4-RU-14E-70

NATIONAL OCEAN SURVEY (NOAA)  
TIDES, HOURLY HEIGHTS (FEET)

NEW LONDON CONNECTICUT APR 1971 TM 75.00W

DAY OF MONTH

HOUR	1	2	3	4	5	6	7	8	9	10	11
0	6.25	5.15	4.87	4.05	3.72	3.85	5.67	4.40	4.23	4.75	4.79
1	6.46	5.58	5.34	4.43	3.82	3.75	5.87	3.98	3.74	4.33	4.27
2	6.36	5.88	5.66	4.94	4.20	3.87	6.10	3.78	3.41	3.82	3.62
3	5.86	5.96	5.74	5.30	4.56	4.36	6.48	3.87	3.24	3.50	3.15
4	5.36	5.68	5.75	5.54	4.85	4.77	6.93	4.23	3.59	3.62	3.01
5	4.90	5.34	5.39	5.60	5.14	5.11	7.47	4.80	4.15	4.16	3.36
6	4.39	5.06	5.17	5.40	5.21	5.35	7.91	5.29	4.78	4.70	3.87
7	3.71	4.58	4.87	5.13	5.19	5.49	8.09	5.62	5.32	5.18	4.40
8	3.38	4.05	4.37	4.88	4.96	5.40	7.60	5.80	5.54	5.65	4.86
9	3.64	3.69	3.84	4.57	4.67	5.08	6.99	5.55	5.63	6.04	5.25
10	4.14	3.62	3.46	4.07	4.27	4.71	6.00	5.02	5.31	6.10	5.31
11	4.67	3.98	3.49	3.69	3.78	4.39	4.84	4.55	4.85	5.44	5.09
12	5.12	4.45	3.85	3.72	3.64	4.10	3.82	4.13	4.40	4.86	4.64
13	5.41	5.04	4.46	4.02	3.76	3.96	3.12	3.69	4.01	4.46	4.29
14	5.62	5.40	4.84	4.45	4.08	4.30	2.51	3.27	3.51	3.97	3.96
15	5.44	5.53	5.09	4.84	4.56	4.80	2.93	3.35	3.52	3.79	3.63
16	5.11	5.44	5.37	5.14	5.02	5.44	3.83	3.91	3.81	3.73	3.63
17	4.81	5.34	5.35	5.38	5.33	5.97	4.68	4.50	4.43	4.10	3.93
18	4.47	5.07	5.30	5.41	5.57	6.33	5.20	5.04	5.07	4.69	4.52
19	4.09	4.69	5.06	5.17	5.60	6.56	5.27	5.52	5.62	5.27	5.18
20	3.81	4.40	4.64	4.82	5.27	6.55	5.34	5.79	6.03	5.66	5.69
21	3.73	4.33	4.32	4.43	4.85	6.11	5.19	5.67	6.11	5.86	6.12
22	4.03	4.38	4.07	4.03	4.45	5.57	5.09	5.24	5.73	5.74	6.23
23	4.66	4.55	3.90	3.82	4.12	5.67	4.81	4.77	5.22	5.35	6.00

DATUM IS .....

NATIONAL OCEAN SURVEY (NOAA)  
TIDES, HOURLY HEIGHTS (FEET)

NEW LONDON CONNECTICUT APR 1971 TM 75.00W

DAY OF MONTH

HOURL	12	13	14	15	16	17	18	19	20	21	22
0	5.45	6.06	6.62	5.83	6.12	5.89	5.65	5.04	4.59	4.31	3.95
1	4.87	5.49	6.20	5.58	6.20	6.17	6.09	5.70	5.08	4.53	3.87
2	4.38	4.96	5.69	5.08	5.99	6.16	6.42	6.37	5.60	5.12	4.25
3	3.80	4.42	5.11	4.58	5.56	5.86	6.41	6.62	6.09	5.73	5.12
4	3.39	3.94	4.67	4.14	5.07	5.44	6.13	6.54	6.41	6.18	5.83
5	3.34	3.65	4.18	3.55	4.66	5.09	5.75	6.29	6.51	6.47	6.34
6	3.86	3.79	4.03	3.07	4.08	4.51	5.24	5.97	6.31	6.60	6.58
7	4.43	4.33	4.34	3.09	3.69	3.97	4.68	5.50	5.91	6.37	6.63
8	5.10	4.92	4.88	3.46	3.87	3.76	4.15	5.10	5.45	5.89	6.32
9	5.46	5.44	5.39	4.00	4.24	3.89	3.83	4.42	4.99	5.40	5.80
10	5.56	5.78	5.54	4.49	4.69	4.24	3.82	4.05	4.42	4.83	5.27
11	5.55	5.94	5.79	4.86	5.09	4.71	4.13	4.20	3.99	4.23	4.69
12	5.14	5.70	5.69	5.12	5.50	5.26	4.80	4.63	4.23	3.95	4.01
13	4.70	5.27	5.42	5.15	5.69	5.60	5.21	5.17	4.82	4.08	3.72
14	4.35	4.91	5.26	4.85	5.43	5.80	5.53	5.68	5.59	4.86	4.01
15	3.93	4.50	4.74	4.45	5.21	5.86	5.75	5.96	6.17	5.69	4.81
16	3.65	4.17	4.40	4.19	4.69	5.58	5.85	6.33	6.60	6.24	5.71
17	3.72	4.06	4.02	3.95	4.39	5.28	5.58	6.40	6.88	6.67	6.43
18	4.37	4.30	3.92	3.84	4.22	4.94	5.34	6.18	6.93	7.03	6.85
19	5.03	4.84	4.14	3.92	4.00	4.58	5.16	5.74	6.75	7.03	7.07
20	5.54	5.44	4.55	4.22	4.05	4.28	4.72	5.28	6.23	6.55	6.80
21	6.11	6.04	4.92	4.66	4.32	4.32	4.40	4.72	5.58	5.96	6.23
22	6.53	6.54	5.46	5.23	4.81	4.61	4.26	4.46	4.99	5.29	5.59
23	6.56	6.75	5.74	5.73	5.44	5.15	4.43	4.37	4.59	4.61	4.81

DATUM IS .....

NATIONAL OCEAN SURVEY (NOAA)  
TIDES, HOURLY HEIGHTS (FEET)

NEW LONDON CONNECTICUT APR 1971 TM 75.00W

DAY OF MONTH

HOUR	23	24	25	26	27	28	29	30
0	3.95	4.56	5.36	5.85	6.39	6.79	7.33	6.65
1	3.38	3.76	4.60	5.13	5.71	6.21	7.09	6.73
2	3.27	3.19	3.70	4.46	5.06	5.53	6.73	6.52
3	3.75	3.14	2.85	3.52	4.30	4.99	6.17	6.14
4	4.63	3.82	2.81	2.96	3.48	4.25	5.60	5.69
5	5.35	4.87	3.36	3.15	3.04	3.48	4.88	5.13
6	5.95	5.67	4.33	3.94	3.28	3.16	4.22	4.51
7	6.22	6.21	4.96	4.93	4.11	3.58	4.25	4.01
8	6.20	6.54	5.61	5.60	5.01	4.43	4.83	3.78
9	5.77	6.52	5.82	6.09	5.61	5.19	5.14	4.00
10	5.01	6.05	5.48	6.17	5.97	5.69	5.55	4.54
11	4.30	5.38	4.90	5.93	6.11	5.96	6.13	5.10
12	3.67	4.90	4.45	5.36	5.74	6.06	6.47	5.60
13	3.30	4.29	4.00	4.90	5.29	5.72	6.35	5.85
14	3.19	3.83	3.60	4.40	4.95	5.23	5.95	5.87
15	3.58	3.84	3.16	3.83	4.39	4.96	5.66	5.67
16	4.57	4.51	3.23	3.54	3.85	4.56	5.24	5.32
17	5.55	5.51	3.98	3.75	3.75	4.10	4.86	5.04
18	6.26	6.40	5.09	4.56	3.98	4.00	4.39	4.72
19	6.81	7.25	5.98	5.48	4.72	4.40	4.26	4.46
20	6.95	7.65	6.64	6.25	5.50	5.09	4.44	4.26
21	6.61	8.02	7.12	6.86	6.19	5.82	4.98	4.35
22	6.01	6.92	7.09	7.22	6.81	6.56	5.62	4.78
23	5.33	6.05	6.55	7.07	7.02	7.10	6.25	5.39

DATUM IS .....

MSL 5.01



APRIL 1971

SMOOTH TIDE CORRECTORS FOR SP-AMC-4-RU-HK-70

REFERENCE STATION  
NEW LONDON, CONNECTICUT

LOCATION  
BLOCK ISLAND, RHODE ISLAND

CORRECTORS  
41 7 71 41 - 1.40. - 1.40. 0.0 0.0 1.00 1.00

TIME MERIDIAN OF OUTPUT - WEST  
0

OUTPUT IN FEET = 0, FATHOMS = 1, METERS = 2  
0

INTERVAL  
0.5

DATUM  
3.4

HR	MIN	TIDE CORR	TIME MER	DAY	TIDE LAT	GAGE LON	* DAYS
6	51	- 2.5	0 107	41 7	71 41		WIRE DIAG
8	11	- 2.0					
9	6	- 1.5		APR 17			DONE
10	0	- 1.0					
13	13	- 0.5					
14	15	- 1.0					
15	5	- 1.5					
16	33	- 2.0					
19	13	- 2.5					
20	43	- 2.0					
22	10	- 1.5					
1	26	- 1.0	0 108	41 7	71 41		
2	16	- 1.5					
3	14	- 2.0		APR 18			
4	28	- 2.5					
7	12	- 3.0					
8	36	- 2.5					
9	26	- 2.0					
10	26	- 1.5					
11	26	- 1.0					
14	25	- 0.5					
15	8	- 1.0					
16	11	- 1.5					
17	48	- 2.0					
20	13	- 2.5					
22	27	- 2.0					
23	28	- 1.5					
2	49	- 1.0	0 109	41 7	71 41	*	APRIL 19
				APR 19			

3 34 - 1.5 \*  
 4 16 - 2.0  
 4 57 - 2.5  
 8 54 - 3.0  
 10 3 - 2.5  
 11 14 - 2.0  
 11 59 - 1.5  
 13 2 - 1.0  
 14 8 - 0.5  
 15 26 - 1.0  
 16 16 - 1.5  
 17 14 - 2.0  
 18 48 - 2.5  
 21 27 - 3.0  
 22 28 - 2.5  
 23 35 - 2.0

0 30 - 1.5  
 3 27 - 1.0  
 4 27 - 1.5  
 5 26 - 2.0  
 6 28 - 2.5  
 9 45 - 3.0  
 10 59 - 2.5  
 12 4 - 2.0  
 12 55 - 1.5  
 13 50 - 1.0  
 15 13 - 0.5  
 16 8 - 1.0  
 16 47 - 1.5  
 17 25 - 2.0  
 18 15 - 2.5  
 19 28 - 3.0  
 22 38 - 3.5  
 23 26 - 3.0

0 110\* 41 7 71 41 APRIL 20  
 APR 20

0 15 - 2.5  
 1 5 - 2.0  
 2 12 - 1.5  
 4 38 - 1.0  
 5 25 - 1.5  
 6 15 - 2.0  
 7 14 - 2.5  
 10 53 - 3.0  
 11 51 - 2.5  
 12 46 - 2.0  
 13 34 - 1.5  
 14 29 - 1.0  
 16 25 - 0.5  
 17 4 - 1.0  
 17 38 - 1.5  
 18 16 - 2.0  
 19 14 - 2.5  
 20 14 - 3.0  
 23 15 - 3.5

0 111\* 41 7 71 41 APRIL 21  
 APR 21

0 7 - 3.0      0 112\* 41 7 71 41      APRIL 22  
 0 51 - 2.5  
 1 33 - 2.0      APR 22  
 2 16 - 1.5  
 3 2 - 1.0  
 5 5 - 0.5  
 5 48 - 1.0  
 6 24 - 1.5  
 7 6 - 2.0  
 8 0 - 2.5  
 11 40 - 3.0  
 12 39 - 2.5  
 13 36 - 2.0  
 14 24 - 1.5  
 15 6 - 1.0  
 17 34 - 0.5  
 18 11 - 1.0  
 18 43 - 1.5  
 19 17 - 2.0  
 19 57 - 2.5  
 20 47 - 3.0  
 23 37 - 3.5

0 26 - 3.0      0 113 41 7 71 41  
 1 16 - 2.5      APR 23  
 1 55 - 2.0  
 2 31 - 1.5  
 3 9 - 1.0  
 3 51 - 0.5  
 6 7 - 0.0  
 6 48 - 0.5  
 7 24 - 1.0  
 8 1 - 1.5  
 8 42 - 2.0  
 9 54 - 2.5  
 11 33 - 3.0  
 12 33 - 2.5  
 13 10 - 2.0  
 13 49 - 1.5  
 14 34 - 1.0  
 15 26 - 0.5  
 18 24 - 0.0  
 18 56 - 0.5  
 19 23 - 1.0  
 19 52 - 1.5  
 20 24 - 2.0  
 21 6 - 2.5  
 21 59 - 3.0

0 15 - 3.5      0 114 41 7 71 41  
 1 7 - 3.0      APR 24  
 1 51 - 2.5  
 2 34 - 2.0  
 3 16 - 1.5  
 3 54 - 1.0

4 33 - 0.5  
 5 28 + 0.0  
 6 27 + 0.5  
 7 11 - 0.0  
 7 40 - 0.5  
 8 7 - 1.0  
 8 37 - 1.5  
 9 16 - 2.0  
 10 13 - 2.5  
 13 15 - 3.0  
 14 0 - 2.5  
 14 50 - 2.0  
 15 46 - 1.5  
 16 35 - 1.0  
 18 56 - 0.5  
 19 30 - 1.0  
 20 0 - 1.5  
 20 30 - 2.0  
 21 3 - 2.5  
 21 36 - 3.0  
 22 9 - 3.5  
 23 10 - 4.0

