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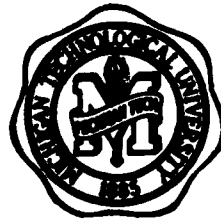
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DEVELOPMENT of a PREDICTIVE MODEL to
ASSESS the EFFECTS of EXTENDED SEASON
NAVIGATION on
GREAT LAKES CONNECTING WATERS

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APPENDIX B

Observed Vessel Induced Water Level Drawdowns



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Michigan Technological University
Houghton, Michigan
October 1985

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

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11. TITLE (Include Security Classification) Development of a Predictive Model to Assess the Effects of Extended Season Navigation on Great Lakes Connecting Waters, Appendix B, Observed Vessel														
12. PERSONAL AUTHOR(S) Hodek, R.J., G.R. Alger, and H.S. Santeford														
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17. COSATI CODES <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 33%;">FIELD</th> <th style="width: 33%;">GROUP</th> <th style="width: 33%;">SUB-GROUP</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			FIELD	GROUP	SUB-GROUP							18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) St. Marys River System, Computer Model, Winter Navigation, Sediment Translocation, Water Quality, Structure Damage, Hydraulic Changes		
FIELD	GROUP	SUB-GROUP												
19. ABSTRACT (Continue on reverse if necessary and identify by block number) The object of this study was to develop a method for forecasting the physical effects of the passage of commercial vessels through Great Lakes connecting waters during that period of time when traffic is normally at a minimum due to a more or less continuous ice cover. The physical impacts examined were sediment translocation, water quality effects, direct damage to existing structures, and changes in the gross hydraulic regime. Also associated with Appendix B but bound separately are; Development of a Predictive Model to Assess the Effects of Extended Season Navigation on Great Lakes Connecting Waters, Final Report; the User's Manual for Prediction of Vessel Impacts in a Confined Waterway; Appendix A, Site and Soil Conditions; and Appendix C, Observed Ice Thicknesses and Water Turbidities.														
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS				21. ABSTRACT SECURITY CLASSIFICATION Unclassified										
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11. (cont.) Induced Water Level Drawdowns

DEVELOPMENT OF A PREDICTIVE MODEL TO
ASSESS THE EFFECTS OF EXTENDED SEASON
NAVIGATION ON
GREAT LAKES CONNECTING WATERS

APPENDIX B
OBSERVED VESSEL INDUCED WATER LEVEL DRAWDOWNS

by Ralph J. Hodek
George R. Alger
Henry S. Santeford

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Michigan Technological University
Houghton, Michigan

October 31, 1985

This appendix contains the field measurements of short-term water surface changes at several sites along the St. Mary's River caused by passage of commercial vessels. All monitored passages during this contract period (10/84 to 10/85) are included. Additional measurements from the authors' files and previous reports are also included.

The appendix is organized by site name and by date of observation. The locations and characteristics of the various sites can be found in Appendix A, Site and Soil Conditions. *(F-1)*

For most observations the data are presented in both tabular and graphical form. Vessel draft and speed were by observation and vessel dimensions are from published sources or as supplied by U.S. Coast Guard Soo Control. "Bow on time" and "stern on time" are the times after the beginning of data-taking that the vessel's bow and stern crossed the range which transects the river. The "green side" and "red side" referred to, locate the near-shore locations at which measurements were made. Facing upstream the red side is to the right and the green side is to the observer's or vessel's left. The "background reading" refers to the staff gage reading prior to the effects of the approaching vessel.

RIVER VIEW

DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 4/19/79

VESSEL NAME JOHN G. MUNSON

DIRECTION UPBOUND

VESSEL LENGTH in feet = 768

VESSEL BEAM in feet = 72

VESSEL DRAFT in feet = 24

VESSEL SPEED in feet/sec. = 9.7

BOW ON TIME in sec = 118

STERN ON TIME in sec = 197

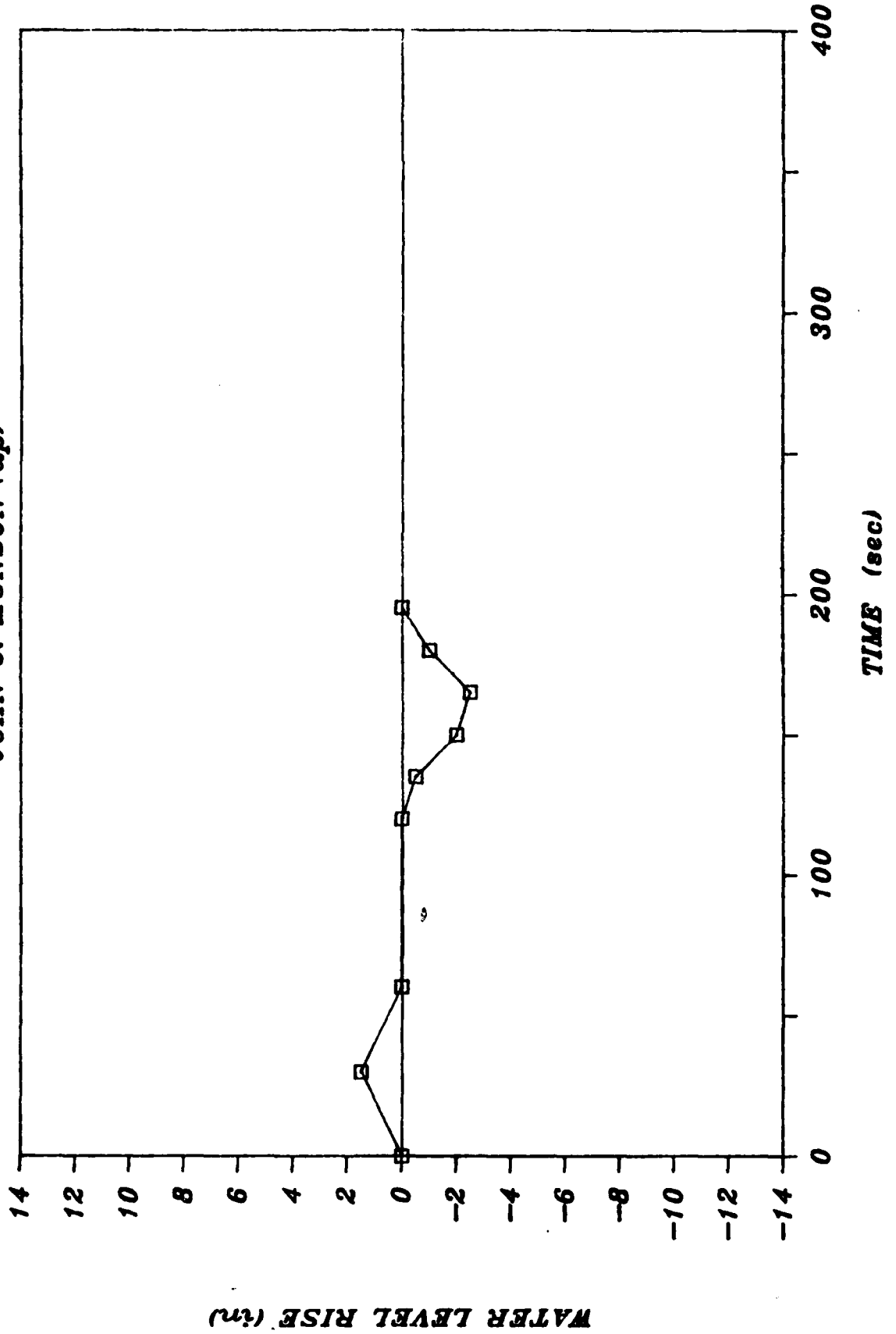
DISTANCE TO STAFF GAUGE from green side in feet = 88

BACKGROUND READING in inches = 12

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FRM BG(in)
1	0.0	12.0	0.0
2	30.0	13.5	1.5
3	60.0	12.0	0.0
4	120.0	12.0	0.0
5	135.0	11.5	-0.5
6	150.0	10.0	-2.0
7	165.0	9.5	-2.5
8	180.0	11.0	-1.0
9	195.0	12.0	0.0

RIVER VIEW 4/19/79

JOHN G. MUNSON (wp)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 4/19/79

VESSEL NAME PHILLIP D. BLOCK

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 672

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 25

VESSEL SPEED in feet/sec. = 15.1

BOW ON TIME in sec = 32.5

STERN ON TIME in sec = 77

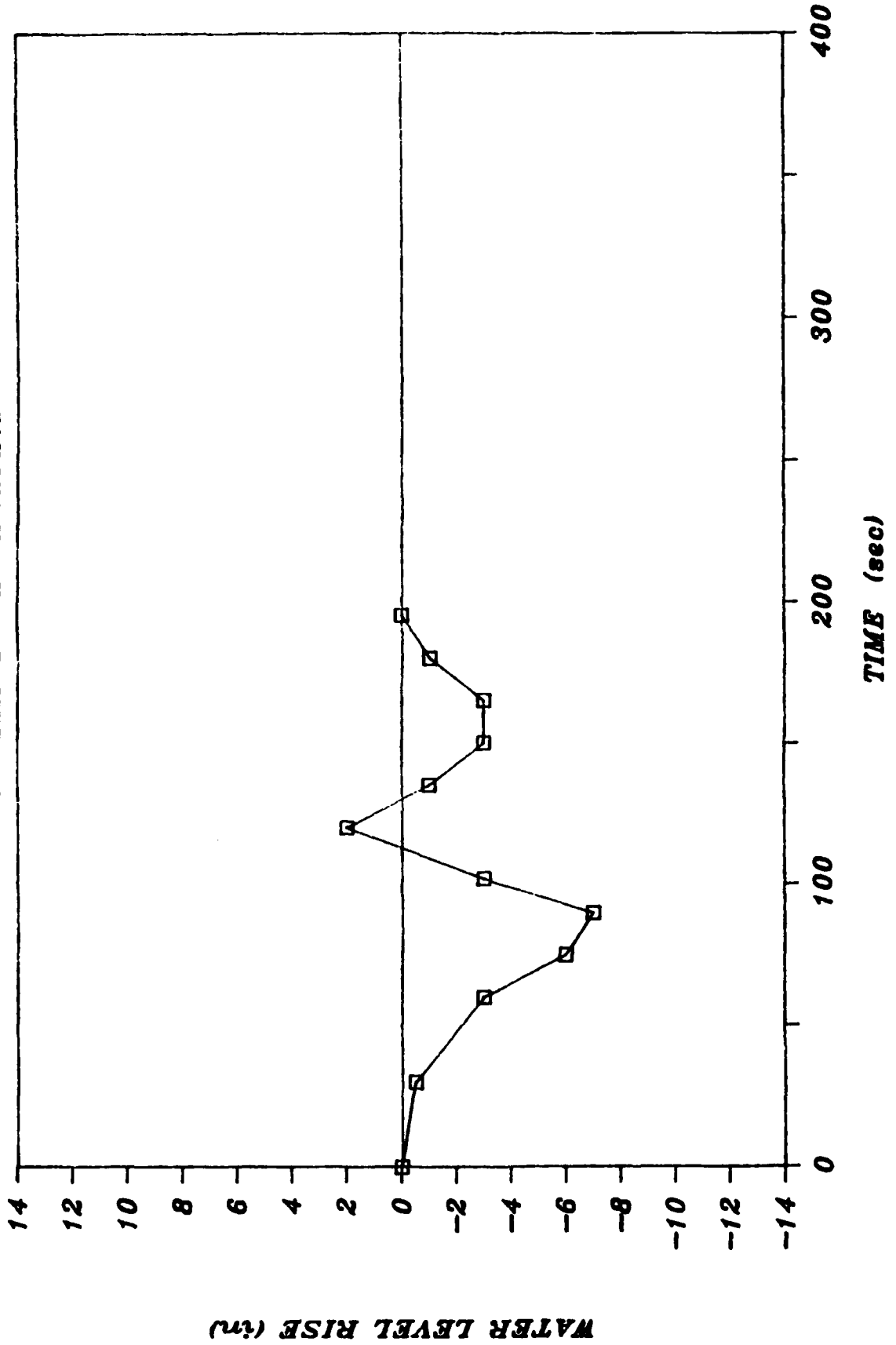
DISTANCE TO STAFF GAUGE from green side in feet = 88

BACKGROUND READING in inches = 12

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	12.0	0.0
2	30.0	11.5	-0.5
3	60.0	9.0	-3.0
4	75.0	6.0	-6.0
5	90.0	5.0	-7.0
6	102.0	9.0	-3.0
7	120.0	14.0	2.0
8	135.0	11.0	-1.0
9	150.0	9.0	-3.0
10	165.0	9.0	-3.0
11	180.0	11.0	-1.0
12	195.0	12.0	0.0

RIVER VIEW 4/19/79

PHILLIP D. BLOCK (down)



DRAWDOWN DATA

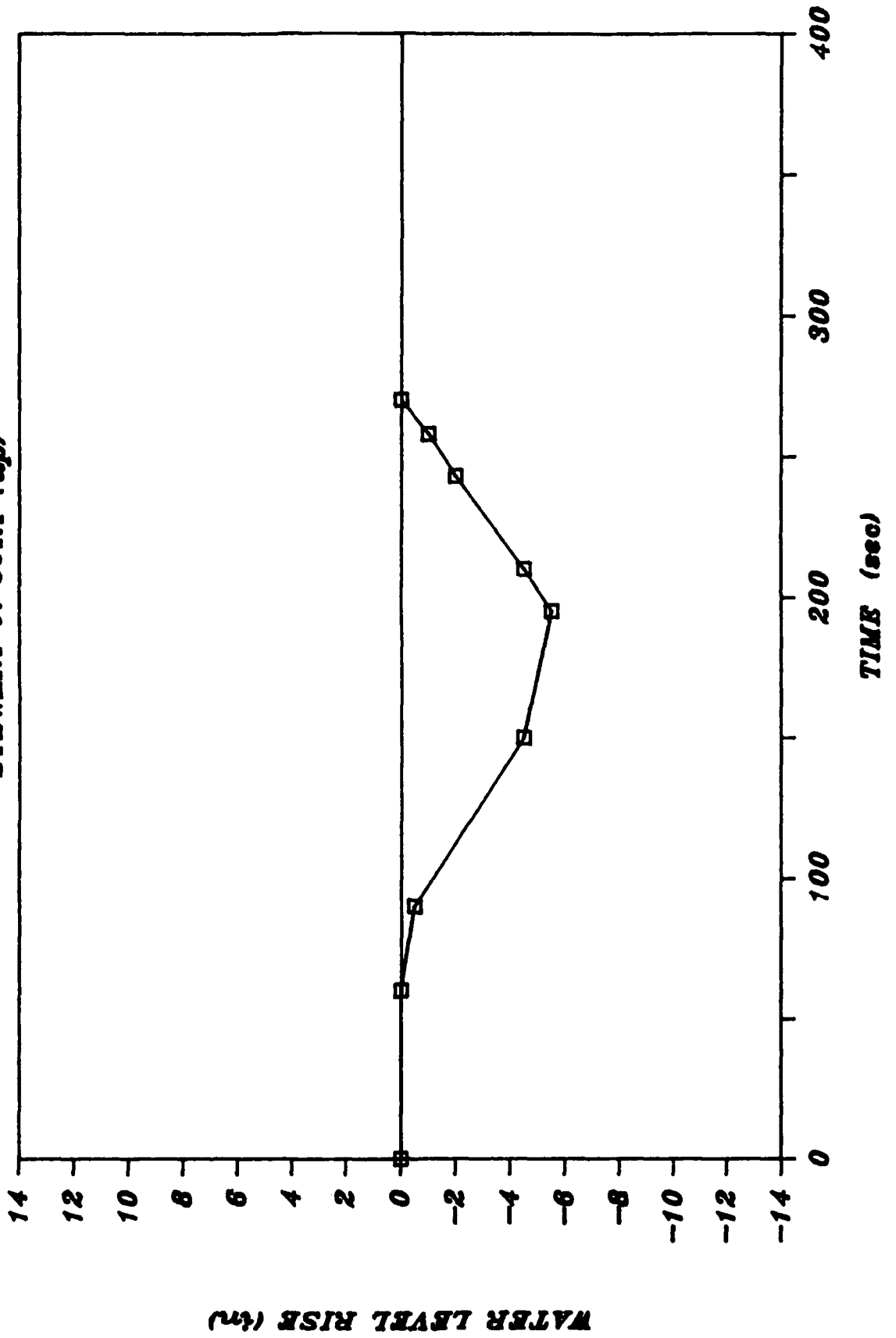
NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 4/19/79
VESSEL NAME STEWART J. CORT
DIRECTION UPBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 21
VESSEL SPEED in feet/sec. = 9.9
BOW ON TIME in sec = 125
STERN ON TIME in sec = 226
DISTANCE TO STAFF GAUGE from green side in feet = 88
BACKGROUND READING in inches = 12

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	12.0	0.0
2	60.0	12.0	0.0
3	90.0	11.5	-0.5
4	150.0	7.5	-4.5
5	195.0	6.5	-5.5
6	210.0	7.5	-4.5
7	243.0	10.0	-2.0
8	258.0	11.0	-1.0
9	270.0	12.0	0.0

RIVER VIEW 4/19/79

STEWART J. CORT (usp)



.....

DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84
 VESSEL NAME EDWIN H. GOTT
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 28
 VESSEL SPEED in feet/sec. = 11.9
 BOW ON TIME in sec = 70
 STERN ON TIME in sec = 154
 DISTANCE TO STAFF GAUGE from green side in feet = 42
 BACKGROUND READING in inches = 21.2

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.3	0.0
2	16.0	21.3	0.0
3	28.0	21.0	-0.2
4	31.0	20.5	-0.7
5	37.0	20.3	-1.0
6	40.0	20.0	-1.2
7	43.0	19.8	-1.5
8	48.0	19.5	-1.7
9	50.0	19.0	-2.2
10	54.0	18.5	-2.7
11	58.0	18.3	-3.0
12	61.0	18.0	-3.2
13	68.0	17.8	-3.5
14	74.0	17.0	-4.2
15	77.0	16.5	-4.7
16	82.0	16.3	-5.0
17	85.0	16.0	-5.2
18	90.0	15.8	-5.5
19	104.0	14.8	-6.5
20	110.0	14.5	-6.7

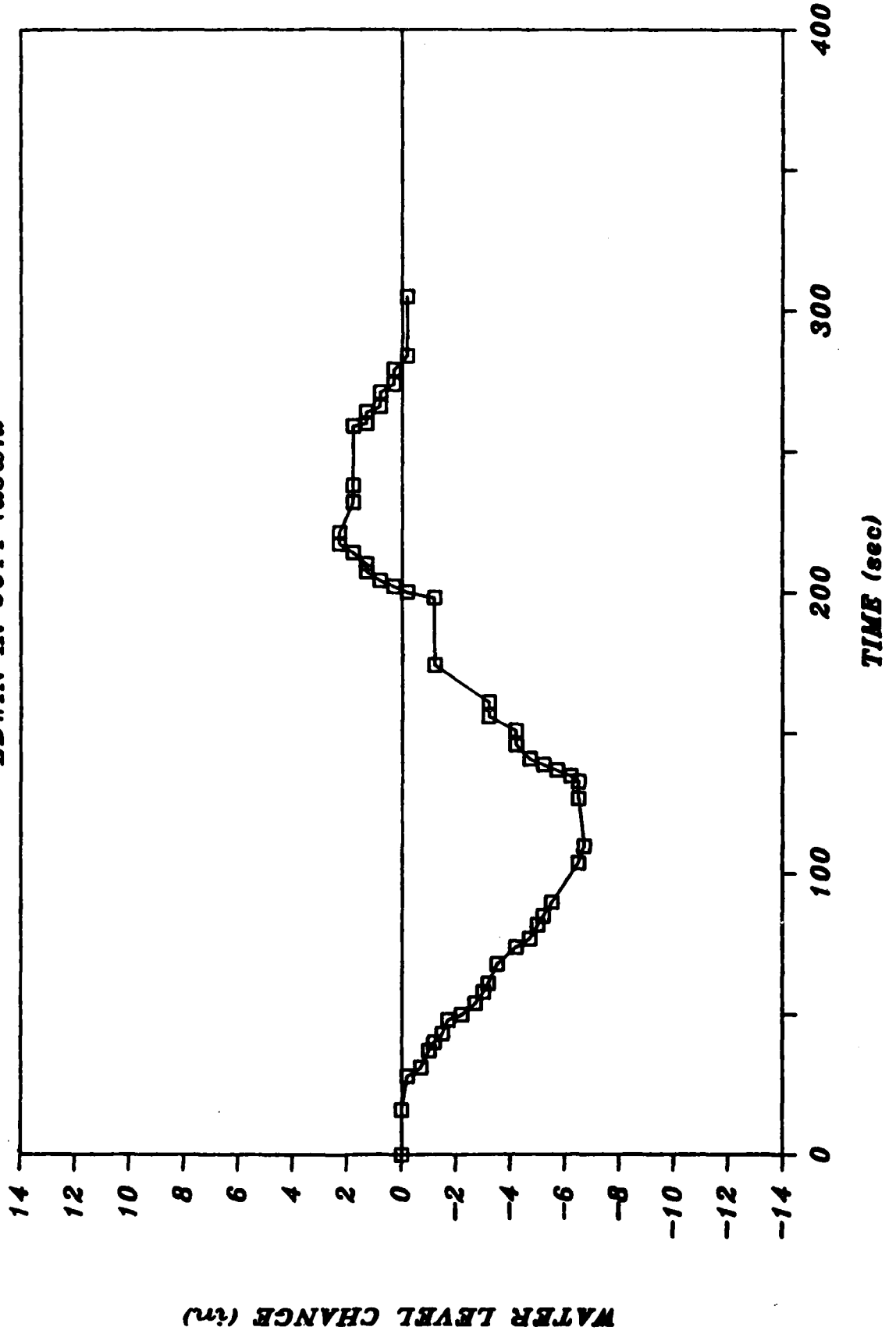
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	127.0	14.8	-6.5
22	133.0	14.8	-6.5
23	135.0	15.0	-6.2
24	137.0	15.5	-5.7
25	139.0	16.0	-5.2
26	141.0	16.5	-4.7
27	146.0	17.0	-4.2
28	151.0	17.0	-4.2
29	156.0	18.0	-3.2
30	161.0	18.0	-3.2
31	174.0	20.0	-1.2
32	198.0	20.0	-1.2
33	200.0	21.0	-0.2
34	202.0	21.5	0.3
35	204.0	22.0	0.8
36	207.0	22.5	1.3
37	210.0	22.5	1.3
38	214.0	23.0	1.8
39	217.0	23.5	2.3
40	221.0	23.5	2.3
41	232.0	22.0	0.8
42	238.0	23.0	1.8
43	259.0	23.0	1.8
44	260.0	22.5	1.3
45	264.0	22.5	1.3
46	266.0	22.0	0.8
47	271.0	22.0	0.8
48	274.0	21.5	0.3
49	279.0	21.5	0.3
50	284.0	21.0	-0.2
51	305.0	21.0	-0.2

RIVER VIEW 11/9/84

EDWIN H. GOTT (down)



DRAWDOWN DATA

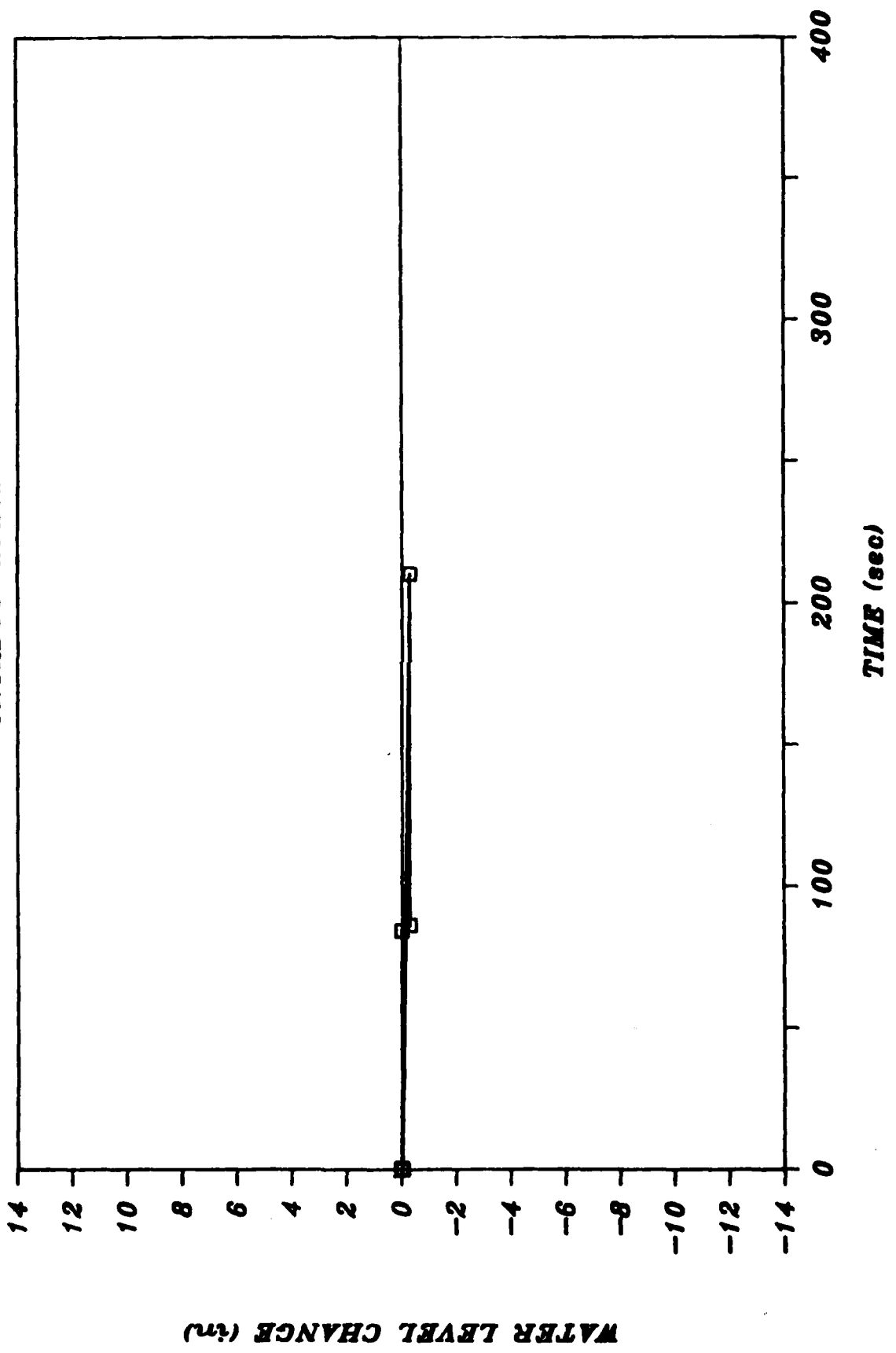
NAME OF SECTION RIVER VIEW
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DATE OF OBSERVATION 11/9/84
VESSEL NAME ONTADOC
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 355
VESSEL BEAM in feet = 49
VESSEL DRAFT in feet = 24
VESSEL SPEED in feet/sec. = 5.8
BOW ON TIME in sec = 89
STERN ON TIME in sec = 150
DISTANCE TO STAFF GAUGE from green side in feet = 42
BACKGROUND READING in inches = 21.3

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.3	-0.0
2	84.0	21.3	-0.0
3	86.0	21.0	-0.3
4	88.0	21.0	-0.3
5	91.0	21.0	-0.3
6	149.0	21.0	-0.3
7	152.0	21.0	-0.3
8	210.0	21.0	-0.3

RIVER VIEW 11/9/84

ONTADOC (down)



DRAWDOWN DATA

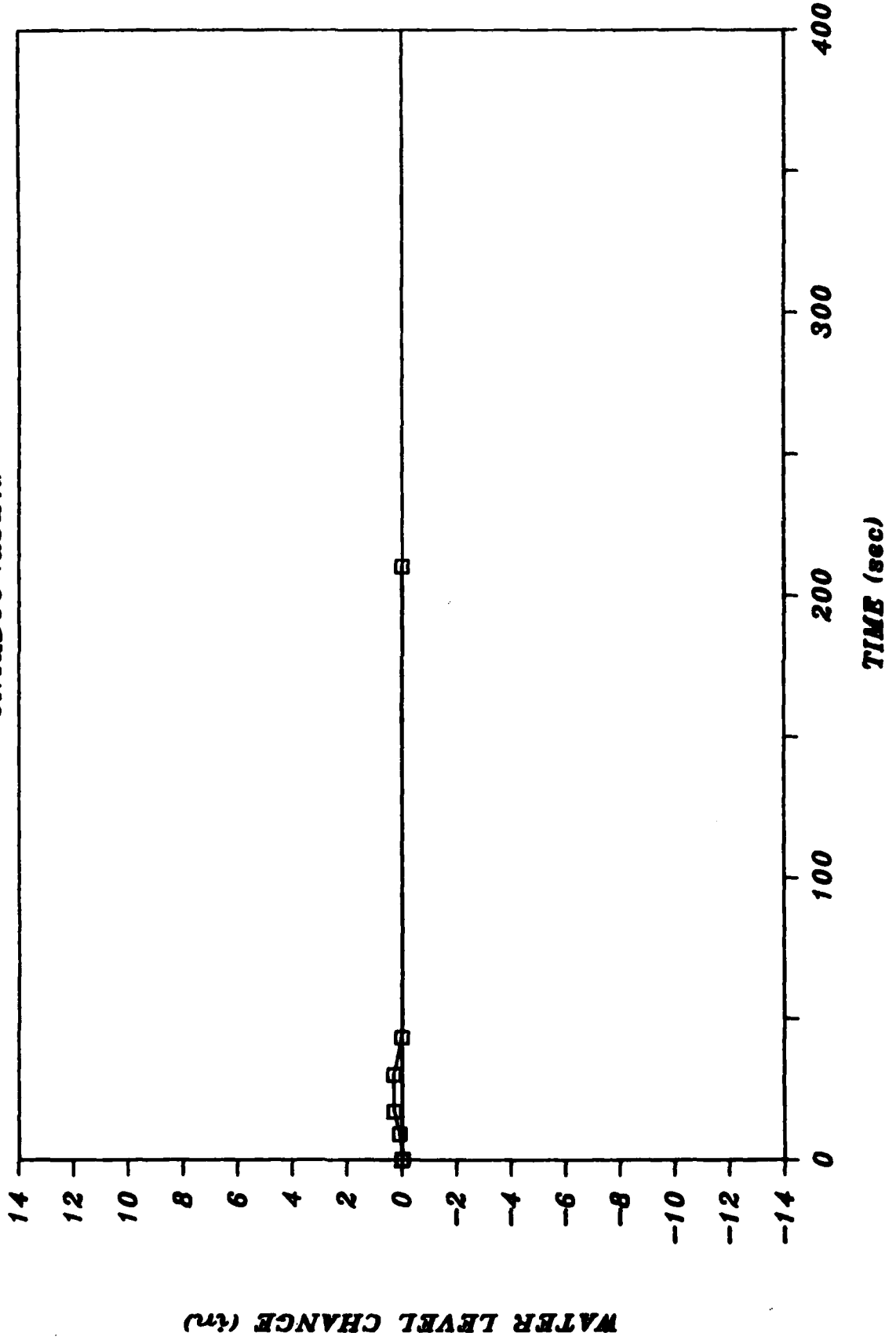
NAME OF SECTION RIVER VIEW
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DATE OF OBSERVATION 11/9/84
VESSEL NAME ONTADOC
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 355
VESSEL BEAM in feet = 49
VESSEL DRAFT in feet = 24
VESSEL SPEED in feet/sec. = 5.8
BOW ON TIME in sec = 89
STERN ON TIME in sec = 150
DISTANCE TO STAFF GAUGE from green side in feet = 1750
BACKGROUND READING in inches = 14.5

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.5	0.0
2	9.0	14.6	0.1
3	17.0	14.8	0.3
4	30.0	14.8	0.3
5	43.0	14.5	0.0
6	88.0	14.5	0.0
7	99.0	14.5	0.0
8	149.0	14.5	0.0
9	154.0	14.5	0.0
10	210.0	14.5	0.0

RIVER VIEW 11/9/84

ONTADOC (down)



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DRAWDOWN DATA

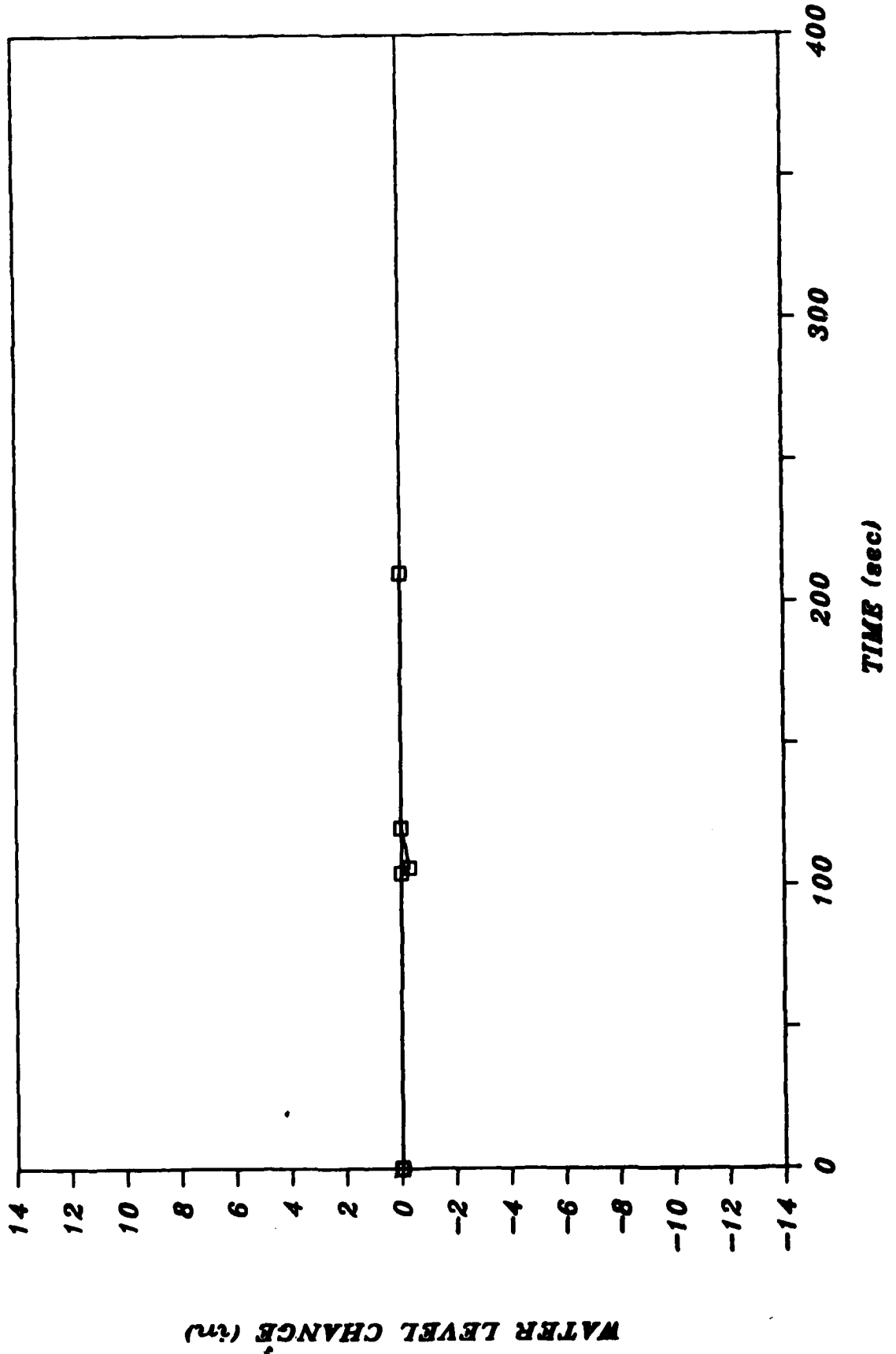
NAME OF SECTION RIVER VIEW
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DATE OF OBSERVATION 11/9/84
VESSEL NAME ONTADOC
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 355
VESSEL BEAM in feet = 49
VESSEL DRAFT in feet = 24
VESSEL SPEED in feet/sec. = 5.8
BOW ON TIME in sec = 89
STERN ON TIME in sec = 150
DISTANCE TO STAFF GAUGE from green side in feet = 1800
BACKGROUND READING in inches = 12

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	12.0	0.0
2	88.0	12.0	0.0
3	104.0	12.0	0.0
4	106.0	11.8	-0.3
5	120.0	12.0	0.0
6	149.0	12.0	0.0
7	152.0	12.0	0.0
8	210.0	12.0	0.0

RIVER VIEW 11/9/84

ONTADOC (down)



DRAWDOWN DATA

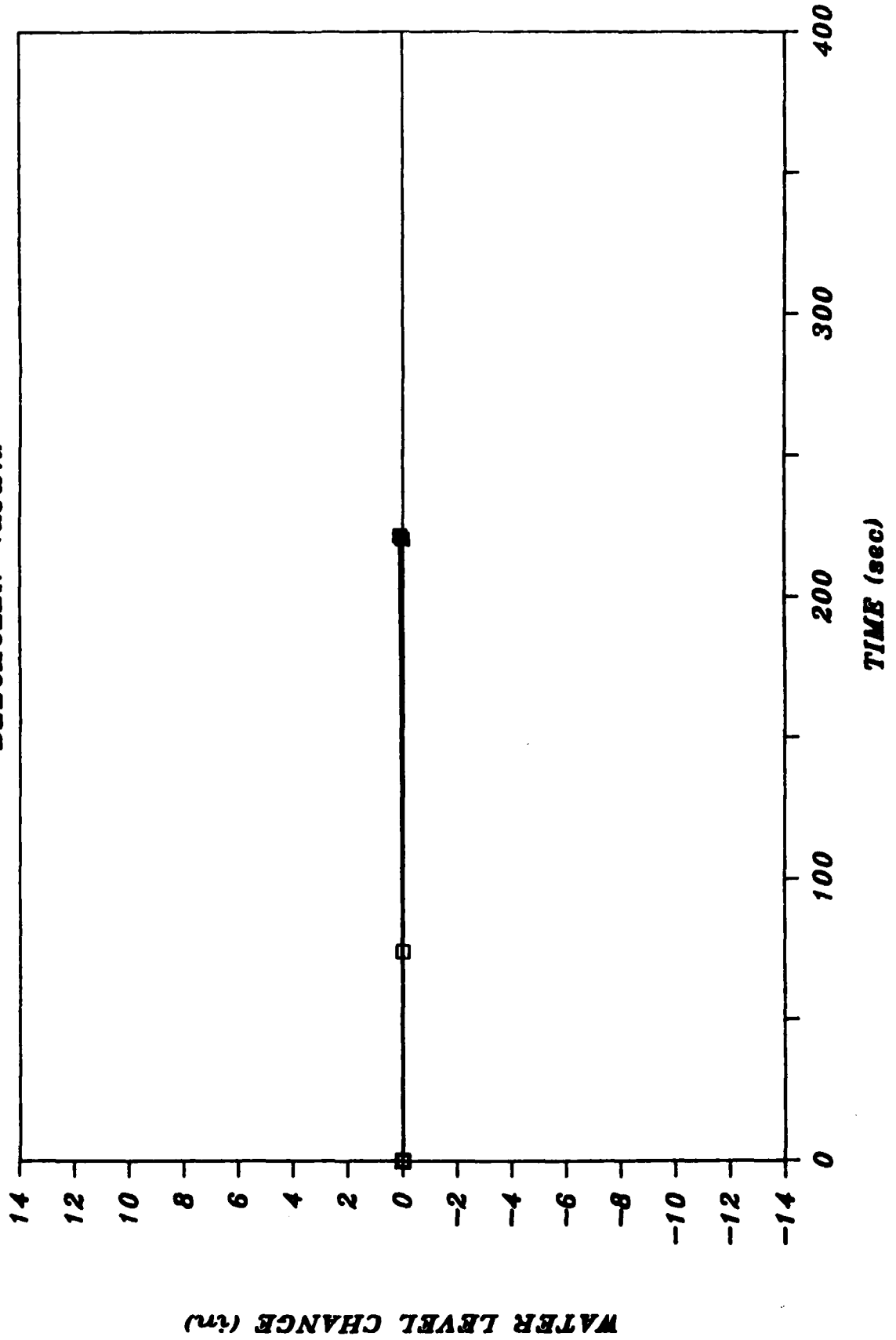
NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84
VESSEL NAME BEECHGLEN
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 680
VESSEL BEAM in feet = 60
VESSEL DRAFT in feet = 26
VESSEL SPEED in feet/sec. = 6.7
BOW ON TIME in sec = 83
STERN ON TIME in sec = 184
DISTANCE TO STAFF GAUGE from green side in feet = 42
BACKGROUND READING in inches = 20.9

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	20.9	-0.0
2	74.0	20.9	-0.0
3	87.0	20.9	-0.0
4	177.0	20.9	-0.0
5	196.0	20.9	-0.0
6	220.0	20.9	-0.0
7	221.0	21.0	0.1

RIVER VIEW 11/9/84

BEECHGLEN (down)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84

VESSEL NAME BEECHGLEN

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 680

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 26

VESSEL SPEED in feet/sec. = 6.7

BOW ON TIME in sec = 83

STERN ON TIME in sec = 184

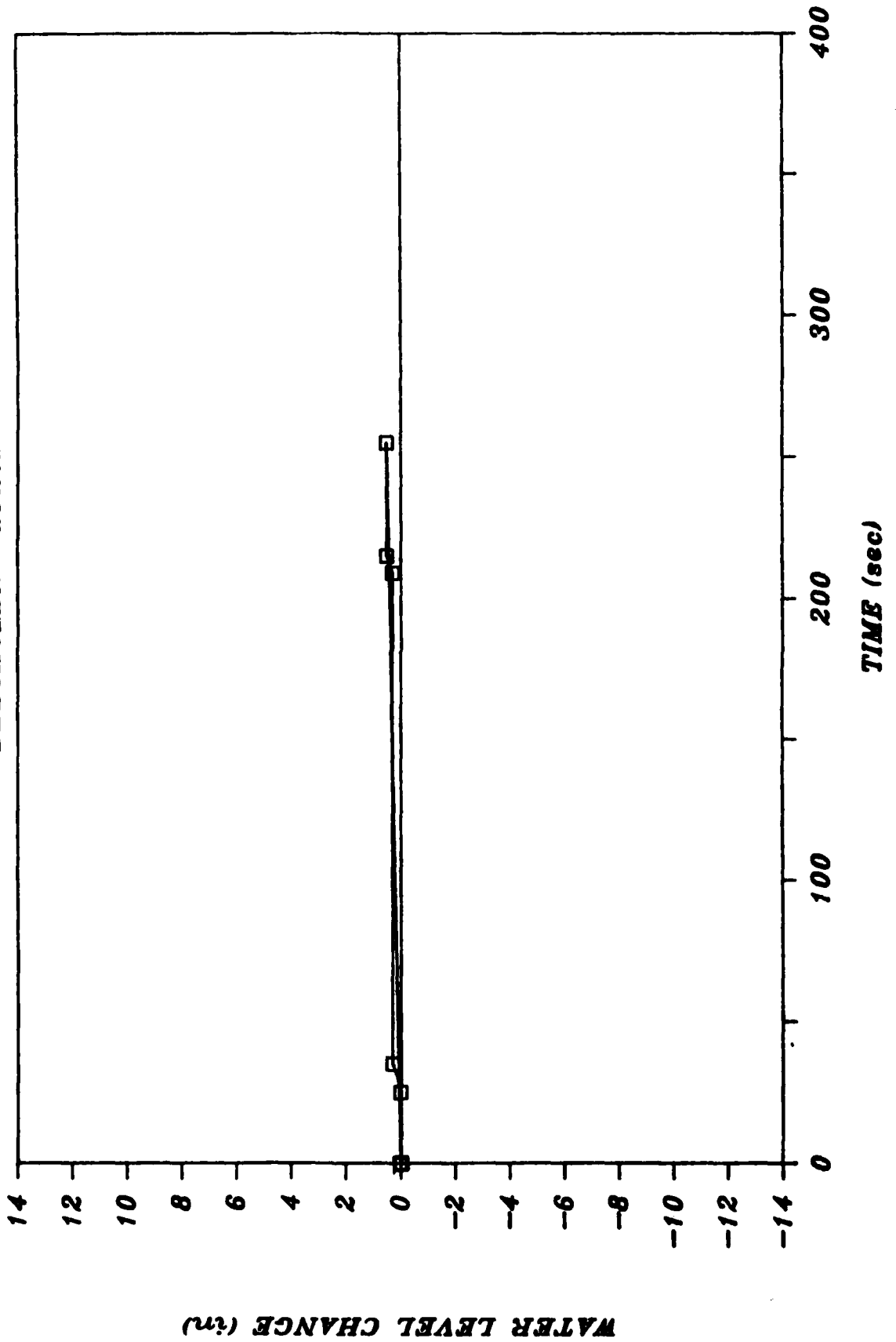
DISTANCE TO STAFF GAUGE from green side in feet = 1750

BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	25.0	14.0	0.0
3	35.0	14.3	0.3
4	82.0	14.3	0.3
5	86.0	14.3	0.3
6	183.0	14.3	0.3
7	186.0	14.3	0.3
8	209.0	14.3	0.3
9	215.0	14.5	0.5
10	255.0	14.5	0.5

RIVER VIEW 11/9/84

BEECHGLEN (down)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW
#####

DATE OF OBSERVATION 11/9/84

VESSEL NAME BEECHGLEN

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 680

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 26

VESSEL SPEED in feet/sec. = 6.7

BOW ON TIME in sec = 83

STERN ON TIME in sec = 184

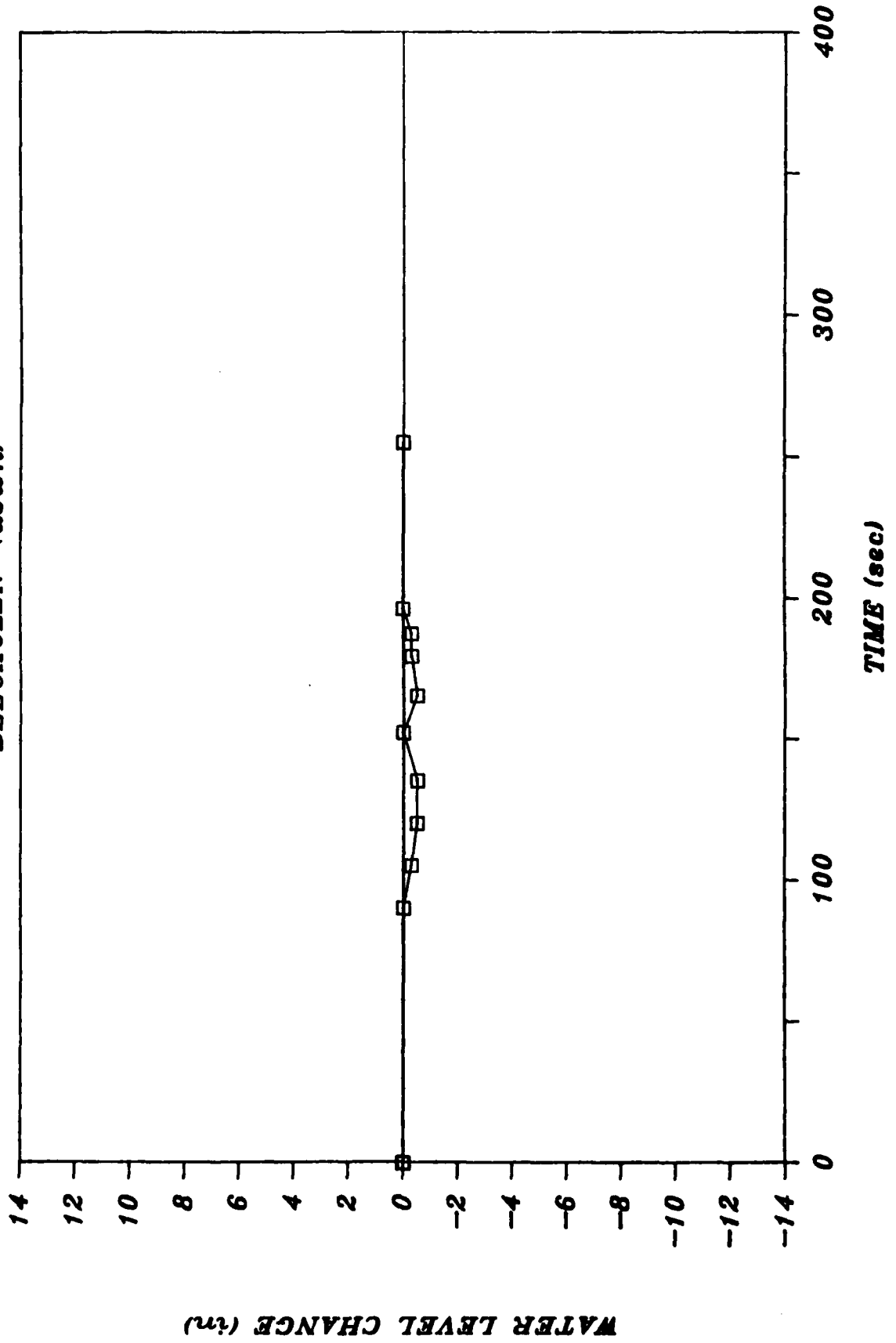
DISTANCE TO STAFF GAUGE from green side in feet = 1800

BACKGROUND READING in inches = 12

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	12.0	0.0
2	76.0	12.0	0.0
3	90.0	12.0	0.0
4	105.0	11.8	-0.3
5	120.0	11.5	-0.5
6	135.0	11.5	-0.5
7	152.0	12.0	0.0
8	165.0	11.5	-0.5
9	179.0	11.8	-0.3
10	187.0	11.8	-0.3
11	196.0	12.0	0.0
12	255.0	12.0	0.0

RIVER VIEW 11/9/84

BEECHGLEN (down)