0 43 - 4.5  
 1 9 - 4.0  
 1 38 - 3.5  
 2 16 - 3.0  
 2 59 - 2.5  
 3 40 - 2.0  
 4 17 - 1.5  
 4 51 - 1.0  
 5 24 - 0.5  
 5 58 + 0.0  
 8 1 + 0.5  
 8 38 - 0.0  
 9 11 - 0.5  
 9 49 - 1.0  
 10 33 - 1.5  
 11 28 - 2.0  
 13 0 - 2.5  
 13 56 - 2.0  
 14 57 - 1.5  
 16 2 - 1.0  
 17 13 - 0.5  
 18 33 + 0.0  
 19 8 + 0.5  
 19 59 - 0.0  
 20 29 - 0.5  
 20 56 - 1.0  
 21 23 - 1.5  
 21 55 - 2.0  
 22 34 - 2.5  
 23 25 - 3.0

0 115 41 7 71 41  
APR 25

0 37 - 3.5

0 116\* 41 7 71 41 APRIL 26  
APR 26

1	4	-	4.0	*
2	16	-	3.5	
3	0	-	3.0	
3	39	-	2.5	
4	17	-	2.0	
5	6	-	1.5	
5	41	-	1.0	
6	11	-	0.5	
6	54	+	0.0	
8	14	+	0.5	
9	3	-	0.0	
9	35	-	0.5	
10	6	-	1.0	
10	40	-	1.5	
11	25	-	2.0	
12	32	-	2.5	
13	36	-	3.0	
14	52	-	2.5	
15	50	-	2.0	
16	51	-	1.5	
17	44	-	1.0	
18	40	-	0.5	
20	2	-	0.0	
20	50	-	0.5	
21	24	-	1.0	
21	57	-	1.5	
22	31	-	2.0	
23	8	-	2.5	
23	52	-	3.0	

1	3	-	3.5	0 117	*	41	7	71	41	APRIL 27
2	11	-	4.0							
3	2	-	3.5	APR 27						G-DAY
3	41	-	3.0							
4	26	-	2.5							
5	16	-	2.0							
5	55	-	1.5							
6	31	-	1.0							
7	8	-	0.5							
7	54	+	0.0							
9	4	+	0.5							
9	50	-	0.0							
10	24	-	0.5							
10	56	-	1.0							
11	33	-	1.5							
12	26	-	2.0							
15	28	-	2.5							
16	53	-	2.0							
17	57	-	1.5							
18	47	-	1.0							
21	36	-	0.5							
22	17	-	1.0							
22	54	-	1.5							
23	33	-	2.0							

0	16	-	2.5	0 118	λ	41	7	71	41	APRIL 28
				APR 28						H-DAY

1	3	- 3.0
3	38	- 3.5
4	25	- 3.0
5	7	- 2.5
6	3	- 2.0
6	52	- 1.5
7	31	- 1.0
8	8	- 0.5
10	25	- 0.0
11	3	- 0.5
11	38	- 1.0
12	16	- 1.5
13	13	- 2.0
16	26	- 2.5
17	34	- 2.0
19	14	- 1.5
20	14	- 1.0
21	51	- 0.5
22	43	- 1.0
23	25	- 1.5

X

0	8	- 2.0
0	46	- 2.5
1	25	- 3.0
2	29	- 3.5
4	11	- 4.0
5	27	- 3.5
6	26	- 3.0
7	16	- 2.5
8	0	- 2.0
8	38	- 1.5
11	4	- 1.0
12	27	- 1.5
13	26	- 2.0
14	26	- 2.5
17	0	- 3.0
18	27	- 2.5
19	31	- 2.0
20	49	- 1.5
23	49	- 1.0

0 119 41 7 71 41  
APR 29

0	36	- 1.5
1	25	- 2.0
2	7	- 2.5
3	9	- 3.0
4	42	- 3.5
6	14	- 3.0
7	26	- 2.5
8	16	- 2.0
9	5	- 1.5
10	0	- 1.0
12	41	- 0.5
13	36	- 1.0
14	26	- 1.5
15	28	- 2.0

0 120\* 41 7 71 41 APRIL 30  
APR 30 J DAY

18 28 = 2.5  
19 49 = 2.0  
21 34 = 1.5

## ATTACHMENT III

## FLOATING AIDS TO NAVIGATION

The following buoys were located and a general depth obtained as required by project instructions.

W Or "B", Gr Fl (4) 20 sec., Priv. maintd.  
 Date located 4 May 1971  
 Raydist readings R 555.74 / G 248.48 /  
 LAT. - LONG. 41°15'11"N 71°44'43"W  
 General depth 118 ft.

W Or "C", Gr Fl (4) 20 sec., Priv. maintd.  
 Date located 4 May 1971  
 Raydist readings R 530.82 / G 480.26 /  
 LAT. - LONG. 41°11'11"N 71°39'07"W  
 General depth 116 ft.

R "2", Fl R 4 sec., Bell, Ra Ref  
 Date located 21 April 1971  
 Raydist readings R 704.90 / G 586.22 /  
 LAT. - LONG. 41°06'40"N 71°40'17"W  
 General depth 55 ft.

RB 1 QK 4 sec. Fl, Horn, Ra Ref  
 Date located 21 April 1971  
 Raydist readings R 739.61 / G 531.67 /  
 LAT. - LONG. 41°06'57"N 71°42'57"W  
 General depth 67 ft. /



ATTACHMENT IV

GROUNDINGS AND HANGS

POSITION NO. DAY LETTER	BUOY NO.	LATITUDE	LONGITUDE	GROUNDING EFF. DEPTH	CHARTED DEPTH	CLEAR BY STRIP & EFF. DEPTH	REMARKS
11C	3-4	41°06'59"N	71°40'47"W	51'	53'	<del>G IV 40'</del> <del>G II 41'</del> D I 51'	Slipped off before divers investigated.
25C	1-2	41°07'28"N	71°40'24"W	38'	45'	J II 36'	Slipped off before divers investigated.
12D	4-5	41°06'50"N	71°40'50"W	52'	59'	<del>H III 50'</del> <del>G I 51'</del> C I 51'	Slipped off before divers investigated.
F	6-7	41°06'57"N	71°41'04"W	52'	55'	F II 51'	Slipped off before divers investigated.
34F	2-4	41°06'58"N	71°40'57"W	51'	55'	<del>H III 50'</del> G I 51'	SALT POND CHANNEL ROCK - Sounding 17.5'
58C	3-4	41°07'28"N	71°40'36"W	40'	45'	G IV 40'	No Leadline, excessive current, 2 rocks 6' off bottom.
17	1-2	41°06'54"N	71°40'18"W	43'	49'	G IV 41'	Drag parted.
20H	2-3	41°07'24"N	71°40'26"W	38'	45'	J II 36'	Rock 6' off bottom 45' sounding

ATTACHMENT IV cont'd.

The hang on position 52G was probably caused by sag between buoys #3 and #4 as indicated in the tester volume.

The hang on position 20H was probably also caused by excessive sag between buoys #2 and #3 as indicated by a miss in the tester volume. A miss would correspond to a test of over two feet of sag.

ATTACHMENT V

ITEM INVESTIGATION

At Stamford, Connecticut on 13 April 1971, NOAA Ship PUDE located and obtained a least depth on a previously uncharted rock at the harbor entrance to Stamford. The rock is at LAT  $41^{\circ}00'46''N$ , LONG  $73^{\circ}32'03''W$  with a least depth of 11.9 feet MLW based on predicted tides. *See separate report covering Stamford Harb -*

BLOCK ISLAND SOUND

The tanker SS ESSO GETTYSBURG in 1970 reported hitting an obstruction at approximately LAT  $41^{\circ}06'53''N$ , LONG  $71^{\circ}41'15''W$ . The tanker drew 36.5 feet of water and the general charted depth in the area of the reported obstruction was over 50 feet.

This area was wire dragged in two directions for a radius of one mile, except for the shallow area northeast of buoy R"2", since the tanker reported itself west of this buoy by radar bearings and distances at the time the obstruction was hit. An effective depth of 50 feet or greater was obtained in the area dragged. The obstruction was not located. Recommend that the reported obstruction at LAT  $41^{\circ}06'53''N$ , LONG  $71^{\circ}41'15''W$  be removed from C&GS Chart 271.

While dragging in the area of the obstruction reported by the tanker ESSO GETTYSBURG, two obstructions were located at LAT  $41^{\circ}07'28''N$ , LONG  $71^{\circ}40'24''W$ , and LAT  $41^{\circ}07'24''N$ , LONG  $71^{\circ}40'26''W$ . Both located obstructions were cleared by wire drag to a depth of 36 feet MLW based on predicted tides.

The 46 foot charted sounding at LAT  $41^{\circ}06'13''N$ , LONG  $71^{\circ}40'35''W$  was cleared in two directions to an effective depth of 50 feet. On 27 April 1971, G DAY, the above sounding was cleared on strip #1 in a south to north direction to 50 feet. On 28 April 1971, H DAY, this sounding was cleared on strip #3 in a north to south direction to 50 feet. Recommend that the 46 foot sounding at LAT  $41^{\circ}06'13''N$ , LONG  $71^{\circ}40'35''W$  be removed from C&GS Chart 271 and be replaced with a least depth of 50 feet.

On 22 April 1971, E DAY, and 3 May 1971, K DAY, an investigation was made of a pinnacle rock in the entrance channel to Great Salt Pond, Block Island, Rhode Island. The rock is located at LAT  $41^{\circ}11'46''N$ , LONG  $71^{\circ}35'20''W$  with a least depth of 17.5 feet MLW based on predicted tides.

*See separate report covering item in Great Salt Pond Entrance*

## ATTACHMENT VI

## STATISTICS

DATE	DAY LETTER	STRIP NO.	VOL. NO.	POSITIONS	LINEAL NAUTICAL MILES	SQUARE NAUTICAL MILES
13 April 71	A	TESTER	VOLUME	VISUAL -	STAMFORD ROCK	<i>Plotted on chart 221</i>
19 April 71	B	I	I	22	3.5	3.5
20 April 71	C	I	I	16 <sup>2</sup>	1.7	1.4
	C	II	I	13 <sup>9</sup>	1.0	0.6
21 April 71	D	I	I	13 <sup>6</sup>	0.9	0.5
	D	II	I	20	2.8	2.0
	D		I	1	Buoy R'2" Calibration	
	D		I	1	Buoy RB Calibration	
22 April 71	E	TESTER	VOLUME	VISUAL -	SALT POND CHANNEL ROCK	
26 April 71	F	I	I	21	3.2	2.9 <i>plotted on chart 269</i>
	F	II	I	14 <sup>3</sup>	0.9	0.7
27 April 71	G	I	II	15	2.3	1.4
	G	II	II	24	2.7	1.4
	G	III	II	14	1.0	0.5
	G	IV	II	13	1.7	1.0
28 April 71	H	I	II	10	1.4	0.4
	H	II	II	10 <sup>7</sup>	0.9	0.3
	H	III	II	30 <sup>26</sup>	2.7	2.4
30 April 71	J	I	II	34	1.6	0.8
	J	II	II	8	1.0	0.3
3 May 71	K		II	1	Buoy WOr"B" Calibration (rejected)	

## ATTACHMENT VI cont'd.

DATE	DAY LETTER	STRIP NO.	VOL. NO.	POSITIONS	LINEAL NAUTICAL MILES	SQUARE NAUTICAL MILES
3 May	71	K	II	1	Buoy WOr"C" Calibration (rejected)	
4 May	71	L	II	1	Buoy WOr"C" Calibration	
		L	II	1	Buoy WOr"B" Calibration	
<hr/>						
TOTALS	11	16	2	283	29.3	20.1

# HUMBLE OIL & REFINING COMPANY

BAYONNE, NEW JERSEY 07002

MARINE DEPARTMENT  
NEW YORK BRANCH  
A. GIALLOHENZI  
MANAGER  
H. J. BORGES  
OPERATIONS MANAGER

POST OFFICE

CABLE ADDRESS  
STANSHIP NEW YORK

July 15, 1970

Department of the Army  
U.S. Army Engineer District, New York  
26 Federal Plaza  
New York, New York 10007

C. & G. SURVEY

JUL 28 1970

N. Y. FLD. OFFICE

Attn: Mr. J. Gelberman

Dear Sir:

At approximately 0700 on July 7, while the ESSO GETTYSBURG was approximately 9/10 of a mile 282° from Block Island Southwest Ledge Buoy #2, the vessel struck a submerged object and suffered bottom damages. At the time of the accident, the vessel was proceeding to the New Haven Anchorage and was drawing 35' forward, 36'6" aft, and 35'9" mean draft.

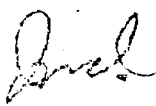
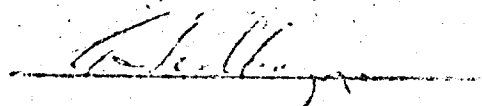
The position of this buoy was checked on July 9 and 12 by the United States Coast Guard, Third District, and found to be bearing 102° at a distance of 360 yards from the charted position or in an east/southeast position.

In view of the above, it appears to us that the vessel struck an uncharted obstruction. In the interest of safe navigation, we request that this area be dragged for obstructions.

If we can be of any assistance, please contact us.

We shall appreciate receiving the results of your findings at your earliest convenience.