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 DRAWDOWN DATA

NAME OF SECTION          RIVER VIEW  
 ~~~~~

DATE OF OBSERVATION 11/9/84

 VESSEL NAME ELMGLEN

 DIRECTION DOWNBOUND

 VESSEL LENGTH in feet = 604

 VESSEL BEAM in feet = 60

 VESSEL DRAFT in feet = 25

 VESSEL SPEED in feet/sec. = 8.4

 BOW ON TIME in sec = 82

 STERN ON TIME in sec = 154

 DISTANCE TO STAFF GAUGE from green side in feet = 42

 BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	7.0	22.5	-0.5
3	11.0	22.5	-0.5
4	16.0	22.0	-1.0
5	37.0	22.0	-1.0
6	46.0	22.5	-0.5
7	68.0	22.5	-0.5
8	76.0	22.0	-1.0
9	79.0	22.0	-1.0
10	85.0	21.5	-1.5
11	107.0	21.5	-1.5
12	112.0	22.0	-1.0
13	126.0	22.0	-1.0
14	131.0	21.5	-1.5
15	145.0	21.5	-1.5
16	155.0	22.0	-1.0
17	162.0	22.0	-1.0
18	166.0	22.5	-0.5
19	170.0	22.5	-0.5
20	175.0	23.0	0.0

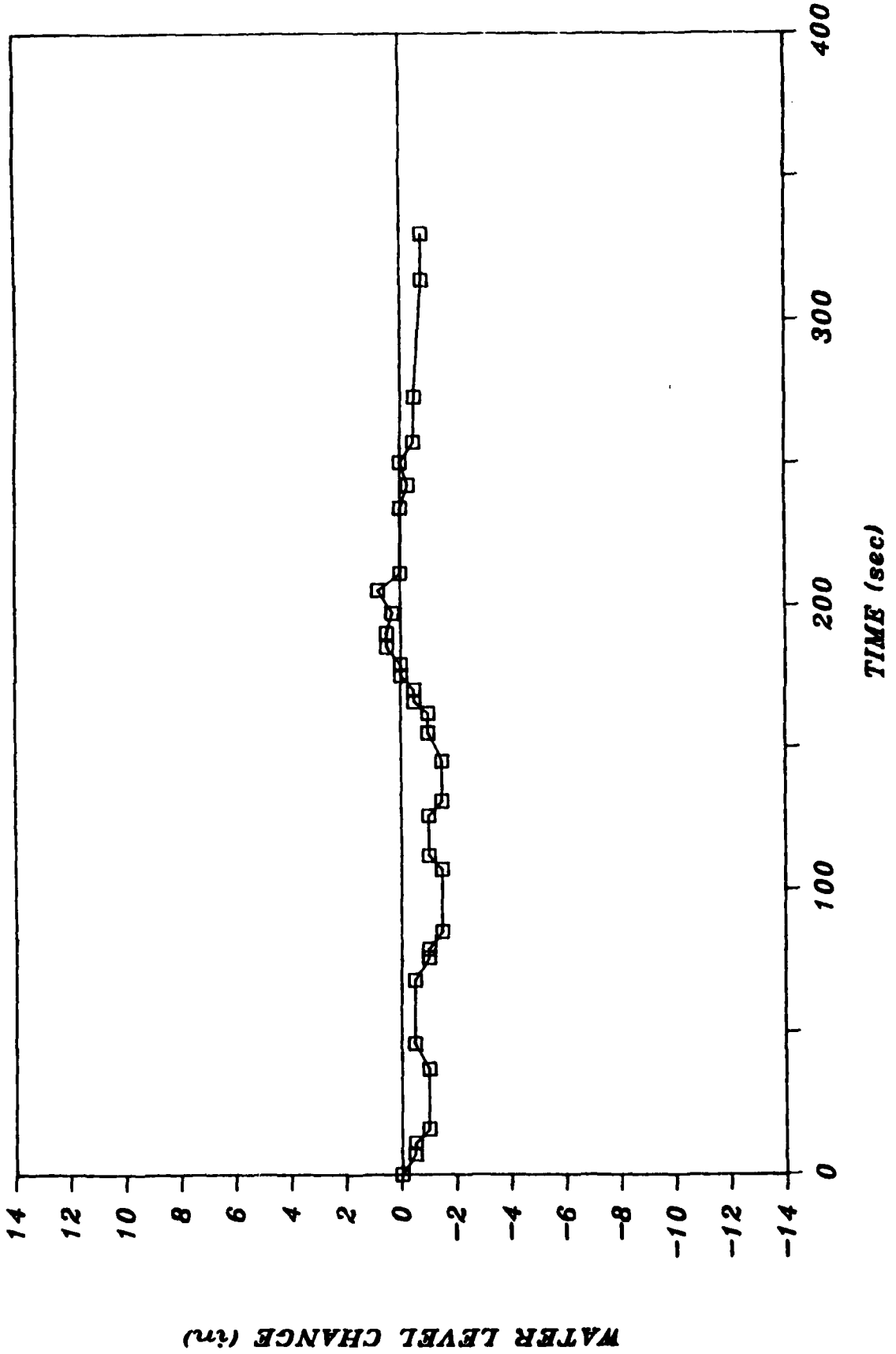
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	179.0	23.0	0.0
22	185.0	23.5	0.5
23	190.0	23.5	0.5
24	197.0	23.3	0.3
25	205.0	23.8	0.8
26	211.0	23.0	0.0
27	234.0	23.0	0.0
28	242.0	22.8	-0.3
29	250.0	23.0	0.0
30	257.0	22.5	-0.5
31	273.0	22.5	-0.5
32	314.0	22.3	-0.8
33	330.0	22.3	-0.8

RIVER VIEW 11/9/84

ELMGLN (down)



 DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84
 VESSEL NAME ELMGLEN
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 604
 VESSEL BEAM in feet = 60
 VESSEL DRAFT in feet = 25
 VESSEL SPEED in feet/sec. = 8.4
 BOW ON TIME in sec = 82
 STERN ON TIME in sec = 154
 DISTANCE TO STAFF GAUGE from green side in feet = 1750
 BACKGROUND READING in inches = 16

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	16.0	0.0
2	17.0	16.0	0.0
3	20.0	15.5	-0.5
4	21.0	16.0	0.0
5	28.0	15.5	-0.5
6	30.0	16.0	0.0
7	35.0	15.5	-0.5
8	43.0	16.0	0.0
9	50.0	15.5	-0.5
10	56.0	15.5	-0.5
11	64.0	15.0	-1.0
12	107.0	15.0	-1.0
13	116.0	14.8	-1.3
14	129.0	14.8	-1.3
15	132.0	15.0	-1.0
16	137.0	15.5	-0.5
17	140.0	15.5	-0.5
18	143.0	16.0	0.0
19	146.0	16.0	0.0
20	148.0	16.5	0.5

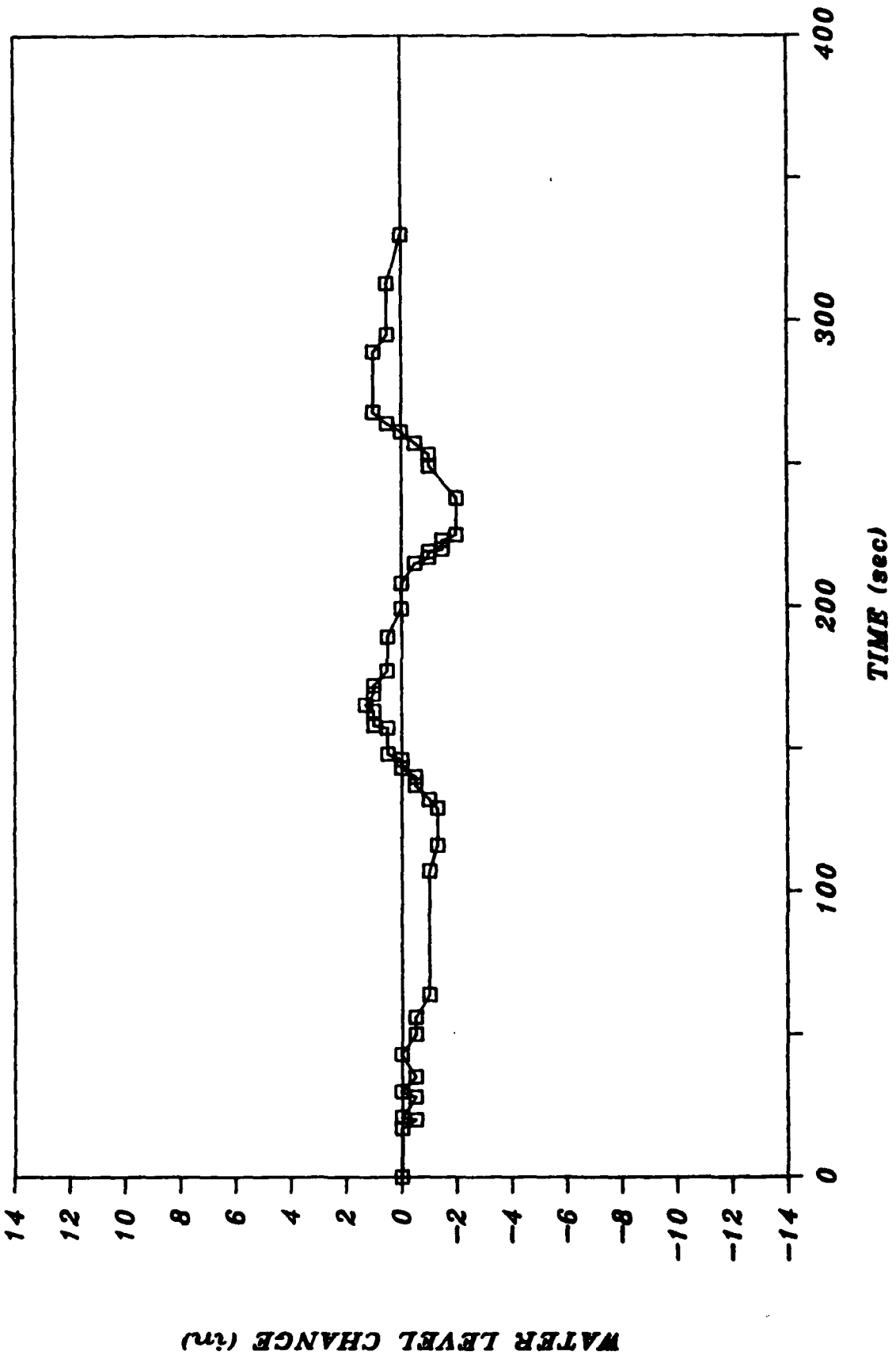
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	157.0	16.5	0.5
22	158.0	17.0	1.0
23	163.0	17.0	1.0
24	165.0	17.3	1.3
25	169.0	17.0	1.0
26	172.0	17.0	1.0
27	177.0	16.5	0.5
28	189.0	16.5	0.5
29	199.0	16.0	0.0
30	208.0	16.0	0.0
31	215.0	15.5	-0.5
32	217.0	15.0	-1.0
33	219.0	15.0	-1.0
34	220.0	14.5	-1.5
35	223.0	14.5	-1.5
36	225.0	14.0	-2.0
37	238.0	14.0	-2.0
38	249.0	15.0	-1.0
39	253.0	15.0	-1.0
40	257.0	15.5	-0.5
41	261.0	16.0	0.0
42	264.0	16.5	0.5
43	268.0	17.0	1.0
44	289.0	17.0	1.0
45	295.0	16.5	0.5
46	313.0	16.5	0.5
47	330.0	16.0	0.0

RIVER VIEW 11/9/84

ELMGLN (down)



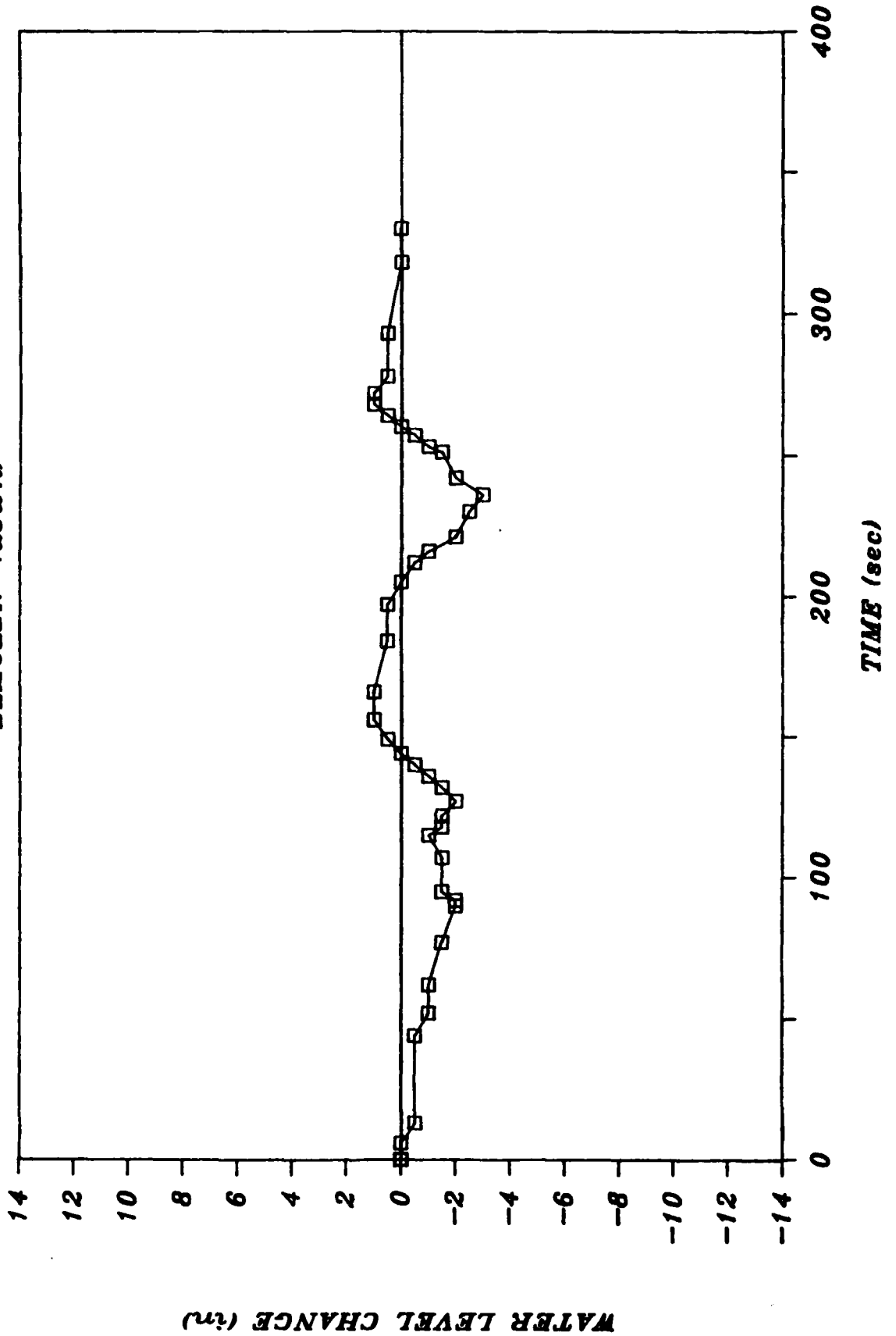
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	149.0	14.5	0.5
22	156.0	15.0	1.0
23	166.0	15.0	1.0
24	184.0	14.5	0.5
25	197.0	14.5	0.5
26	205.0	14.0	0.0
27	212.0	13.5	-0.5
28	216.0	13.0	-1.0
29	221.0	12.0	-2.0
30	230.0	11.5	-2.5
31	236.0	11.0	-3.0
32	242.0	12.0	-2.0
33	251.0	12.5	-1.5
34	253.0	13.0	-1.0
35	257.0	13.5	-0.5
36	260.0	14.0	0.0
37	264.0	14.5	0.5
38	268.0	15.0	1.0
39	272.0	15.0	1.0
40	278.0	14.5	0.5
41	293.0	14.5	0.5
42	318.0	14.0	0.0
43	330.0	14.0	0.0

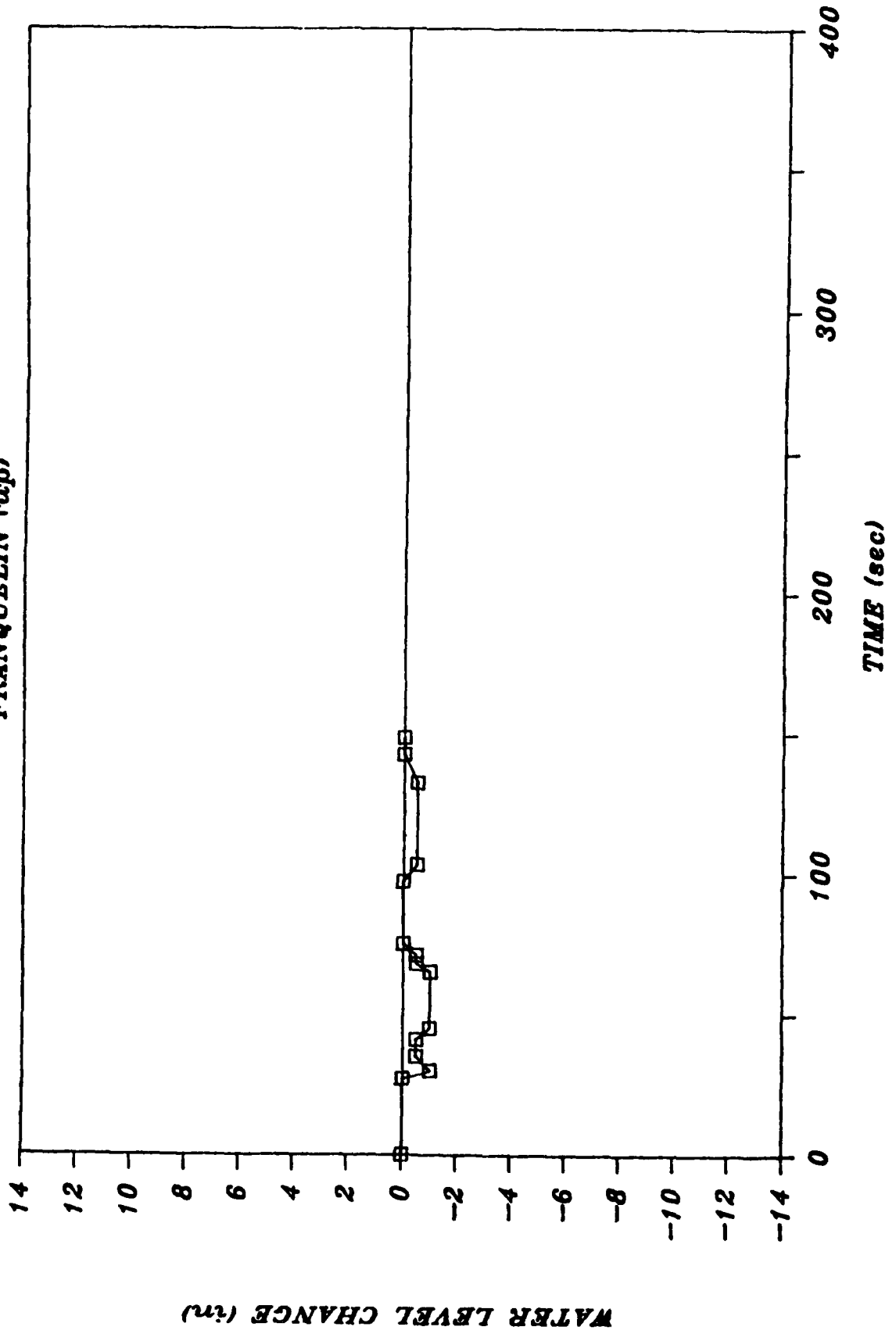
RIVER VIEW 11/9/84

ELMGLN (down)



RIVER VIEW 11/9/84

FRANQUELIN (wp)



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DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84

VESSEL NAME FRANQUELIN

DIRECTION UPBOUND

VESSEL LENGTH in feet = 349

VESSEL BEAM in feet = 43.5

VESSEL DRAFT in feet = 13

VESSEL SPEED in feet/sec. = 12.9

BOW ON TIME in sec = 86

STERN ON TIME in sec = 113

DISTANCE TO STAFF GAUGE from green side in feet = 1750

BACKGROUND READING in inches = 16

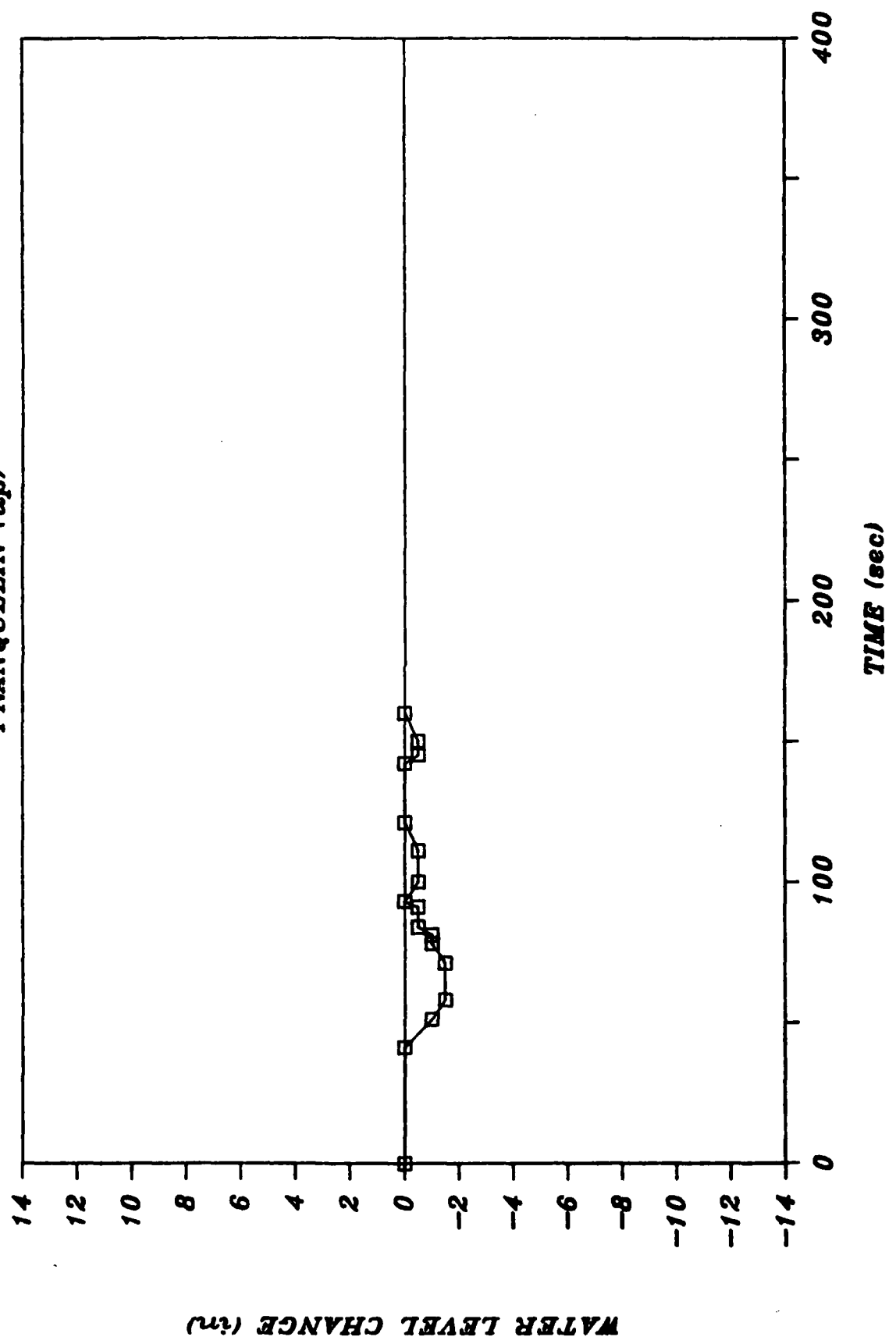
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	16.0	0.0
2	14.0	16.0	0.0
3	33.0	16.0	0.0
4	41.0	16.0	0.0
5	62.0	16.0	0.0
6	64.0	16.0	0.0
7	77.0	16.0	0.0
8	83.0	16.0	0.0
9	91.0	16.0	0.0
10	97.0	16.0	0.0
11	104.0	16.0	0.0
12	106.0	15.5	-0.5
13	111.0	15.0	-1.0
14	116.0	15.5	-0.5
15	118.0	15.0	-1.0
16	138.0	15.0	-1.0
17	144.0	15.5	-0.5
18	149.0	16.0	0.0
19	164.0	16.5	0.5
20	189.0	16.5	0.5

DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	191.0	16.0	0.0
22	211.0	16.0	0.0

RIVER VIEW 11/9/84
FRANQUELIN (wp)



DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	150.0	13.5	-0.5
22	160.0	14.0	0.0

DRAWDOWN DATA

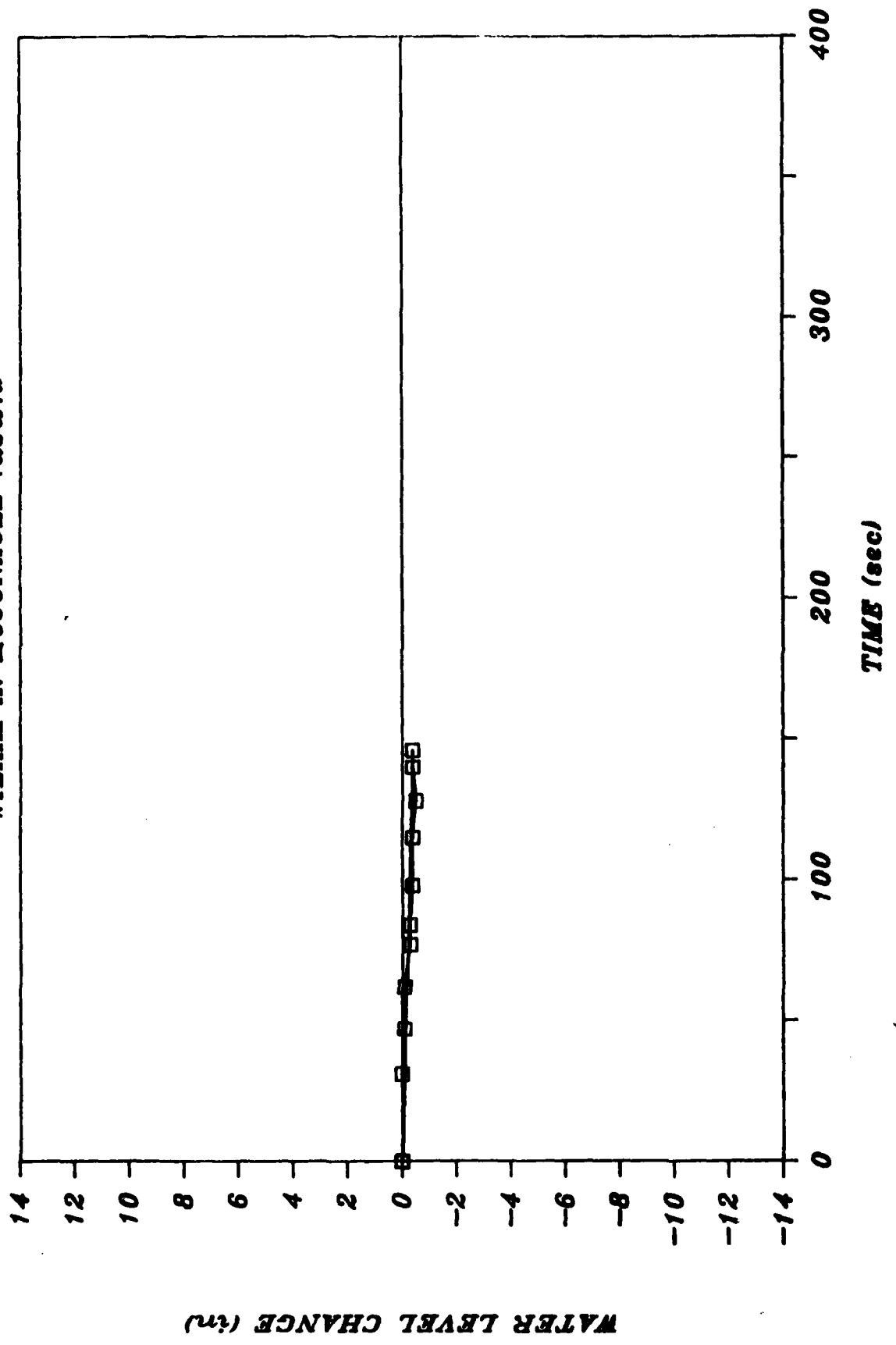
NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84
VESSEL NAME WILLIAM A. McCONAGLE
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 600
VESSEL BEAM in feet = 60
VESSEL DRAFT in feet = 20
VESSEL SPEED in feet/sec. = 4.8
BOW ON TIME in sec = 80
STERN ON TIME in sec = 204
DISTANCE TO STAFF GAUGE from green side in feet = 42
BACKGROUND READING in inches = 20.9

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	20.9	-0.0
2	31.0	20.9	-0.0
3	47.0	20.8	-0.1
4	62.0	20.8	-0.1
5	77.0	20.6	-0.3
6	84.0	20.6	-0.3
7	98.0	20.5	-0.4
8	115.0	20.5	-0.4
9	128.0	20.4	-0.5
10	140.0	20.5	-0.4
11	146.0	20.5	-0.4

RIVER VIEW 11/9/84

WILLIAM A. McCONAGLE (down)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84

VESSEL NAME WILLIAM A. McCONAGLE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 600

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 20

VESSEL SPEED in feet/sec. = 4.8

BOW ON TIME in sec = 80

STERN ON TIME in sec = 204

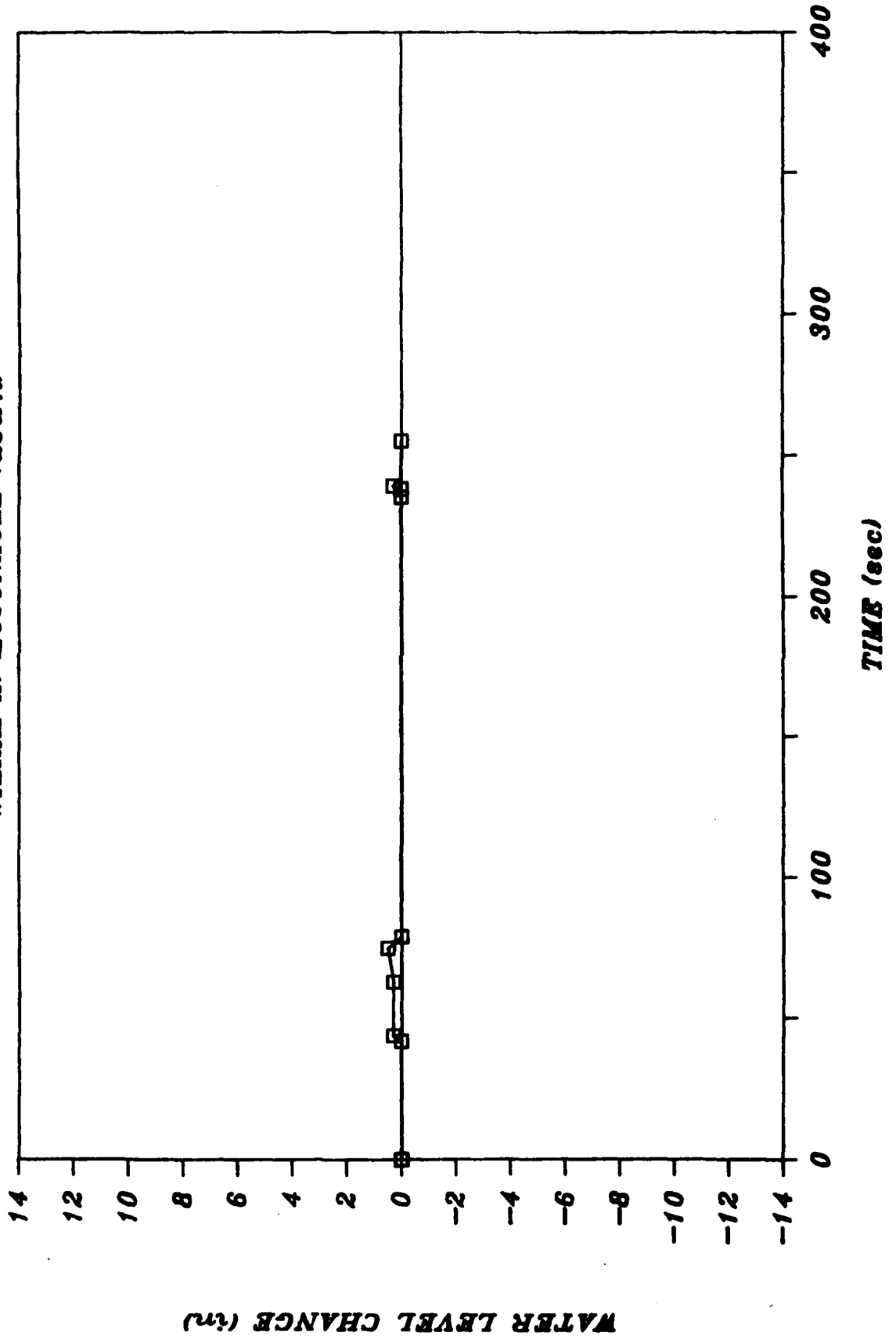
DISTANCE TO STAFF GAUGE from green side in feet = 1750

BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	42.0	14.0	0.0
3	44.0	14.3	0.3
4	63.0	14.3	0.3
5	75.0	14.5	0.5
6	79.0	14.0	0.0
7	82.0	14.0	0.0
8	194.0	14.0	0.0
9	205.0	14.0	0.0
10	238.0	14.0	0.0
11	239.0	14.3	0.3
12	245.0	14.0	0.0
13	255.0	14.0	0.0

RIVER VIEW 11/9/84

WILLIAM A. McCONAGLE (down)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/9/84

VESSEL NAME WILLIAM A. McCONAGLE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 600

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 20

VESSEL SPEED in feet/sec. = 4.8

BOW ON TIME in sec = 80

STERN ON TIME in sec = 204

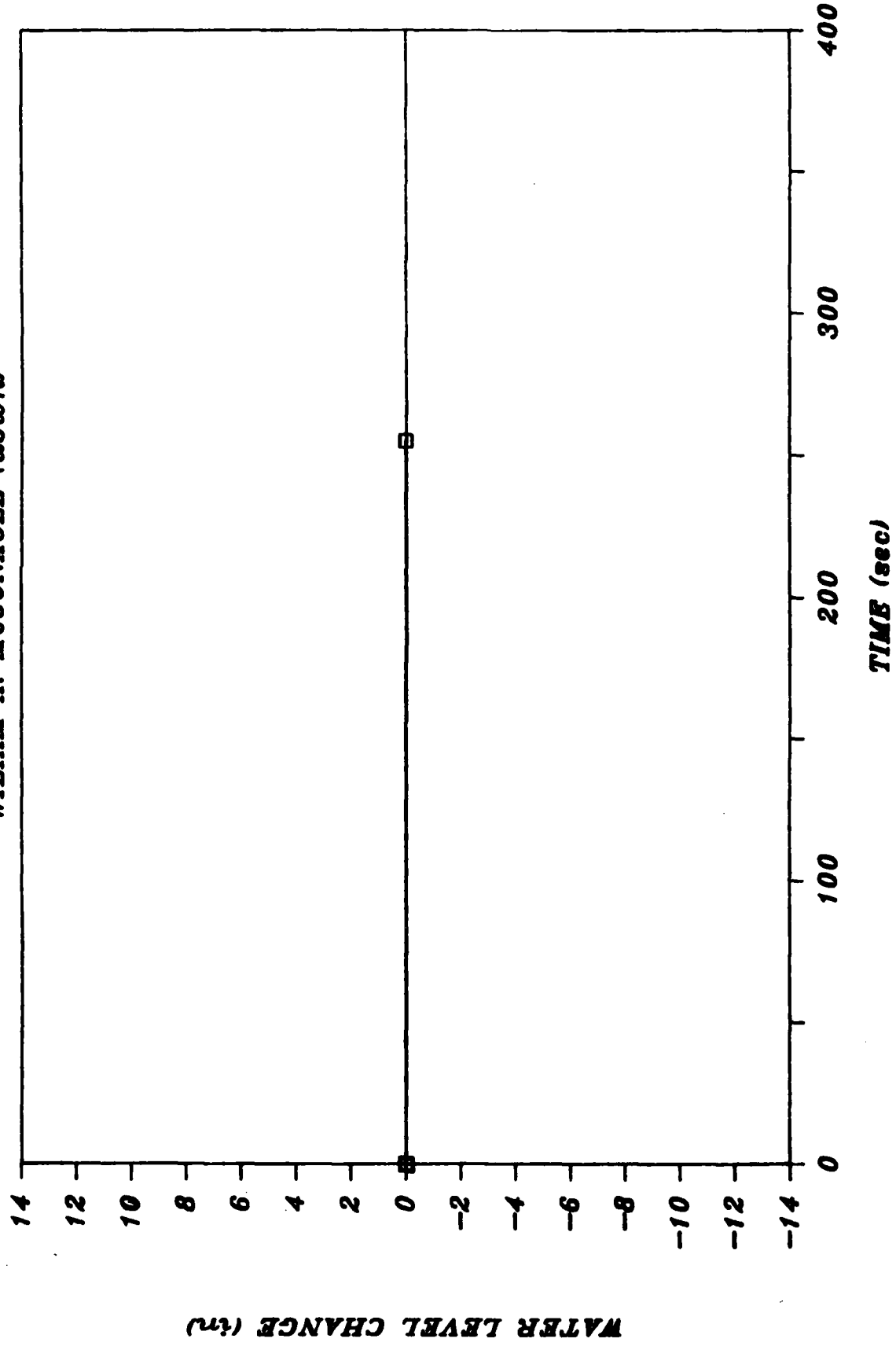
DISTANCE TO STAFF GAUGE from green side in feet = 1800

BACKGROUND READING in inches = 11.75

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	11.8	0.0
2	78.0	11.8	0.0
3	84.0	11.8	0.0
4	195.0	11.8	0.0
5	206.0	11.8	0.0
6	255.0	11.8	0.0

RIVER VIEW 11/9/84

WILLIAM A. McCONAGLE (down)



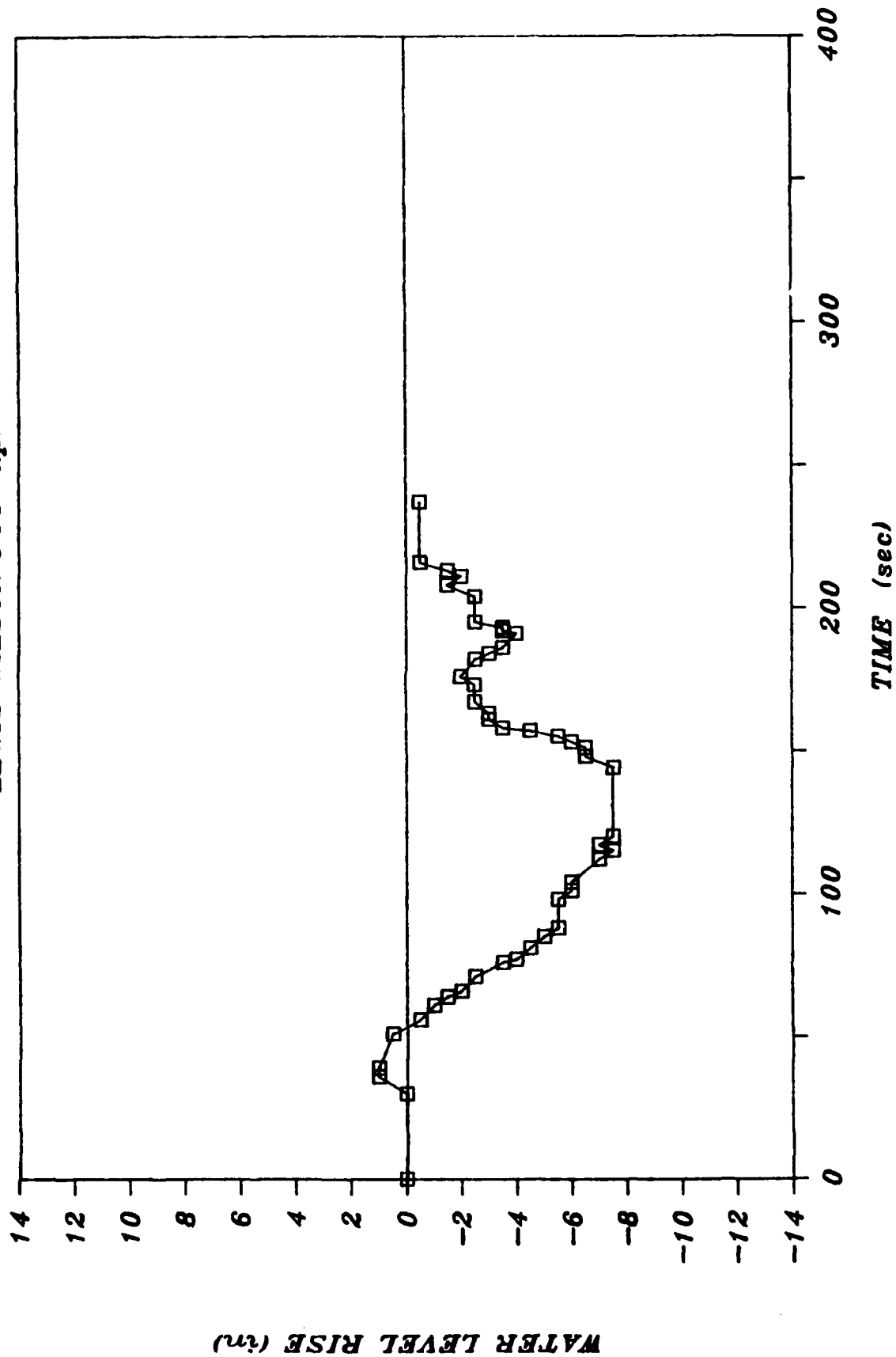
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	117.0	12.5	-7.0
22	123.0	12.0	-7.5
23	144.0	12.0	-7.5
24	148.0	13.0	-6.5
25	151.0	13.0	-6.5
26	153.0	13.5	-6.0
27	155.0	14.0	-5.5
28	157.0	15.0	-4.5
29	158.0	16.0	-3.5
30	161.0	16.5	-3.0
31	163.0	16.5	-3.0
32	167.0	17.0	-2.5
33	173.0	17.0	-2.5
34	176.0	17.5	-2.0
35	182.0	17.0	-2.5
36	184.0	16.5	-3.0
37	186.0	16.0	-3.5
38	191.0	15.5	-4.0
39	192.0	16.0	-3.5
40	193.0	16.0	-3.5
41	195.0	17.0	-2.5
42	204.0	17.0	-2.5
43	208.0	18.0	-1.5
44	211.0	17.5	-2.0
45	213.0	18.0	-1.5
46	216.0	19.0	-0.5
47	237.0	19.0	-0.5

RIVER VIEW 11/10/84

LEWIS WILSON FOY (usp)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 11/10/84

VESSEL NAME TADOUSSAC

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 27

VESSEL SPEED in feet/sec. = 11.6

BOW ON TIME in sec = 28

STERN ON TIME in sec = 91

DISTANCE TO STAFF GAUGE from green side in feet = 60

BACKGROUND READING in inches = 21.5

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.5	0.0
2	22.0	21.5	0.0
3	26.0	21.5	0.0
4	28.0	21.0	-0.5
5	32.0	21.0	-0.5
6	34.0	21.0	-0.5
7	38.0	21.0	-0.5
8	42.0	20.0	-1.5
9	48.0	19.5	-2.0
10	52.0	19.0	-2.5
11	54.0	19.0	-2.5
12	58.0	18.0	-3.5
13	60.0	18.0	-3.5
14	64.0	17.5	-4.0
15	68.0	17.5	-4.0
16	70.0	17.5	-4.0
17	72.0	17.5	-4.0
18	75.0	18.0	-3.5
19	78.0	18.0	-3.5
20	80.0	18.0	-3.5

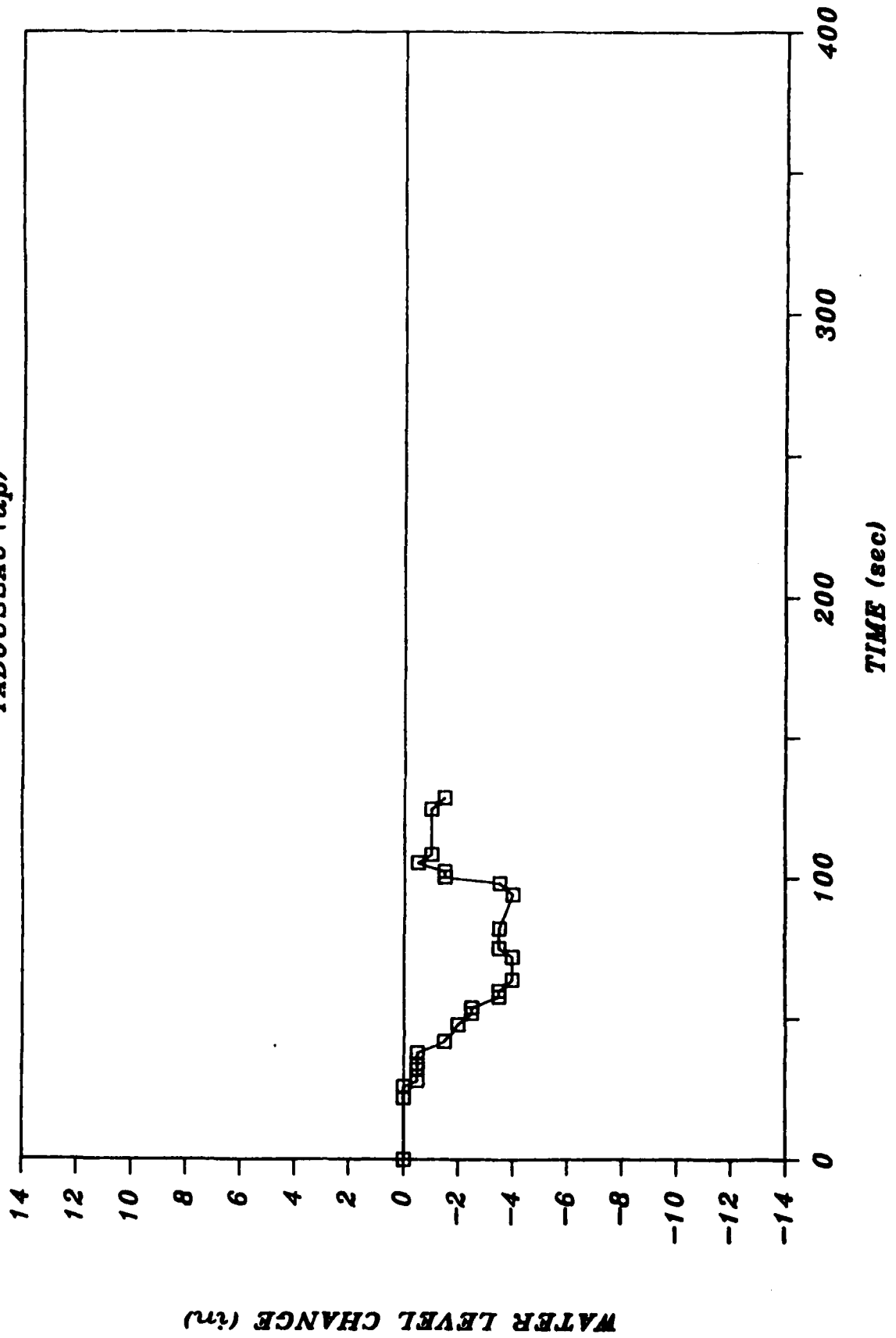
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	82.0	18.0	-3.5
22	94.0	17.5	-4.0
23	98.0	18.0	-3.5
24	100.0	20.0	-1.5
25	102.0	20.0	-1.5
26	105.0	21.0	-0.5
27	108.0	20.5	-1.0
28	112.0	20.5	-1.0
29	120.0	20.5	-1.0
30	122.0	20.5	-1.0
31	124.0	20.5	-1.0
32	128.0	20.0	-1.5

RIVER VIEW 11/10/84

TADOUSSAC (wp)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW
#####

DATE OF OBSERVATION 11/11/84
VESSEL NAME BELLE RIVER
DIRECTION UPBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 21
VESSEL SPEED in feet/sec. = 10.6
BOW ON TIME in sec = 49
STERN ON TIME in sec = 143
DISTANCE TO STAFF GAUGE from green side in feet = 60
BACKGROUND READING in inches = 17

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	17.0	0.0
2	8.0	17.0	0.0
3	16.0	17.0	0.0
4	26.0	17.0	0.0
5	29.0	17.0	0.0
6	33.0	17.0	0.0
7	51.0	17.0	0.0
8	55.0	16.0	-1.0
9	61.0	15.0	-2.0
10	63.0	16.0	-1.0
11	68.0	15.5	-1.5
12	70.0	15.0	-2.0
13	73.0	14.5	-2.5
14	74.0	14.0	-3.0
15	77.0	14.0	-3.0
16	79.0	13.5	-3.5
17	81.0	13.0	-4.0
18	86.0	13.0	-4.0
19	90.0	12.5	-4.5
20	93.0	12.5	-4.5

DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	96.0	12.0	-5.0
22	98.0	12.0	-5.0
23	102.0	11.5	-5.5
24	105.0	11.5	-5.5
25	108.0	11.0	-6.0
26	110.0	11.0	-6.0
27	113.0	11.5	-5.5
28	130.0	10.0	-7.0
29	133.0	10.0	-7.0
30	140.0	9.5	-7.5
31	149.0	10.0	-7.0
32	151.0	10.0	-7.0
33	155.0	11.0	-6.0
34	158.0	12.0	-5.0
35	161.0	12.5	-4.5
36	164.0	13.0	-4.0
37	168.0	13.5	-3.5
38	170.0	14.0	-3.0
39	172.0	15.5	-1.5
40	174.0	15.5	-1.5
41	177.0	16.0	-1.0
42	182.0	15.5	-1.5
43	185.0	15.0	-2.0
44	189.0	14.5	-2.5
45	192.0	14.5	-2.5
46	200.0	14.5	-2.5
47	202.0	15.0	-2.0
48	208.0	15.5	-1.5
49	212.0	15.5	-1.5
50	219.0	16.0	-1.0
51	223.0	16.0	-1.0
52	230.0	16.0	-1.0
53	236.0	16.0	-1.0
54	243.0	15.5	-1.5
55	248.0	15.5	-1.5
56	253.0	15.5	-1.5
57	258.0	15.0	-2.0
58	262.0	15.5	-1.5
59	264.0	16.0	-1.0
60	268.0	16.0	-1.0
61	270.0	16.0	-1.0
62	274.0	16.5	-0.5
63	281.0	16.5	-0.5
64	288.0	16.0	-1.0

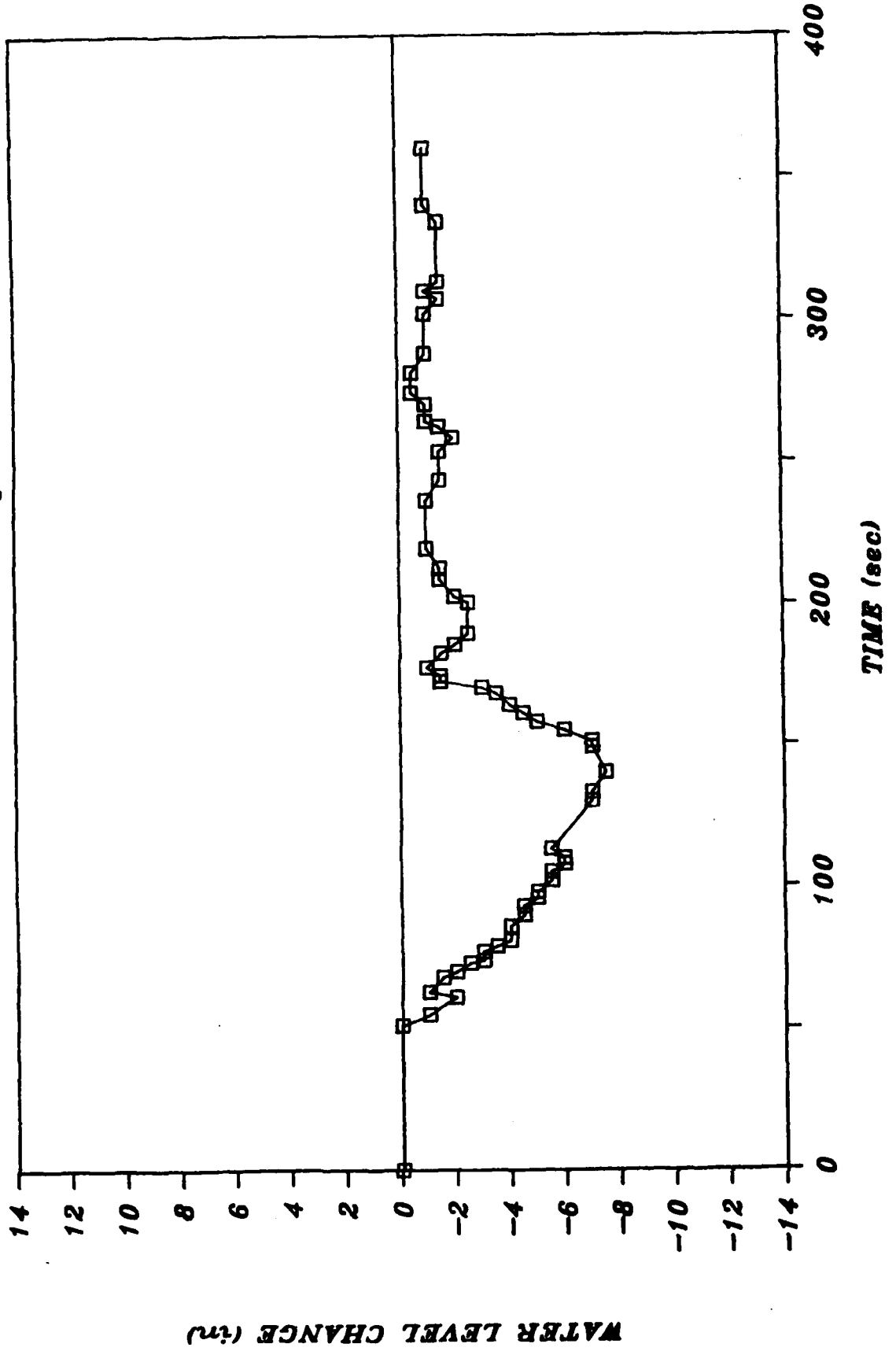
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	292.0	16.0	-1.0
66	297.0	16.0	-1.0
67	302.0	16.0	-1.0
68	308.0	15.5	-1.5
69	310.0	16.0	-1.0
70	313.0	15.5	-1.5
71	318.0	15.5	-1.5
72	334.0	15.5	-1.5
73	340.0	16.0	-1.0
74	350.0	16.0	-1.0
75	360.0	16.0	-1.0

RIVER VIEW 11/11/84

BELLE RIVER (up)



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/2/85

VESSEL NAME TADOUSSAC

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 28

VESSEL SPEED in feet/sec. = 12.8

BOW ON TIME in sec = 68

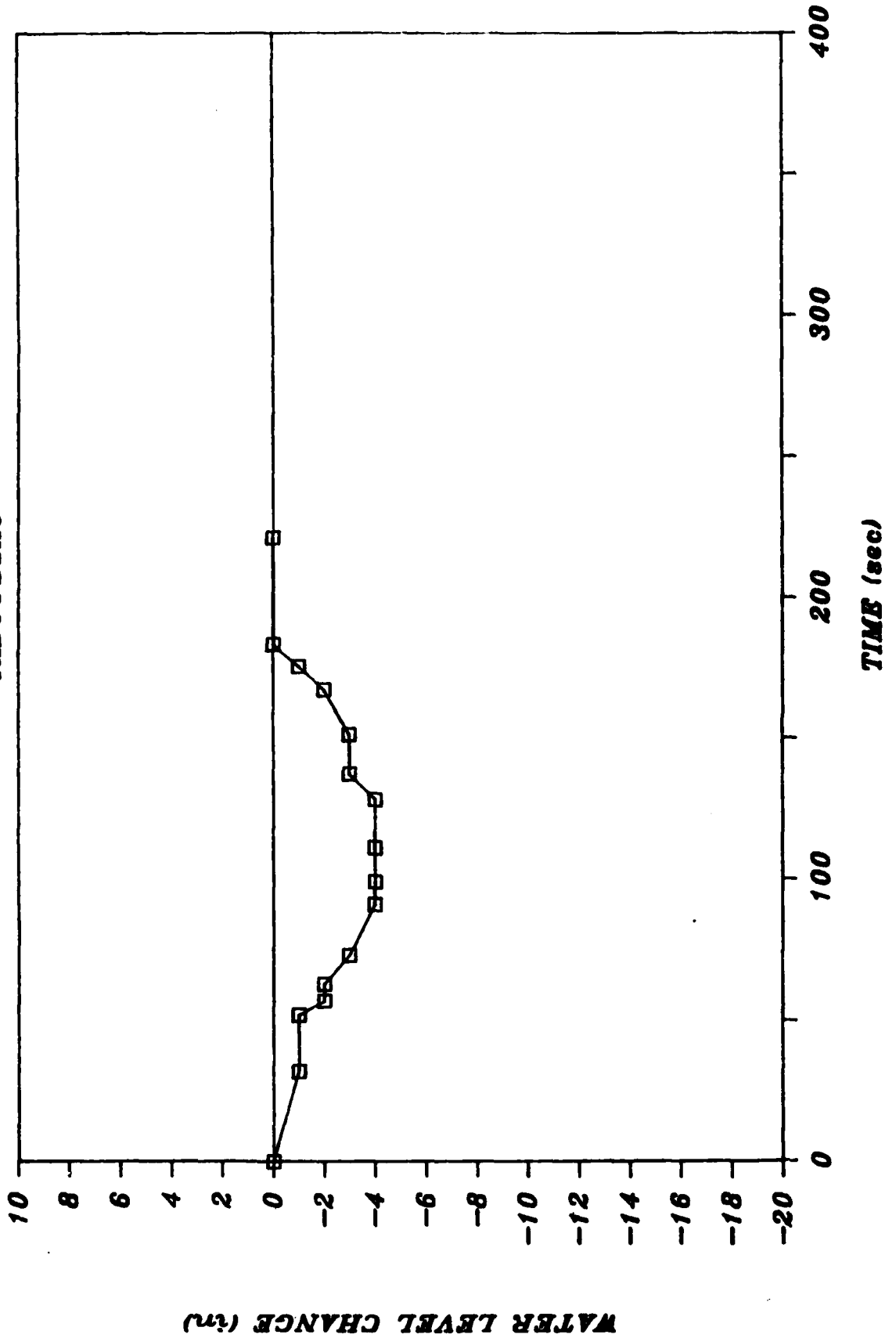
STERN ON TIME in sec = 125

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	32.0	28.0	-1.0
3	52.0	28.0	-1.0
4	57.0	27.0	-2.0
5	63.0	27.0	-2.0
6	73.0	26.0	-3.0
7	91.0	25.0	-4.0
8	99.0	25.0	-4.0
9	111.0	25.0	-4.0
10	128.0	25.0	-4.0
11	137.0	26.0	-3.0
12	151.0	26.0	-3.0
13	167.0	27.0	-2.0
14	175.0	28.0	-1.0
15	183.0	29.0	0.0
16	221.0	29.0	0.0

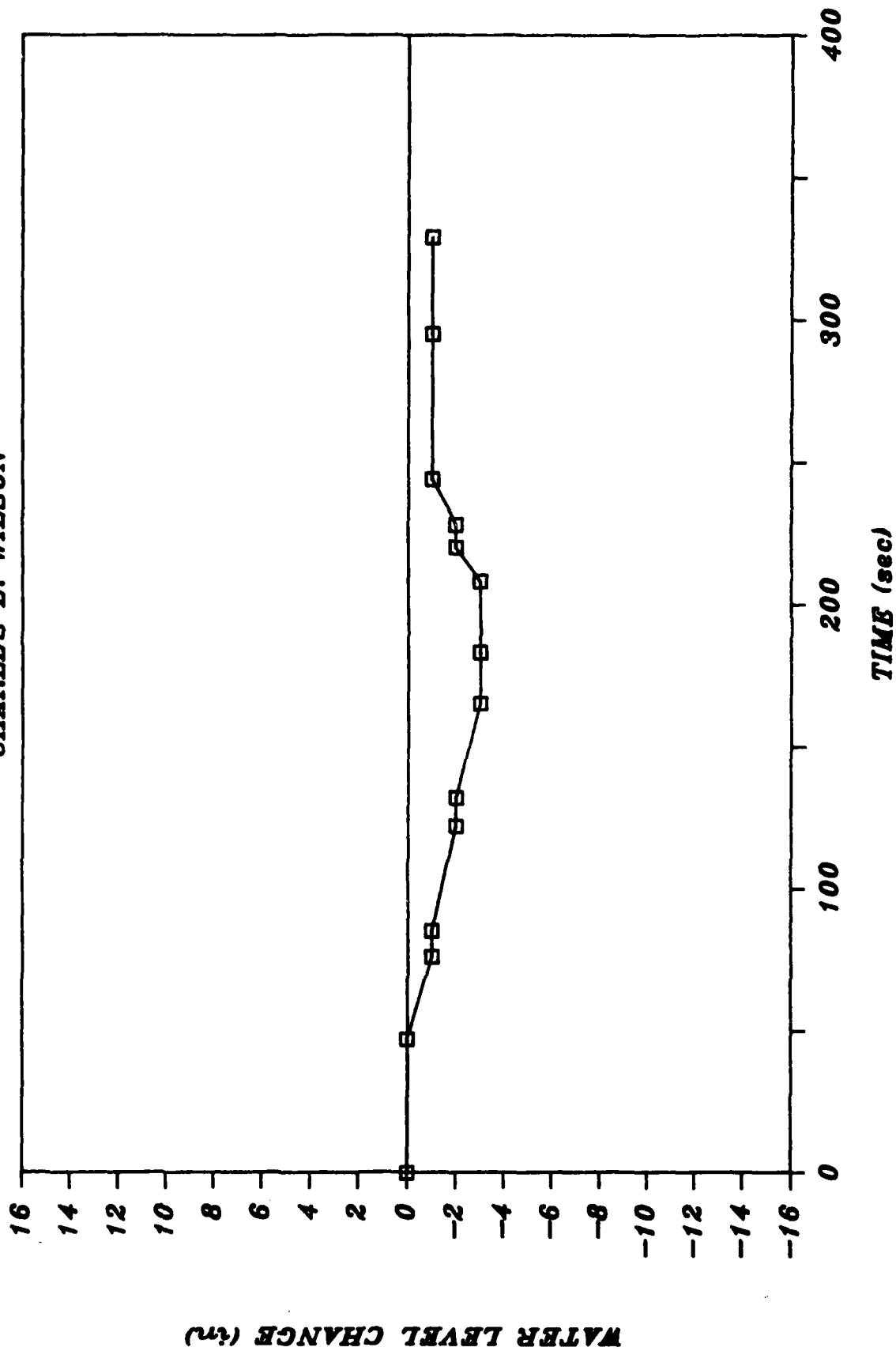
RIVER VIEW (green)
TADOUSSAC



BA55

RIVER VIEW (green)

CHARLES B. WILSON



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW
#####

DATE OF OBSERVATION 6/2/85

VESSEL NAME CHARLES E. WILSON

DIRECTION UPBOUND

VESSEL LENGTH in feet = 680

VESSEL BEAM in feet = 78

VESSEL DRAFT in feet = 18

VESSEL SPEED in feet/sec. = 9.58

BOW ON TIME in sec = 117

STERN ON TIME in sec = 188

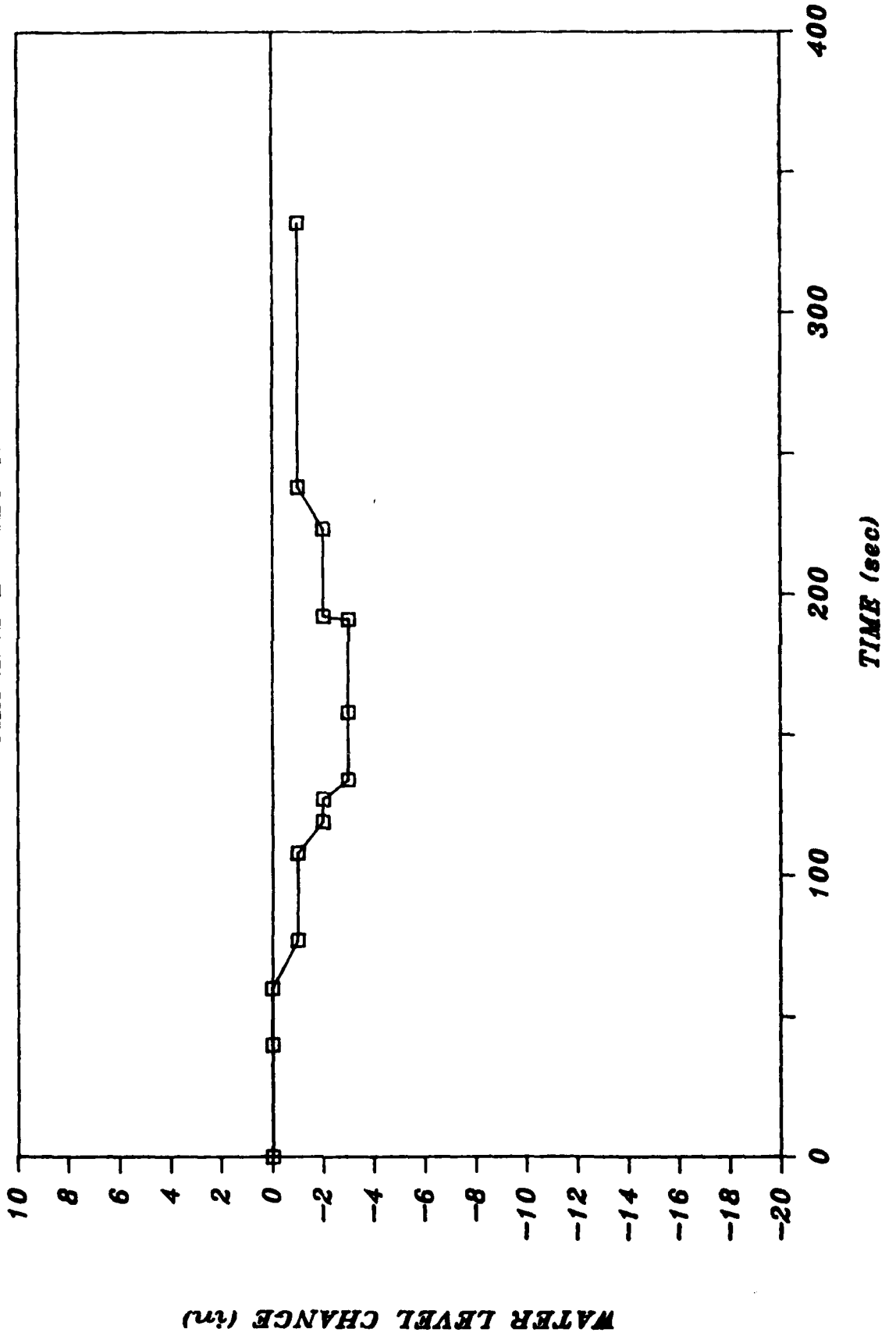
DISTANCE TO STAFF GAUGE from green side in feet = 1755

BACKGROUND READING in inches = 25

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	25.0	0.0
2	40.0	25.0	0.0
3	60.0	25.0	0.0
4	77.0	24.0	-1.0
5	108.0	24.0	-1.0
6	119.0	23.0	-2.0
7	127.0	23.0	-2.0
8	134.0	22.0	-3.0
9	158.0	22.0	-3.0
10	191.0	22.0	-3.0
11	192.0	23.0	-2.0
12	223.0	23.0	-2.0
13	238.0	24.0	-1.0
14	332.0	24.0	-1.0

RIVER VIEW (red)