Very truly yours,



AG/cdc



DEPARTMENT OF THE ARMY  
NEW YORK DISTRICT, CORPS OF ENGINEERS  
26 FEDERAL PLAZA  
NEW YORK, N. Y. 10007

C. & G. Survey  
JUL 28 1970  
N. Y. HD. 01

IN REPLY REFER TO  
NANOP-E

23 July 1970

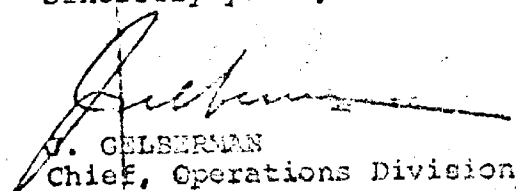
U. S. Department of Commerce - ESSA  
Coast & Geodetic Survey  
Attention: Chief, New York Field Office  
90 Church Street, Room 1407  
New York, N. Y. 10007

Dear Captain Rushford:

Reference is made to recent telephone conversation with this office concerning the possibility of having a wire drag survey made by the Coast & Geodetic Survey, to locate an uncharted obstruction in Block Island Sound, as described in the inclosed copy of letter dated 15 July 1970, received from the Humble Oil & Refining Co., Bayonne, New Jersey.

It is requested that this office be advised at your earliest convenience, if and when this area can be scheduled for dragging operations.

Sincerely yours,

  
J. GELBERMAN  
Chief, Operations Division

Incl  
a/s

First Endorsement:

To Director C&GS  
Attn: C-35

Forwarded for appropriate action. Please forward a copy of your reply to this office.

D.G. Rushford  
Captain, USN  
Acting Commanding Officer

Case Divisions 2213



DEPARTMENT OF TRANSPORTATION  
UNITED STATES COAST GUARD

Address reply to:

Commanding Officer  
U. S. Coast Guard  
Marine Inspection Office  
200 Federal Building  
Portsmouth, Virginia 23701

5943.125-70  
29 July 1970

Director of Coast & Geodetic Survey *CAF*  
Atlantic Marine Center  
439 West York Street  
Norfolk, Virginia 25510

Dear Sir:

The SS ESSO GETTYSBURG, with a draft of 36 feet 06 inches, grounded at position  $41^{\circ}06'45''$  N,  $71^{\circ}42'13''$  W in about 68 feet of water off Southwest Ledge in Block Island Sound on 7 July 1970. C&GE Chart 271 encompasses the area. The cause of this grounding is reported as the presence of an unidentified submerged object.

Investigation into the grounding failed to reveal any testimony or documentary evidence that would place the vessel in hazardous waters. The vessel's damage survey, however, suggests grounding on a shoal or on an object of considerable mass and durability.

Should you feel action to locate any submerged object is warranted, further information will be forwarded upon request.

Very truly yours,

L. E. BRAUDIN  
Lieutenant Commander, U.S. Coast Guard  
By direction of the Commanding Officer





U.S. DEPARTMENT OF COMMERCE  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
COAST AND GEODETIC SURVEY  
ROCKVILLE, MD. 20852

AUG 4 1970

IN REPLY REFER TO: C35

Mr. J. Gelberman  
Chief, Operations Division  
Department of the Army  
New York District, Corps of Engineers  
26 Federal Plaza  
New York, New York 10007

Dear Mr. Gelberman:

Your letter to the Coast and Geodetic Survey New York Field Office, dated July 23, 1970, requesting investigation of a reported uncharted obstruction in Block Island Sound has been forwarded to this office for reply.

The area surrounding the position of the ESSO GETTYSBURG's reported striking was cleared by wire drag to effective depths of 45 and 46 feet in 1912 and 1918.

An investigation of the area west of Southwest Ledge will be made in late August or early September of this year by a C&GS hydrographic vessel. A wire drag survey will be scheduled in the early spring of 1971 if indicated necessary by the 1970 investigation. A copy of the survey sheet will be forwarded to you after completion of field work.

Sincerely,

/S/ WHEATLEY E. WARD

Wheatley E. Ward  
Acting Chief, Operations and Requirements  
Division

cc:  
East Coast Office, C&GS  
CFN

# HUMBLE OIL & REFINING COMPANY

HOUSTON, TEXAS 77001

*Handwritten:* ACTION → *Handwritten:* C-351  
POST OFFICE BOX 1512  
CABLE ADDRESS "STANSHIP HOUSTON"

MARINE DEPARTMENT  
J. G. MOFFITT  
OPERATIONS MANAGER

March 10, 1971  
05 3202-1 P

Rear Admiral Don A. Jones  
National Oceanic & Atmospheric Administration  
National Oceanic Survey  
U. S. Department of Commerce  
Rockville, Maryland 21208

Request for Survey  
Vicinity Southwest Ledge  
Block Island  
Block Island Sound

Dear Sir:

Confirming previous telephone conversations with your office, we should like to avail ourselves of the offer to have one of your survey boats wire drag an area in the vicinity of the Southwest Ledge, Block Island when en route to the New England coast this spring or summer. The purpose of this request is to clear up doubt regarding the possible existence of a shallow rock ledge westward of Southwest Ledge No. "2" buoy.

On July 7, 1970 our tanker SS ESSO GETTYSBURG bound for New Haven, drawing 35' forward and 36'6" aft, struck an obstruction - since determined to be a rock ledge, when in the vicinity of Block Island Southwest Ledge. The Master reports that a radar bearing taken immediately after the ship struck placed her 0.9 miles, 282° true from Southwest Ledge No. 2 buoy. Ship's course was 005° true.

Following the accident the position of the No. 2 buoy was twice checked by the Coast Guard and each time found to be 360 yards, 102° from its charted position. The Master of the ESSO GETTYSBURG steadfastly maintains that his radar showed him to be nine tenths of a mile, bearing 282° from the buoy. C.&G.S. Chart 271 indicates a minimum water depth of 62' at this location, which depth is confirmed by a fathometer survey conducted by a National Oceanic Survey craft in October, 1970. At this point we are unable to reach a logical conclusion as to why or where the ship grounded and, therefore, dare not permit other loaded vessels to pass through the area until the matter is cleared up. This results in every vessel bound into Long Island Sound steaming an extra hour to pass east and north of Block Island.

We understand that a fathometer survey such as performed last October could possibly miss boulders and pinnacles up to a certain size and it is for this reason that we are requesting the wire drag. Any assistance that you can give will be sincerely appreciated.

Yours very truly,

*Handwritten signature:* J. G. Moffitt

*Handwritten notes:* as w.d. sample taken... as requested... not to be... from in any... se

2-22-71

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # SP-Amc-RH-47b OPR- 2. Reg. # H- 3. Field # RH 10-1-71 W.
4. Type of Control: Raydist (Hi-Fix, Raydist, EPI, etc.)
5. Frequency 3300.4 (for conversion of electronic lanes to meters)
6. Mode of Operation (check one):

Range-Range

Range-Visual

Range One (R<sub>1</sub>)  
 Station I.D. Judith Raydist  
 Range Two (R<sub>2</sub>)  
 Station I.D. Watch, 1970

Lat.	<u>41</u> °	<u>21</u> '	<u>39.596</u> "
Long.	<u>71</u> °	<u>28</u> '	<u>53.458</u> "
Lat.	<u>41</u> °	<u>18</u> '	<u>15.542</u> "
Long.	<u>71</u> °	<u>51</u> '	<u>32.370</u> "

Hyperbolic (3-station)

Hyper-Visual

Slave One  
 Station I.D. \_\_\_\_\_  
 Master  
 Station I.D. \_\_\_\_\_  
 Slave Two  
 Station I.D. \_\_\_\_\_

Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"

7. Location of Survey:

Range-Range

Imagine an observer is standing at R<sub>1</sub> Station and looking directly at R<sub>2</sub> (check one):

Survey area is to observer's Right  A=0

Survey area is to observer's Left  A=1

Hyperbolic

Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8.  This form is submitted as an aid in preparing a boat sheet.

This form applies to all data on this survey.

This form applies to part of the data on this survey.

Vessel EDP #	From Time Day	To Time Day	Position Numbers (inclusive)
_____	_____	_____	_____ to _____
_____	_____	_____	_____ to _____
_____	_____	_____	_____ to _____

9. Remarks: \_\_\_\_\_



Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ....

*RH-10-1-71 WD*

Records accompanying survey: Smooth sheets ... *1...; Mylar*  
 boat sheets ... *1 (Mylar blank) Field plots on tracing paper overlays*; sounding vols. ....; wire drag vols. *6* } *2 - Tauder*  
 Descriptive Reports ... *1*; graphic recorder envelopes *0*....; *4 - Wire drag*  
 special reports, etc. *1 - Accordion file (See table records, check box for statistics &)*  
~~1 - Smooth A & D Sheet~~ ..... *1* Box of Miscellaneous Data .....  
 1-Smooth A & D Sheet  
 3-A & D Boat ~~Sheets~~

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

Number of positions on sheet	.....	<i>283</i> ..
Number of positions checked	.....	<i>122</i> ..
Number of positions revised	.....	<i>02</i> ..
Number of <del>positions</del> <i>hangs or groundings</i> revised (refers to depth only)	.....	.....
Number of soundings/erroneously spaced	.....	<i>NA</i> ..
Number of signals erroneously plotted or transferred	.....	<i>Electronic</i> .....
Topographic details	Time	<i>None</i> ..
Junctions	Time	<i>None</i> ..
Verification of soundings from graphic record	Time	<i>None</i> ..
Special adjustments	Time	.....

Verification by *W. W. FAZEL* ..... Total time *79 hrs* Date *2-29-72*

Reviewed by ..... Time ..... Date .....

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-

RH-10-1-71WD

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. ✓ Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.  
*N.A.*
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.  
*N.A.*
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.  
*N.A.*
5. ✓ All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. ✓ All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.  
*N.A.*
8. The metal protractor has been checked within the last three months.  
*N.A. Electronic Arcs*
9. ✓ The protracting and plotting of all bad crossings were verified.  
*N.A.*
10. ✓ All detached positions locating critical soundings, rocks or buoys were verified.
11. The boat sheet was compared with the smooth sheet.  
*Blank (No Boat Sheet)*

12. The spacing of soundings as recorded in the records was closely followed.  
*N.A.*
13. The bottom characteristics were shown on outstanding shoals.  
*N.A.*
14. The reduction and plotting of doubtful soundings were checked.  
*N.A.*
15. The transfer of contemporary topographic information was carefully examined.  
*N.A.*
16. All junctions were transferred and overlapping curves made identical.  
*No Junctions*
17. The notation "JOINS H- (1922)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.  
*N.A.*
18. The depth curves have been inspected before inking.  
*N.A.*
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.  
*N.A.*
20. Heights of rocks were checked against range of tide.  
*N.A.*
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.  
*N.A.*
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.  
*N.A.*
24. The low water line and delineation of shoal areas have been properly shown.  
*N.A.*
25. Degree and minutes values and symbols have been checked.  
*N.A.*
26. Questionable soundings have been checked on the fathograms.  
*N.A.*

27. Source of shoreline and signals (when not given in report).  
*None*
28. All notes on sheet are in accordance with ~~figure 171 in~~  
the ~~Hydrographic Manual~~. *Wire Drag Manual*
29. All aids located, with those on contemporary topographic  
sheets, have been shown on survey.  
*N.A.*
30. Depth curves were satisfactory except as follows:  
*N.A.*
31. Sounding line crossings were satisfactory except as follows:  
*N.A.*
32. Junctions with contemporary surveys were satisfactory  
except as follows:  
*N.A.*
33. Condition of sounding records was satisfactory except as  
follows:  
*N.A.*
34. ✓ The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except  
as follows:  
*See Smooth Platten report in Descriptive Report*
36. Notes to reviewer:  
*See Verifiers notes in Descriptive Report*

Verified by *W. W. FEAZEL*

Date *29 Feb. 1972*



VERIFICATION NOTES  
SURVEY RH 10-1-71WD

GENERAL

This Note covers wire drag work on RH 10-1-71WD only. Separate reports were written for the item investigations near Stamford, Conn. and in the entrance to Great Salt Pond, Block Island.

Wire drag work on this survey seems to have been well done under difficult field conditions, and there appears to be no doubt that the existence of the reported shoal was disproved. Problems and minor discrepancies found during verification are described below.

The plots of the paths of N and F buoys, in relation to H and K respectively, show that some of the drag lines were dragged normal to fairly strong currents because of bottom configurations. This pushed the belly of the drag downstream forming abnormal bights and caused some of the intermediate buoys to follow the down current end buoy in a comparatively straight line. (See smooth plotter's overlay of line 54 to 66G). This condition, in some instances, probably lessened the accuracy of the positioning of hangs since they were located entirely on bearings from H and K. It increased the difficulty of obtaining lift tests, and probably contributed to the lack of consistency across the drag making it necessary to apply 4.0 feet of lift in two instances.

SOUNDINGS

The effective depth of the drag was plotted at all hangs as strong currents apparently prevented effective use of the handlead. Several depths obtained with a "pressure hose gage" were recorded, but they were not used as calibration data was not furnished. Depth comparisons were made with the boat sheet plot of H-9170 (HSL 10-1-70).

BOAT SHEET

A conventional boat sheet was not made for this survey by the field. All strips were plotted roughly on tracing paper overlays but were not transferred to the Mylar base sheet. It and the field overlays are being forwarded.

REGISTRY NUMBER

The field requested and received registry number H-9258 for this survey. It was not applied to any of the records as it may be considered desirable to treat the survey as a field examination and re-issue the registry number.

Norfolk, Va.  
March 6, 1972

  
Hugh L. Proffitt  
Chief, Verification Br., AMC

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9258

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
271	3-20-72	J. Esberich	<del>Full Part</del> <del>Before</del> After Verification <del>Review</del> Inspection Signed Via Drawing No. 5 (Proof) <i>before</i>
1211	6-17-72	Dave Politano	<del>Full Part</del> <del>Before</del> After Verification Review Inspection Signed Via Drawing No. Revised 36; obstrs to 35; <i>before</i>
1108	11-14-72	Ralph T. Chambers	<del>Full Part</del> <del>Before</del> After Verification Review Inspection Signed Via Drawing No. Revised 15; obstrs to 15; <i>before</i>
13215 (271)	3-27-80	H. Raddden	<del>Full Part</del> <del>Before</del> After Verification Review Inspection Signed Via Drawing No. Made minor corrections <i>before</i>
13205 (1211)	3-27-80	H. Raddden	<del>Full Part</del> <del>Before</del> After Verification Review Inspection Signed Via Drawing No. #49 Applied thru chrt. 13215 (271) <i>before</i>
13006 (70)	3-27-80	H. Raddden	<del>Full Part</del> <del>Before</del> After Verification Review Inspection Signed Via Drawing No. #44 No corr at this scale <i>before</i>
13003 (1000)	3-27-80	H. Raddden	<del>Full Part</del> <del>Before</del> After Verification Review Inspection Signed Via Drawing No. 57 No corr at this scale <i>before</i>
12300 (1108)	9-19-80	D. C. Wapner	<del>Full Part</del> <del>Before</del> After Verification Review Inspection Signed Via Drawing No. 53 No Corrections at this scale <i>before</i>
13205	8/30/90	L. Abman	Full Part Before After Verification Review Inspection Signed Via Drawing No. 53 CONSIDERED ADEQUATELY APPLIED
			Full Part Before After Verification Review Inspection Signed Via Drawing No.

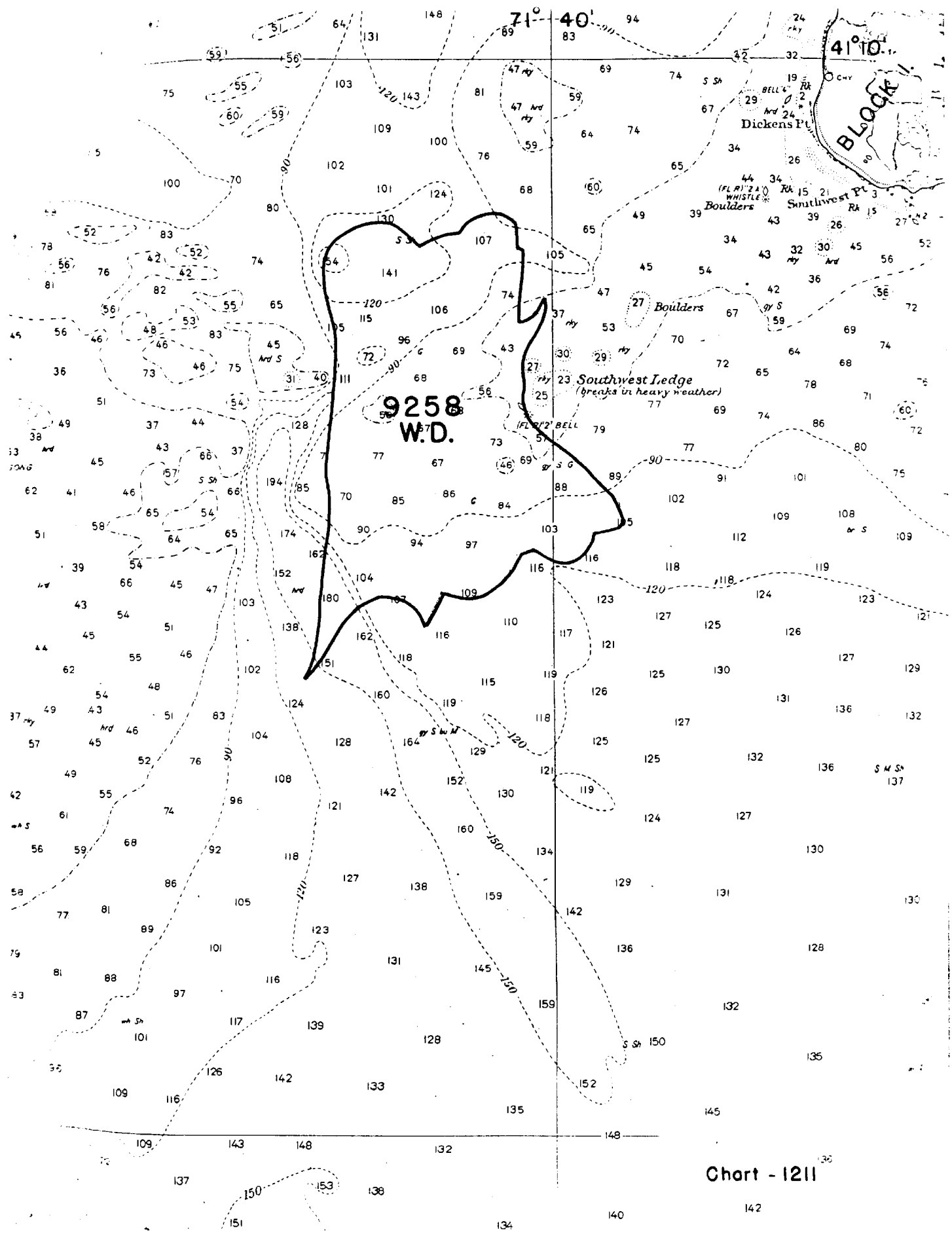


Chart - 1211

# 9258

## WIRE DRAG

9258

WIRE DRAG

FORM C&GS-504	
U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	FIELD EXAMINATION
SP-AMC-4-RU-HE-70	
Field No.	Office No.
LOCALITY	
State	CONNECTICUT
General locality	ENTRANCE TO STAMFORD
Locality	HARBOR
1971	
CHIEF OF PARTY	
MERRITT N. WALTER	
LIBRARY & ARCHIVES	
DATE	

**HYDROGRAPHIC TITLE SHEET**

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.  
**FIELD EXAMINATION**

State CONNECTICUT

General locality LONG ISLAND SOUND

Locality ENTRANCE TO STAMFORD HARBOR

Scale CHART 221 Date of survey APRIL 13, 1971

Instructions dated 9 APRIL 1971 Project No. SP-AMC-4-RU-HE-70

Vessel RUDE - HECK

Chief of party MERRITT N. WALTER

Surveyed by G.R. SCHAEFER, A.Y. BRYSON & J.J. MORLEY

Soundings taken by echo sounder, hand lead, pole HAND LEAD

Graphic record scaled by NA

Graphic record checked by NA

Protracted by W.W. FEAZEL Automated plot by \_\_\_\_\_

Soundings penciled by W.W. FEAZEL

Soundings in fathoms feet at MLW MLLW

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

AMC  
VERIFICATION NOTE

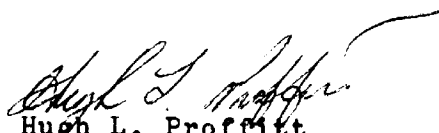
FIELD EXAMINATION SP-AMC-4-RU-HE-70

The location of the submerged rock at Lat. 41-001-46" Long. 73-32'-02", entrance to Stamford Harbor, was plotted on the enclosed section of chart 221.

The original field data was recorded in the smooth tender record for RH 10-1-71WD, vicinity of Block Island. Zerox copies of the record were made and appended to this note.

The position was plotted on what was considered to be the best available fix, chosen from the rather poorly observed sextant angles. The raw leadline sounding of 11' 9" was reduced on tide data furnished by the Oceanographic Division. A copy of their memo is attached.

Further field notes may be found in the descriptive report for RH 10-1-71.

  
Hugh L. Proffitt  
Chief, Verification Br., AMC

Norfolk, Va.  
March 1, 1972



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

Date: March 1, 1972  
Reply to  
Attn of: C3312-71-MCFOA  
Subject: Long Island Sound

To: Mr. Hugh L. Proffitt  
CAM31

In reply to your phone request of February 29, 1972,  
I list below computed water levels for two locations:

Block I 4/22/71 2000Z 2.3 ft. above MLW  
41° 11'46" N. 71° 35'20" W

Stamford 4/13/71 2046Z 4.1 ft. above MLW  
41° 00'46" N 73° 32'03" W

*Saul C. Berkman*  
Saul C. Berkman  
Acting Chief, Processing Section  
Tides Branch  
Oceanographic Division

APR 13 1971

D. G. J. AT STANTFORD BANK

WIRE DRAG TESTS

Section	Time	Depth	Lift	Tenths
GREENS LEDGE LT. NO.				
RADIO TOWER (WSTC)		69° 42'		
HARBOR LEDGE LT. NO.		81° 35'		(Rock)
HARBOR LEDGE LT. NO.		23° 21'		(Rock)
WEST BECKMUNTER LT.		27° 17'		
EAST BECKMUNTER LT.				

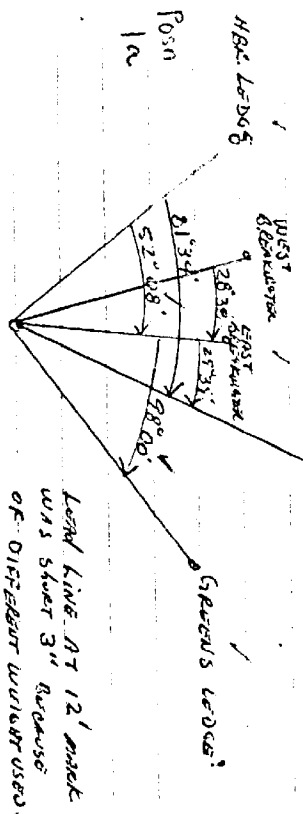
TIME 20.46 Z  
 Sounding 11.7  
 Tide -4.1'  
 Red. Sdg 7.61  
 Temp by H.L.P  
 by W.M.F

\* Posn. by  
 plotted on

HARBOR OBSERV. LT 52° 08'  
 E. CAW. LT 98° 03'  
 GREEN LEDGE  
 W. OBS. LT }  
 E. OBS. LT } 27° 17'  
 Remaining angles do not check or will total  
 add up.

GREENS LEDGE LT. NO. 68° 11'  
 Radio Tower (WSTC) 78° 36' RN 2  
 Harbor Ledge Lt. No.

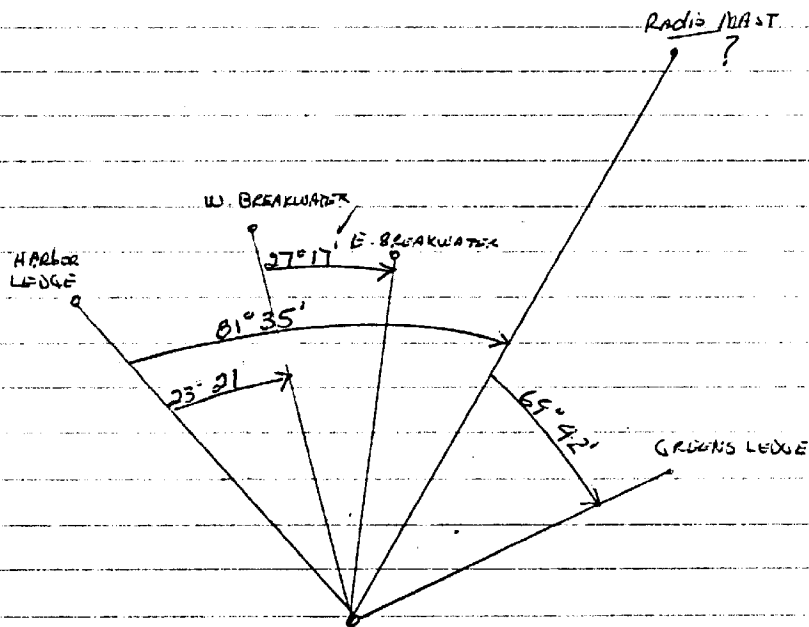
2018Z Divert Reports Rock, 6' off bottom,  
 8' SQ. 3096 least depth by lead line  
 12 FT. Radio Tower (WSTC) ?



\* (see next page) →  
 Sol Rock 41° 00' 46" N 73° 30' 03" W  
 119' by LL 6' off bottom AT 132096Z