CHARLES E. WILSON



DRAWDOWN DATA

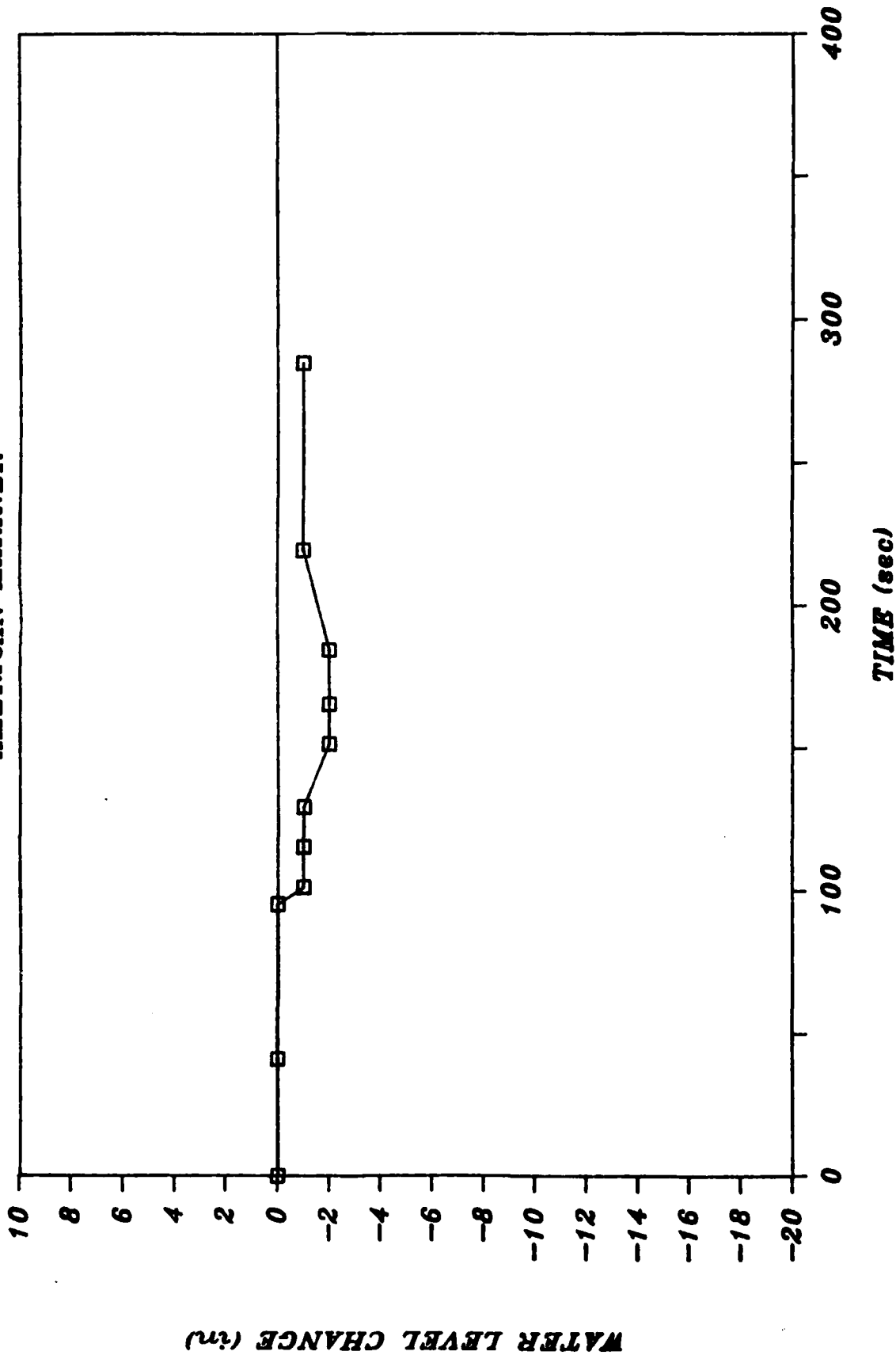
NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/2/85
VESSEL NAME AMERICAN MARINER
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 728
VESSEL BEAM in feet = 78
VESSEL DRAFT in feet = 27
VESSEL SPEED in feet/sec. = 8.0
BOW ON TIME in sec = 119
STERN ON TIME in sec = 210
DISTANCE TO STAFF GAUGE from green side in feet = 40
BACKGROUND READING in inches = 28

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	28.0	0.0
2	41.0	28.0	0.0
3	95.0	28.0	0.0
4	101.0	27.0	-1.0
5	115.0	27.0	-1.0
6	129.0	27.0	-1.0
7	151.0	26.0	-2.0
8	165.0	26.0	-2.0
9	184.0	26.0	-2.0
10	219.0	27.0	-1.0
11	285.0	27.0	-1.0

RIVER VIEW (green)

AMERICAN MARINER



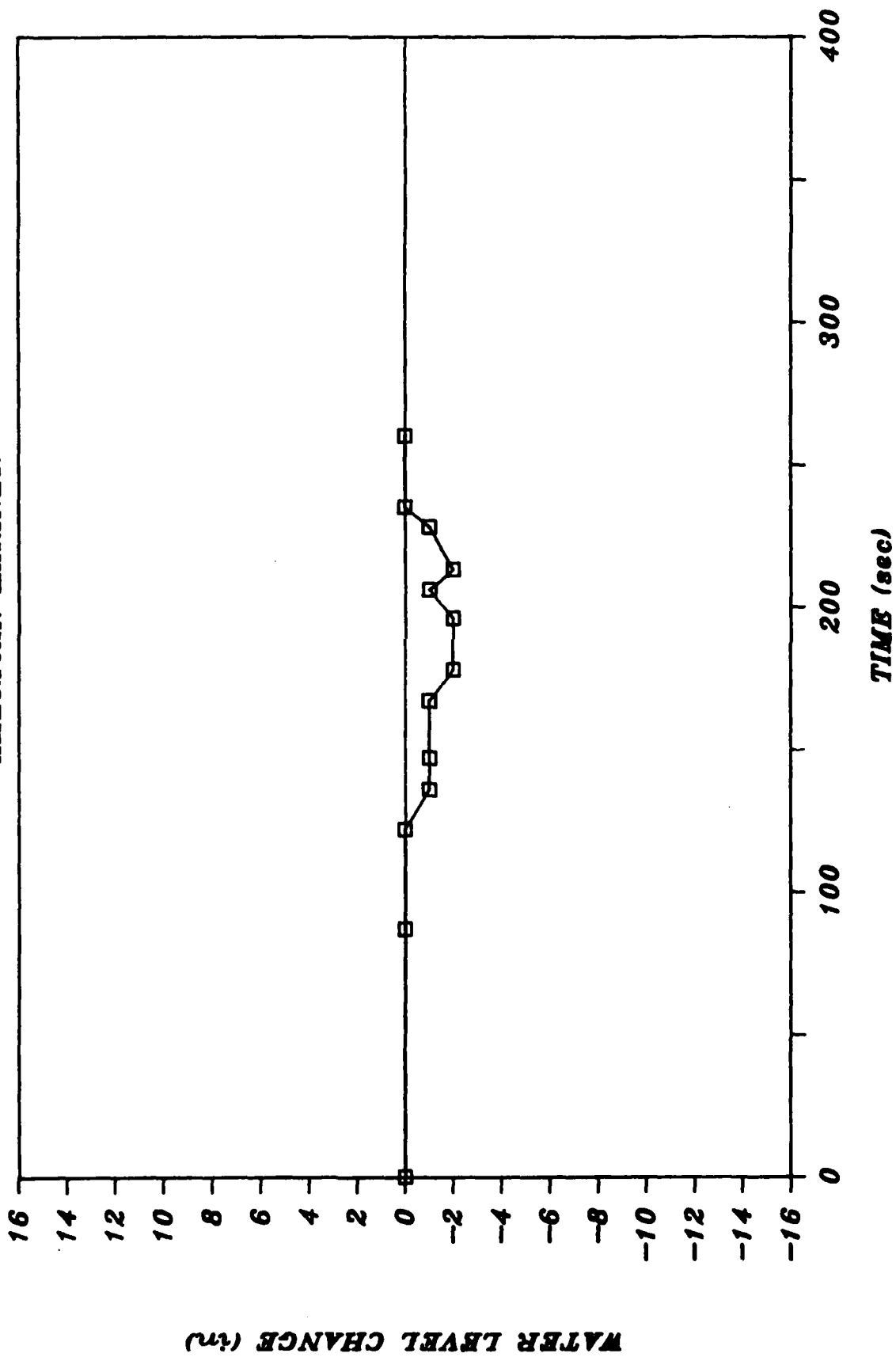
DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/2/85
VESSEL NAME AMERICAN MARINER
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 728
VESSEL BEAM in feet = 78
VESSEL DRAFT in feet = 27
VESSEL SPEED in feet/sec. = 8.0
BOW ON TIME in sec = 119
STERN ON TIME in sec = 210
DISTANCE TO STAFF GAUGE from green side in feet = 1755
BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	87.0	19.0	0.0
3	122.0	19.0	0.0
4	136.0	18.0	-1.0
5	147.0	18.0	-1.0
6	167.0	18.0	-1.0
7	178.0	17.0	-2.0
8	196.0	17.0	-2.0
9	206.0	18.0	-1.0
10	213.0	17.0	-2.0
11	228.0	18.0	-1.0
12	235.0	19.0	0.0

RIVER VIEW (red)
AMERICAN MARINER



DRAWDOWN DATA

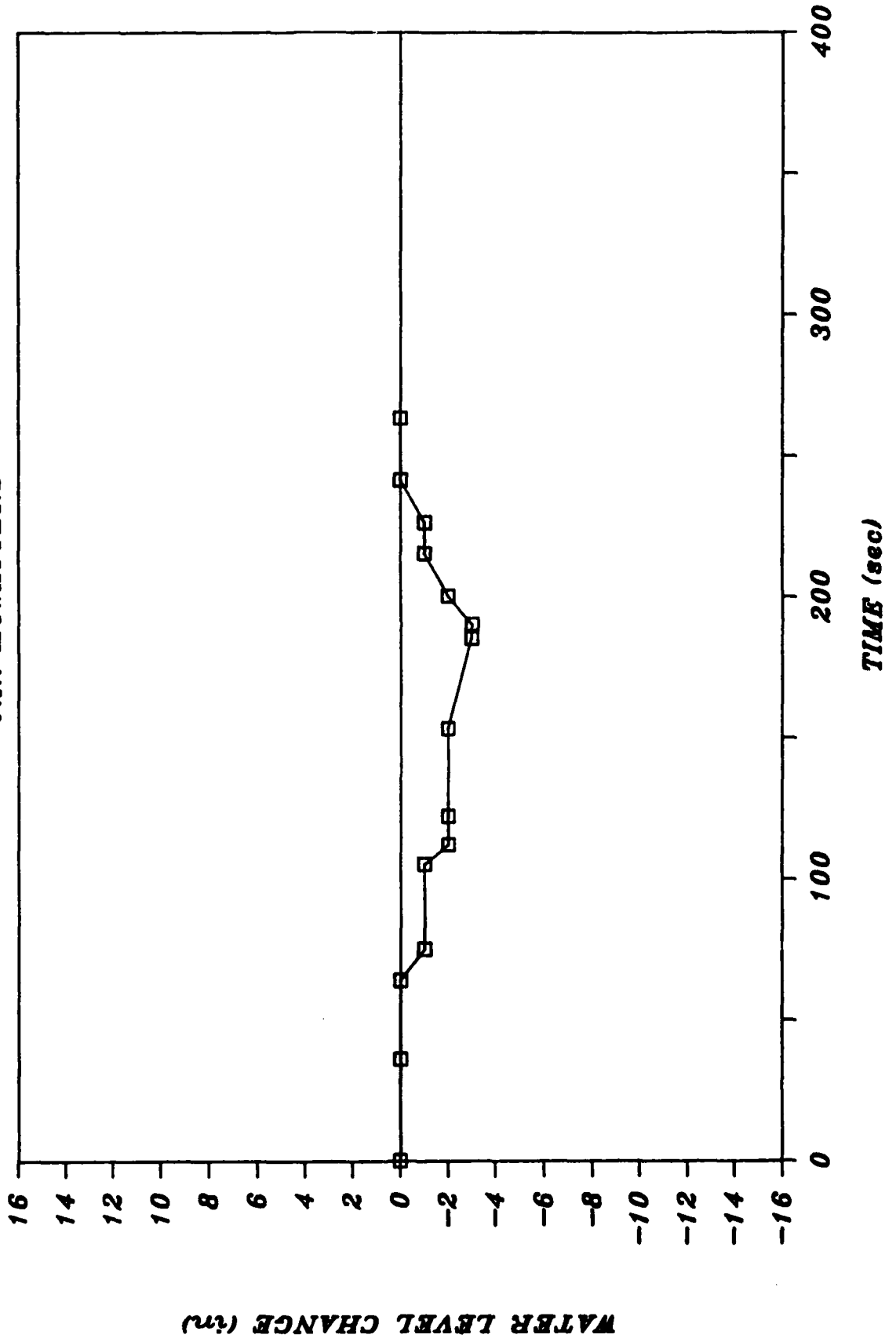
NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85
VESSEL NAME J.N. McWATTERS
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 723
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 27
VESSEL SPEED in feet/sec. = 12.05
BOW ON TIME in sec = 118
STERN ON TIME in sec = 178
DISTANCE TO STAFF GAUGE from green side in feet = 40
BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	36.0	26.0	0.0
3	75.0	25.0	-1.0
4	105.0	25.0	-1.0
5	112.0	24.0	-2.0
6	122.0	24.0	-2.0
7	153.0	24.0	-2.0
8	185.0	23.0	-3.0
9	190.0	23.0	-3.0
10	200.0	24.0	-2.0
11	215.0	25.0	-1.0
12	226.0	25.0	-1.0
13	241.0	26.0	0.0
14	263.0	26.0	0.0

RIVER VIEW (green)

J.N. McWATERS



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85

VESSEL NAME J.N. McWATTERS

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 723

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 27

VESSEL SPEED in feet/sec. = 12.05

BOW ON TIME in sec = 118

STERN ON TIME in sec = 178

DISTANCE TO STAFF GAUGE from green side in feet = 1755

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	61.0	22.0	0.0
3	105.0	22.0	0.0
4	121.0	21.0	-1.0
5	137.0	20.0	-2.0
6	148.0	20.0	-2.0
7	168.0	20.0	-2.0
8	178.0	21.0	-1.0
9	186.0	22.0	0.0
10	194.0	23.0	1.0
11	205.0	24.0	2.0
12	214.0	24.0	2.0
13	222.0	23.0	1.0
14	234.0	22.0	0.0
15	241.0	22.0	0.0
16	253.0	21.0	-1.0
17	270.0	21.0	-1.0
18	278.0	22.0	0.0
19	286.0	22.0	0.0
20	294.0	23.0	1.0

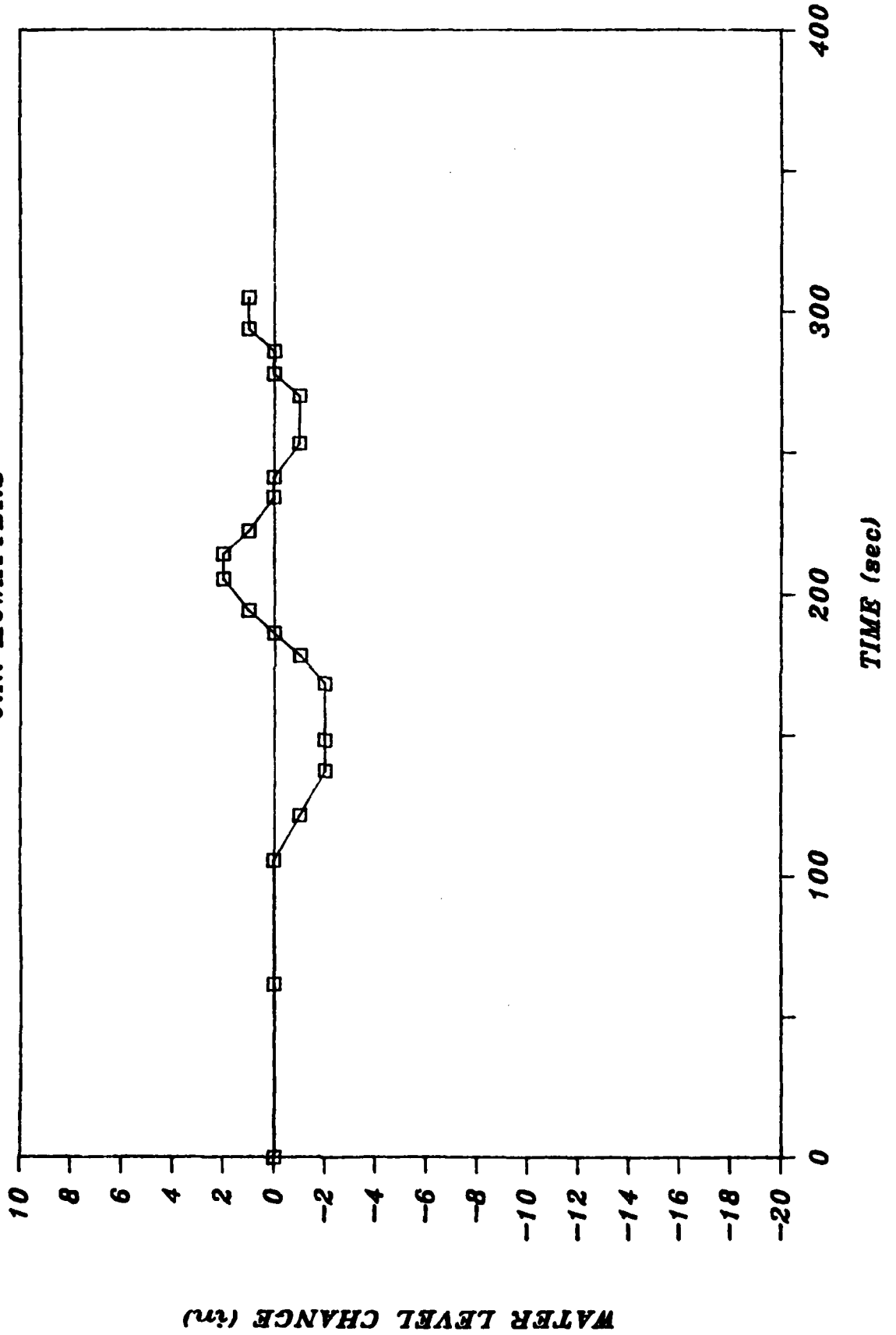
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	305.0	23.0	1.0

RIVER VIEW (red)

J.N. McWATERS



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85

VESSEL NAME ALGOWEST

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 16

VESSEL SPEED in feet/sec. = 8.49

BOW ON TIME in sec = 187

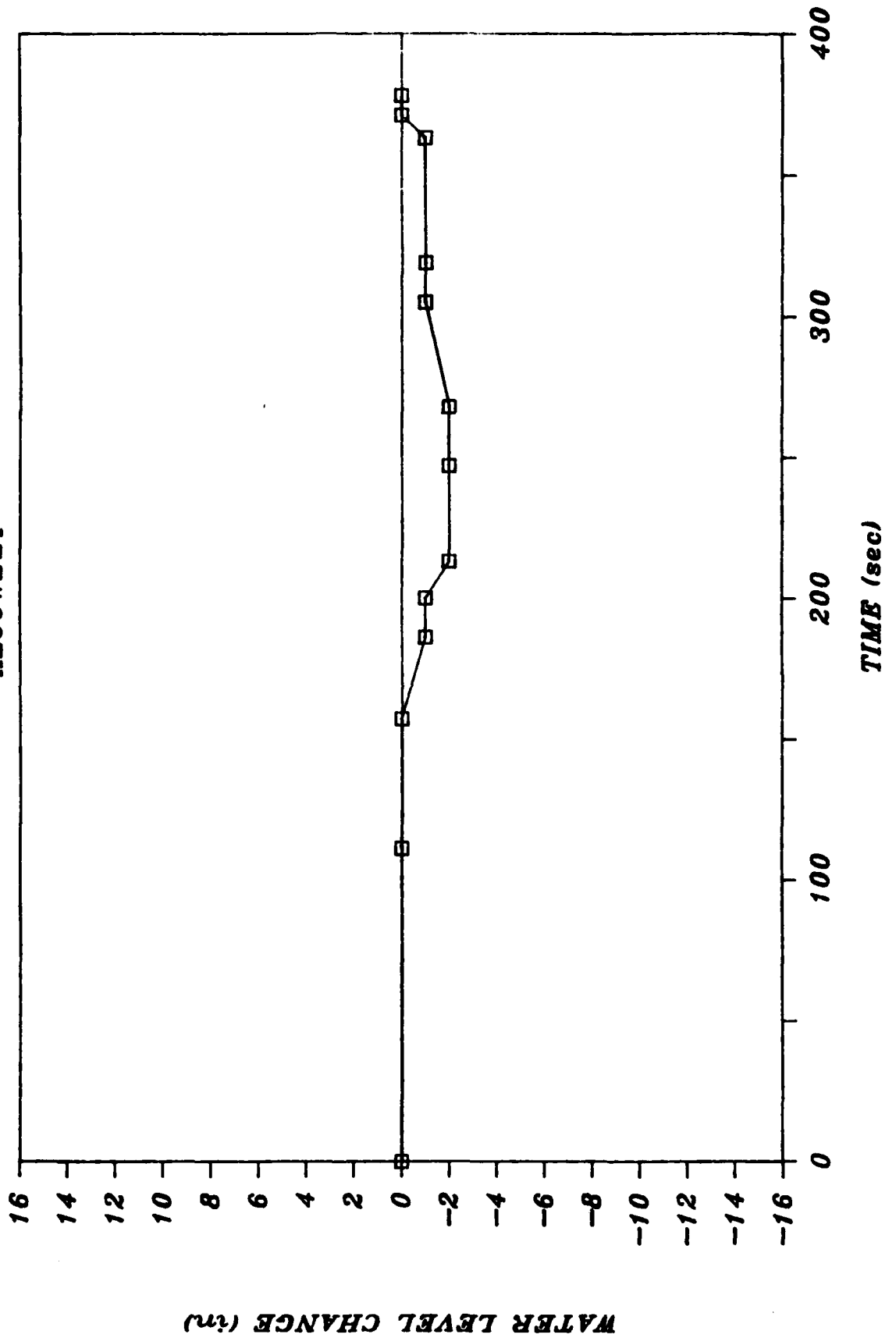
STERN ON TIME in sec = 273

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	0.0	26.0	0.0
3	111.0	26.0	0.0
4	157.0	26.0	0.0
5	186.0	25.0	-1.0
6	200.0	25.0	-1.0
7	213.0	24.0	-2.0
8	247.0	24.0	-2.0
9	268.0	24.0	-2.0
10	305.0	25.0	-1.0
11	319.0	25.0	-1.0
12	363.0	25.0	-1.0
13	371.0	26.0	0.0
14	378.0	26.0	0.0

RIVER VIEW (green) ALGOMEST



BA70

DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85

VESSEL NAME ALGOWEST

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 16

VESSEL SPEED in feet/sec. = 8.49

BOW ON TIME in sec = 187

STERN ON TIME in sec = 273

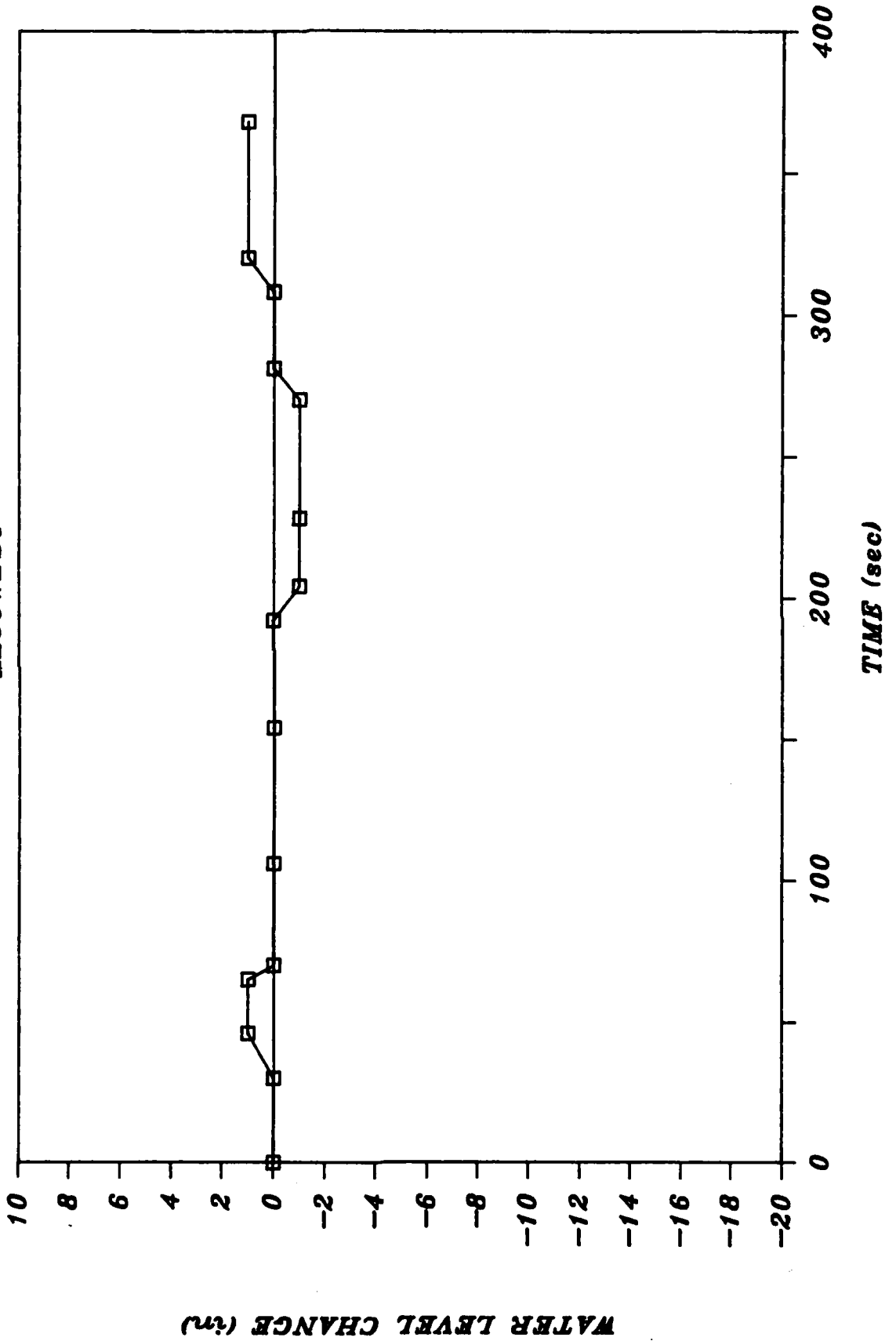
DISTANCE TO STAFF GAUGE from green side in feet = 1755

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	30.0	22.0	0.0
3	46.0	23.0	1.0
4	65.0	23.0	1.0
5	70.0	22.0	0.0
6	106.0	22.0	0.0
7	154.0	22.0	0.0
8	192.0	22.0	0.0
9	204.0	21.0	-1.0
10	228.0	21.0	-1.0
11	270.0	21.0	-1.0
12	281.0	22.0	0.0
13	308.0	22.0	0.0
14	320.0	23.0	1.0
15	368.0	23.0	1.0

RIVER VIEW (red)

ALGOWEST



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85

VESSEL NAME STEWART J. CORT

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 27

VESSEL SPEED in feet/sec. = 11.1

BOW ON TIME in sec = 91

STERN ON TIME in sec = 181

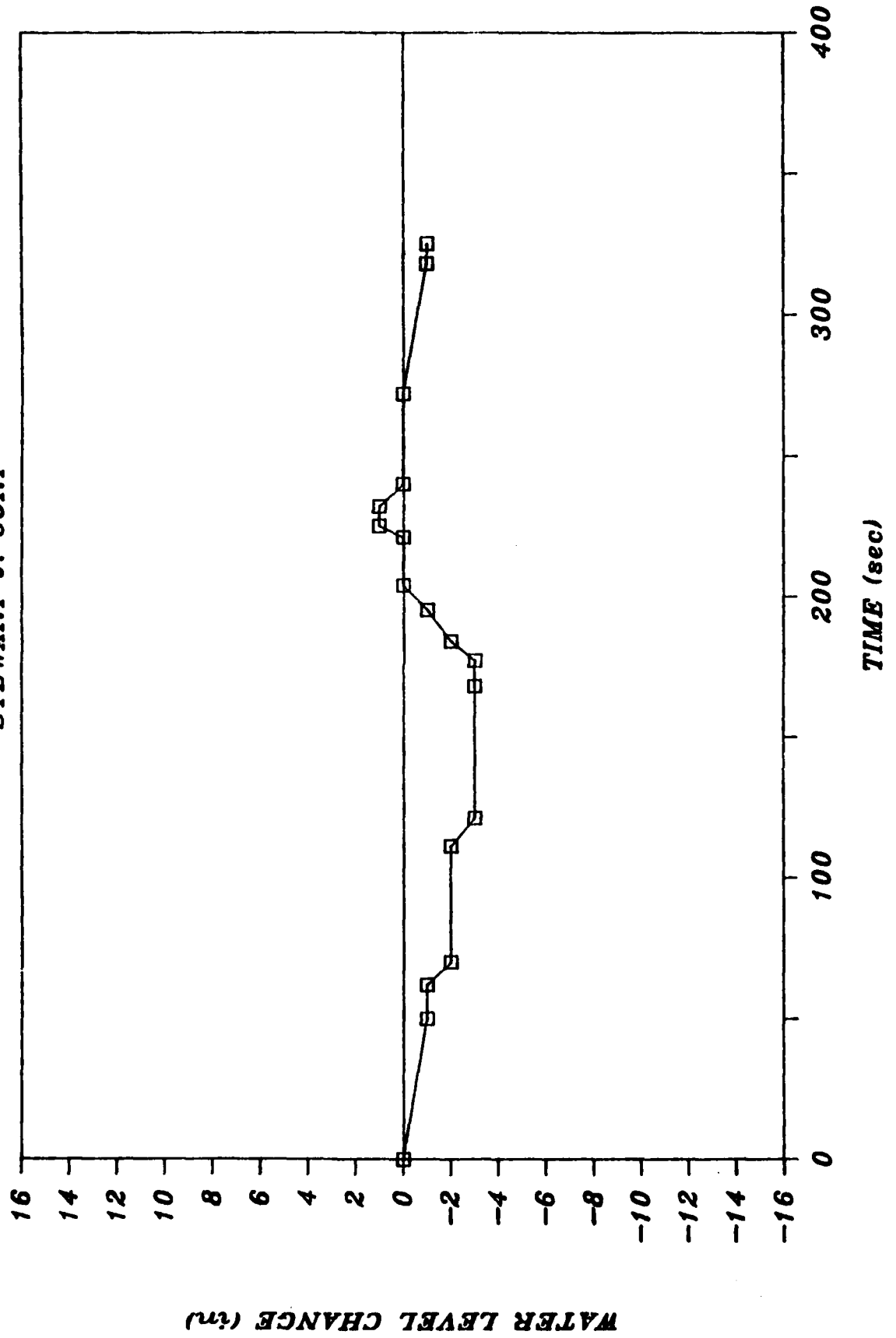
DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 25

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	25.0	0.0
2	50.0	24.0	-1.0
3	62.0	24.0	-1.0
4	70.0	23.0	-2.0
5	111.0	23.0	-2.0
6	121.0	22.0	-3.0
7	168.0	22.0	-3.0
8	177.0	22.0	-3.0
9	184.0	23.0	-2.0
10	195.0	24.0	-1.0
11	204.0	25.0	0.0
12	221.0	25.0	0.0
13	225.0	26.0	1.0
14	232.0	26.0	1.0
15	240.0	25.0	0.0
16	272.0	25.0	0.0
17	318.0	24.0	-1.0
18	325.0	24.0	-1.0

RIVER VIEW (green)

STEWART J. CORT



@@@
 DRAWDOWN DATA

NAME OF SECTION RIVER VIEW
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DATE OF OBSERVATION 6/5/85

VESSEL NAME STEWART J. CORT

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 27

VESSEL SPEED in feet/sec. = 11.1

BOW ON TIME in sec = 91

STERN ON TIME in sec = 181

DISTANCE TO STAFF GAUGE from green side in feet = 1755

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	46.0	22.0	0.0
3	51.0	21.0	-1.0
4	70.0	21.0	-1.0
5	80.0	20.0	-2.0
6	94.0	20.0	-2.0
7	97.0	19.0	-3.0
8	121.0	18.0	-4.0
9	136.0	17.0	-5.0
10	150.0	18.0	-4.0
11	157.0	19.0	-3.0
12	167.0	20.0	-2.0
13	175.0	21.0	-1.0
14	190.0	23.0	1.0
15	193.0	24.0	2.0
16	203.0	24.0	2.0
17	213.0	23.0	1.0
18	223.0	21.0	-1.0
19	228.0	21.0	-1.0
20	233.0	20.0	-2.0

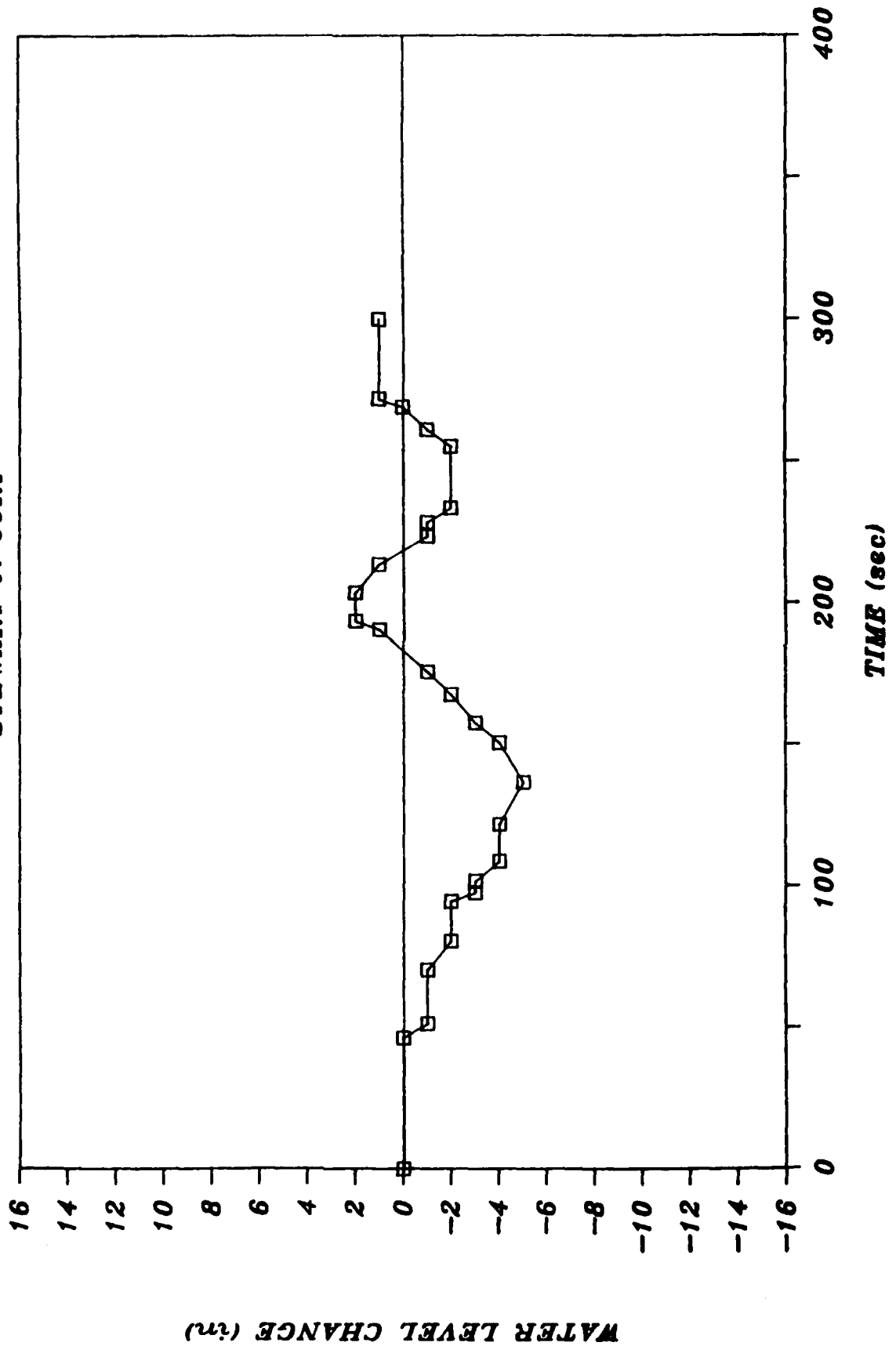
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	255.0	20.0	-2.0
22	261.0	21.0	-1.0
23	269.0	22.0	0.0
24	270.0	23.0	1.0
25	300.0	23.0	1.0

RIVER VIEW (red)

STEWART J. CORT



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW
#####

DATE OF OBSERVATION 6/5/85

VESSEL NAME BENSON FORD

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 644

VESSEL BEAM in feet = 77

VESSEL DRAFT in feet = 26.5

VESSEL SPEED in feet/sec. = 10.56

BOW ON TIME in sec = 117

STERN ON TIME in sec = 178

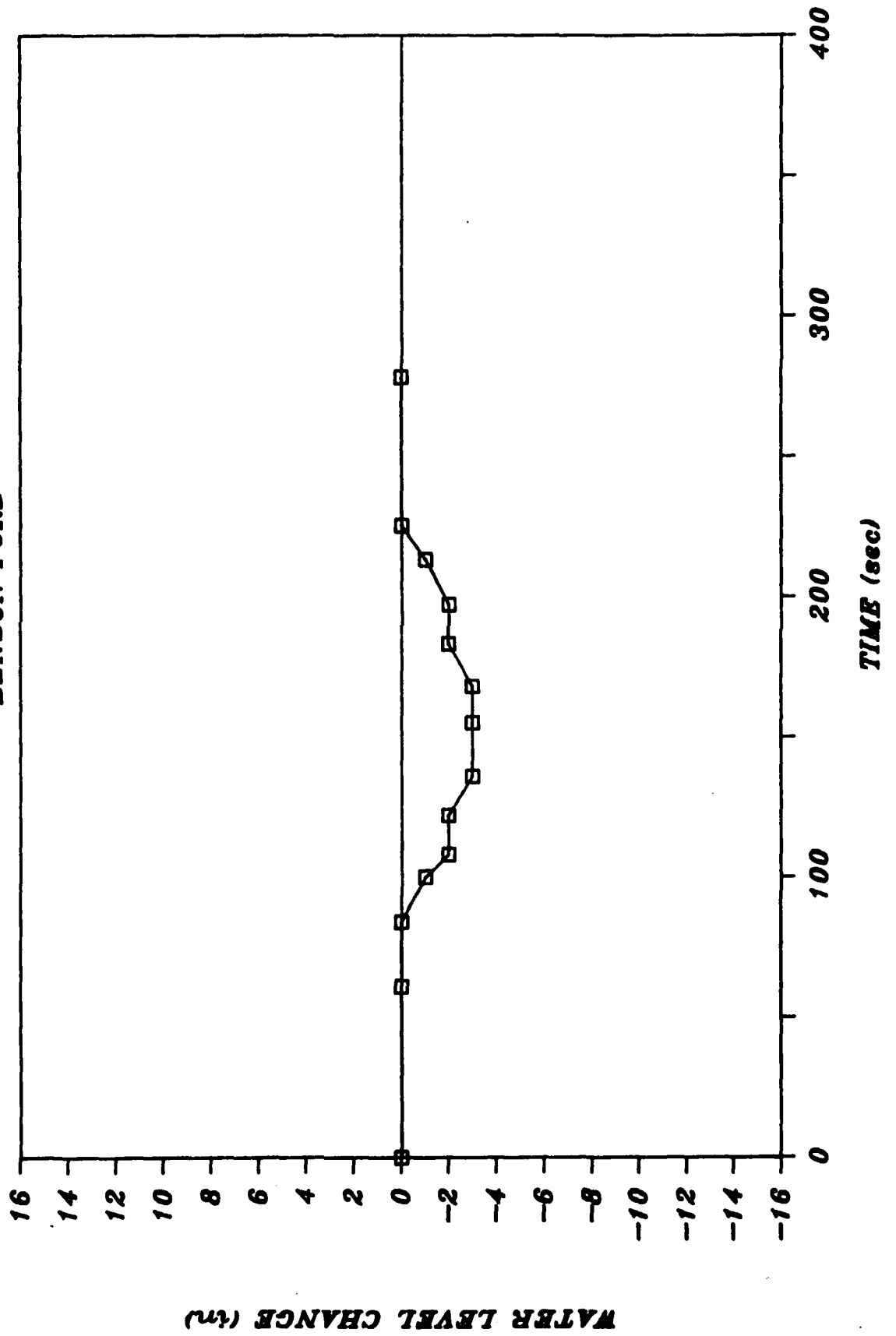
DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	61.0	27.0	0.0
3	84.0	27.0	0.0
4	100.0	26.0	-1.0
5	108.0	25.0	-2.0
6	122.0	25.0	-2.0
7	136.0	24.0	-3.0
8	155.0	24.0	-3.0
9	168.0	24.0	-3.0
10	183.0	25.0	-2.0
11	197.0	25.0	-2.0
12	213.0	26.0	-1.0
13	225.0	27.0	0.0
14	278.0	27.0	0.0

RIVER VIEW (green)

BENSON FORD



DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85

VESSEL NAME BENSON FORD

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 644

VESSEL BEAM in feet = 77

VESSEL DRAFT in feet = 26.5

VESSEL SPEED in feet/sec. = 10.56

BOW ON TIME in sec = unavailable

STERN ON TIME in sec = unavailable

DISTANCE TO STAFF GAUGE from green side in feet = 1755.

BACKGROUND READING in inches = 24

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	20.0	-4.0
2	2.0	19.0	-5.0
3	8.0	20.0	-4.0
4	13.0	21.0	-3.0
5	20.0	22.0	-2.0
6	24.0	23.0	-1.0
7	27.0	24.0	0.0
8	31.0	25.0	1.0
9	38.0	26.0	2.0
10	58.0	26.0	2.0
11	65.0	25.0	1.0
12	72.0	24.0	0.0
13	78.0	23.0	-1.0
14	84.0	22.0	-2.0
15	94.0	22.0	-2.0
16	105.0	21.0	-3.0
17	111.0	21.0	-3.0
18	121.0	22.0	-2.0
19	122.0	23.0	-1.0
20	128.0	24.0	0.0

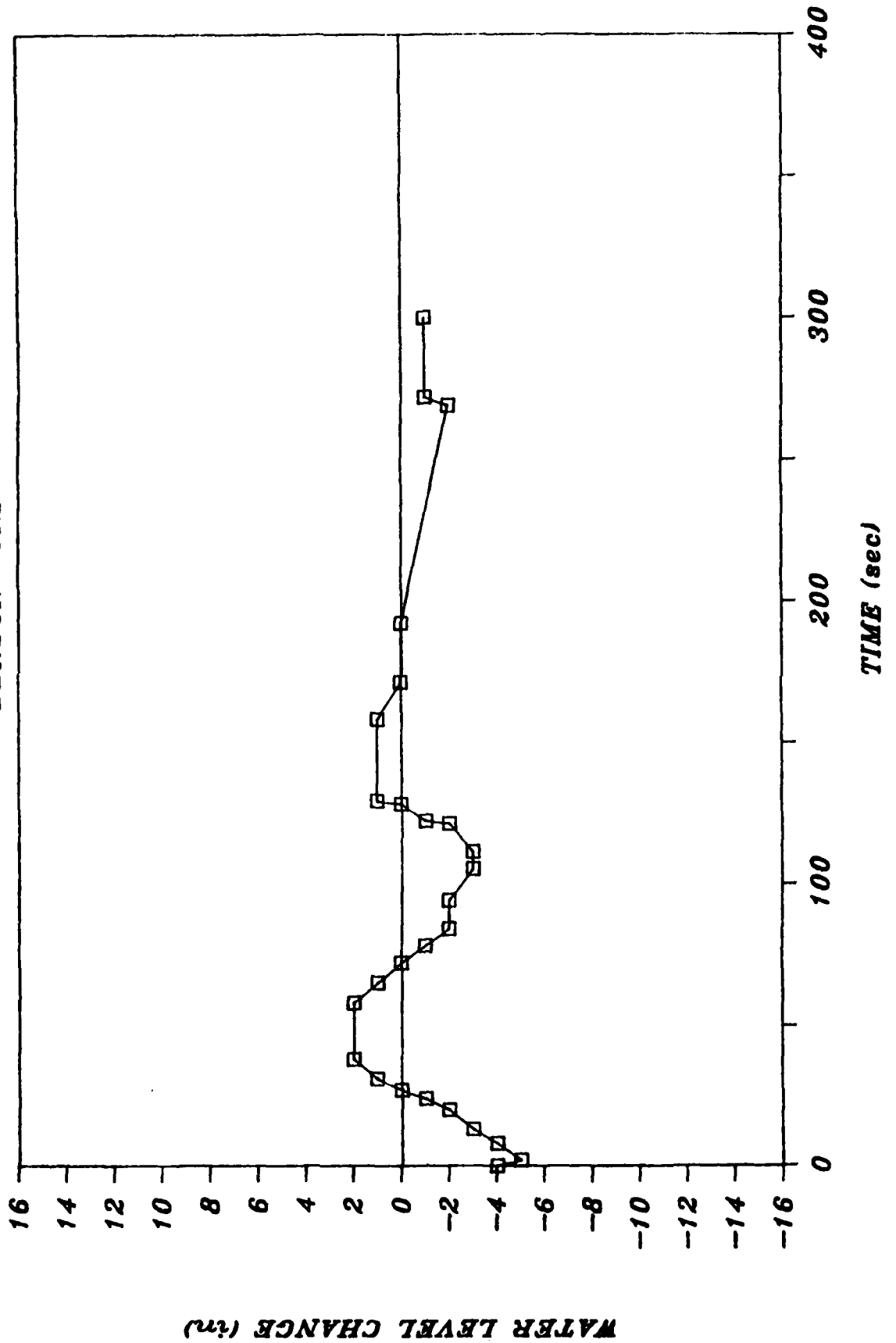
DRAWDOWN DATA (continued)

NAME OF SECTION RIVER VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	129.0	25.0	1.0
22	158.0	25.0	1.0
23	171.0	24.0	0.0
24	192.0	24.0	0.0

RIVER VIEW (red)

BENSON FORD



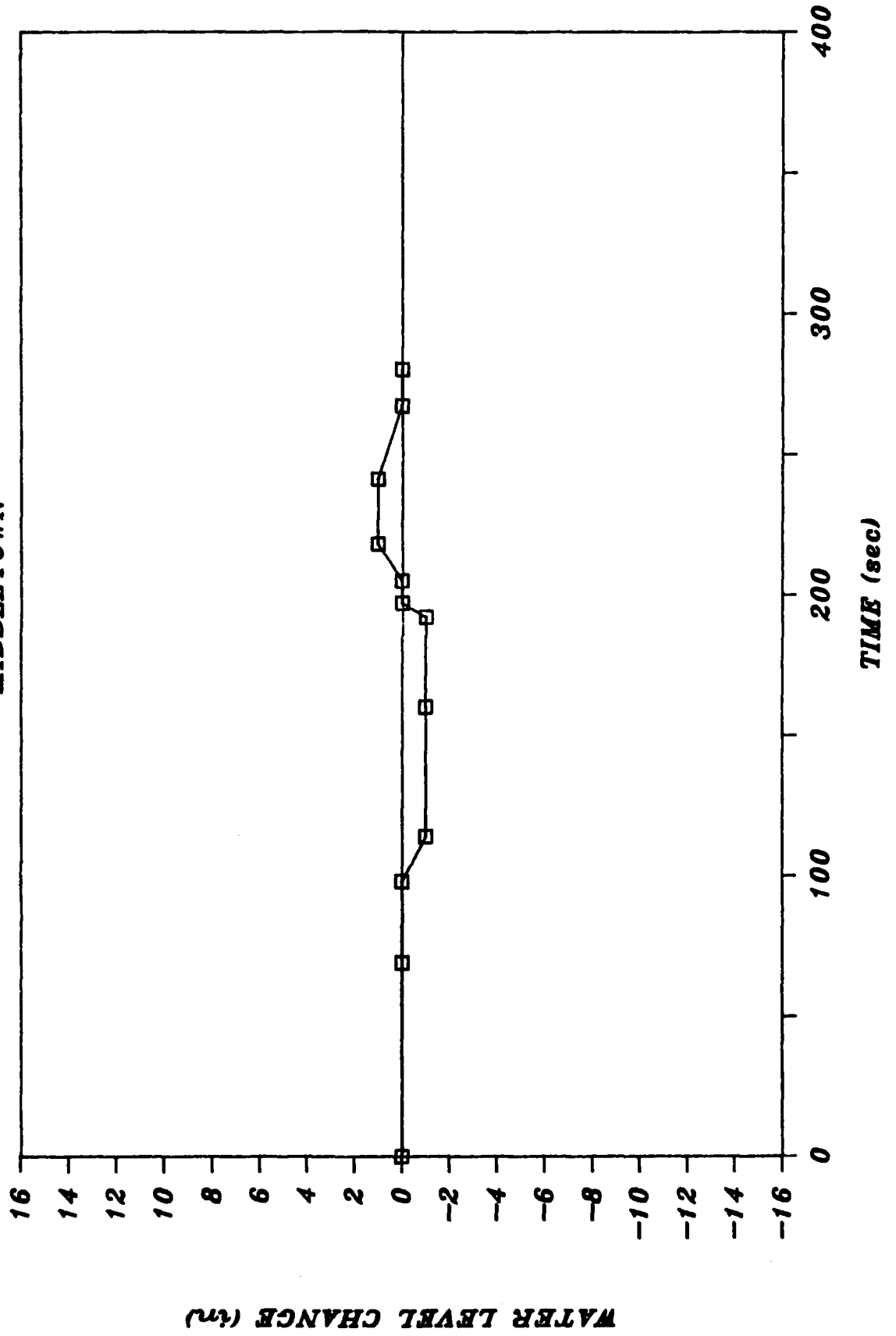
DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85
VESSEL NAME MIDDLETOWN
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 18
VESSEL SPEED in feet/sec. = 12.37
BOW ON TIME in sec = 111
STERN ON TIME in sec = 170
DISTANCE TO STAFF GAUGE from green side in feet = 40
BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	69.0	27.0	0.0
3	98.0	27.0	0.0
4	114.0	26.0	-1.0
5	160.0	26.0	-1.0
6	192.0	26.0	-1.0
7	197.0	27.0	0.0
8	205.0	27.0	0.0
9	218.0	28.0	1.0
10	241.0	28.0	1.0
11	267.0	27.0	0.0
12	280.0	27.0	0.0

RIVER VIEW (green) MIDDLETOWN



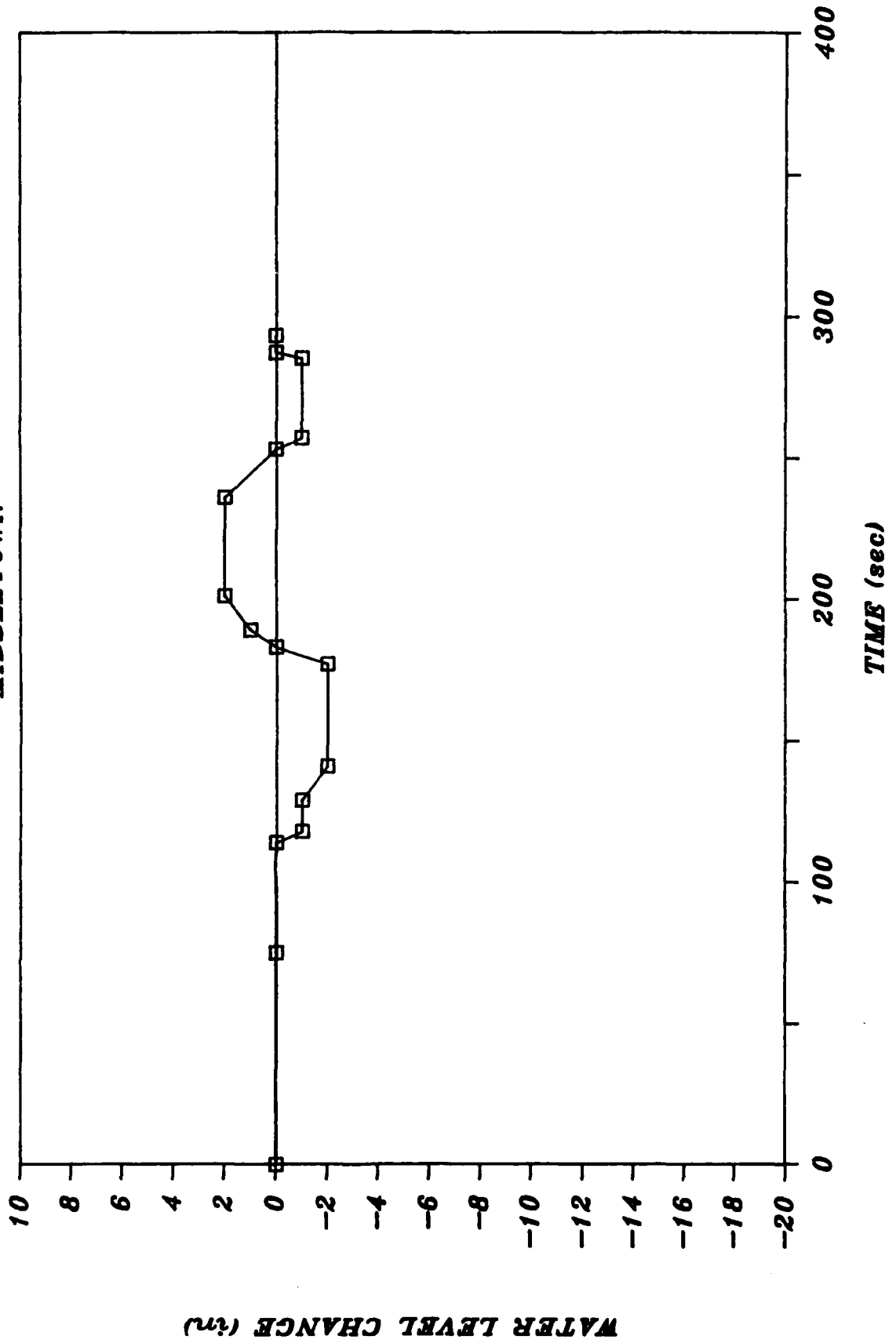
DRAWDOWN DATA

NAME OF SECTION RIVER VIEW

DATE OF OBSERVATION 6/5/85
VESSEL NAME MIDDLETOWN
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 18
VESSEL SPEED in feet/sec. = 12.37
BOW ON TIME in sec = 111
STERN ON TIME in sec = 170
DISTANCE TO STAFF GAUGE from green side in feet = 1755
BACKGROUND READING in inches = 24

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	24.0	0.0
2	75.0	24.0	0.0
3	114.0	24.0	0.0
4	118.0	23.0	-1.0
5	129.0	23.0	-1.0
6	183.0	24.0	0.0
7	189.0	25.0	1.0
8	201.0	26.0	2.0
9	236.0	26.0	2.0
10	253.0	24.0	0.0
11	257.0	23.0	-1.0
12	285.0	23.0	-1.0
13	287.0	24.0	0.0
14	293.0	24.0	0.0

RIVER VIEW (red) MIDDLETOWN



SAND ISLAND

DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
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DATE OF OBSERVATION 10/30/84

VESSEL NAME BENSON FORD

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 644

VESSEL BEAM in feet = 67

VESSEL DRAFT in feet = 25

VESSEL SPEED in feet/sec. = 10.7

BOW ON TIME in sec = 70

STERN ON TIME in sec = 130

DISTANCE TO STAFF GAUGE from green side in feet = 2800

BACKGROUND READING in inches = 15

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	15.0	0.0
2	4.0	15.0	0.0
3	13.0	15.0	0.0
4	22.0	15.0	0.0
5	32.0	15.0	0.0
6	45.0	15.0	0.0
7	52.0	15.0	0.0
8	63.0	15.0	0.0
9	72.0	15.0	0.0
10	83.0	15.0	0.0
11	90.0	14.0	-1.0
12	93.0	13.0	-2.0
13	97.0	12.5	-2.5
14	100.0	12.0	-3.0
15	103.0	11.5	-3.5
16	105.0	11.0	-4.0
17	107.0	10.5	-4.5
18	108.0	10.0	-5.0
19	110.0	9.5	-5.5
20	111.0	9.0	-6.0

@@
 DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	113.0	8.5	-6.5
22	115.0	8.0	-7.0
23	117.0	7.5	-7.5
24	118.0	7.0	-8.0
25	119.0	6.5	-8.5
26	120.0	6.0	-9.0
27	121.0	6.0	-9.0
28	124.0	5.5	-9.5
29	125.0	5.0	-10.0
30	127.0	4.5	-10.5
31	129.0	4.0	-11.0
32	130.0	3.5	-11.5
33	131.0	3.0	-12.0
34	133.0	2.5	-12.5
35	135.0	2.0	-13.0
36	137.0	0.0	-15.0
37	139.0	0.0	-15.0
38	144.0	0.0	-15.0
39	145.0	1.0	-14.0
40	152.0	1.0	-14.0
41	154.0	2.0	-13.0
42	155.0	3.0	-12.0
43	157.0	5.0	-10.0
44	158.0	8.0	-7.0
45	160.0	10.0	-5.0
46	161.0	12.0	-3.0
47	162.0	14.0	-1.0
48	163.0	13.0	-2.0
49	165.0	13.0	-2.0
50	166.0	13.0	-2.0
51	168.0	13.0	-2.0
52	170.0	15.0	0.0
53	171.0	16.0	1.0
54	173.0	17.0	2.0
55	174.0	18.0	3.0
56	175.0	19.0	4.0
57	176.0	21.0	6.0
58	177.0	22.0	7.0
59	178.0	23.0	8.0
60	178.0	24.0	9.0
61	180.0	25.0	10.0
62	182.0	24.0	9.0
63	185.0	24.0	9.0
64	188.0	25.0	10.0

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 DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND  
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	190.0	26.0	11.0
66	192.0	27.0	12.0
67	193.0	28.0	13.0
68	195.0	27.0	12.0
69	197.0	26.0	11.0
70	198.0	24.0	9.0
71	199.0	23.0	8.0
72	200.0	22.0	7.0
73	201.0	21.0	6.0
74	203.0	20.0	5.0
75	205.0	19.0	4.0
76	206.0	18.0	3.0
77	207.0	17.0	2.0
78	209.0	16.0	1.0
79	210.0	15.0	0.0
80	211.0	14.0	-1.0
81	212.0	13.0	-2.0
82	213.0	12.0	-3.0
83	216.0	11.0	-4.0
84	218.0	12.0	-3.0
85	220.0	13.0	-2.0
86	221.0	14.0	-1.0
87	223.0	14.0	-1.0
88	226.0	13.0	-2.0
89	227.0	12.0	-3.0
90	228.0	11.0	-4.0
91	230.0	10.0	-5.0
92	231.0	9.0	-6.0
93	234.0	9.5	-5.5
94	237.0	10.0	-5.0
95	240.0	10.5	-4.5
96	241.0	12.0	-3.0
97	243.0	13.0	-2.0
98	245.0	14.0	-1.0