APR 1971

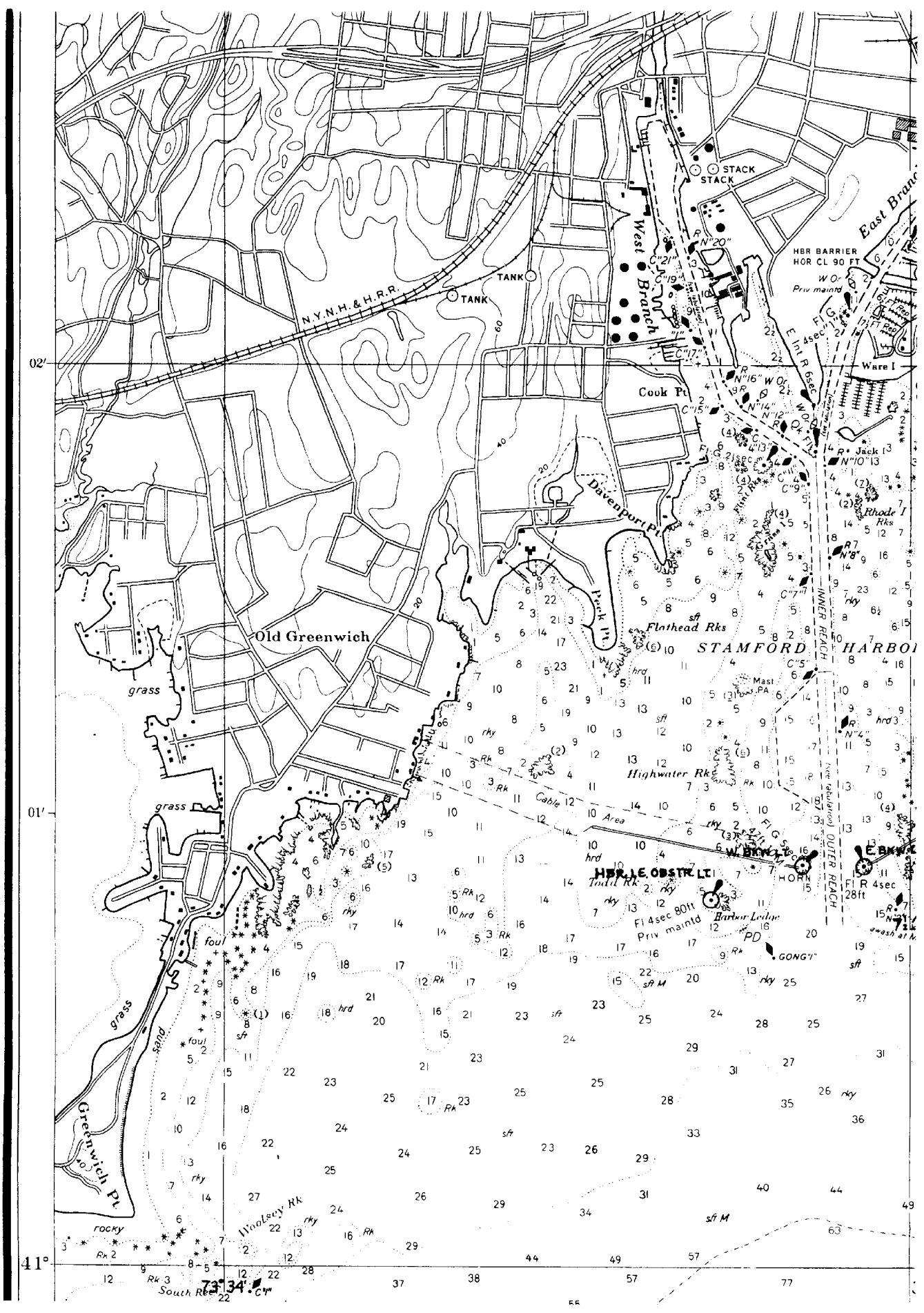


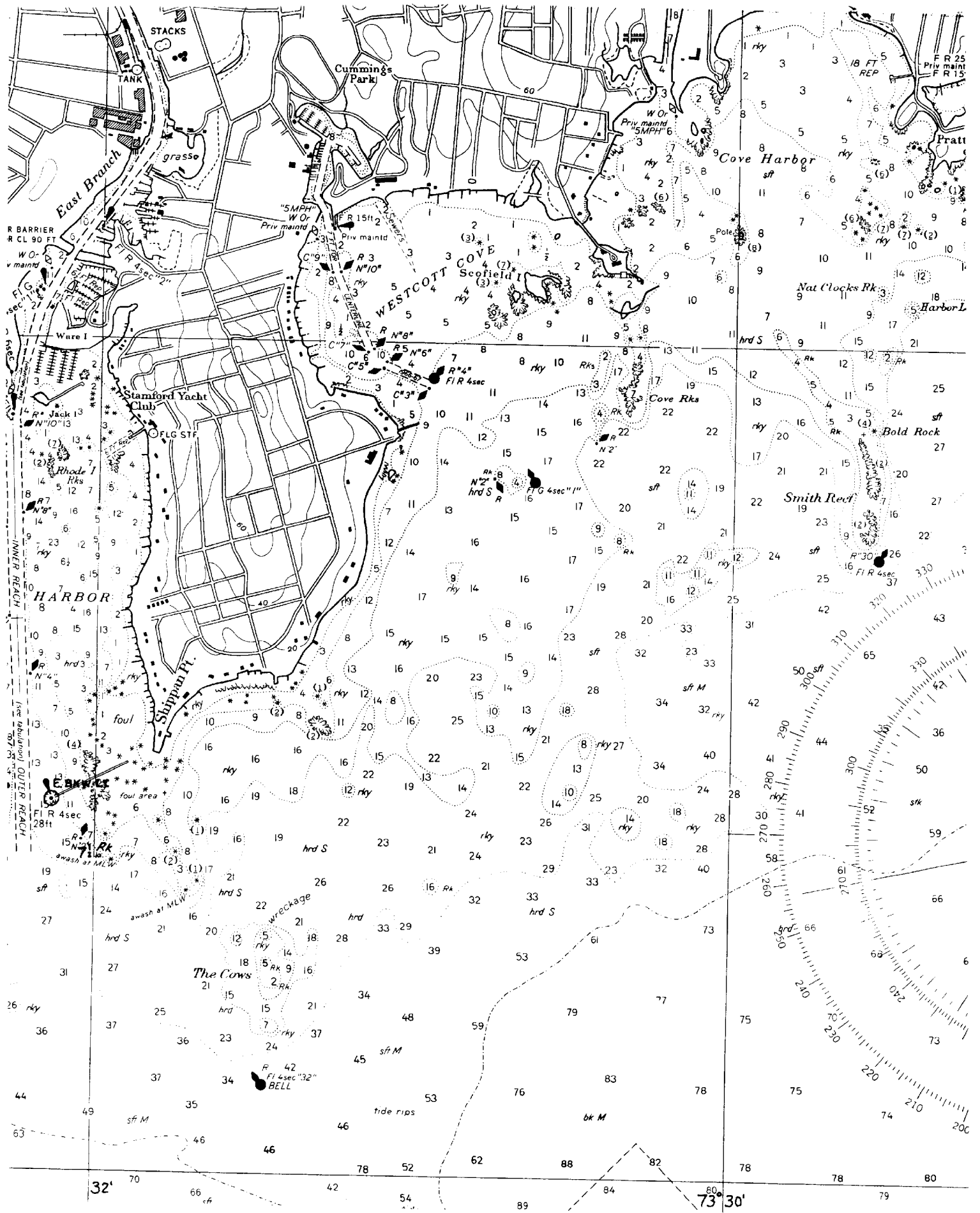
- N-F 255 10.
- 11
- 9-
- 7-
- 5-
- N-
- N-
- 2-
- 4-
- 4-
- 14
- 13
- F-
- F-

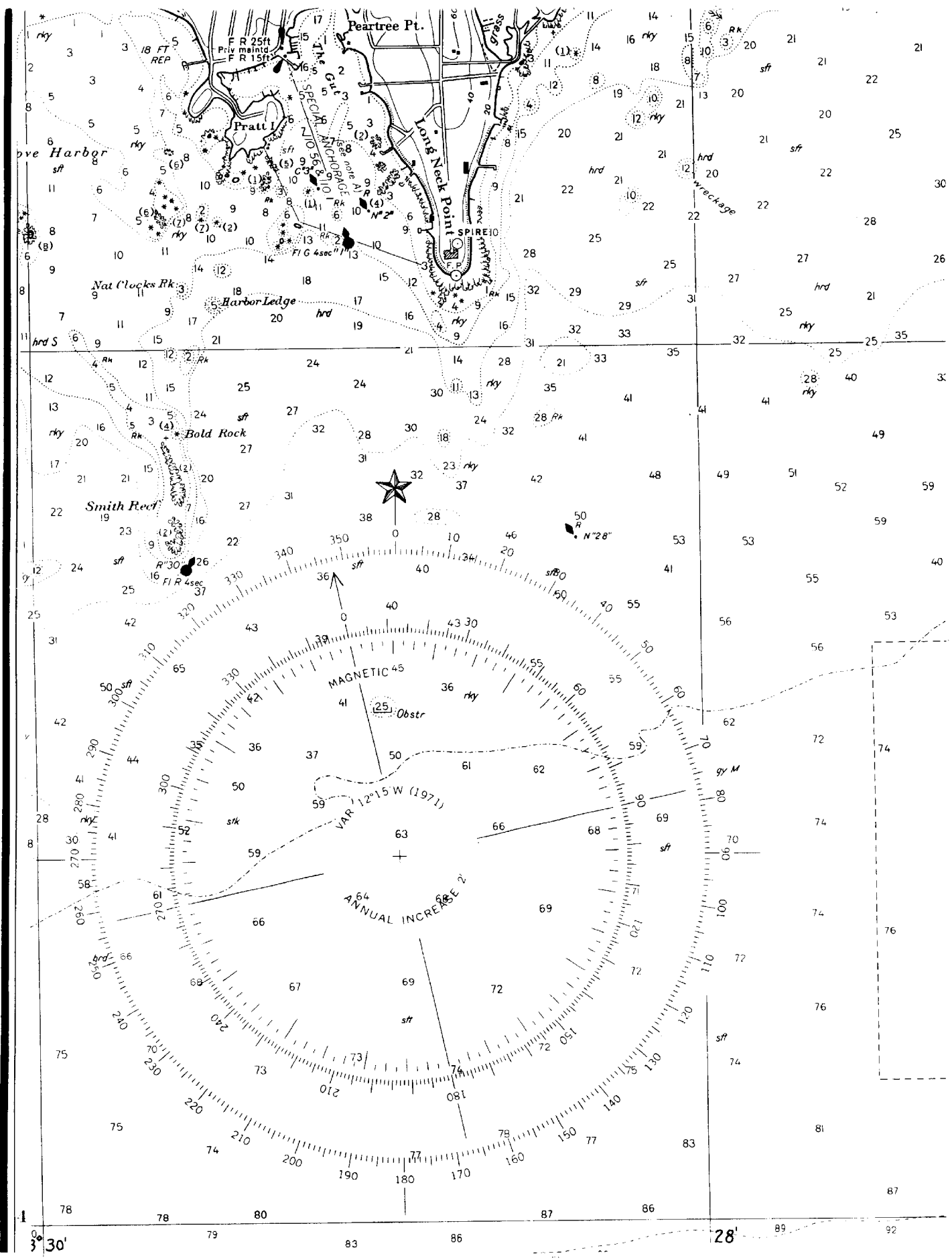
W. BREAKWATER LT.  $41^{\circ} 00.9'$   $73^{\circ} 32.3'$

E. BREAKWATER LT. 4

GREENS LEDGE LT.  $41^{\circ} 02.5'$   $73^{\circ} 26.6'$

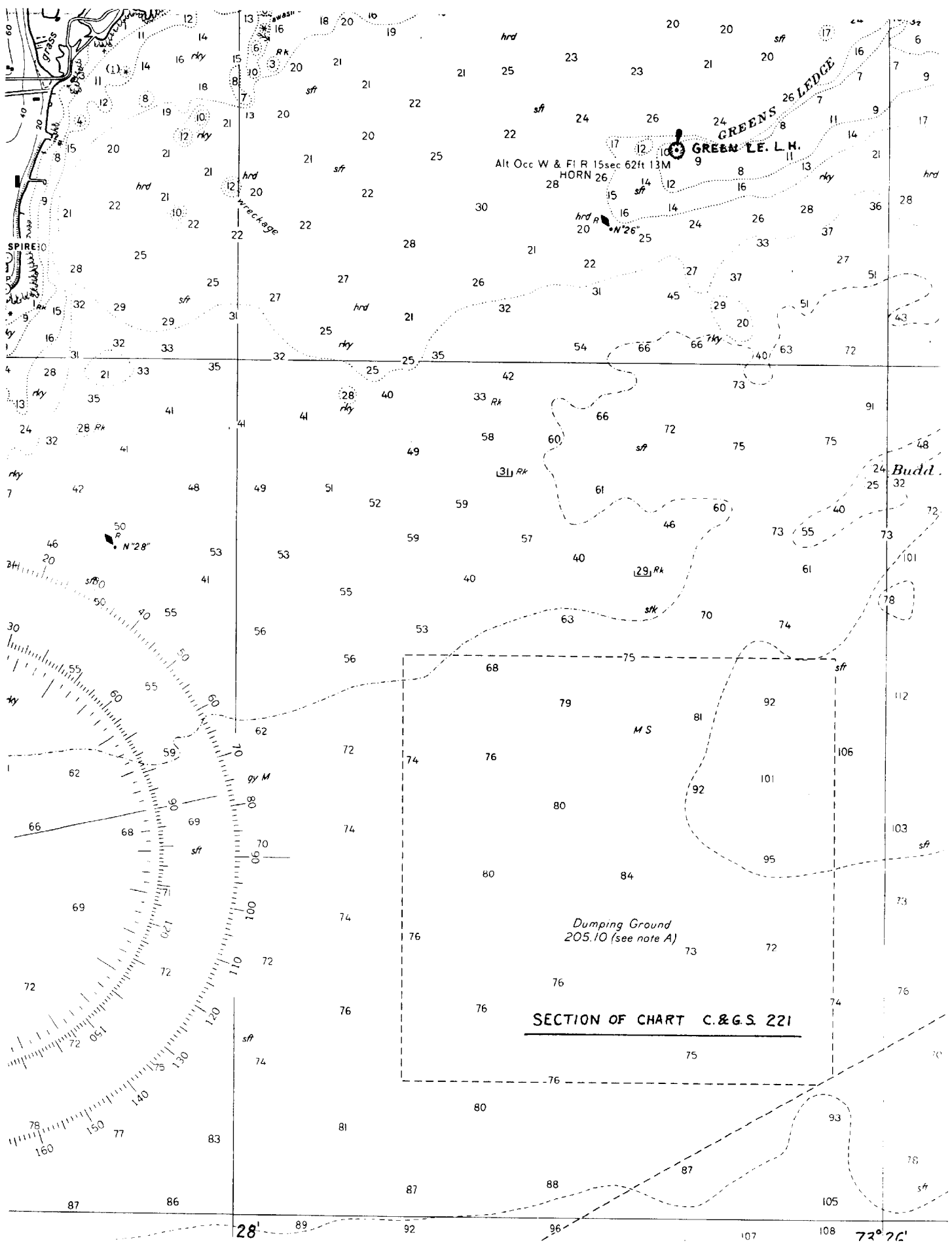






3° 30'

28'



**SECTION OF CHART C.&G.S. 221**

Dumping Ground  
205.10 (see note A)

28'

72° 20'

# 9258

## WIRE DRAG

9258  
WIRE DRAG

FORM C&GS-504	
U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	FIELD EXAMINATION
Field No.	SP-AMC-4-RU-HE-70
Office No.	
LOCALITY	
State	RHODE ISLAND
General locality	BLOCK ISLAND
Locality	ENTRANCE TO GREAT SALT POND
1971	
CHIEF OF PARTY	
MERRITT N. WALTER	
LIBRARY & ARCHIVES	
DATE	

**HYDROGRAPHIC TITLE SHEET**

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.  
FIELD EXAMINATION

State RHODE ISLAND

General locality BLOCK ISLAND

Locality ENTRANCE TO GREAT SALT POND

Scale CHART 269 Date of survey 22 Apr. & 3 May 1971

Instructions dated 9 APRIL 1971 Project No. SP-AMC-4-RU-HE-70

Vessel RUDE - HECK

Chief of party MERRITT N. WALTER

Surveyed by G.R. SCHAEFER, A.Y. BRYSON & J.J. MORLEY

Soundings taken by echo sounder, hand lead, pole PRESSURE HOSE GAGE

Graphic record scaled by NA

Graphic record checked by NA

Protracted by W.W. FEAZEL Automated plot by \_\_\_\_\_

Soundings penciled by W.W. FEAZEL

Soundings in fathoms feet at MLW MLLW

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

AMC  
VERIFICATION NOTE

FIELD EXAMINATION SP-AMC-4-RU-HE-70, ENTR. TO GREAT SALT POND

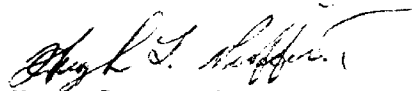
The location of the submerged rock in the channel leading to Great Salt Pond, Block Island, was plotted on the enclosed section of chart 269 by the field party.