99	247.0	14.0	-1.0
100	253.0	13.0	-2.0
101	254.0	13.0	-2.0
102	258.0	13.5	-1.5
103	261.0	14.0	-1.0
104	267.0	13.0	-2.0
105	269.0	12.0	-3.0
106	272.0	11.0	-4.0
107	273.0	10.0	-5.0
108	275.0	9.0	-6.0

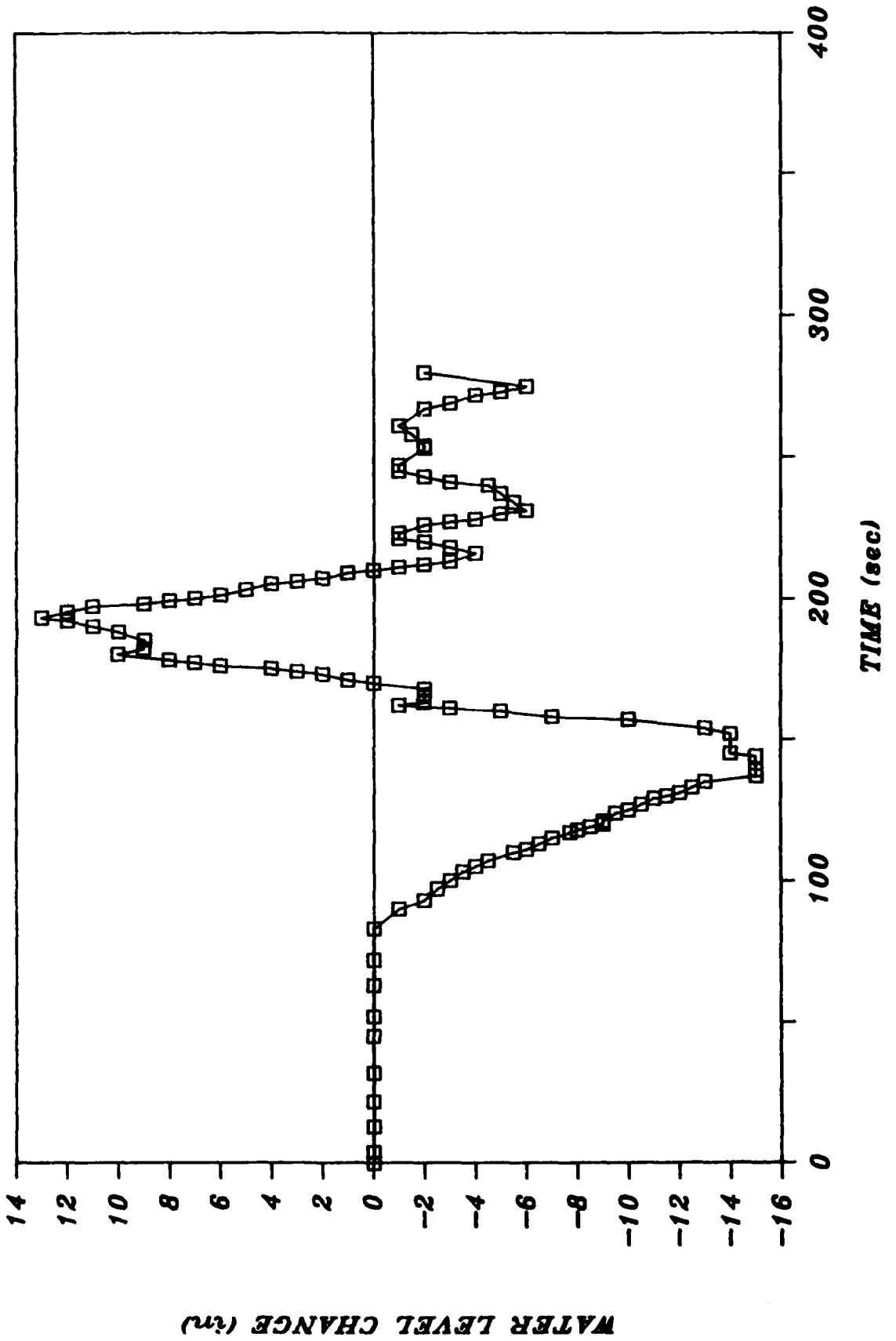
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
109	280.0	13.0	-2.0

SAND ISLAND 10/30/84

BENSON FORD (down)



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 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
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DATE OF OBSERVATION 11/14/84
 VESSEL NAME LEWIS WILSON FOY
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 27.5
 VESSEL SPEED in feet/sec. = 9.7
 BOW ON TIME in sec = 39
 STERN ON TIME in sec = 142
 DISTANCE TO STAFF GAUGE from green side in feet = 2800
 BACKGROUND READING in inches = 24

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	24.0	0.0
2	31.0	24.0	0.0
3	52.0	22.5	-1.5
4	55.0	21.0	-3.0
5	58.0	21.5	-2.5
6	61.0	20.0	-4.0
7	63.0	20.0	-4.0
8	65.0	19.5	-4.5
9	74.0	19.5	-4.5
10	80.0	18.0	-6.0
11	82.0	17.0	-7.0
12	83.0	16.0	-8.0
13	90.0	15.0	-9.0
14	92.0	14.0	-10.0
15	115.0	13.0	-11.0
16	117.0	12.0	-12.0
17	121.0	11.0	-13.0
18	125.0	10.0	-14.0
19	128.0	10.5	-13.5
20	131.0	10.5	-13.5

DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	135.0	10.0	-14.0
22	151.0	9.0	-15.0
23	153.0	10.0	-14.0
24	156.0	11.0	-13.0
25	157.0	12.0	-12.0
26	158.0	13.0	-11.0
27	159.0	14.0	-10.0
28	160.0	15.0	-9.0
29	162.0	16.0	-8.0
30	163.0	17.0	-7.0
31	164.0	18.0	-6.0
32	165.0	19.0	-5.0
33	166.0	20.0	-4.0
34	167.0	22.0	-2.0
35	168.0	28.0	4.0
36	169.0	28.0	4.0
37	181.0	29.0	5.0
38	183.0	30.0	6.0
39	184.0	30.0	6.0
40	186.0	35.0	11.0
41	187.0	30.0	6.0
42	191.0	31.0	7.0
43	194.0	31.0	7.0
44	198.0	30.0	6.0
45	201.0	29.0	5.0
46	203.0	28.0	4.0
47	210.0	26.0	2.0
48	212.0	26.0	2.0
49	214.0	25.0	1.0
50	222.0	24.0	0.0
51	242.0	24.0	0.0
52	253.0	23.0	-1.0
53	255.0	22.0	-2.0
54	260.0	20.0	-4.0
55	263.0	20.5	-3.5
56	266.0	20.0	-4.0
57	268.0	19.5	-4.5
58	269.0	19.5	-4.5
59	272.0	20.0	-4.0
60	279.0	20.0	-4.0
61	299.0	22.0	-2.0
62	302.0	23.0	-1.0
63	354.0	22.5	-1.5
64	379.0	24.0	0.0

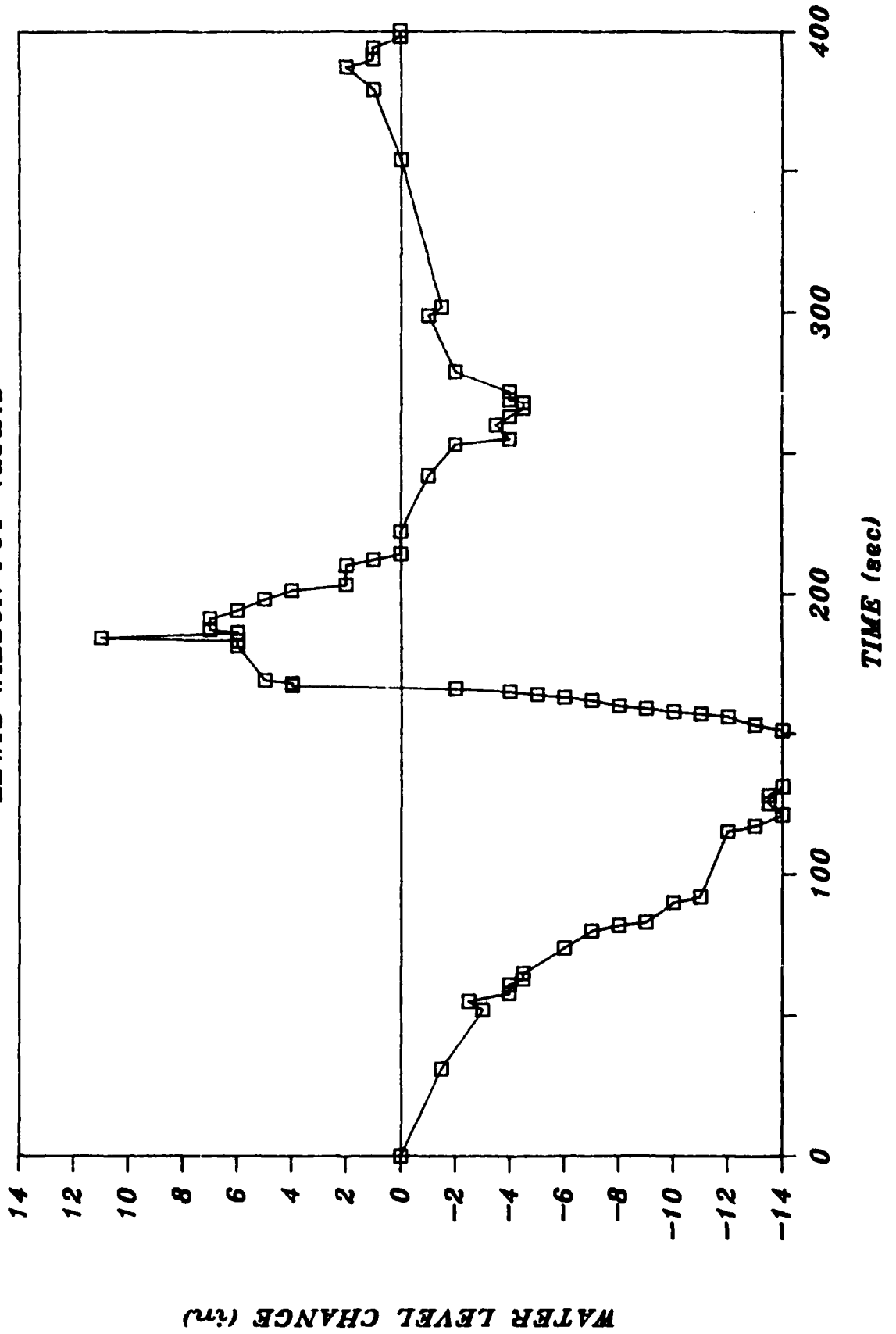
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	387.0	25.0	1.0
66	390.0	26.0	2.0
67	394.0	25.0	1.0
68	398.0	25.0	1.0
69	400.0	24.0	0.0
70	431.0	24.0	0.0
71	435.0	24.5	0.5

SAND ISLAND 11/14/84

LEWIS WILSON FOY (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

DATE OF OBSERVATION 11/14/84
VESSEL NAME J. N. McWATTERS
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 723
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 25.5
VESSEL SPEED in feet/sec. = 12.0
BOW ON TIME in sec = 101
STERN ON TIME in sec = 161
DISTANCE TO STAFF GAUGE from green side in feet = 55
BACKGROUND READING in inches = 13

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	13.0	0.0
2	3.0	13.0	0.0
3	91.0	13.0	0.0
4	99.0	12.0	-1.0
5	106.0	12.0	-1.0
6	116.0	11.0	-2.0
7	121.0	11.0	-2.0
8	126.0	10.0	-3.0
9	130.0	10.0	-3.0
10	133.0	9.0	-4.0
11	142.0	9.0	-4.0
12	145.0	8.5	-4.5
13	148.0	8.0	-5.0
14	157.0	8.0	-5.0
15	158.0	7.0	-6.0
16	165.0	7.0	-6.0
17	168.0	6.5	-6.5
18	169.0	6.0	-7.0
19	171.0	5.5	-7.5
20	174.0	5.0	-8.0

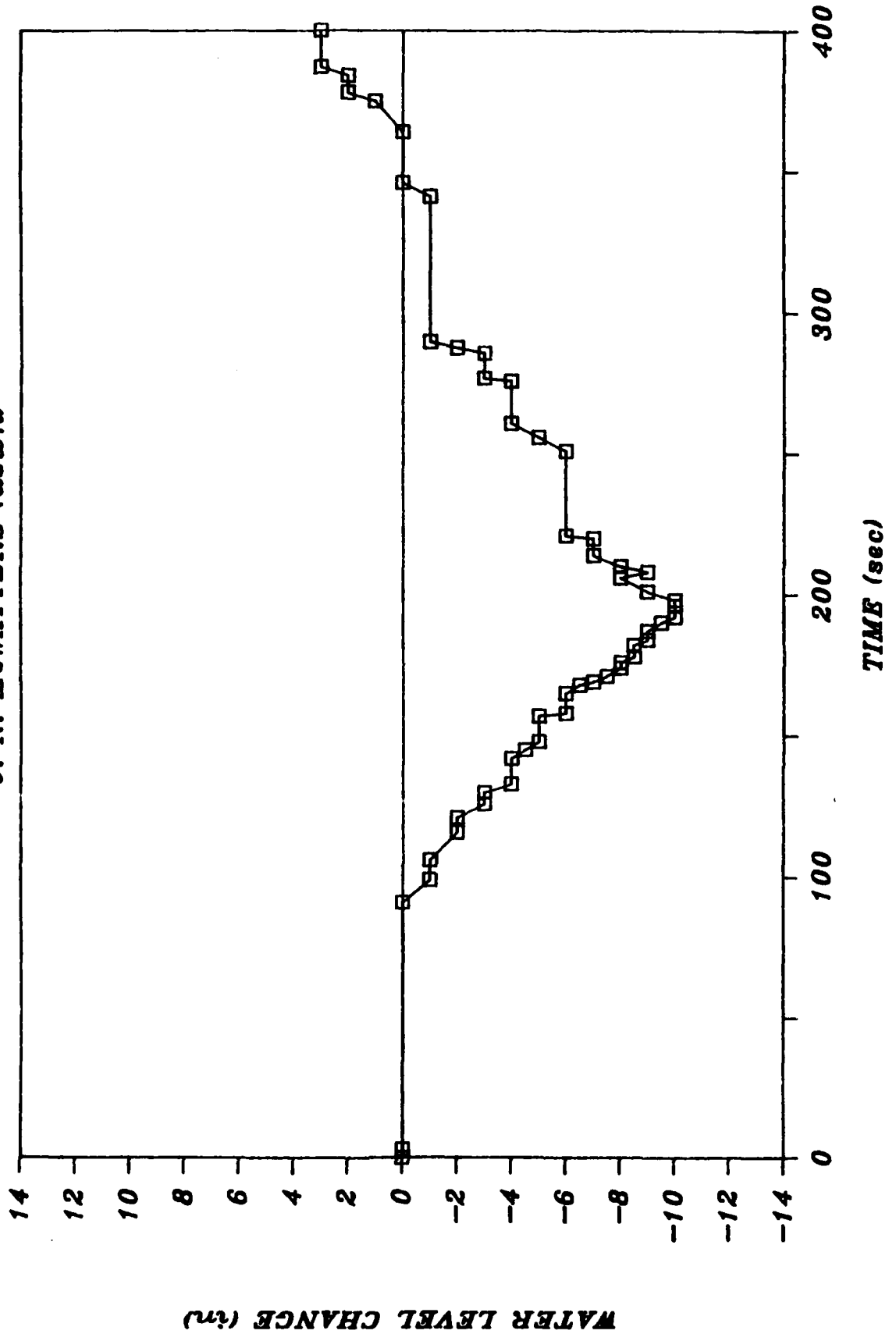
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	176.0	5.0	-8.0
22	178.0	4.5	-8.5
23	182.0	4.5	-8.5
24	184.0	4.0	-9.0
25	187.0	4.0	-9.0
26	190.0	3.5	-9.5
27	192.0	3.0	-10.0
28	196.0	3.0	-10.0
29	198.0	3.0	-10.0
30	201.0	4.0	-9.0
31	206.0	5.0	-8.0
32	208.0	4.0	-9.0
33	210.0	5.0	-8.0
34	214.0	6.0	-7.0
35	220.0	6.0	-7.0
36	221.0	7.0	-6.0
37	251.0	7.0	-6.0
38	256.0	8.0	-5.0
39	261.0	9.0	-4.0
40	276.0	9.0	-4.0
41	277.0	10.0	-3.0
42	286.0	10.0	-3.0
43	288.0	11.0	-2.0
44	290.0	12.0	-1.0
45	341.0	12.0	-1.0
46	346.0	13.0	0.0
47	364.0	13.0	0.0
48	375.0	14.0	1.0
49	378.0	15.0	2.0
50	384.0	15.0	2.0
51	387.0	16.0	3.0
52	405.0	16.0	3.0
53	409.0	15.0	2.0
54	412.0	14.0	1.0
55	416.0	13.0	0.0
56	450.0	13.0	0.0

SAND ISLAND 11/14/84

J. N. McWATERS (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

DATE OF OBSERVATION 11/14/84
VESSEL NAME J. N. McWATTERS
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 723
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 25.5
VESSEL SPEED in feet/sec. = 12.0
BOW ON TIME in sec = 101
STERN ON TIME in sec = 161
DISTANCE TO STAFF GAUGE from green side in feet = 1270
BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	71.0	21.0	0.0
3	90.0	20.9	-0.1
4	95.0	20.9	-0.1
5	104.0	18.0	-3.0
6	109.0	16.4	-4.6
7	114.0	15.0	-6.0
8	122.0	14.4	-6.6
9	130.0	12.0	-9.0
10	140.0	10.8	-10.2
11	142.0	10.8	-10.2
12	149.0	12.0	-9.0
13	156.0	13.2	-7.8
14	160.0	15.0	-6.0
15	163.0	15.0	-6.0
16	170.0	16.8	-4.2
17	177.0	18.0	-3.0
18	198.0	18.0	-3.0
19	205.0	19.2	-1.8
20	213.0	19.2	-1.8

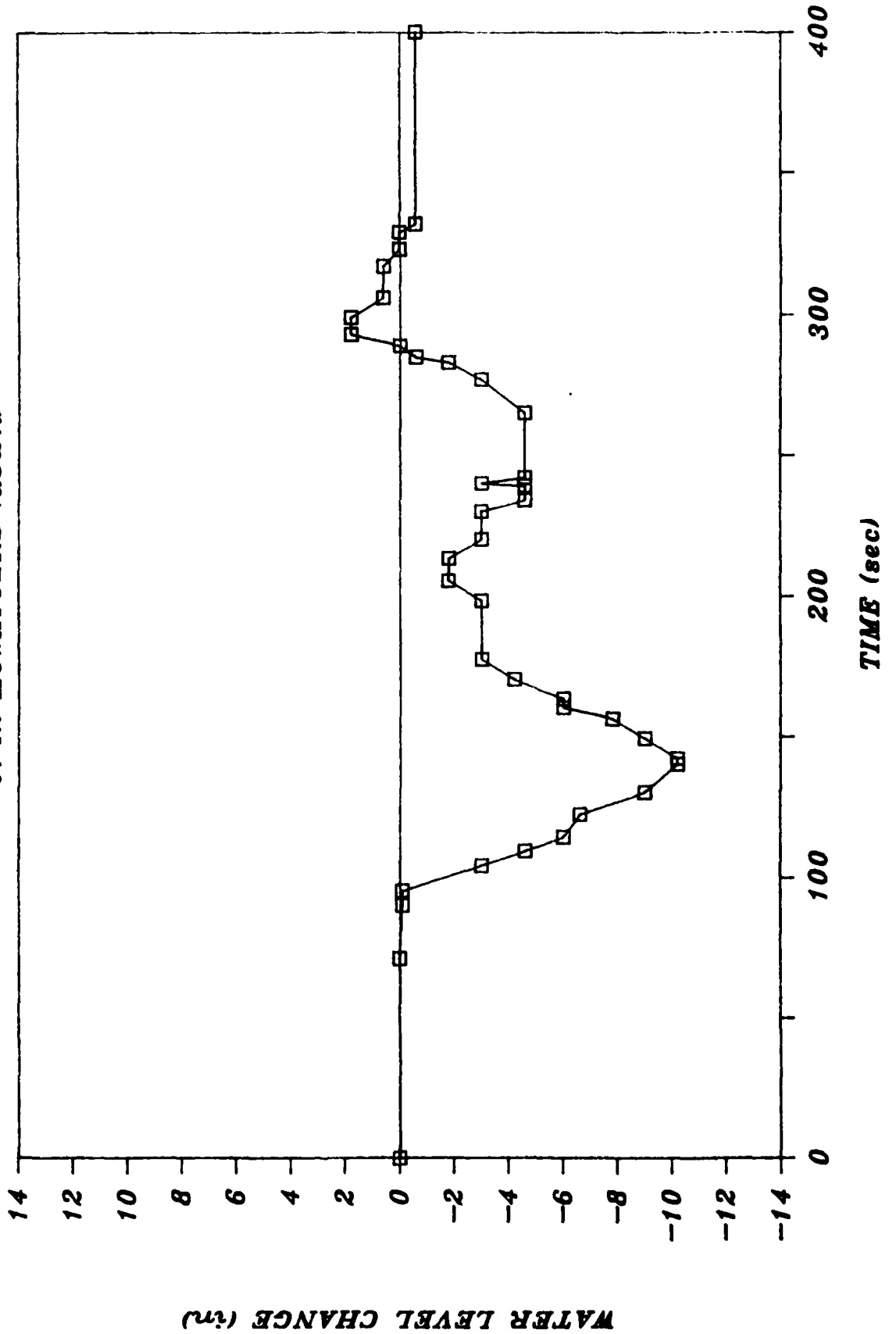
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	220.0	18.0	-3.0
22	230.0	18.0	-3.0
23	234.0	16.4	-4.6
24	239.0	16.4	-4.6
25	240.0	18.0	-3.0
26	242.0	16.4	-4.6
27	265.0	16.4	-4.6
28	277.0	18.0	-3.0
29	283.0	19.2	-1.8
30	285.0	20.4	-0.6
31	289.0	21.0	0.0
32	293.0	22.8	1.8
33	299.0	22.8	1.8
34	306.0	21.6	0.6
35	317.0	21.6	0.6
36	323.0	21.0	0.0
37	329.0	21.0	0.0
38	332.0	20.4	-0.6
39	420.0	20.4	-0.6
40	430.0	20.4	-0.6
41	450.0	19.8	-1.2

SAND ISLAND 11/14/84

J. N. McWATERS (down)



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DRAWDOWN DATA

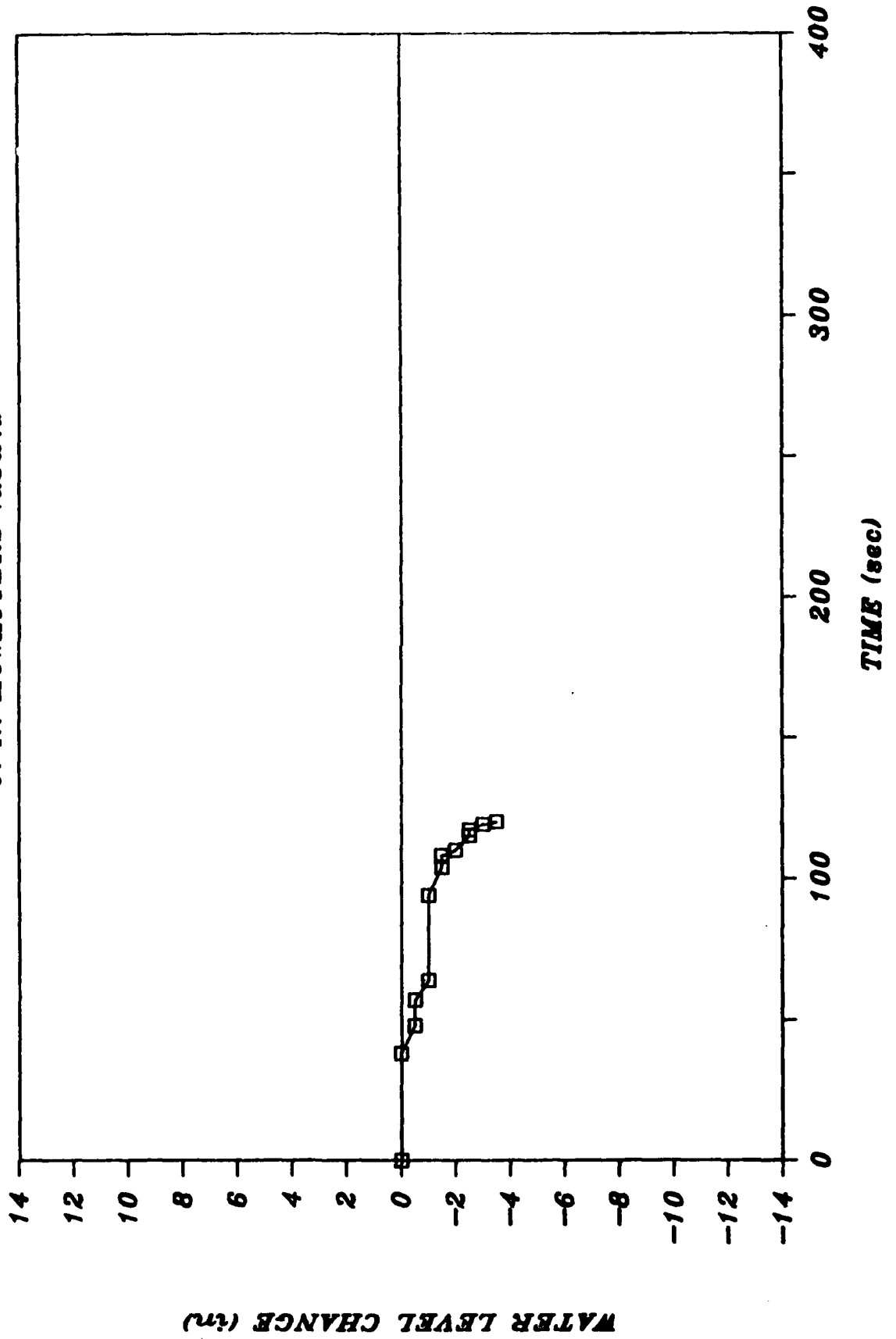
NAME OF SECTION SAND ISLAND
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DATE OF OBSERVATION 11/14/84
VESSEL NAME J. N. McWATTERS
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 723
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 25.5
VESSEL SPEED in feet./sec. = 12.0
BOW ON TIME in sec = 101
STERN ON TIME in sec = 161
DISTANCE TO STAFF GAUGE from green side in feet = 2800
BACKGROUND READING in inches = 25.5

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	25.5	0.0
2	38.0	25.5	0.0
3	48.0	25.0	-0.5
4	57.0	25.0	-0.5
5	64.0	24.5	-1.0
6	94.0	24.5	-1.0
7	104.0	24.0	-1.5
8	108.0	24.0	-1.5
9	110.0	23.5	-2.0
10	115.0	23.0	-2.5
11	117.0	23.0	-2.5
12	119.0	22.5	-3.0
13	120.0	22.0	-3.5

SAND ISLAND 11/14/84

J. N. McWATERS (down)



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
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DATE OF OBSERVATION 11/14/84
 VESSEL NAME JADE KIM
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 505
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 25.5
 VESSEL SPEED in feet/sec. = 13.3
 BOW ON TIME in sec = 65
 STERN ON TIME in sec = 103
 DISTANCE TO STAFF GAUGE from green side in feet = 55
 BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	5.0	14.0	0.0
3	57.0	14.0	0.0
4	71.0	15.0	1.0
5	78.0	14.0	0.0
6	85.0	14.0	0.0
7	95.0	13.0	-1.0
8	104.0	12.0	-2.0
9	108.0	12.0	-2.0
10	110.0	11.0	-3.0
11	113.0	11.0	-3.0
12	118.0	10.0	-4.0
13	121.0	9.0	-5.0
14	123.0	9.0	-5.0
15	132.0	8.0	-6.0
16	134.0	8.0	-6.0
17	135.0	7.0	-7.0
18	140.0	6.0	-8.0
19	145.0	5.0	-9.0
20	147.0	5.0	-9.0

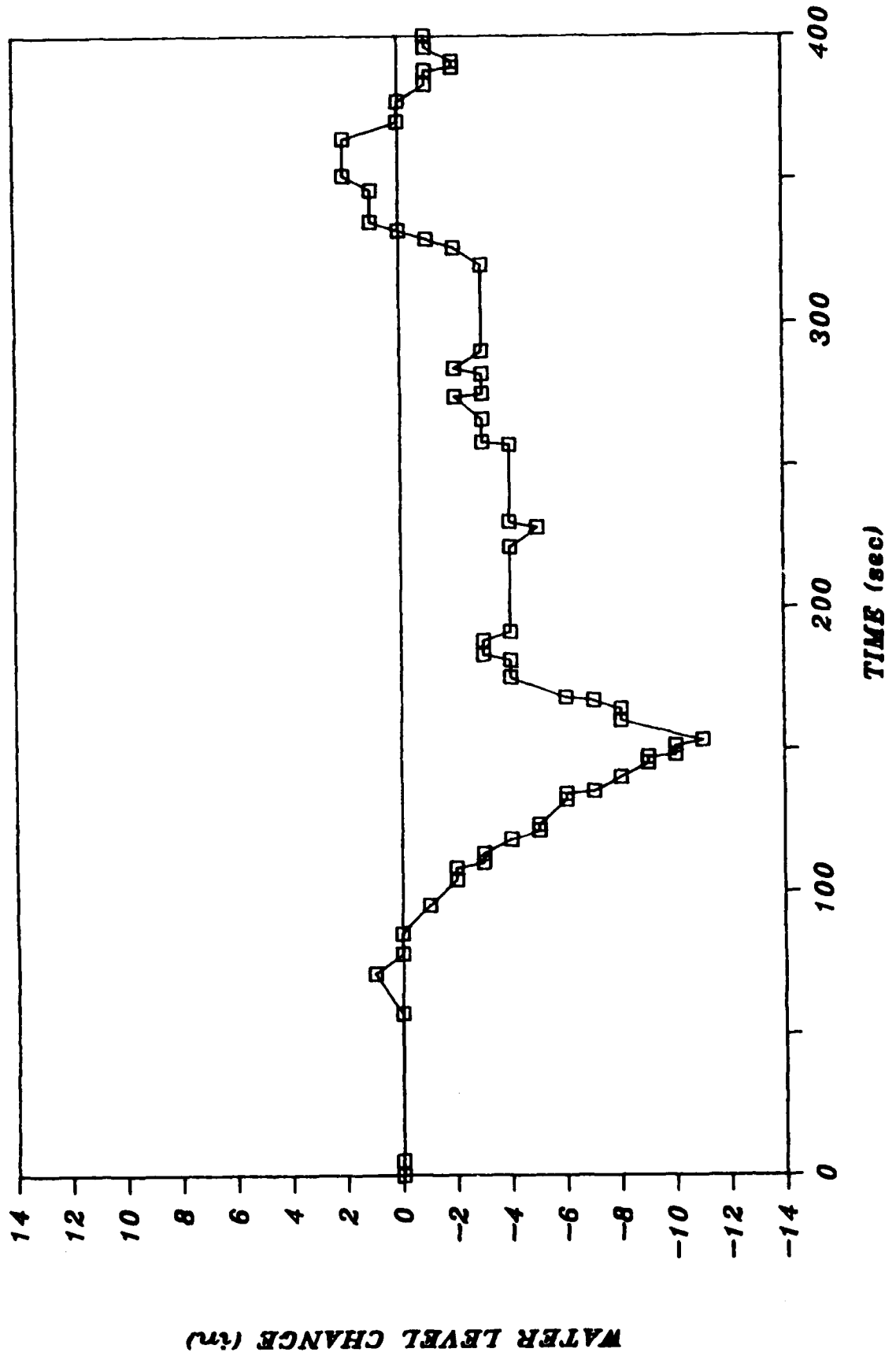
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	148.0	4.0	-10.0
22	151.0	4.0	-10.0
23	153.0	3.0	-11.0
24	160.0	6.0	-8.0
25	164.0	6.0	-8.0
26	167.0	15.0	1.0
27	168.0	8.0	-6.0
28	175.0	10.0	-4.0
29	181.0	10.0	-4.0
30	183.0	11.0	-3.0
31	188.0	11.0	-3.0
32	191.0	10.0	-4.0
33	221.0	10.0	-4.0
34	228.0	9.0	-5.0
35	230.0	10.0	-4.0
36	257.0	10.0	-4.0
37	258.0	11.0	-3.0
38	266.0	11.0	-3.0
39	274.0	12.0	-2.0
40	275.0	11.0	-3.0
41	282.0	11.0	-3.0
42	284.0	12.0	-2.0
43	290.0	11.0	-3.0
44	320.0	11.0	-3.0
45	326.0	12.0	-2.0
46	329.0	13.0	-1.0
47	332.0	14.0	0.0
48	335.0	15.0	1.0
49	346.0	15.0	1.0
50	351.0	16.0	2.0
51	364.0	16.0	2.0
52	370.0	14.0	0.0
53	377.0	14.0	0.0
54	383.0	13.0	-1.0
55	388.0	13.0	-1.0
56	389.0	12.0	-2.0
57	391.0	12.0	-2.0
58	396.0	13.0	-1.0
59	420.0	13.0	-1.0

SAND ISLAND 11/14/84

JADE KIM (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

DATE OF OBSERVATION 11/14/84
VESSEL NAME JADE KIM
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 505
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 25.5
VESSEL SPEED in feet/sec. = 13.3
BOW ON TIME in sec = 65
STERN ON TIME in sec = 103
DISTANCE TO STAFF GAUGE from green side in feet = 1270
BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	12.0	21.6	0.6
3	51.0	21.6	0.6
4	52.0	21.0	0.0
5	57.0	21.0	0.0
6	65.0	20.4	-0.6
7	69.0	19.2	-1.8
8	73.0	18.0	-3.0
9	75.0	16.8	-4.2
10	81.0	15.6	-5.4
11	83.0	15.0	-6.0
12	84.0	14.4	-6.6
13	87.0	13.2	-7.8
14	91.0	12.0	-9.0
15	98.0	12.0	-9.0
16	102.0	15.0	-6.0
17	103.0	18.0	-3.0
18	106.0	18.0	-3.0
19	110.0	19.2	-1.8
20	113.0	19.2	-1.8

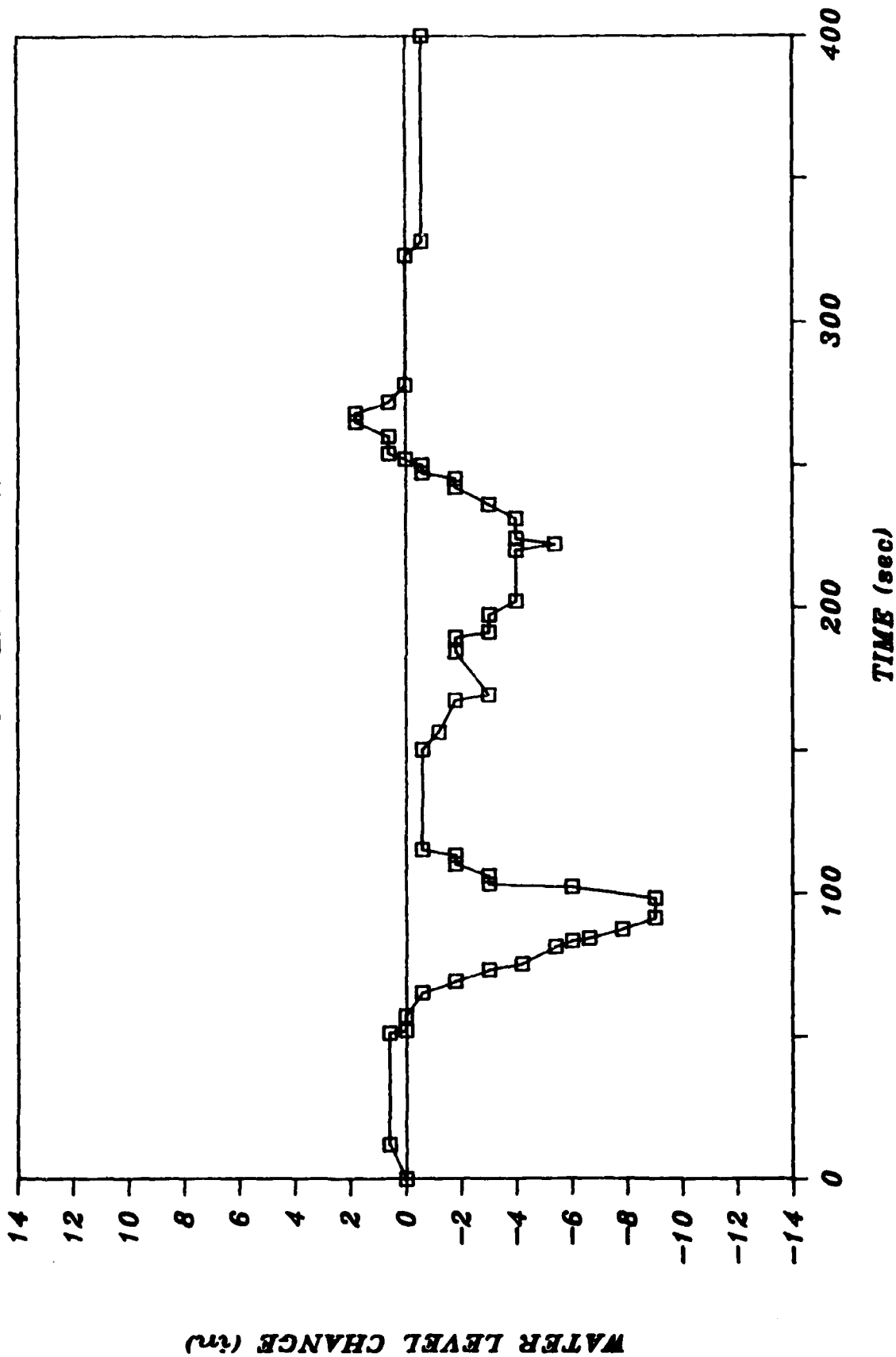
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 DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	115.0	20.4	-0.6
22	150.0	20.4	-0.6
23	156.0	19.8	-1.2
24	167.0	19.2	-1.8
25	169.0	18.0	-3.0
26	184.0	19.2	-1.8
27	189.0	19.2	-1.8
28	191.0	18.0	-3.0
29	197.0	18.0	-3.0
30	202.0	16.8	-4.2
31	220.0	16.8	-4.2
32	222.0	15.6	-5.4
33	224.0	16.8	-4.2
34	231.0	16.8	-4.2
35	236.0	18.0	-3.0
36	242.0	19.2	-1.8
37	245.0	19.2	-1.8
38	247.0	20.4	-0.6
39	250.0	20.4	-0.6
40	252.0	21.0	0.0
41	254.0	21.6	0.6
42	260.0	21.6	0.6
43	265.0	22.8	1.8
44	268.0	22.8	1.8
45	272.0	21.6	0.6
46	278.0	21.0	0.0
47	323.0	21.0	0.0
48	328.0	20.4	-0.6
49	420.0	20.4	-0.6

SAND ISLAND 11/14/84

JADE KIM (down)



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DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 11/14/84
VESSEL NAME JADE KIM
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 505
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 25.5
VESSEL SPEED in feet/sec. = 13.3
BOW ON TIME in sec = 65
STERN ON TIME in sec = 103
DISTANCE TO STAFF GAUGE from green side in feet = 2800
BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	45.0	26.0	0.0
3	50.0	25.5	-0.5
4	55.0	25.5	-0.5
5	61.0	25.0	-1.0
6	64.0	25.0	-1.0
7	69.0	25.0	-1.0
8	80.0	25.0	-1.0
9	85.0	24.5	-1.5
10	89.0	24.0	-2.0
11	91.0	23.5	-2.5
12	93.0	23.0	-3.0
13	95.0	22.0	-4.0
14	96.0	22.0	-4.0
15	99.0	21.0	-5.0
16	101.0	20.0	-6.0
17	104.0	19.0	-7.0
18	106.0	18.0	-8.0
19	107.0	17.0	-9.0
20	109.0	16.0	-10.0

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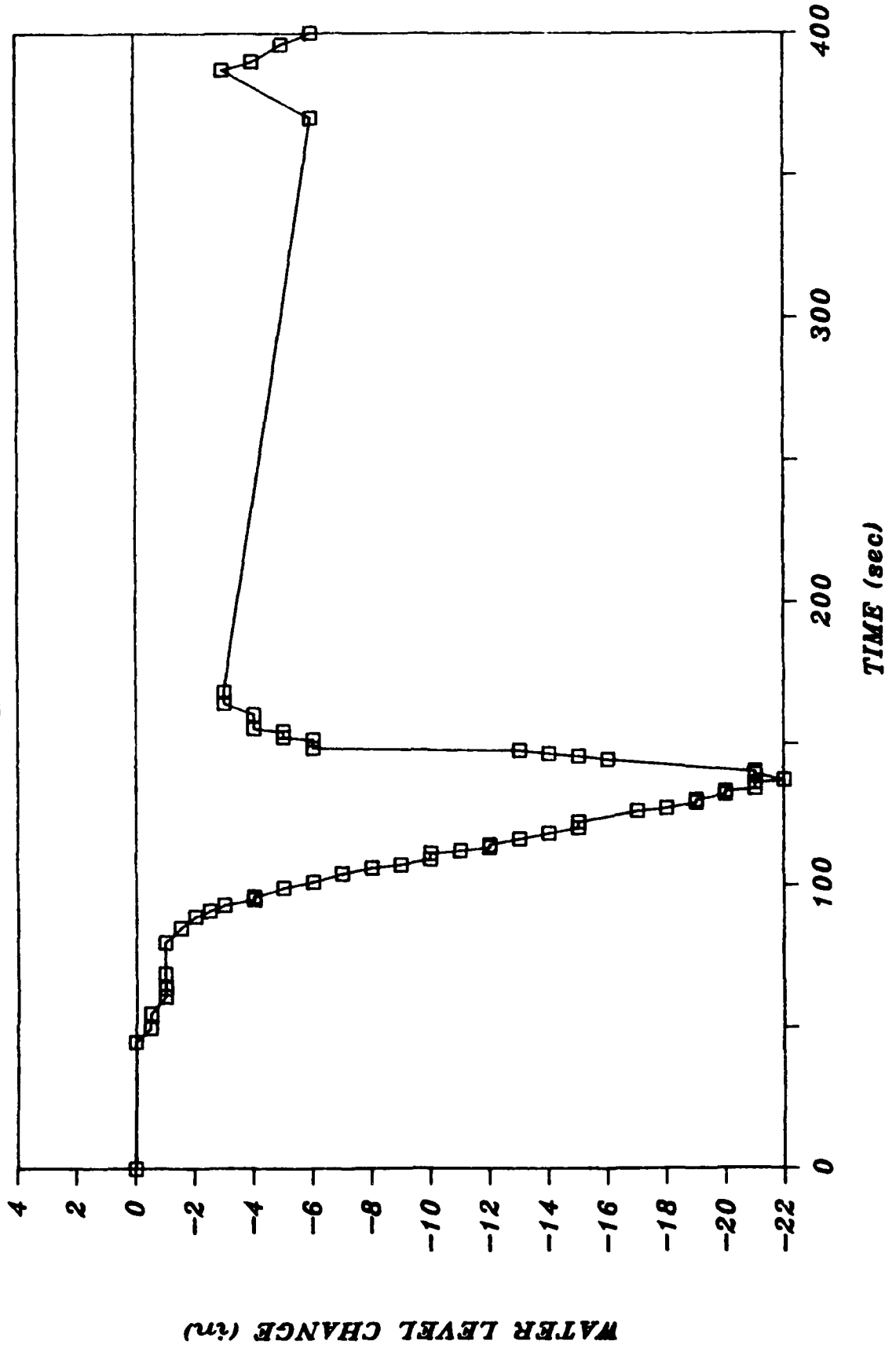
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	111.0	16.0	-10.0
22	112.0	15.0	-11.0
23	113.0	14.0	-12.0
24	114.0	14.0	-12.0
25	116.0	13.0	-13.0
26	118.0	12.0	-14.0
27	120.0	11.0	-15.0
28	122.0	11.0	-15.0
29	126.0	9.0	-17.0
30	127.0	8.0	-18.0
31	129.0	7.0	-19.0
32	130.0	7.0	-19.0
33	132.0	6.0	-20.0
34	133.0	6.0	-20.0
35	134.0	5.0	-21.0
36	136.0	5.0	-21.0
37	137.0	4.0	-22.0
38	139.0	5.0	-21.0
39	140.0	5.0	-21.0
40	144.0	10.0	-16.0
41	145.0	11.0	-15.0
42	146.0	12.0	-14.0
43	147.0	13.0	-13.0
44	148.0	20.0	-6.0
45	151.0	20.0	-6.0
46	152.0	21.0	-5.0
47	154.0	21.0	-5.0
48	155.0	22.0	-4.0
49	160.0	22.0	-4.0
50	164.0	23.0	-3.0
51	168.0	23.0	-3.0
52	370.0	20.0	-6.0
53	387.0	23.0	-3.0
54	390.0	22.0	-4.0
55	396.0	21.0	-5.0
56	402.0	20.0	-6.0
57	410.0	21.0	-5.0
58	413.0	22.0	-4.0
59	415.0	23.0	-3.0
60	420.0	25.0	-1.0

SAND ISLAND 11/14/84

JADE KIM (down)



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 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND  
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DATE OF OBSERVATION 11/14/84
 VESSEL NAME ALGOSOO
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 26.5
 VESSEL SPEED in feet/sec. = 10.9
 BOW ON TIME in sec = 90
 STERN ON TIME in sec = 157
 DISTANCE TO STAFF GAUGE from green side in feet = 55
 BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	3.0	14.0	0.0
3	40.0	14.0	0.0
4	51.0	13.0	-1.0
5	82.0	12.0	-2.0
6	95.0	12.0	-2.0
7	97.0	11.0	-3.0
8	107.0	11.0	-3.0
9	116.0	10.0	-4.0
10	126.0	10.0	-4.0
11	129.0	9.0	-5.0
12	139.0	9.0	-5.0
13	144.0	8.0	-6.0
14	145.0	8.0	-6.0
15	150.0	8.5	-5.5
16	160.0	8.0	-6.0
17	178.0	8.0	-6.0
18	186.0	8.5	-5.5
19	194.0	9.0	-5.0
20	207.0	9.0	-5.0

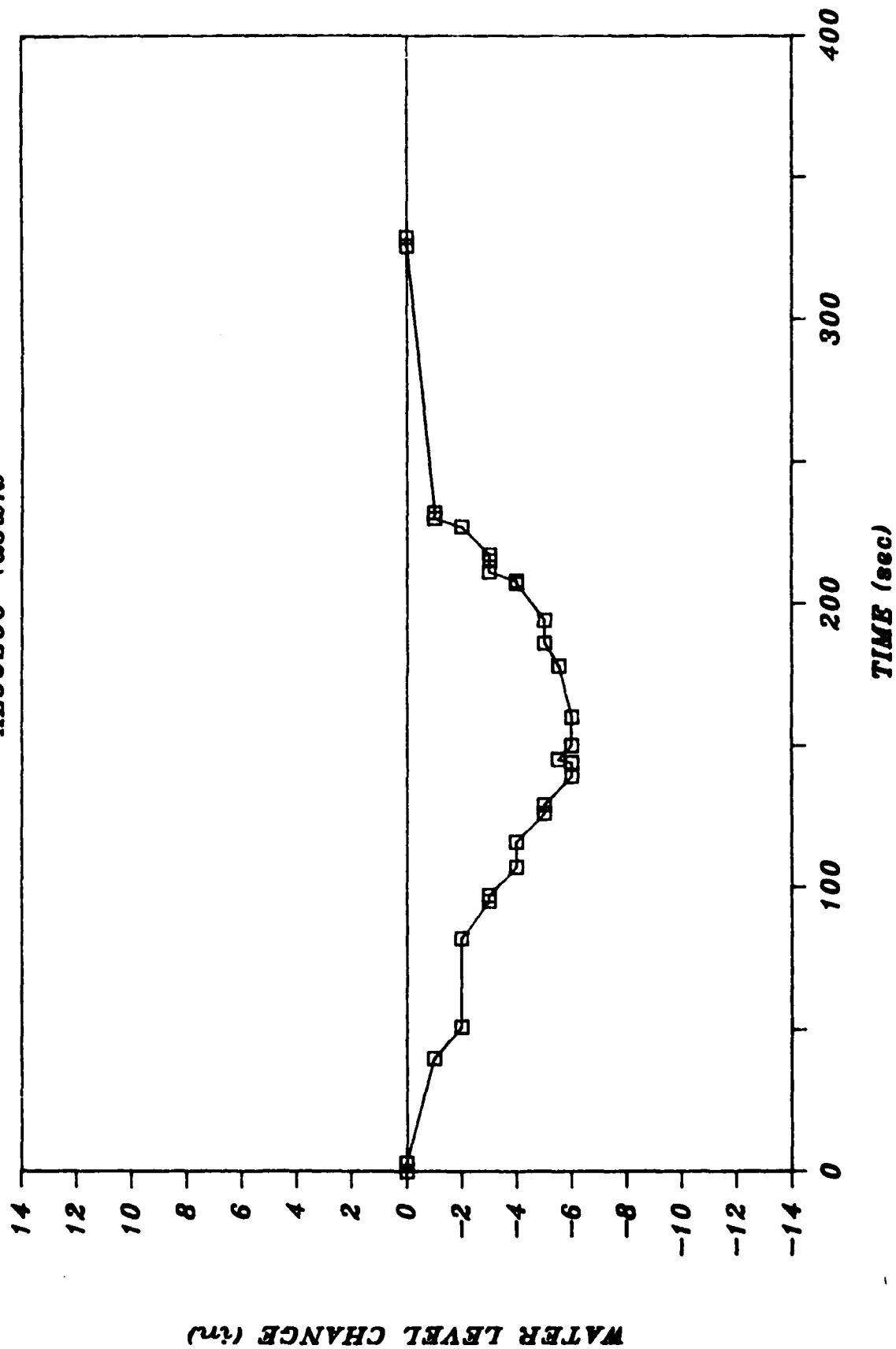
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	208.0	10.0	-4.0
22	211.0	10.0	-4.0
23	215.0	11.0	-3.0
24	217.0	11.0	-3.0
25	227.0	11.0	-3.0
26	230.0	12.0	-2.0
27	232.0	13.0	-1.0
28	326.0	13.0	-1.0
29	329.0	14.0	0.0
30	330.0	14.0	0.0

SAND ISLAND 11/14/84

ALCOSO0 (down)



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 11/14/84
 VESSEL NAME ALGOSOO
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 26.5
 VESSEL SPEED in feet/sec. = 10.9
 BOW ON TIME in sec = 90
 STERN ON TIME in sec = 157
 DISTANCE TO STAFF GAUGE from green side in feet = 2515
 BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	15.0	21.0	0.0
3	27.0	20.4	-0.6
4	72.0	20.4	-0.6
5	78.0	19.2	-1.8
6	83.0	19.2	-1.8
7	93.0	18.0	-3.0
8	96.0	18.0	-3.0
9	100.0	16.8	-4.2
10	105.0	15.6	-5.4
11	110.0	15.0	-6.0
12	114.0	14.4	-6.6
13	117.0	14.4	-6.6
14	121.0	13.2	-7.8
15	128.0	13.2	-7.8
16	131.0	12.0	-9.0
17	146.0	12.0	-9.0
18	148.0	10.8	-10.2
19	151.0	12.0	-9.0
20	153.0	13.2	-7.8

#####

DRAWDOWN DATA (continued)

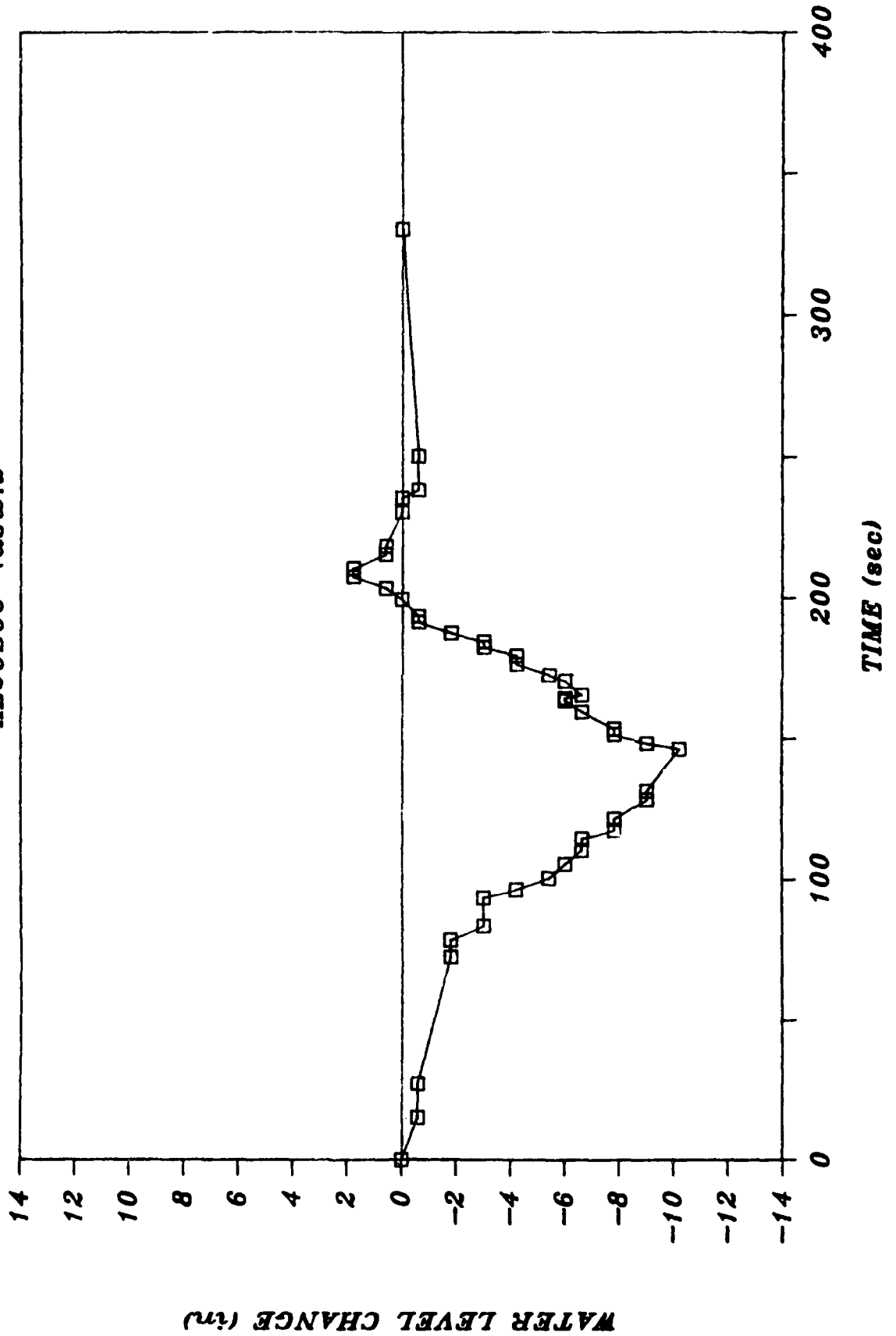
NAME OF SECTION SAND ISLAND

#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	159.0	13.2	-7.8
22	163.0	14.4	-6.6
23	164.0	15.0	-6.0
24	165.0	15.0	-6.0
25	170.0	14.4	-6.6
26	172.0	15.0	-6.0
27	176.0	15.6	-5.4
28	179.0	16.8	-4.2
29	182.0	16.8	-4.2
30	184.0	18.0	-3.0
31	187.0	18.0	-3.0
32	191.0	19.2	-1.8
33	193.0	20.4	-0.6
34	199.0	20.4	-0.6
35	203.0	21.0	0.0
36	207.0	21.6	0.6
37	210.0	22.8	1.8
38	215.0	22.8	1.8
39	218.0	21.6	0.6
40	230.0	21.6	0.6
41	235.0	21.0	0.0
42	238.0	21.0	0.0
43	250.0	20.4	-0.6
44	330.0	20.4	-0.6

SAND ISLAND 11/14/84

ALGOS00 (down)



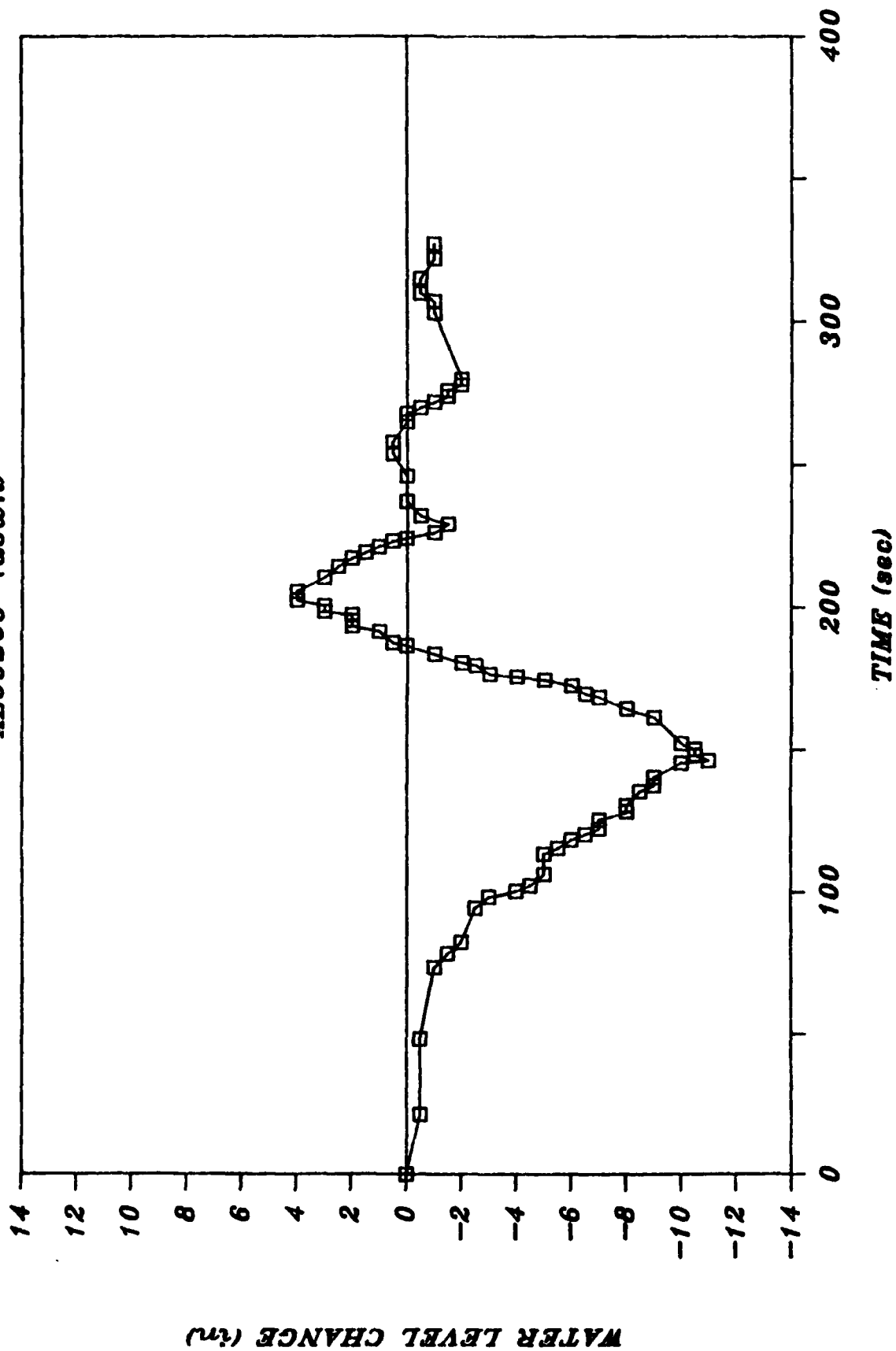
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	270.0	26.0	0.0
66	272.0	25.5	-0.5
67	274.0	25.0	-1.0
68	276.0	24.5	-1.5
69	278.0	24.5	-1.5
70	280.0	24.0	-2.0
71	303.0	24.0	-2.0
72	307.0	25.0	-1.0
73	310.0	25.0	-1.0
74	315.0	25.5	-0.5
75	322.0	25.5	-0.5
76	327.0	25.0	-1.0
77	330.0	25.0	-1.0

SAND ISLAND 11/14/84

ALGOS00 (down)



#####

DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

#####

DATE OF OBSERVATION 11/14/84

VESSEL NAME HERBERT C. JACKSON

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 690

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 26.5

VESSEL SPEED in feet/sec. = 7.8

BOW ON TIME in sec = 69

STERN ON TIME in sec = 158

DISTANCE TO STAFF GAUGE from green side in feet = 2800

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	4.0	24.5	1.5
3	14.0	24.0	1.0
4	17.0	24.5	1.5
5	20.0	24.0	1.0
6	49.0	24.0	1.0
7	52.0	23.3	0.3
8	54.0	23.3	0.3
9	72.0	22.0	-1.0
10	77.0	22.5	-0.5
11	79.0	22.5	-0.5
12	81.0	22.0	-1.0
13	83.0	21.0	-2.0
14	86.0	20.0	-3.0
15	89.0	19.0	-4.0
16	92.0	18.0	-5.0
17	94.0	16.0	-7.0
18	98.0	13.0	-10.0
19	101.0	13.0	-10.0
20	103.0	12.0	-11.0

DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	108.0	12.0	-11.0
22	110.0	11.0	-12.0
23	112.0	10.5	-12.5
24	114.0	11.0	-12.0
25	115.0	11.0	-12.0
26	116.0	12.0	-11.0
27	117.0	11.0	-12.0
28	120.0	12.0	-11.0
29	122.0	11.0	-12.0
30	123.0	12.0	-11.0
31	124.0	13.0	-10.0
32	125.0	13.0	-10.0
33	127.0	14.0	-9.0
34	129.0	15.0	-8.0
35	131.0	16.0	-7.0
36	141.0	16.0	-7.0
37	143.0	17.0	-6.0
38	162.0	17.0	-6.0
39	163.0	18.0	-5.0
40	164.0	19.0	-4.0
41	165.0	20.0	-3.0
42	167.0	21.0	-2.0
43	168.0	22.0	-1.0
44	169.0	23.0	0.0
45	170.0	25.0	2.0
46	171.0	26.0	3.0
47	174.0	28.0	5.0
48	176.0	29.0	6.0
49	178.0	30.0	7.0
50	179.0	30.0	7.0
51	180.0	31.0	8.0
52	183.0	31.0	8.0
53	184.0	30.0	7.0
54	186.0	29.0	6.0
55	187.0	28.0	5.0
56	189.0	24.0	1.0
57	190.0	24.0	1.0
58	193.0	22.0	-1.0
59	195.0	21.0	-2.0
60	197.0	20.0	-3.0
61	198.0	20.5	-2.5
62	200.0	18.0	-5.0
63	201.0	18.0	-5.0
64	203.0	16.0	-7.0

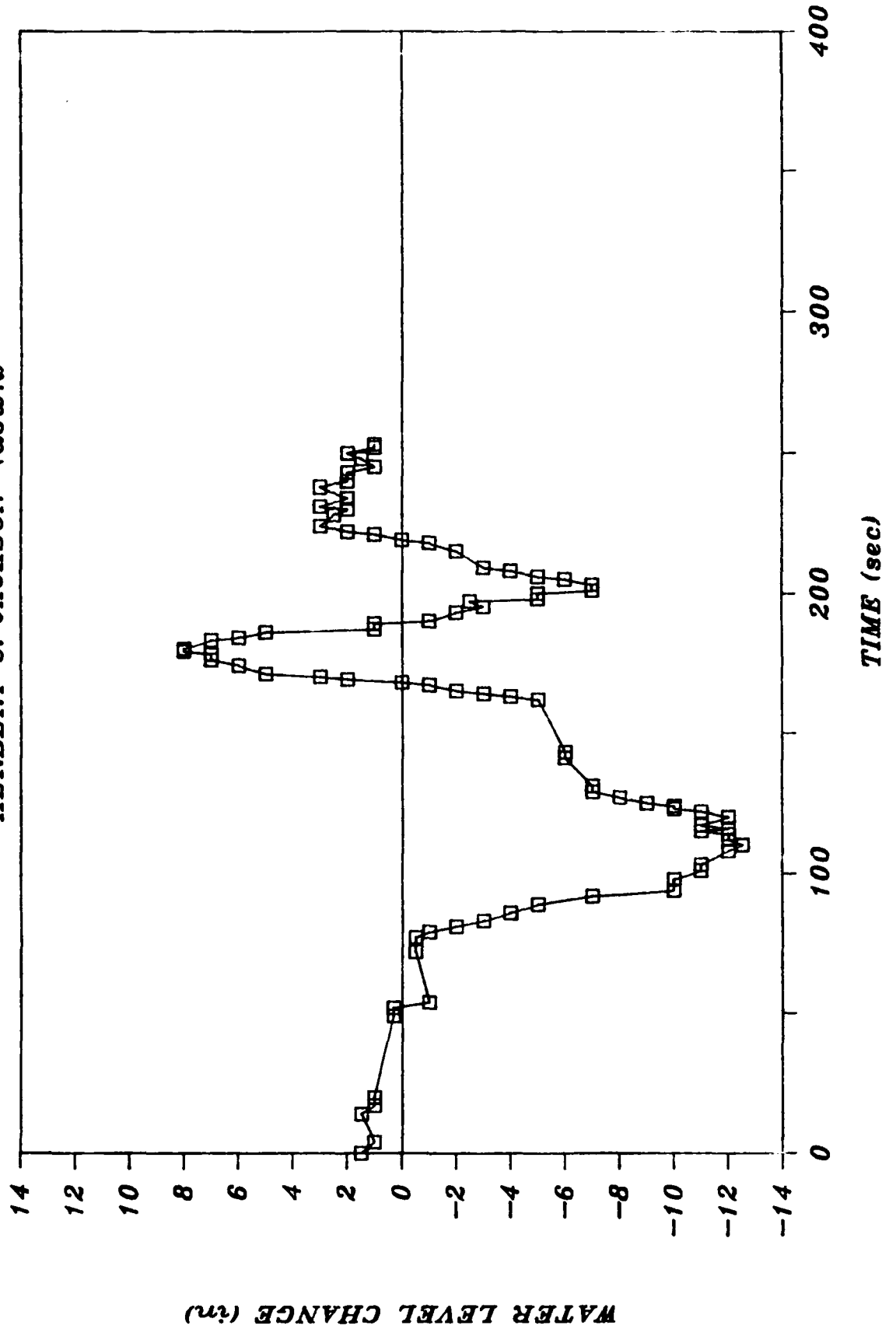
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	205.0	16.0	-7.0
66	206.0	17.0	-6.0
67	208.0	18.0	-5.0
68	209.0	19.0	-4.0
69	215.0	20.0	-3.0
70	218.0	21.0	-2.0
71	219.0	22.0	-1.0
72	221.0	23.0	0.0
73	222.0	24.0	1.0
74	224.0	25.0	2.0
75	228.0	26.0	3.0
76	230.0	25.5	2.5
77	231.0	25.0	2.0
78	234.0	26.0	3.0
79	238.0	25.0	2.0
80	240.0	26.0	3.0
81	243.0	25.0	2.0
82	245.0	25.0	2.0
83	248.0	24.0	1.0
84	250.0	24.5	1.5
85	252.0	25.0	2.0
86	253.0	24.0	1.0
87	267.0	24.0	1.0

SAND ISLAND 11/14/84

HERBERT C. JACKSON (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 5/20/85

VESSEL NAME WILLIAM CLAY FORD

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 767

VESSEL BEAM in feet = 70

VESSEL DRAFT in feet = 27.5

VESSEL SPEED in feet/sec. = 10.96

BOW ON TIME in sec = 84

STERN ON TIME in sec = 154

DISTANCE TO STAFF GAUGE from green side in feet = 62

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	25.0	22.0	0.0
3	34.0	21.0	-1.0
4	46.0	21.0	-1.0
5	56.0	20.0	-2.0
6	67.0	20.0	-2.0
7	83.0	19.0	-3.0
8	96.0	18.0	-4.0
9	109.0	18.0	-4.0
10	114.0	17.0	-5.0
11	121.0	16.0	-6.0
12	135.0	15.0	-7.0
13	140.0	15.0	-7.0
14	149.0	14.0	-8.0
15	157.0	14.0	-8.0
16	172.0	15.0	-7.0
17	188.0	16.0	-6.0
18	196.0	17.0	-5.0
19	206.0	18.0	-4.0
20	213.0	19.0	-3.0

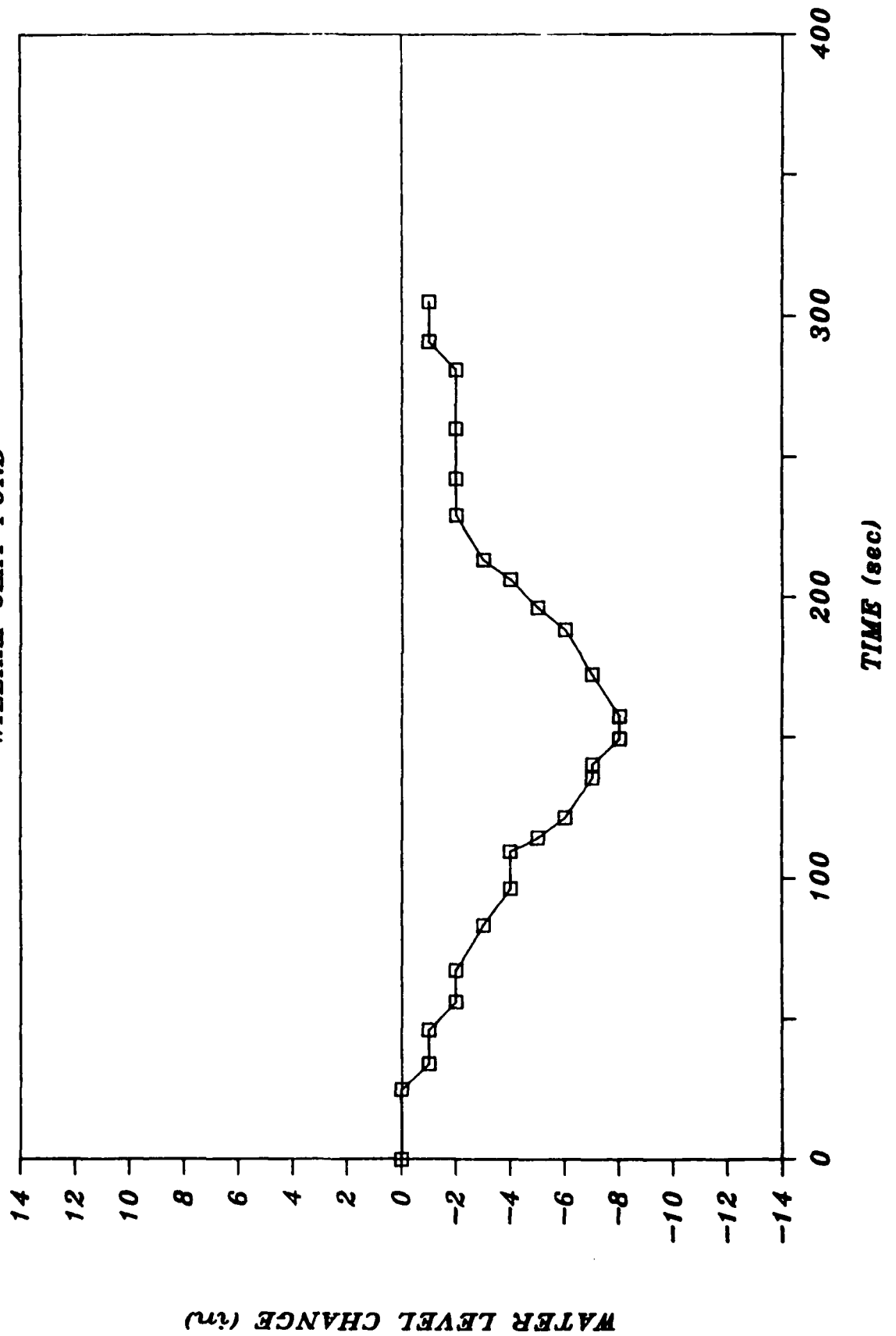
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	229.0	20.0	-2.0
22	242.0	20.0	-2.0
23	260.0	20.0	-2.0
24	281.0	20.0	-2.0
25	291.0	21.0	-1.0
26	305.0	21.0	-1.0

SAND ISLAND (green)

WILLIAM CLAY FORD



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 5/20/85
 VESSEL NAME WILLIAM CLAY FORD
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 767
 VESSEL BEAM in feet = 70
 VESSEL DRAFT in feet = 27.5
 VESSEL SPEED in feet/sec. = 10.96
 BOW ON TIME in sec = 84
 STERN ON TIME in sec = 154
 DISTANCE TO STAFF GAUGE from green side in feet = 2790
 BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	13.0	23.0	0.0
3	26.0	22.0	-1.0
4	68.0	22.0	-1.0
5	77.0	21.0	-2.0
6	84.0	21.0	-2.0
7	91.0	20.0	-3.0
8	95.0	20.0	-3.0
9	97.0	19.0	-4.0
10	104.0	19.0	-4.0
11	107.0	18.0	-5.0
12	109.0	17.0	-6.0
13	114.0	16.0	-7.0
14	118.0	16.0	-7.0
15	121.0	15.0	-8.0
16	125.0	14.0	-9.0
17	129.0	13.0	-10.0
18	134.0	13.0	-10.0
19	139.0	12.0	-11.0
20	143.0	12.0	-11.0

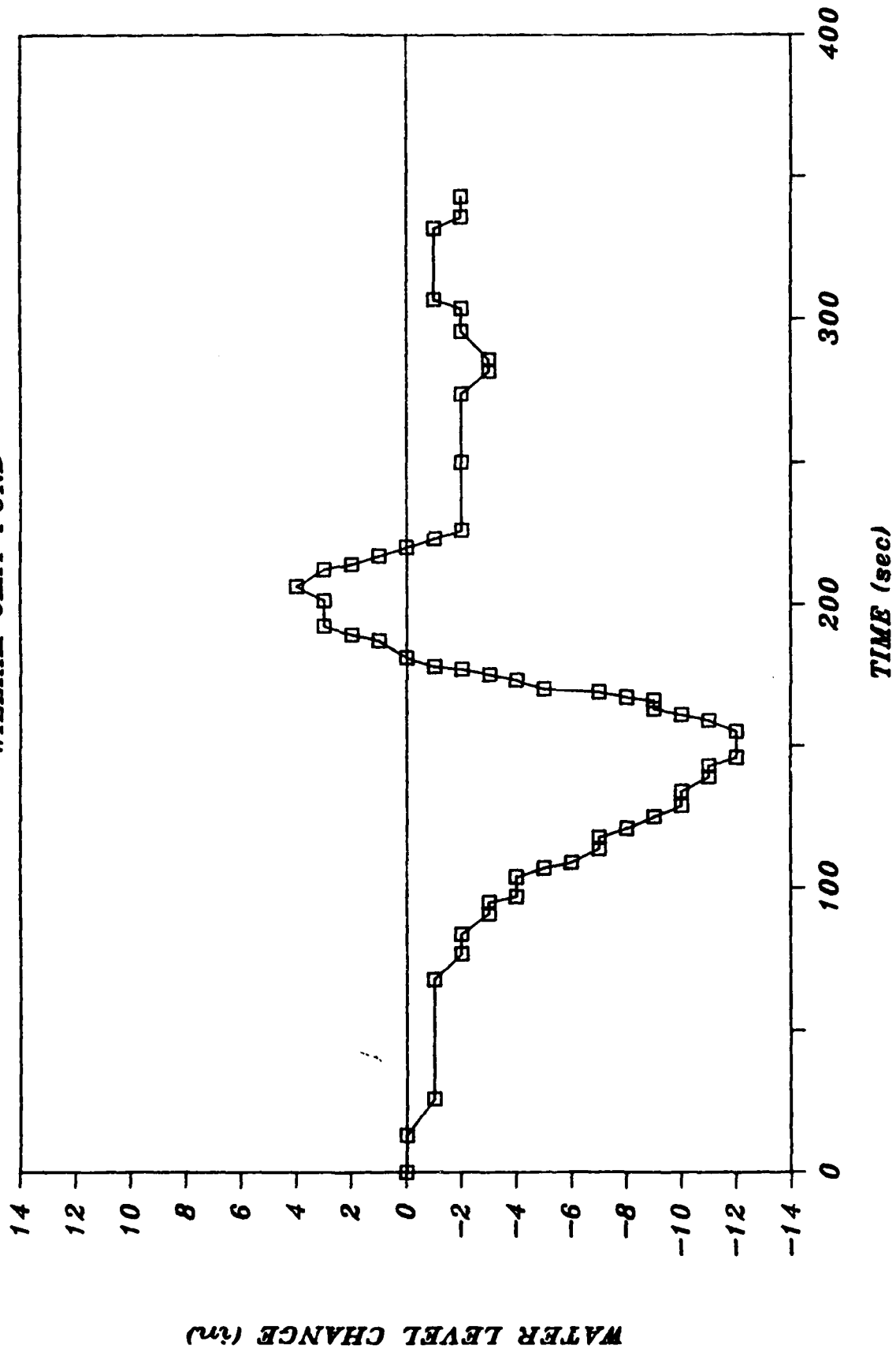
@@
 DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
 @@

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	146.0	11.0	-12.0
22	155.0	11.0	-12.0
23	159.0	12.0	-11.0
24	161.0	13.0	-10.0
25	163.0	14.0	-9.0
26	166.0	14.0	-9.0
27	167.0	15.0	-8.0
28	169.0	16.0	-7.0
29	170.0	18.0	-5.0
30	173.0	19.0	-4.0
31	175.0	20.0	-3.0
32	177.0	21.0	-2.0
33	178.0	22.0	-1.0
34	181.0	23.0	0.0
35	187.0	24.0	1.0
36	189.0	25.0	2.0
37	192.0	26.0	3.0
38	201.0	26.0	3.0
39	206.0	27.0	4.0
40	212.0	26.0	3.0
41	214.0	25.0	2.0
42	217.0	24.0	1.0
43	220.0	23.0	0.0
44	223.0	22.0	-1.0
45	226.0	21.0	-2.0
46	250.0	21.0	-2.0
47	274.0	21.0	-2.0
48	282.0	20.0	-3.0
49	286.0	20.0	-3.0
50	296.0	21.0	-2.0
51	304.0	21.0	-2.0
52	307.0	22.0	-1.0
53	332.0	22.0	-1.0
54	336.0	21.0	-2.0
55	343.0	21.0	-2.0

SAND ISLAND (red)

WILLIAM CLAY FORD



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 5/20/85
 VESSEL NAME SELKIRK SETTLER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 79.75
 VESSEL DRAFT in feet = 25.5
 VESSEL SPEED in feet/sec. = 13.04
 BOW ON TIME in sec = 97
 STERN ON TIME in sec = 153
 DISTANCE TO STAFF GAUGE from green side in feet = 62
 BACKGROUND READING in inches = 22

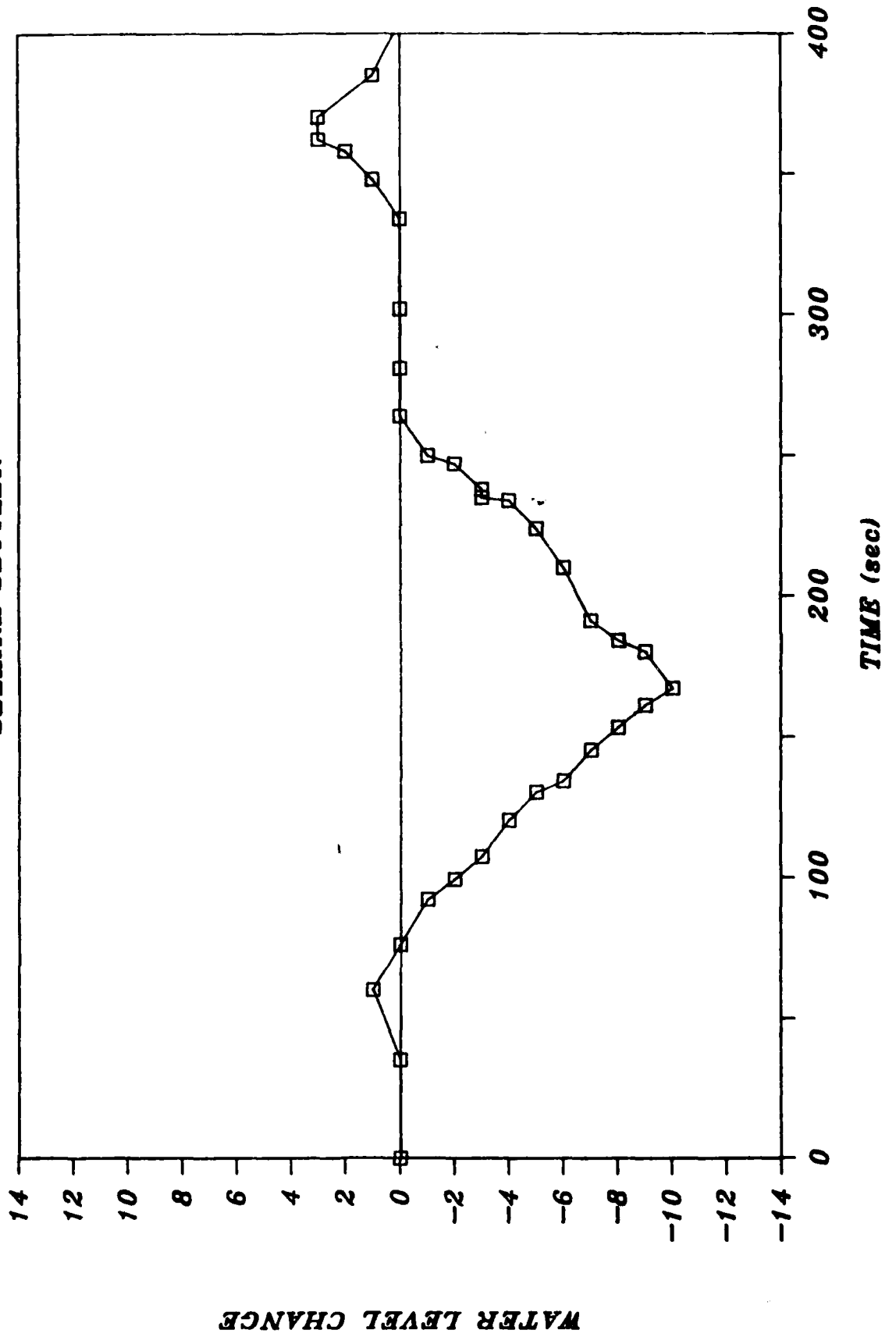
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	35.0	22.0	0.0
3	60.0	23.0	1.0
4	76.0	22.0	0.0
5	92.0	21.0	-1.0
6	99.0	20.0	-2.0
7	107.0	19.0	-3.0
8	120.0	18.0	-4.0
9	130.0	17.0	-5.0
10	136.0	16.0	-6.0
11	145.0	15.0	-7.0
12	153.0	14.0	-8.0
13	160.0	13.0	-9.0
14	167.0	12.0	-10.0
15	180.0	13.0	-9.0
16	189.0	14.0	-8.0
17	191.0	15.0	-7.0
18	210.0	16.0	-6.0
19	224.0	17.0	-5.0
20	234.0	18.0	-4.0

DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	235.0	19.0	-3.0
22	238.0	19.0	-3.0
23	247.0	20.0	-2.0
24	250.0	21.0	-1.0
25	264.0	22.0	0.0
26	281.0	22.0	0.0
27	302.0	22.0	0.0
28	362.0	25.0	3.0
29	370.0	25.0	3.0
30	385.0	23.0	1.0
31	404.0	22.0	0.0

SAND ISLAND (green)
SELKIRK SETTLER



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

DATE OF OBSERVATION 5/20/85

VESSEL NAME SELKIRK SETTLER

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75.75

VESSEL DRAFT in feet = 25.5

VESSEL SPEED in feet/sec. = 13.04

BOW ON TIME in sec = 97

STERN ON TIME in sec = 153

DISTANCE TO STAFF GAUGE from green side in feet = 2790

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	17.0	23.0	0.0
3	30.0	23.0	0.0
4	37.0	23.0	0.0
5	47.0	23.0	0.0
6	62.0	23.0	0.0
7	86.0	23.0	0.0
8	95.0	22.0	-1.0
9	97.0	21.0	-2.0
10	102.0	21.0	-2.0
11	107.0	20.0	-3.0
12	111.0	20.0	-3.0
13	119.0	19.0	-4.0
14	121.0	18.0	-5.0
15	123.0	17.0	-6.0
16	125.0	16.0	-7.0
17	128.0	15.0	-8.0
18	131.0	14.0	-9.0
19	133.0	13.0	-10.0
20	139.0	13.0	-10.0

@@
 DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
 @@

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	140.0	12.0	-11.0
22	143.0	12.0	-11.0
23	144.0	11.0	-12.0
24	146.0	11.0	-12.0
25	150.0	10.0	-13.0
26	152.0	9.0	-14.0
27	161.0	9.0	-14.0
28	164.0	8.0	-15.0
29	167.0	8.0	-15.0
30	169.0	7.0	-16.0
31	176.0	20.0	-3.0
32	184.0	20.0	-3.0
33	188.0	21.0	-2.0
34	189.0	22.0	-1.0
35	190.0	23.0	0.0
36	192.0	25.0	2.0
37	194.0	26.0	3.0
38	196.0	27.0	4.0
39	198.0	28.0	5.0
40	203.0	28.0	5.0
41	205.0	29.0	6.0
42	211.0	29.0	6.0
43	212.0	30.0	7.0
44	216.0	30.0	7.0
45	222.0	28.0	5.0
46	226.0	28.0	5.0
47	230.0	27.0	4.0
48	231.0	26.0	3.0
49	233.0	25.0	2.0
50	236.0	24.0	1.0
51	239.0	23.0	0.0
52	242.0	22.0	-1.0
53	247.0	21.0	-2.0
54	255.0	21.0	-2.0
55	256.0	20.0	-3.0
56	273.0	20.0	-3.0
57	279.0	21.0	-2.0
58	290.0	20.0	-3.0
59	302.0	20.0	-3.0
60	361.0	20.0	-3.0
61	365.0	20.0	-3.0
62	367.0	19.0	-4.0
63	379.0	19.0	-4.0
64	390.0	21.0	-2.0

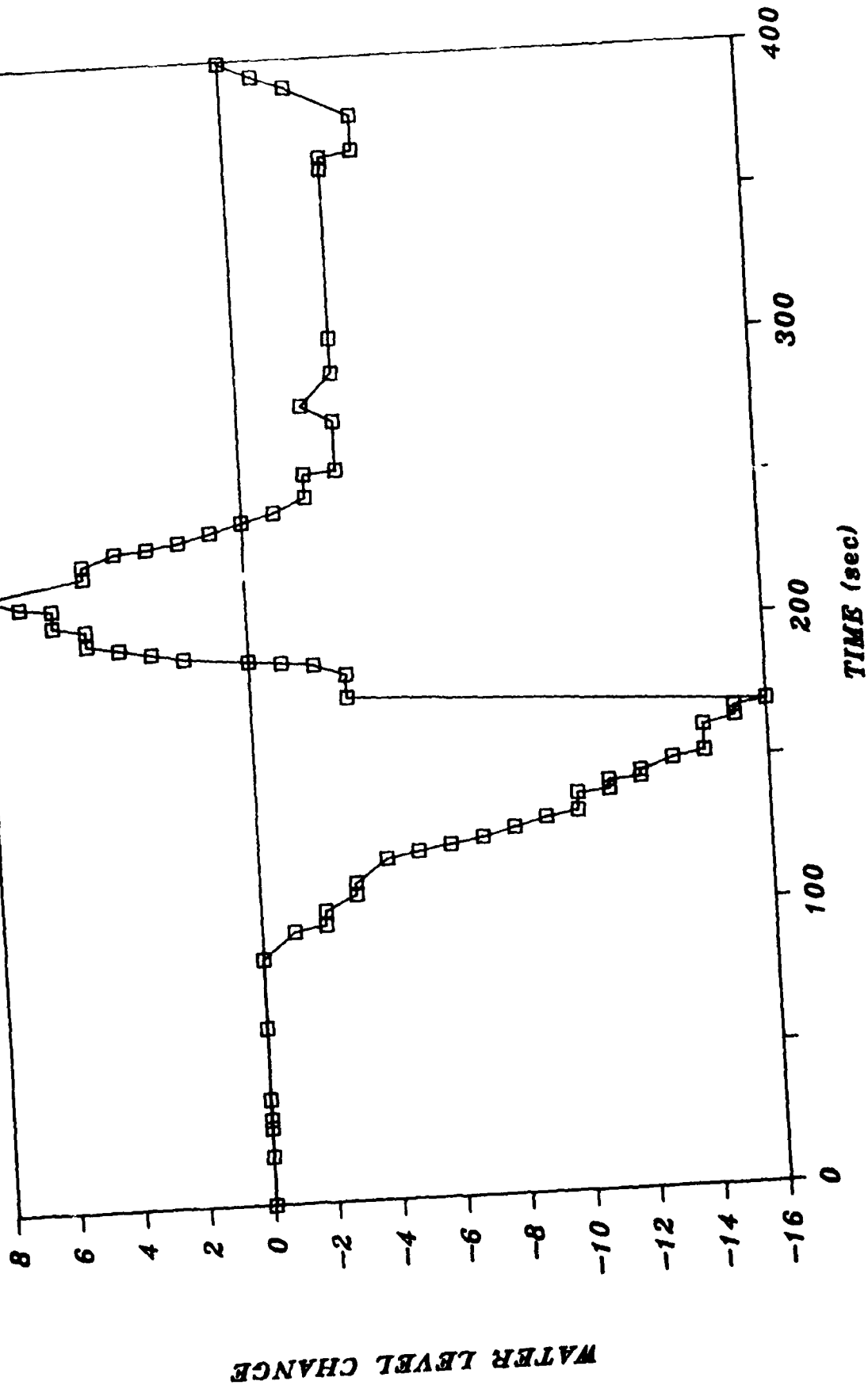
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	394.0	22.0	-1.0
66	399.0	23.0	0.0
67	404.0	23.0	0.0
68	415.0	22.0	-1.0
69	425.0	20.0	-3.0

SAND ISLAND (red)

SELKIRK SETTLER



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 5/20/85
VESSEL NAME COLUMBIA STAR
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 27.5
VESSEL SPEED in feet/sec. = 10.53
BOW ON TIME in sec = 140
STERN ON TIME in sec = 235
DISTANCE TO STAFF GAUGE from green side in feet = 62
BACKGROUND READING in inches = 24

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	24.0	0.0
2	54.0	24.0	0.0
3	79.0	24.0	0.0
4	92.0	23.0	-1.0
5	106.0	22.0	-2.0
6	118.0	21.0	-3.0
7	128.0	20.0	-4.0
8	140.0	19.0	-5.0
9	147.0	18.0	-6.0
10	154.0	17.0	-7.0
11	161.0	16.0	-8.0
12	170.0	15.0	-9.0
13	181.0	14.0	-10.0
14	188.0	13.0	-11.0
15	196.0	12.0	-12.0
16	208.0	11.0	-13.0
17	223.0	10.0	-14.0
18	230.0	9.0	-15.0
19	242.0	10.0	-14.0
20	244.0	11.0	-13.0

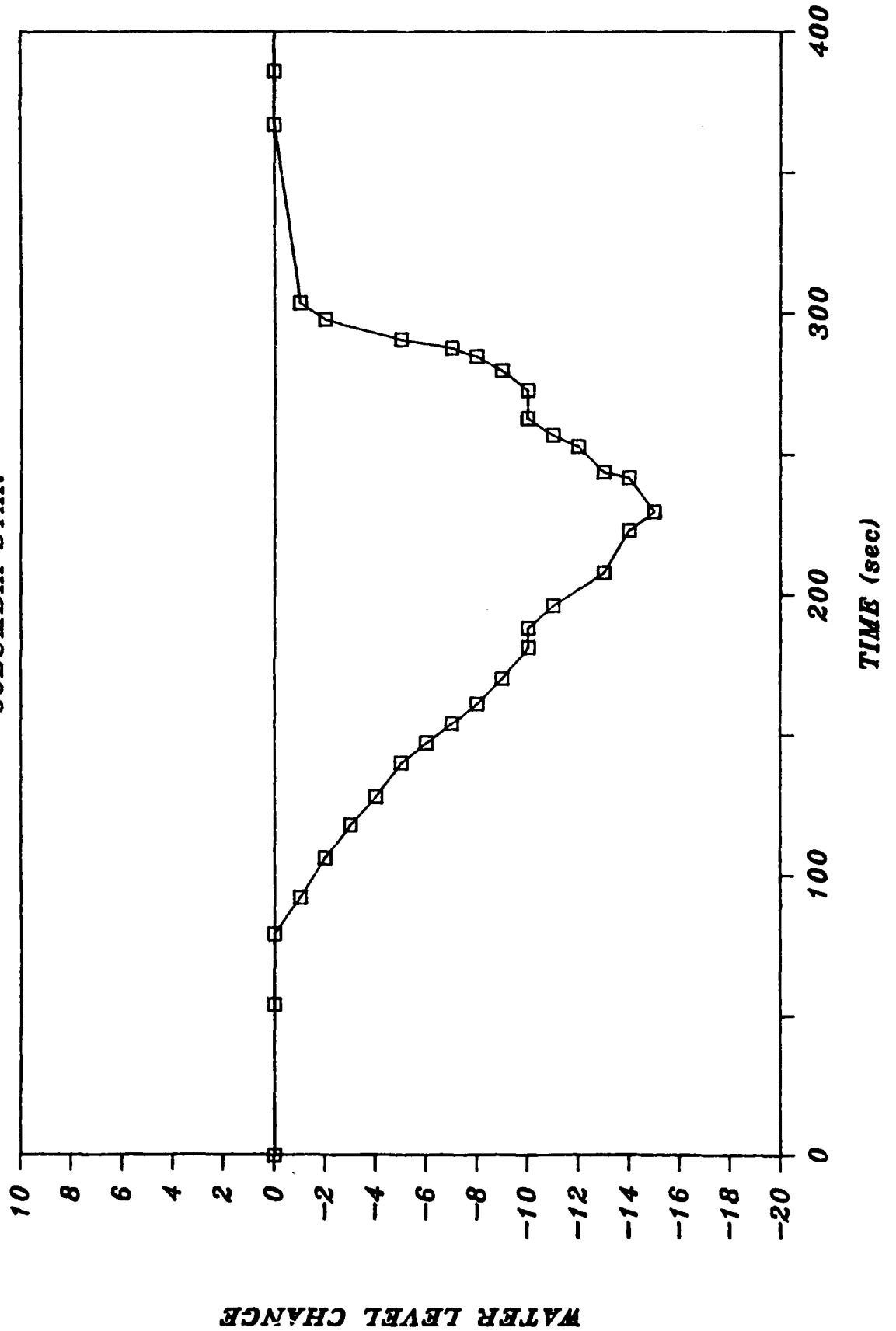
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	253.0	12.0	-12.0
22	257.0	13.0	-11.0
23	263.0	14.0	-10.0
24	273.0	14.0	-10.0
25	280.0	15.0	-9.0
26	285.0	16.0	-8.0
27	288.0	17.0	-7.0
28	291.0	19.0	-5.0
29	298.0	22.0	-2.0
30	304.0	23.0	-1.0
31	367.0	24.0	0.0
32	386.0	24.0	0.0
33	409.0	24.0	0.0
34	419.0	25.0	1.0
35	428.0	25.0	1.0
36	435.0	24.0	0.0

SAND ISLAND (green)

COLUMBIA STAR



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 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND  
 ~~~~~