The original field data was recorded in the smooth tender record for RH 10-1-71WD, vicinity of Block Island. A Zerox copy of the record was made and appended to this note.

The field plotting was verified and, lacking any other data, the pressure hose gage raw sounding of  $19\frac{1}{2}$  ft. was used. This sounding was reduced on tide data furnished by the Oceanographic Division. A copy of their memo is attached.

Other field references may be found in the descriptive report for RH 10-1-71WD.

The attached fathogram sections support the gage sounding but the field did not use them nor did they furnish correction data.



Hugh L. Proffitt  
Chief, Verification Br., AMC

Norfolk, Va.  
March 1, 1972





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

Date: March 1, 1972

Reply to  
Attn of: C3312-71-MCFOA

Subject: Long Island Sound

To: Mr. Hugh L. Proffitt  
CAM31

In reply to your phone request of February 29, 1972,  
I list below computed water levels for two locations:

Block I 4/22/71 2000Z 2.3 ft. above MLW  
41° 11'46" N. 71° 35'20" W

Stamford 4/13/71 2046Z 4.1 ft. above MLW  
41° 00'46" N 73° 32'03" W

*Saul C. Berkman*

Saul C. Berkman  
Acting Chief, Processing Section  
Tides Branch  
Oceanographic Division

ENTRANCE CHANNEL TO GREAT SALT POND, BLOCK ISLAND, R.I.

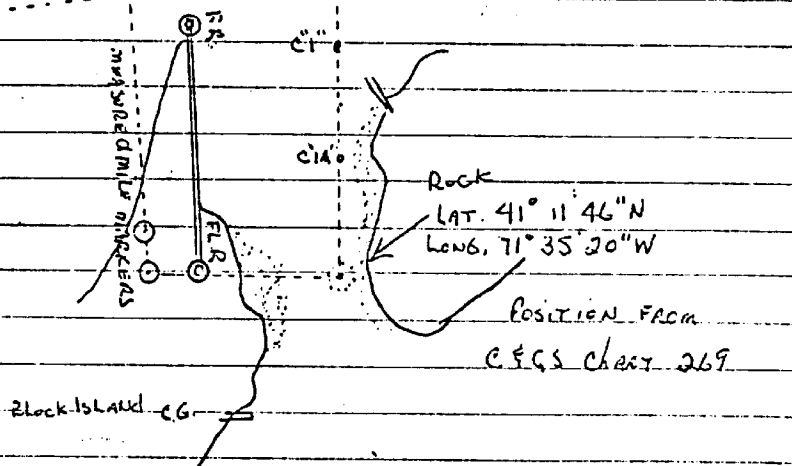
\* ~~22~~ APR. 71 E DAY

\* COPIED FROM SMOOTH TESTER VOLUME FOR SP-AMC-4-RU-HE-70

TESTED NEW PRESSURE HOSE GAGE IN 55' OF WATER, EVERY 2' DOWN & UP AND GAGE AGREES WITH LEAD LINE IN BOTH DIRECTIONS. TOOK READING AT OBST. IN CHANNEL, DEPTH BY P.H.G. 19' 5" OBST. 8' OFF BOTTOM, 28' ROUND. TIME 1502Z. 2002Z. DEPTH BY P.H.G. IS EQUIVALENT TO A DEPTH BY LEAD LINE. DEPTH = 17.5 FT. MLW. BASED ON PREDICTED TIDES:

RED. SDG. 17.2'

by H.L.P. -y. MWF



TIDE -2.3'

SOUNDING 19.5'

TIME 2002Z

MAY 3 1971 E DAY LAUNCH HYDRO

WIRE-DRAW TESTS	
	Tenths
RA 52° 37'	Great Salt Pond breakwater inner end light to Great Salt Pond breakwater water end light
LA 60° 02'	Great Salt Pond breakwater inner end light Rear Coast Guard Cupola
00° 00'	REAR RANGE TO REAR MEASURED MILE MARKER

Posit 41° 11' 45.5" N  
71° 35' 19.8" W

Rock located in entrance channel to Great Salt Pond, Block Island R.I. See 'E' day 22 April 1971.

★ 22(1897)71. Area B—RHODE ISLAND—Block Island—Great Salt Pond—Rock—Covered 17 feet at M.L.W., exists in 41°11'46" N., 71°35'20" W. (N.O.S. CL-518/71-)

Charts: C. & G.S. 269 (N.O. 13045), C. & G.S. 271 (N.O. 13044).

FROM N.M. #22 5 JUNE 1971

1. LOCATION OF ROCK IN ENTRANCE CHANNEL TO GREAT SALT POND, BLOCK ISLAND, RI.

2. LOCATION FROM DATA SHOWN IN SMOOTH TESTER VOLUME "R" DAY MAY 3, 1971 (SEE ATTACHED COPY OF SMOOTH TESTER VOLUME E & R DAYS)

3. DEPTH WAS OBTAINED BY "BRYSON GAGE" ALSO CALLED "PRESSURE HOSE GAGE". SOUNDING TAKEN AT 2002 Z 22 APRIL 1971

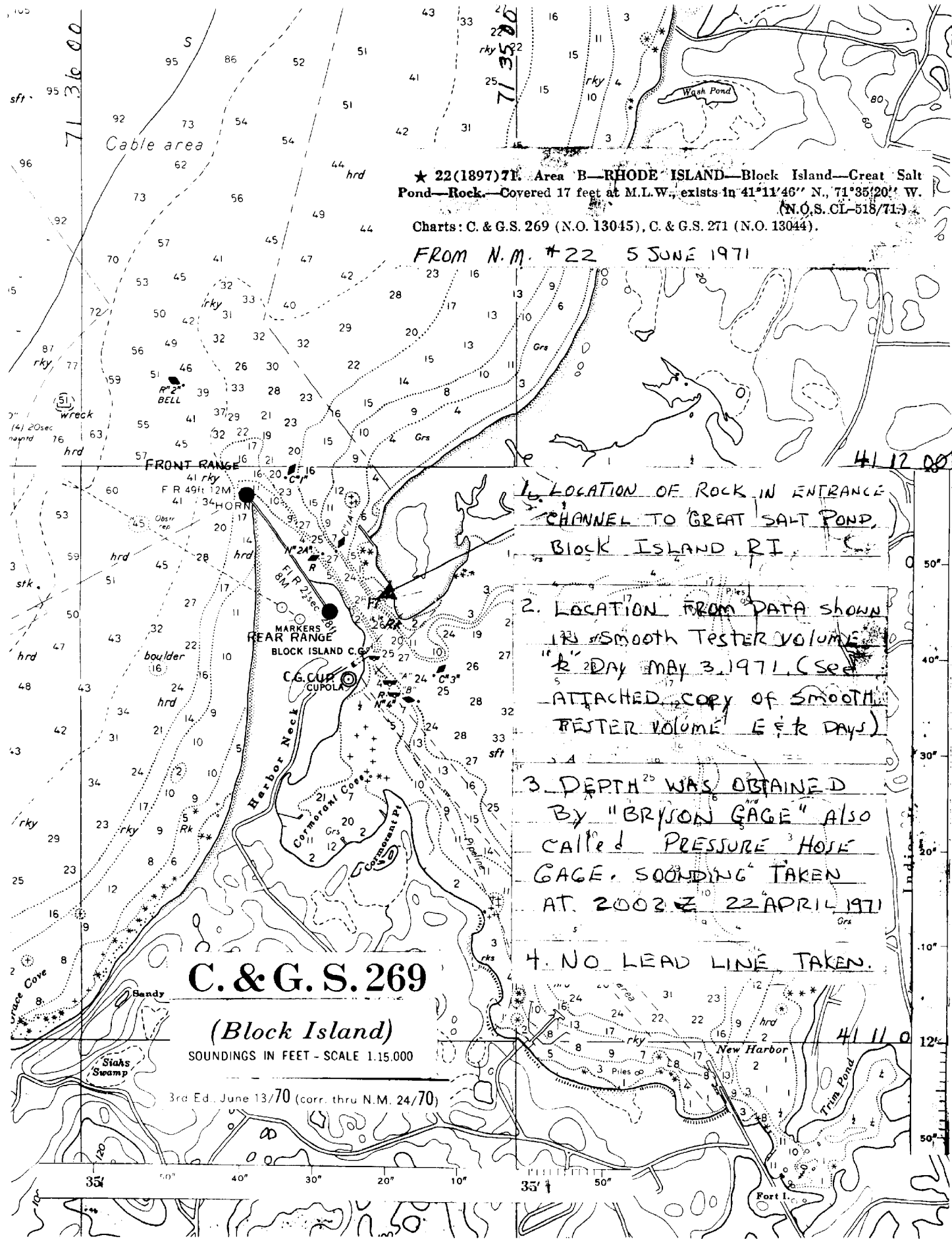
4. NO LEAD LINE TAKEN.

**C. & G. S. 269**

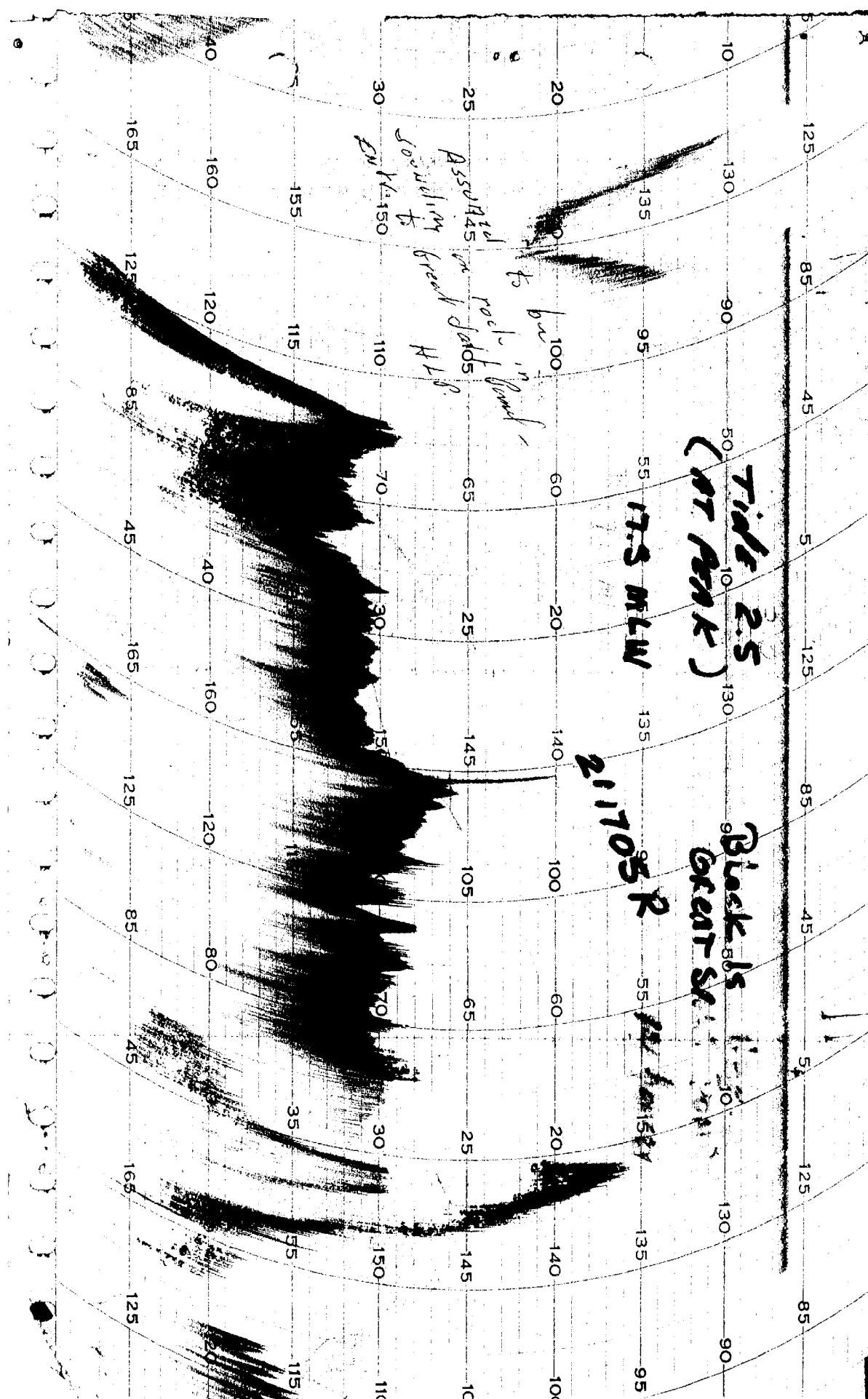
(Block Island)

SOUNDINGS IN FEET - SCALE 1:15,000

3rd Ed. June 13/70 (corr. thru N.M. 24/70)



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



Tide 2.5  
(MT MARK)

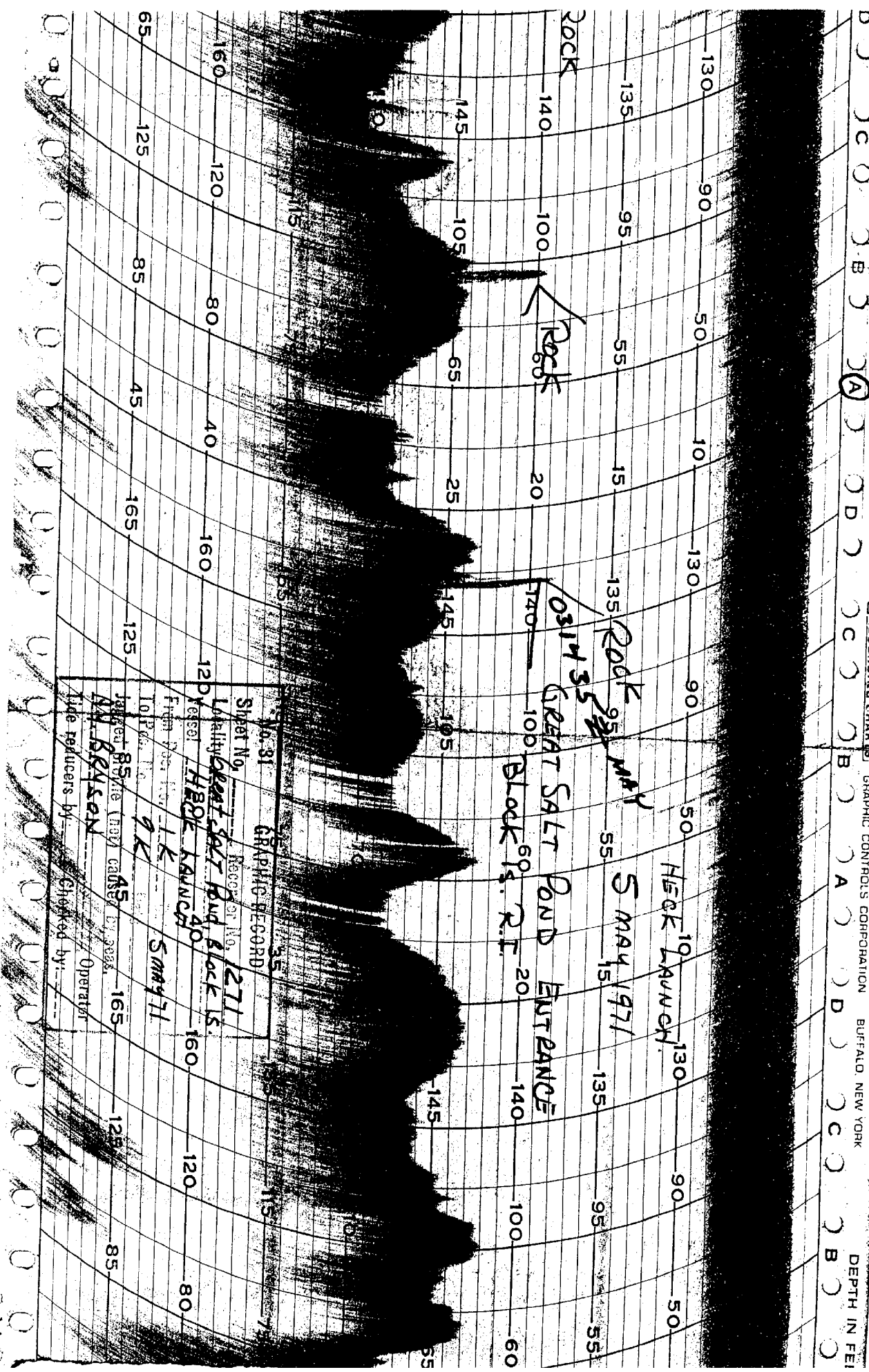
Black Is 1:30  
GREAT-S...

21705 R

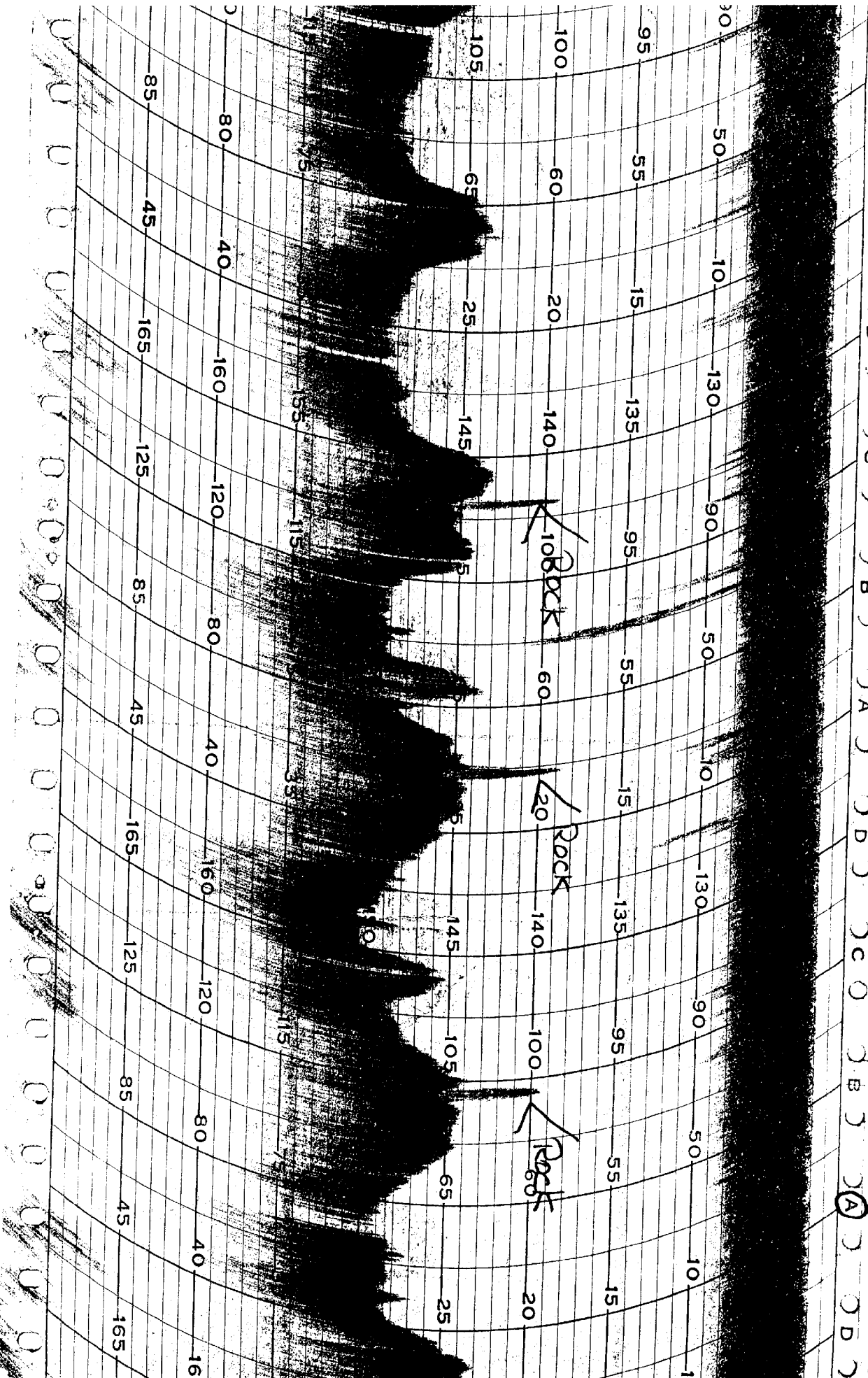
17.5 MLW

ASSUMED on rock jacks  
Sounding to H.L.

to bar in ground



B 0 0 A 0 0 D 0 0 C 0 0 B 0 0 A 0 0 D 0 0 C 0 0 B 0 0 A 0 0 D 0 0



PRINTED IN U.S.A.