DATE OF OBSERVATION 5/20/85
 VESSEL NAME COLUMBIA STAR
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 27.5
 VESSEL SPEED in feet/sec. = 10.53
 BOW ON TIME in sec = 140
 STERN ON TIME in sec = 235
 DISTANCE TO STAFF GAUGE from green side in feet = 2790
 BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	5.0	23.0	0.0
3	11.0	23.0	0.0
4	12.0	24.0	1.0
5	15.0	24.0	1.0
6	19.0	25.0	2.0
7	24.0	25.0	2.0
8	30.0	25.0	2.0
9	46.0	25.0	2.0
10	52.0	25.0	2.0
11	68.0	25.0	2.0
12	90.0	24.0	1.0
13	102.0	24.0	1.0
14	108.0	23.0	0.0
15	115.0	23.0	0.0
16	122.0	23.0	0.0
17	126.0	22.0	-1.0
18	129.0	21.0	-2.0
19	138.0	20.0	-3.0
20	142.0	19.0	-4.0

#####

DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

#####

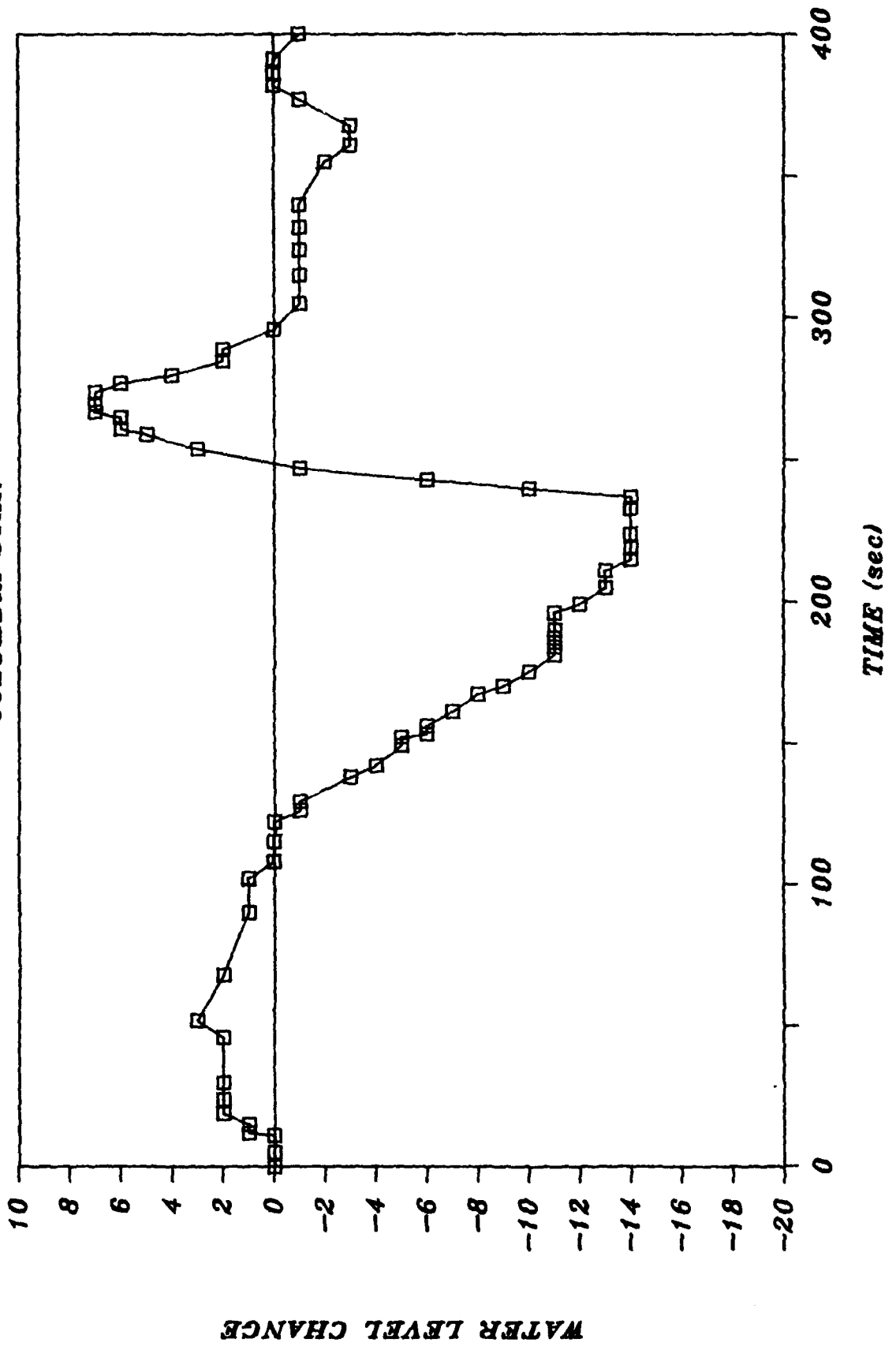
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	149.0	18.0	-5.0
22	152.0	18.0	-5.0
23	153.0	17.0	-6.0
24	156.0	17.0	-6.0
25	161.0	16.0	-7.0
26	167.0	15.0	-8.0
27	170.0	14.0	-9.0
28	175.0	13.0	-10.0
29	181.0	12.0	-11.0
30	184.0	12.0	-11.0
31	187.0	12.0	-11.0
32	190.0	12.0	-11.0
33	196.0	12.0	-11.0
34	199.0	11.0	-12.0
35	205.0	10.0	-13.0
36	211.0	10.0	-13.0
37	215.0	9.0	-14.0
38	219.0	9.0	-14.0
39	224.0	9.0	-14.0
40	233.0	9.0	-14.0
41	237.0	9.0	-14.0
42	240.0	13.0	-10.0
43	243.0	17.0	-6.0
44	247.0	22.0	-1.0
45	254.0	26.0	3.0
46	259.0	28.0	5.0
47	261.0	29.0	6.0
48	265.0	29.0	6.0
49	267.0	30.0	7.0
50	270.0	30.0	7.0
51	274.0	30.0	7.0
52	277.0	29.0	6.0
53	280.0	27.0	4.0
54	285.0	25.0	2.0
55	289.0	25.0	2.0
56	296.0	23.0	0.0
57	305.0	22.0	-1.0
58	315.0	22.0	-1.0
59	324.0	22.0	-1.0
60	332.0	22.0	-1.0
61	340.0	22.0	-1.0
62	355.0	21.0	-2.0
63	361.0	20.0	-3.0
64	368.0	20.0	-3.0

DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	377.0	22.0	-1.0
66	382.0	23.0	0.0
67	386.0	23.0	0.0
68	391.0	23.0	0.0
69	400.0	22.0	-1.0
70	413.0	22.0	-1.0
71	425.0	23.0	0.0

SAND ISLAND (red)
COLUMBIA STAR



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

DATE OF OBSERVATION 5/20/85

VESSEL NAME JOSEPH L. BLOCK

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 728

VESSEL BEAM in feet = 78

VESSEL DRAFT in feet = 27

VESSEL SPEED in feet/sec. = 12.13

BOW ON TIME in sec = 140

STERN ON TIME in sec = 240

DISTANCE TO STAFF GAUGE from green side in feet = 65

BACKGROUND READING in inches = 24

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	24.0	0.0
2	32.0	24.0	0.0
3	71.0	24.0	0.0
4	82.0	23.0	-1.0
5	95.0	22.0	-2.0
6	108.0	21.0	-3.0
7	115.0	20.0	-4.0
8	125.0	19.0	-5.0
9	136.0	18.0	-6.0
10	146.0	17.0	-7.0
11	152.0	16.0	-8.0
12	162.0	15.0	-9.0
13	176.0	15.0	-9.0
14	192.0	16.0	-8.0
15	201.0	17.0	-7.0
16	218.0	18.0	-6.0
17	225.0	19.0	-5.0
18	230.0	20.0	-4.0
19	240.0	22.0	-2.0
20	245.0	23.0	-1.0

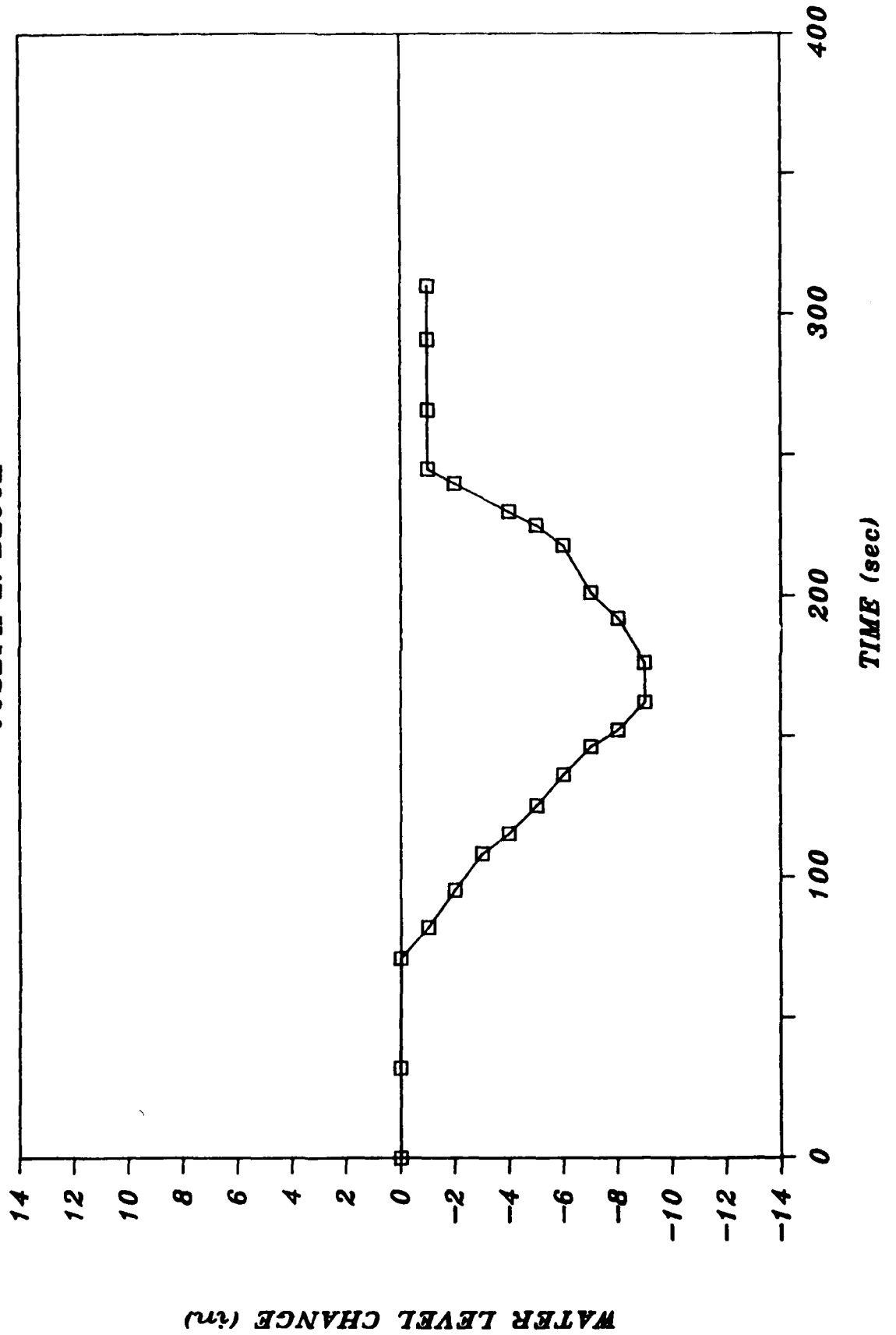
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	266.0	23.0	-1.0
22	291.0	23.0	-1.0
23	310.0	23.0	-1.0

SAND ISLAND (green)