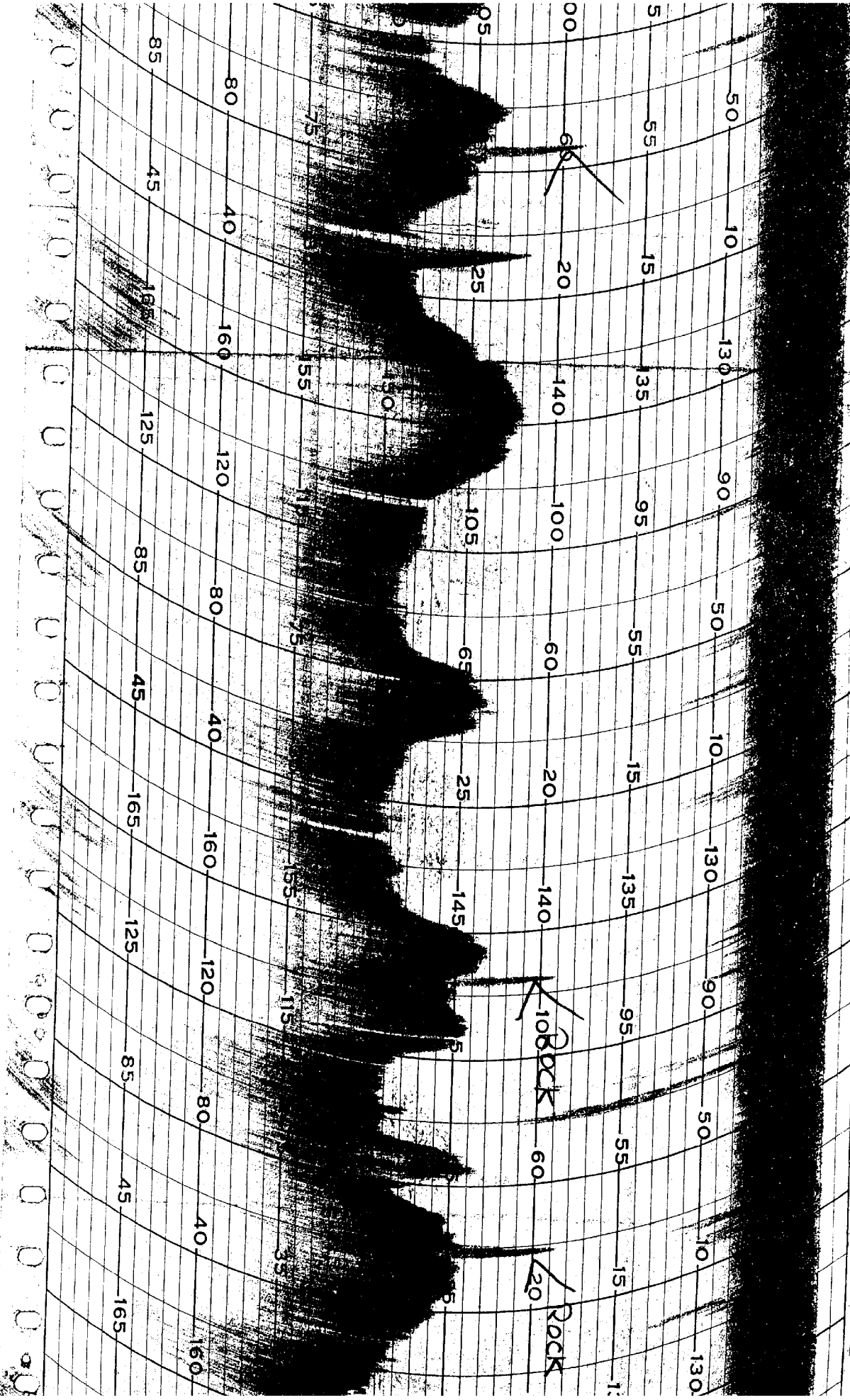
RECORDING CHART

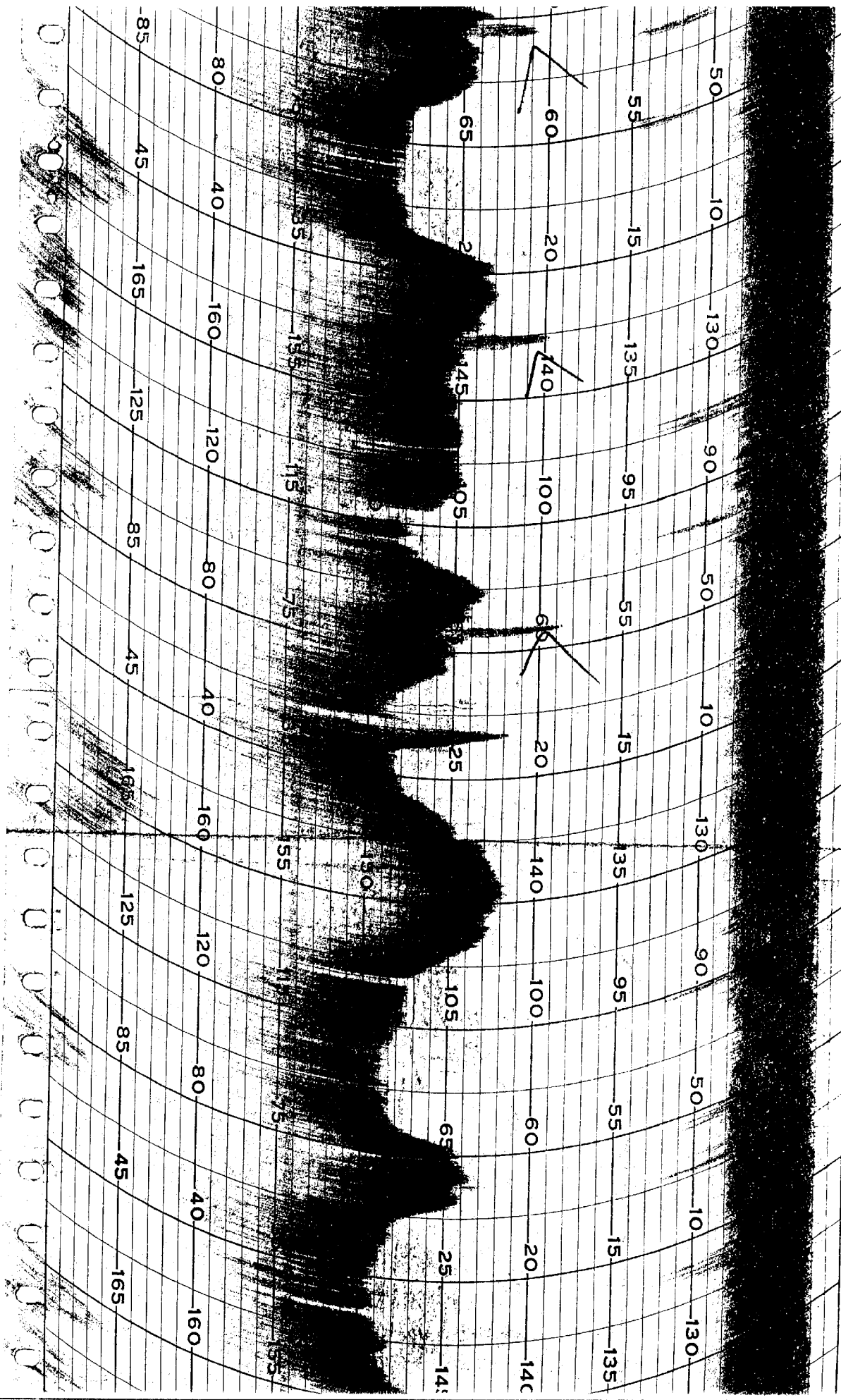
GRAPHIC CONTROLS CORPORATION

BUFFALO, NEW YORK

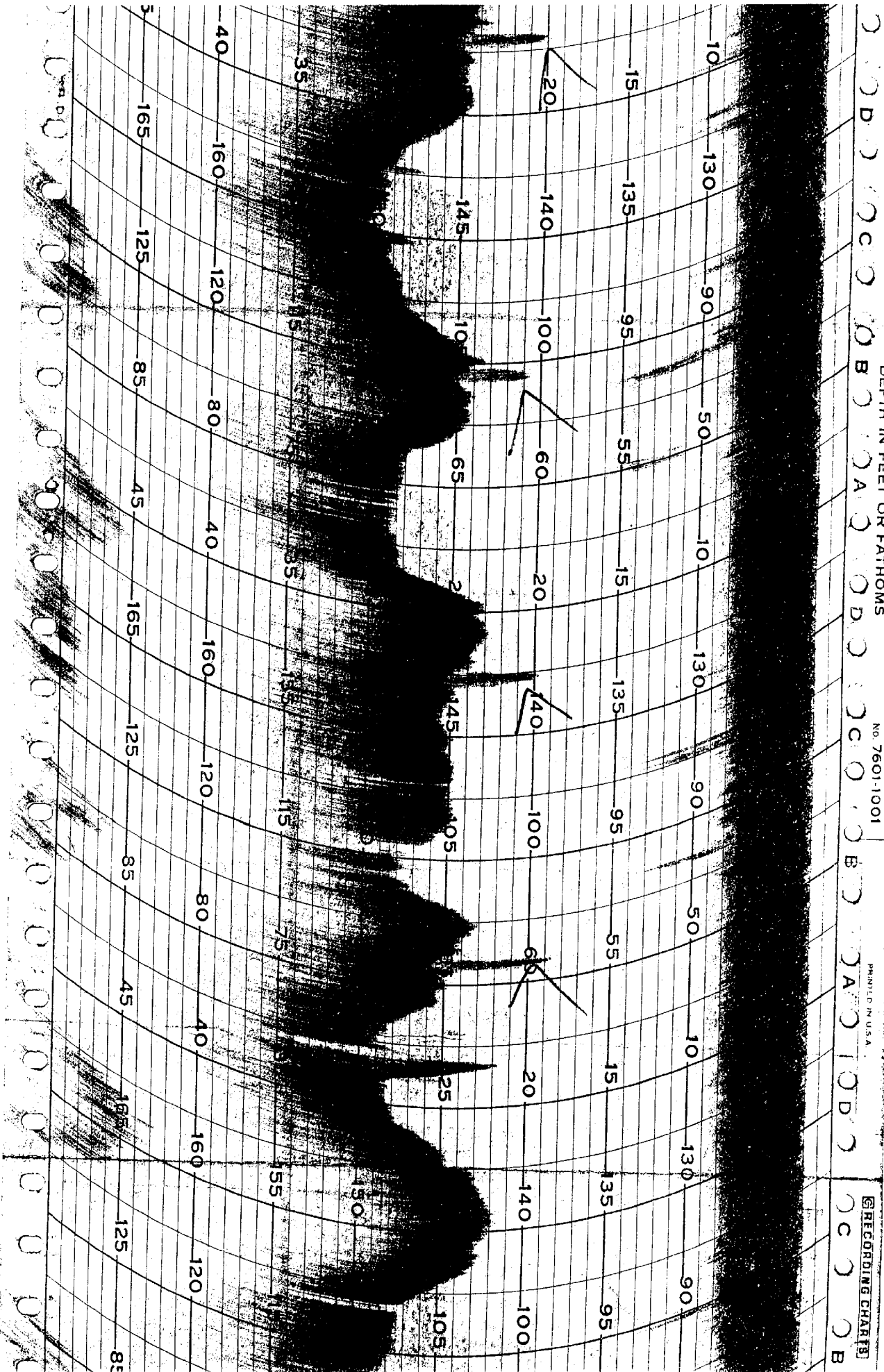
DEPTH IN FEET OR FATHOMS

0 B 0 0 A 0 0 D 0 0 C 0 0 B 0 0 A 0 0 D 0 0 C 0 0 B 0 0 A 0 0 D 0





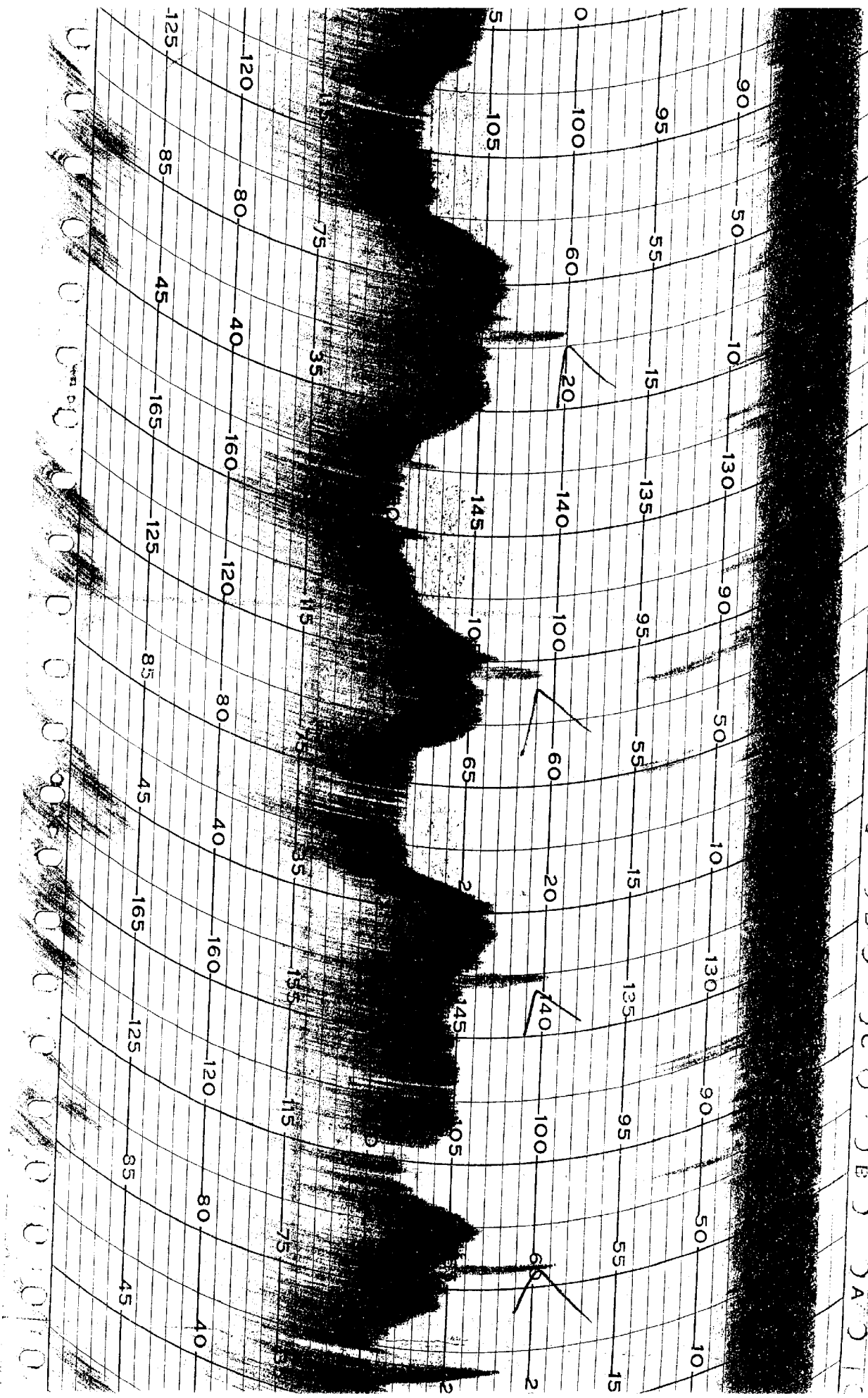




DEPTH IN FEET OR FATHOMS

NO. 7601-1001

PRINTED IN U.S.A.



MADE IN U.S.A.

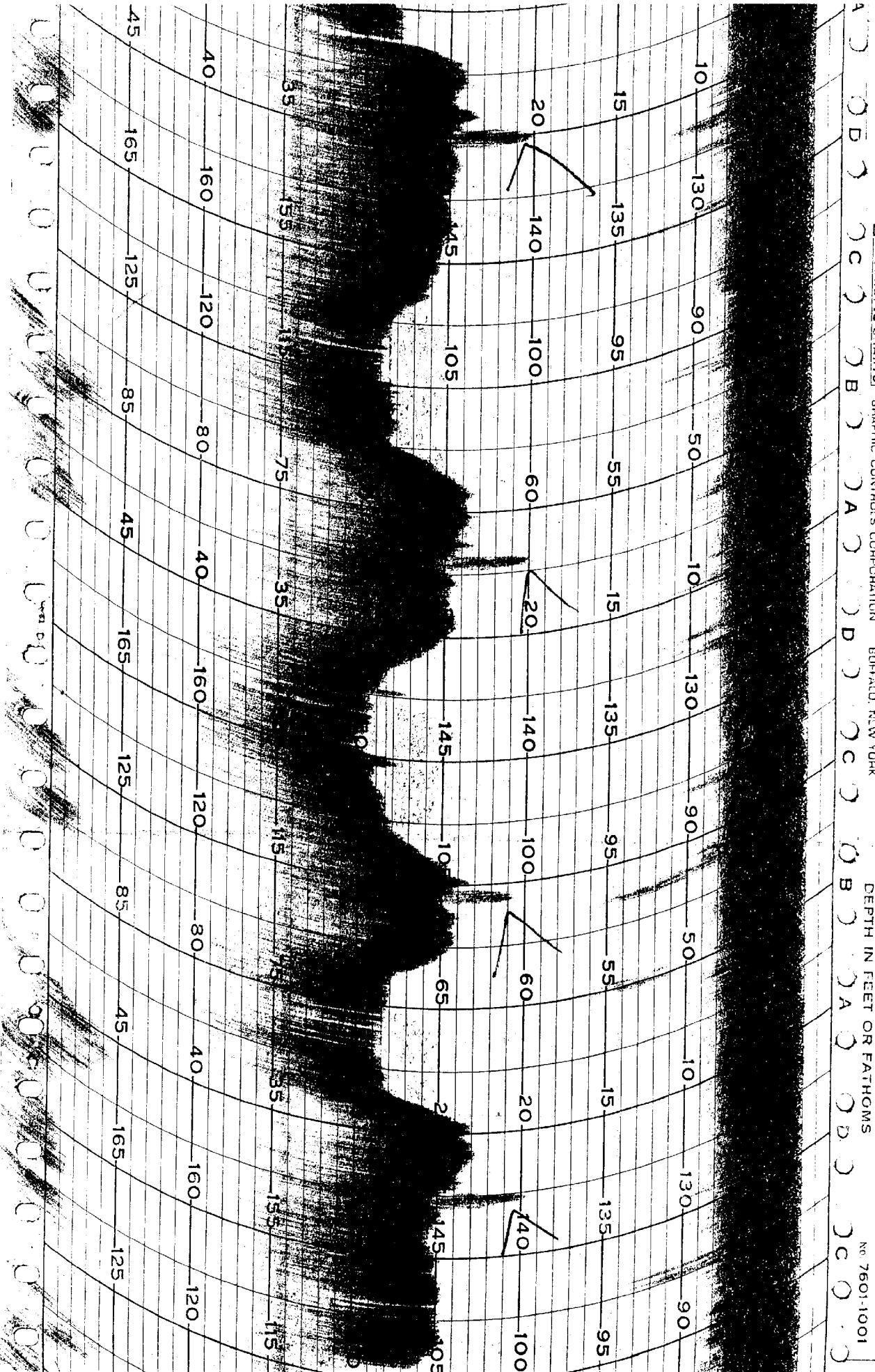
RECORDING CHARTS

GRAPHIC CONTROLS CORPORATION

BUFFALO, NEW YORK

DEPTH IN FEET OR FATHOMS

No. 7601-1001



PRINTED IN U.S.A.

RECORDING CHARTS

GRAPHIC CONTROLS CORPORATION

BUFFALO, NEW YORK

DEPTH IN FEET OR F