JOSEPH L. BLOCK



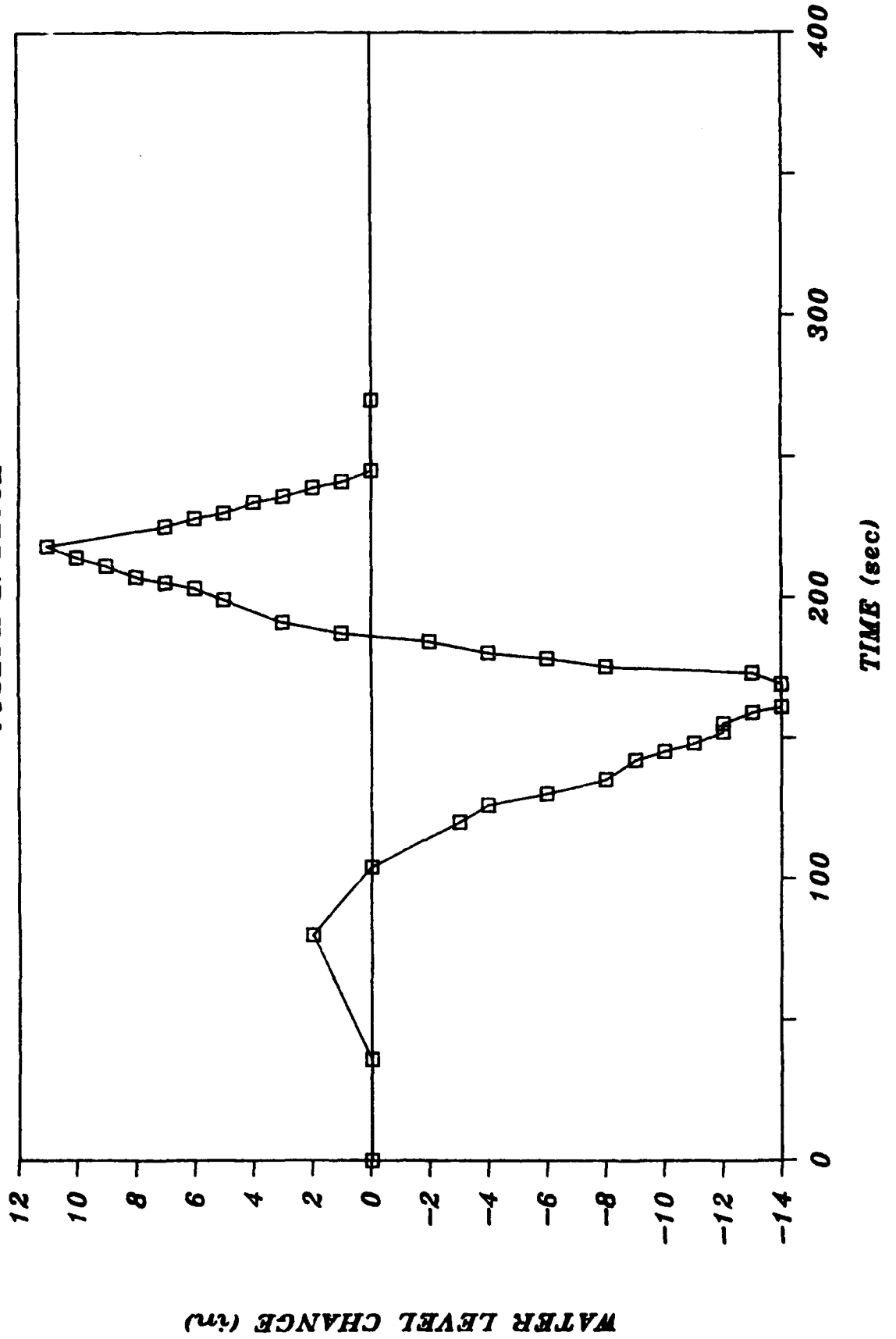
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	181.0	26.0	3.0
22	184.0	21.0	-2.0
23	187.0	24.0	1.0
24	199.0	28.0	5.0
25	203.0	29.0	6.0
26	205.0	30.0	7.0
27	207.0	31.0	8.0
28	211.0	32.0	9.0
29	214.0	33.0	10.0
30	218.0	34.0	11.0
31	225.0	30.0	7.0
32	228.0	29.0	6.0
33	230.0	28.0	5.0
34	234.0	27.0	4.0
35	236.0	26.0	3.0
36	239.0	25.0	2.0
37	241.0	24.0	1.0
38	245.0	23.0	0.0
39	270.0	23.0	0.0

SAND ISLAND (red)

JOSEPH L. BLOCK



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 5/21/85
 VESSEL NAME CANADIAN NAVIGATOR
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 25.58
 VESSEL SPEED in feet/sec. = 12.8
 BOW ON TIME in sec = 115
 STERN ON TIME in sec = 172
 DISTANCE TO STAFF GAUGE from green side in feet = 65
 BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	18.0	21.0	0.0
3	60.0	21.0	0.0
4	85.0	20.0	-1.0
5	87.0	20.0	-1.0
6	95.0	20.0	-1.0
7	111.0	19.0	-2.0
8	122.0	18.0	-3.0
9	136.0	17.0	-4.0
10	144.0	16.0	-5.0
11	151.0	15.0	-6.0
12	158.0	14.0	-7.0
13	166.0	13.0	-8.0
14	178.0	13.0	-8.0
15	188.0	13.0	-8.0
16	202.0	14.0	-7.0
17	213.0	15.0	-6.0
18	228.0	16.0	-5.0
19	242.0	17.0	-4.0
20	244.0	18.0	-3.0

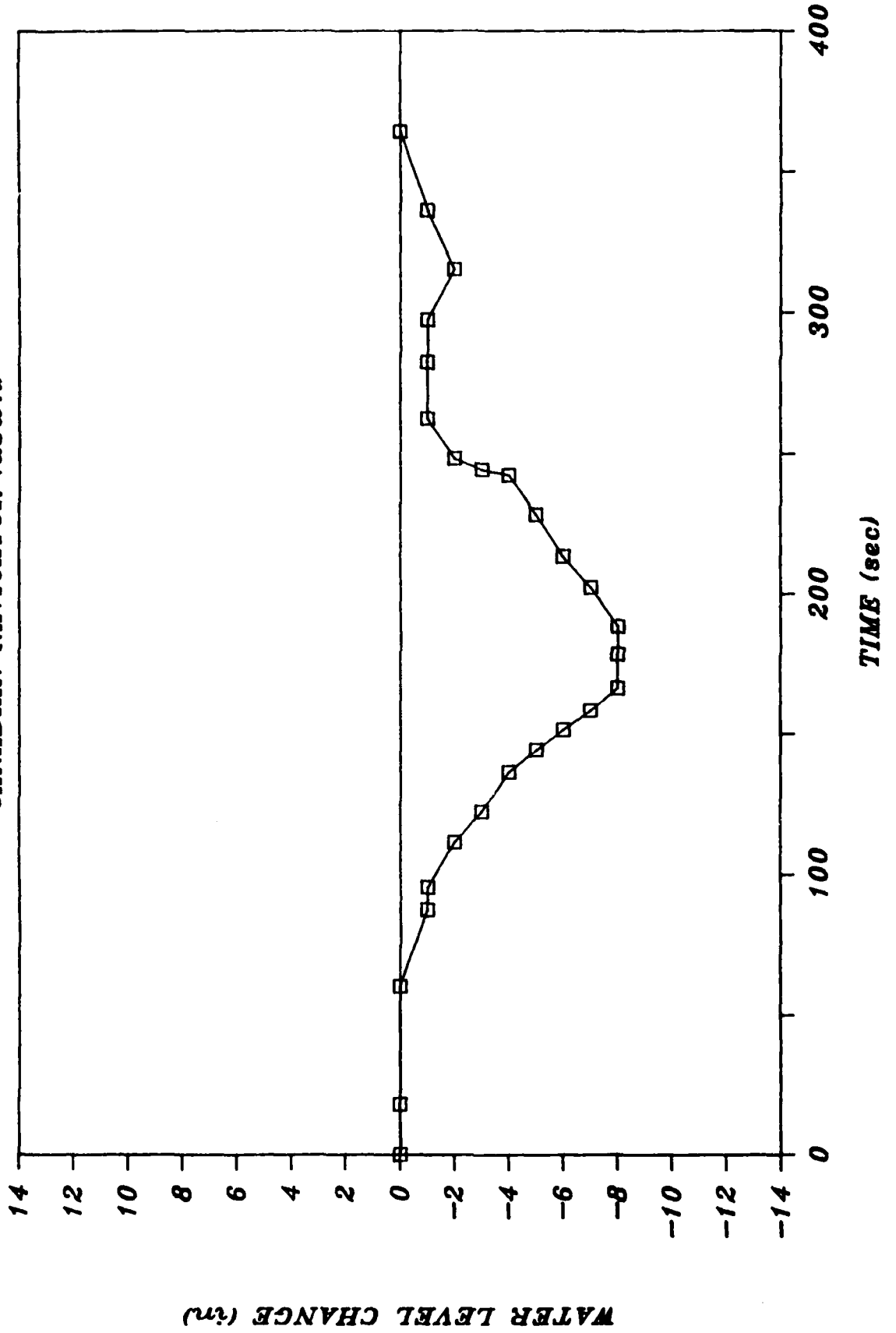
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	248.0	19.0	-2.0
22	262.0	20.0	-1.0
23	282.0	20.0	-1.0
24	297.0	20.0	-1.0
25	315.0	19.0	-2.0
26	336.0	20.0	-1.0
27	364.0	21.0	0.0

SAND ISLAND (green)

CANADIAN NAVIGATOR (down)



EE
DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
EE

DATE OF OBSERVATION 5/21/85
VESSEL NAME CANADIAN NAVIGATOR
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 25.58
VESSEL SPEED in feet/sec. = 12.8
BOW ON TIME in sec = 115
STERN ON TIME in sec = 172
DISTANCE TO STAFF GAUGE from green side in feet = 2790
BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	11.0	21.0	0.0
3	35.0	21.0	0.0
4	62.0	21.0	0.0
5	91.0	21.0	0.0
6	101.0	20.0	-1.0
7	108.0	20.0	-1.0
8	116.0	19.0	-2.0
9	121.0	19.0	-2.0
10	126.0	18.0	-3.0
11	130.0	18.0	-3.0
12	131.0	17.0	-4.0
13	134.0	16.0	-5.0
14	137.0	15.0	-6.0
15	140.0	15.0	-6.0
16	141.0	14.0	-7.0
17	144.0	14.0	-7.0
18	145.0	13.0	-8.0
19	148.0	12.0	-9.0
20	152.0	12.0	-9.0

DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

Table with 4 columns: DATA POINT, TIME(sec), GAUGE READING(in), CHANGE FROM BG(in). Rows 21-64.

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DRAWDOWN DATA (continued)

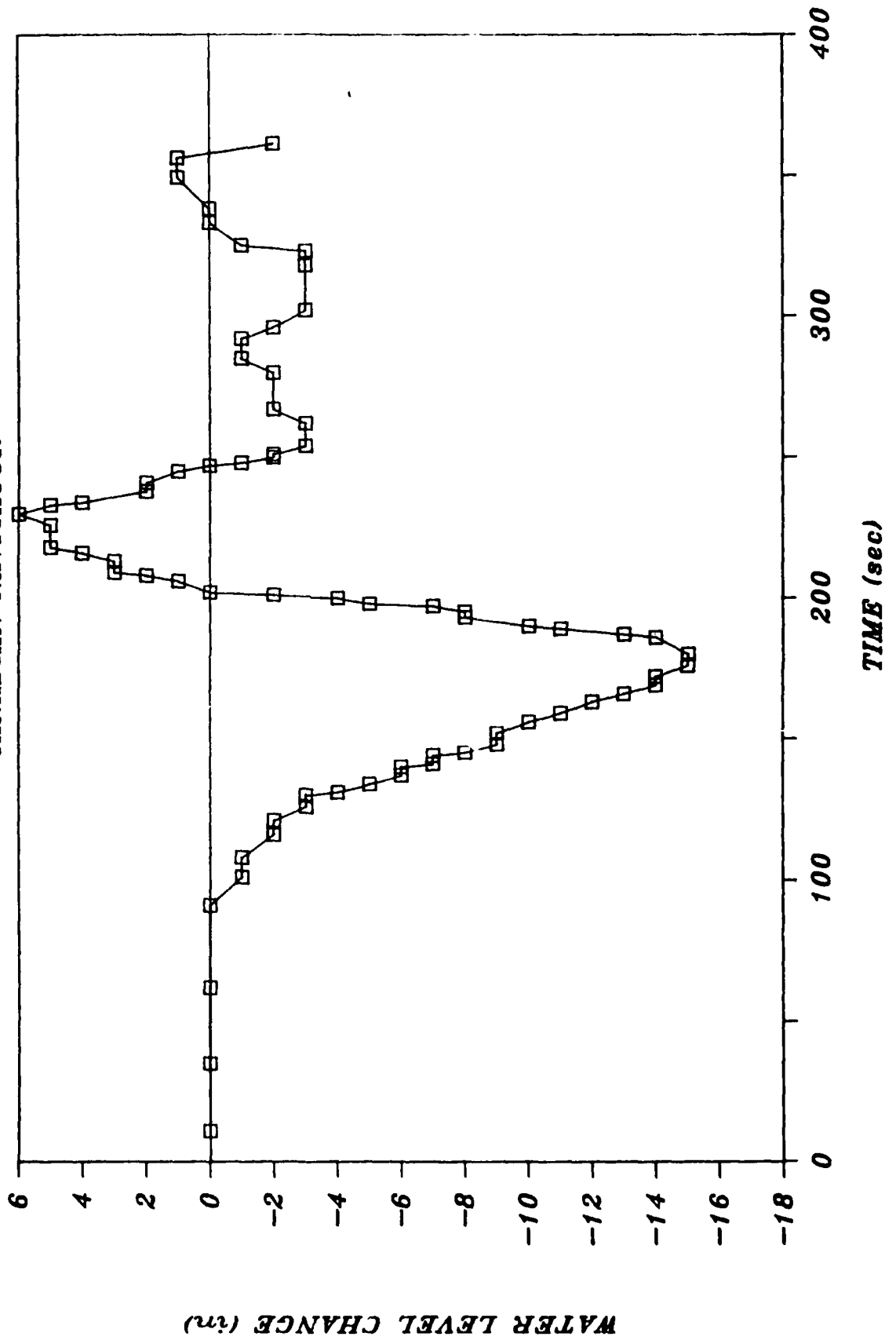
NAME OF SECTION SAND ISLAND

#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	318.0	18.0	-3.0
66	323.0	18.0	-3.0
67	325.0	20.0	-1.0
68	333.0	21.0	0.0
69	338.0	21.0	0.0
70	349.0	22.0	1.0
71	356.0	22.0	1.0
72	361.0	19.0	-2.0

SAND ISLAND (red)

CANADIAN NAVIGATOR



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 5/21/85
 VESSEL NAME EDGAR B. SPEAR
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1004
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 27.25
 VESSEL SPEED in feet/sec. = 10.04
 BOW ON TIME in sec = 119
 STERN ON TIME in sec = 219
 DISTANCE TO STAFF GAUGE from green side in feet = 65
 BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	21.0	21.0	0.0
3	28.0	20.0	-1.0
4	47.0	20.0	-1.0
5	60.0	19.0	-2.0
6	66.0	19.0	-2.0
7	76.0	18.0	-3.0
8	92.0	18.0	-3.0
9	100.0	18.0	-3.0
10	110.0	17.0	-4.0
11	115.0	16.0	-5.0
12	130.0	16.0	-5.0
13	131.0	15.0	-6.0
14	140.0	15.0	-6.0
15	144.0	14.0	-7.0
16	154.0	13.0	-8.0
17	170.0	13.0	-8.0
18	175.0	12.0	-9.0
19	189.0	12.0	-9.0
20	193.0	11.0	-10.0

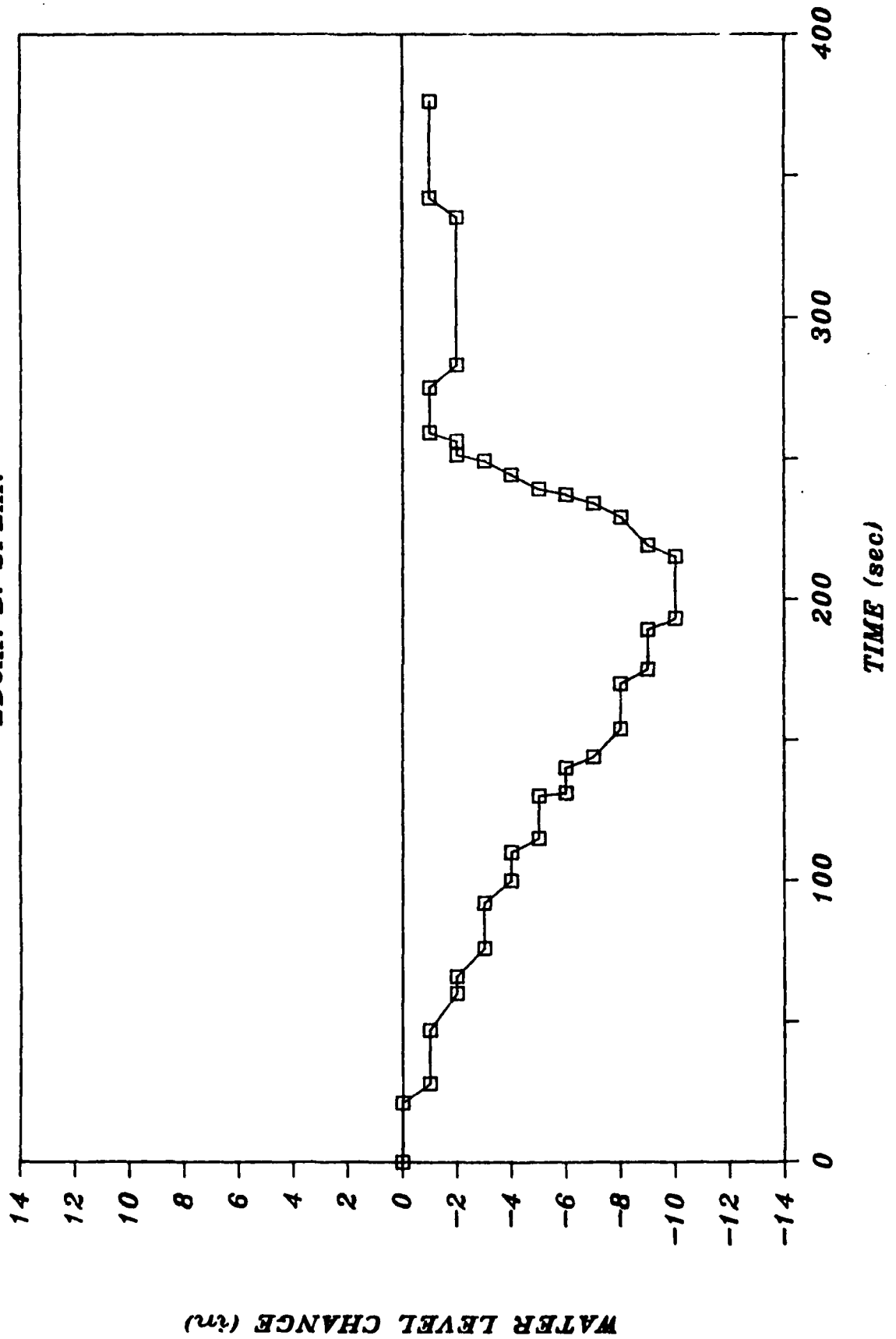
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	215.0	11.0	-10.0
22	219.0	12.0	-9.0
23	229.0	13.0	-8.0
24	234.0	14.0	-7.0
25	237.0	15.0	-6.0
26	239.0	16.0	-5.0
27	244.0	17.0	-4.0
28	249.0	18.0	-3.0
29	251.0	19.0	-2.0
30	256.0	19.0	-2.0
31	259.0	20.0	-1.0
32	275.0	20.0	-1.0
33	283.0	19.0	-2.0
34	335.0	19.0	-2.0
35	342.0	20.0	-1.0

SAND ISLAND (green)

EDGAR B. SPEAR



@@
DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
@@

DATE OF OBSERVATION 5/21/85

VESSEL NAME EDGAR B. SPEAR

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1004

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 27.25

VESSEL SPEED in feet/sec. = 10.04

BOW ON TIME in sec = 119

STERN ON TIME in sec = 219

DISTANCE TO STAFF GAUGE from green side in feet = 2790

BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	30.0	21.0	0.0
3	61.0	20.0	-1.0
4	92.0	20.0	-1.0
5	96.0	19.0	-2.0
6	109.0	19.0	-2.0
7	115.0	18.0	-3.0
8	130.0	18.0	-3.0
9	133.0	17.0	-4.0
10	140.0	16.0	-5.0
11	143.0	15.0	-6.0
12	145.0	15.0	-6.0
13	148.0	14.0	-7.0
14	150.0	13.0	-8.0
15	152.0	13.0	-8.0
16	155.0	12.0	-9.0
17	158.0	12.0	-9.0
18	160.0	11.0	-10.0
19	164.0	11.0	-10.0
20	169.0	10.0	-11.0

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DRAWDOWN DATA (continued)

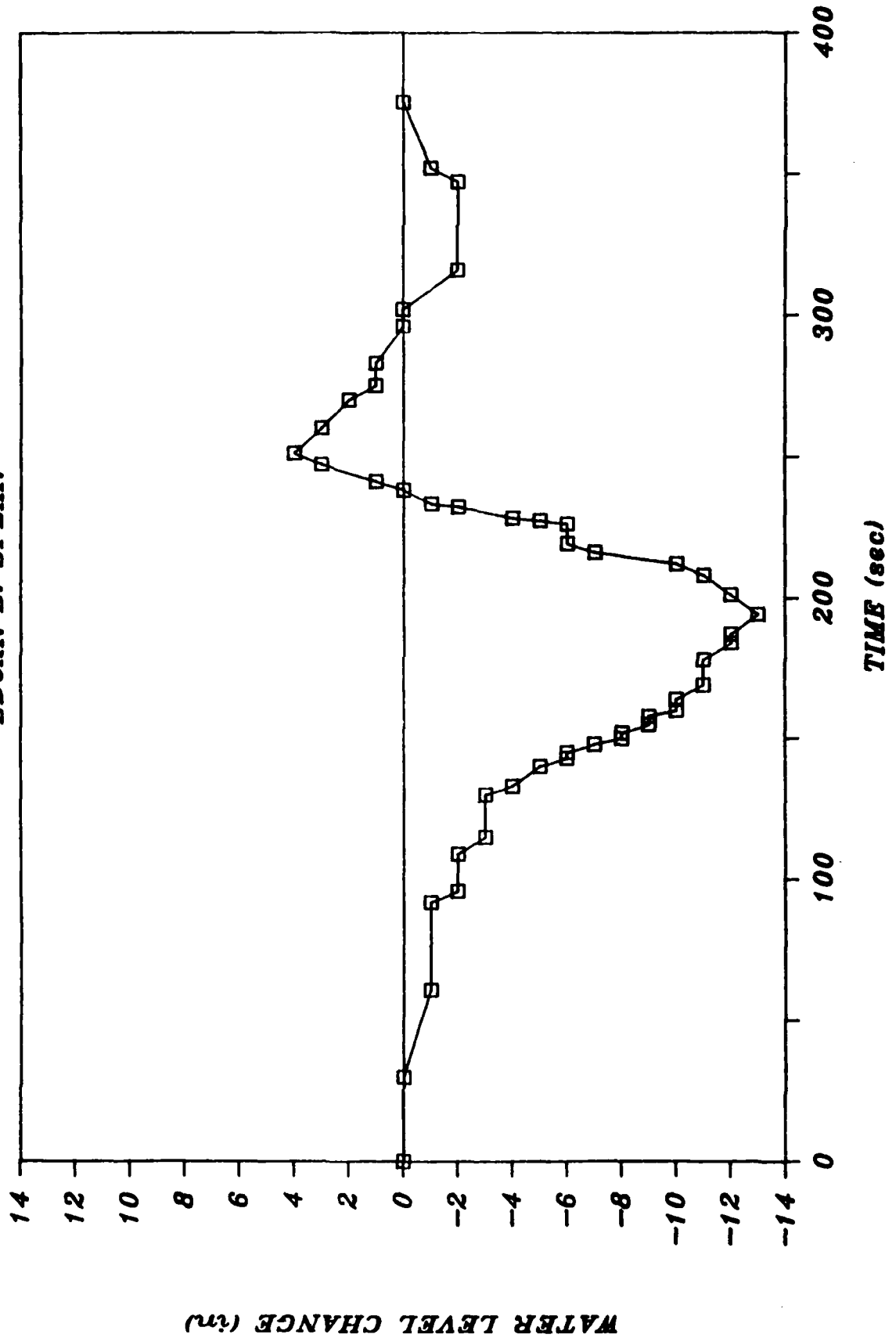
NAME OF SECTION SAND ISLAND

#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	178.0	10.0	-11.0
22	184.0	9.0	-12.0
23	187.0	9.0	-12.0
24	194.0	8.0	-13.0
25	201.0	9.0	-12.0
26	208.0	10.0	-11.0
27	212.0	11.0	-10.0
28	216.0	14.0	-7.0
29	219.0	15.0	-6.0
30	226.0	15.0	-6.0
31	227.0	16.0	-5.0
32	228.0	17.0	-4.0
33	232.0	19.0	-2.0
34	233.0	20.0	-1.0
35	238.0	21.0	0.0
36	241.0	22.0	1.0
37	247.0	24.0	3.0
38	251.0	25.0	4.0
39	260.0	24.0	3.0
40	270.0	23.0	2.0
41	275.0	22.0	1.0
42	283.0	22.0	1.0
43	296.0	21.0	0.0
44	302.0	21.0	0.0
45	316.0	19.0	-2.0
46	347.0	19.0	-2.0
47	352.0	20.0	-1.0
48	375.0	21.0	0.0

SAND ISLAND (red)

EDGAR B. SPBAR



#####

DRAWDOWN: DATA (continued)

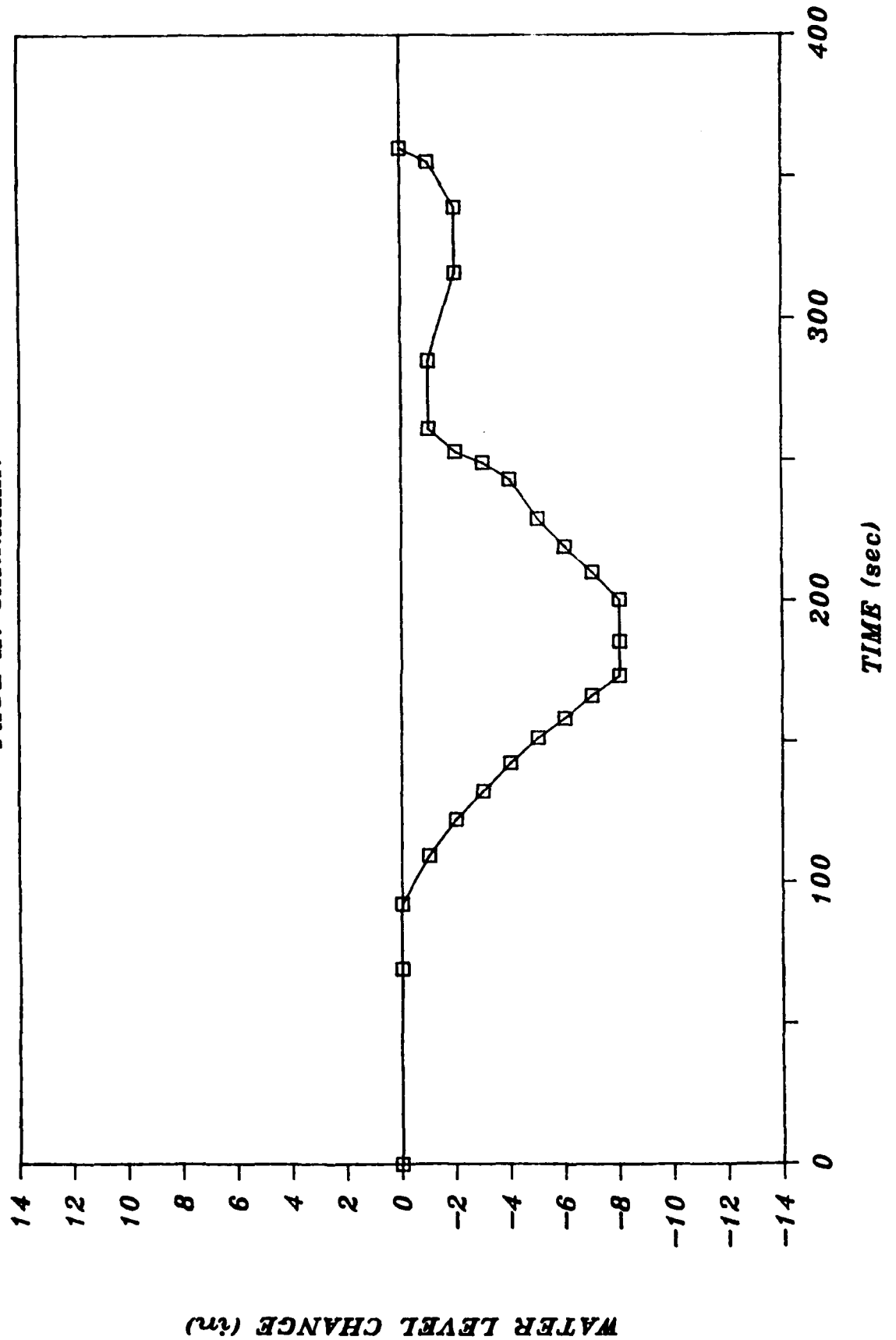
NAME OF SECTION SAND ISLAND

#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	285.0	21.0	-1.0
22	316.0	20.0	-2.0
23	339.0	20.0	-2.0
24	355.0	21.0	-1.0
25	360.0	22.0	0.0

SAND ISLAND (green)

PAUL H. CARNAHAN



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 5/21/85
 VESSEL NAME PAUL H. CARNAHAN
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 27.5
 VESSEL SPEED in feet/sec. = 11.97
 BOW ON TIME in sec = 117
 STERN ON TIME in sec = 178
 DISTANCE TO STAFF GAUGE from green side in feet = 2790
 BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	10.0	22.0	0.0
3	15.0	23.0	1.0
4	36.0	23.0	1.0
5	80.0	23.0	1.0
6	89.0	22.0	0.0
7	93.0	22.0	0.0
8	102.0	21.0	-1.0
9	121.0	21.0	-1.0
10	126.0	20.0	-2.0
11	130.0	19.0	-3.0
12	136.0	19.0	-3.0
13	137.0	18.0	-4.0
14	142.0	17.0	-5.0
15	146.0	16.0	-6.0
16	149.0	15.0	-7.0
17	151.0	14.0	-8.0
18	154.0	13.0	-9.0
19	156.0	12.0	-10.0
20	159.0	12.0	-10.0

DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	161.0	11.0	-11.0
22	165.0	11.0	-11.0
23	168.0	10.0	-12.0
24	172.0	9.0	-13.0
25	177.0	9.0	-13.0
26	179.0	8.0	-14.0
27	182.0	8.0	-14.0
28	185.0	9.0	-13.0
29	187.0	9.0	-13.0
30	188.0	10.0	-12.0
31	189.0	11.0	-11.0
32	193.0	13.0	-9.0
33	198.0	14.0	-8.0
34	202.0	15.0	-7.0
35	203.0	16.0	-6.0
36	204.0	17.0	-5.0
37	205.0	18.0	-4.0
38	206.0	19.0	-3.0
39	208.0	20.0	-2.0
40	209.0	22.0	0.0
41	211.0	23.0	1.0
42	212.0	25.0	3.0
43	219.0	25.0	3.0
44	221.0	26.0	4.0
45	224.0	27.0	5.0
46	226.0	27.0	5.0
47	228.0	29.0	7.0
48	233.0	29.0	7.0
49	236.0	28.0	6.0
50	237.0	27.0	5.0
51	239.0	26.0	4.0
52	242.0	24.0	2.0
53	247.0	24.0	2.0
54	250.0	23.0	1.0
55	252.0	22.0	0.0
56	255.0	21.0	-1.0
57	256.0	20.0	-2.0
58	257.0	19.0	-3.0
59	258.0	18.0	-4.0
60	262.0	19.0	-3.0
61	268.0	18.0	-4.0
62	270.0	19.0	-3.0
63	281.0	19.0	-3.0
64	289.0	19.0	-3.0

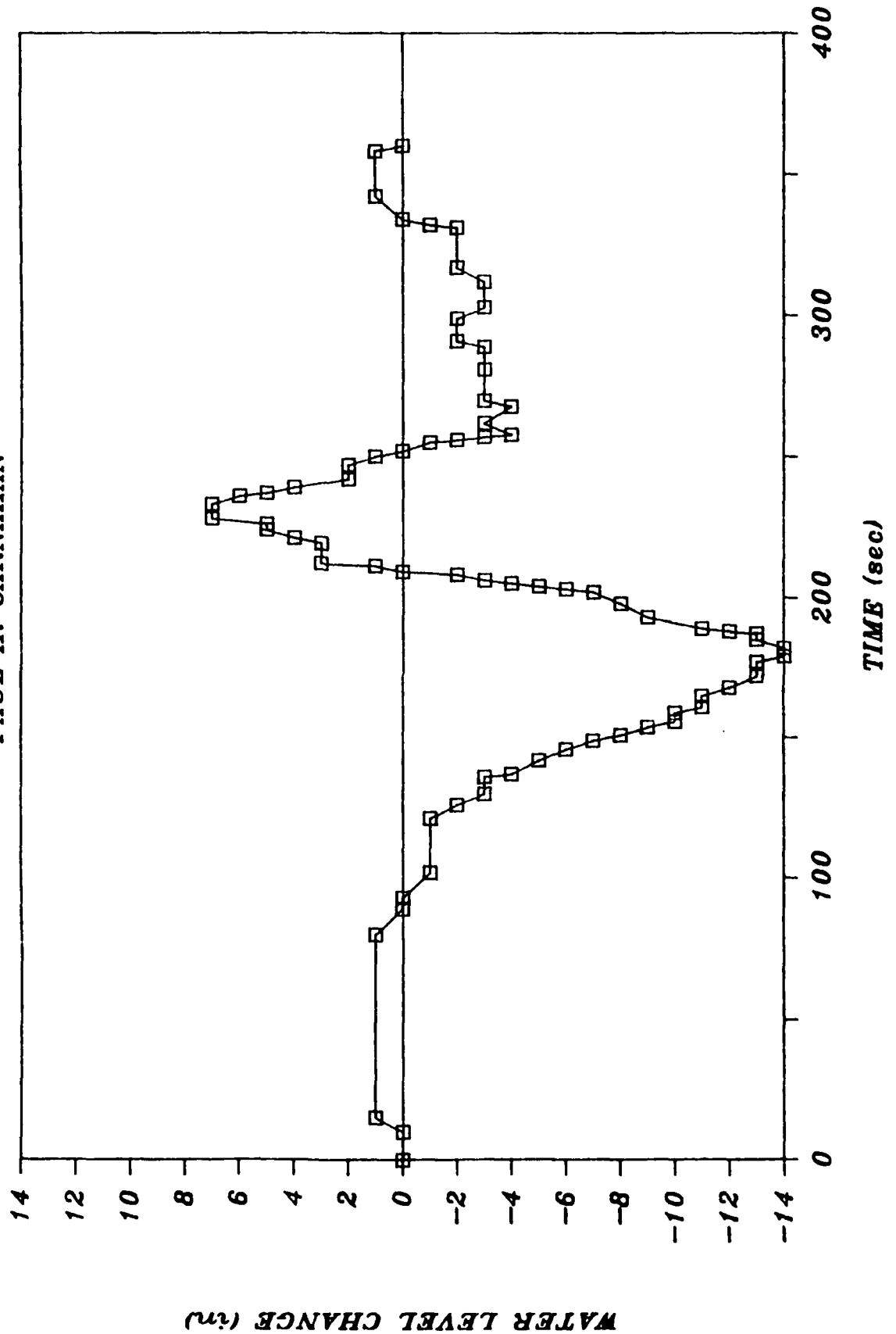
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	291.0	20.0	-2.0
66	299.0	20.0	-2.0
67	303.0	19.0	-3.0
68	312.0	19.0	-3.0
69	317.0	20.0	-2.0
70	331.0	20.0	-2.0
71	332.0	21.0	-1.0
72	334.0	22.0	0.0
73	342.0	23.0	1.0
74	358.0	23.0	1.0
75	360.0	22.0	0.0

SAND ISLAND (red)

PAUL H. CARNAHAN



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 5/21/85

VESSEL NAME FRED R. WHITE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 635

VESSEL BEAM in feet = 68

VESSEL DRAFT in feet = 27.5

VESSEL SPEED in feet/sec. = 11.98

BOW ON TIME in sec = 104

STERN ON TIME in sec = 157

DISTANCE TO STAFF GAUGE from green side in feet = 65

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	12.0	23.0	0.0
3	19.0	24.0	1.0
4	32.0	24.0	1.0
5	57.0	24.0	1.0
6	70.0	23.0	0.0
7	85.0	22.0	-1.0
8	90.0	23.0	0.0
9	98.0	22.0	-1.0
10	104.0	21.0	-2.0
11	107.0	21.0	-2.0
12	110.0	20.0	-3.0
13	116.0	20.0	-3.0
14	116.0	20.0	-3.0
15	120.0	19.0	-4.0
16	120.0	19.0	-4.0
17	123.0	19.0	-4.0
18	126.0	19.0	-4.0
19	130.0	18.0	-5.0
20	133.0	18.0	-5.0

#####

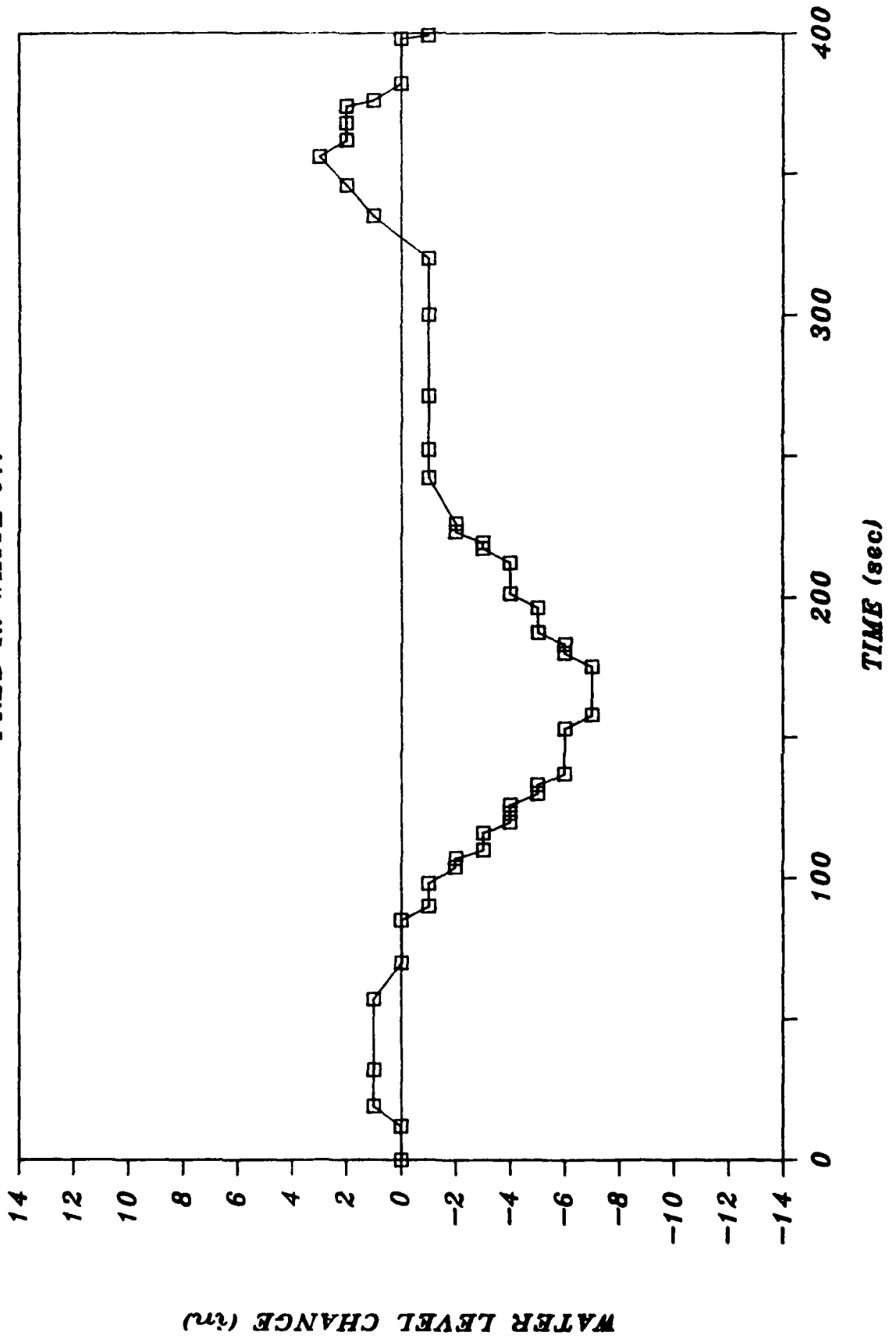
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	137.0	17.0	-6.0
22	153.0	17.0	-6.0
23	158.0	16.0	-7.0
24	175.0	16.0	-7.0
25	180.0	17.0	-6.0
26	183.0	17.0	-6.0
27	187.0	18.0	-5.0
28	196.0	18.0	-5.0
29	201.0	19.0	-4.0
30	212.0	19.0	-4.0
31	217.0	20.0	-3.0
32	219.0	20.0	-3.0
33	223.0	21.0	-2.0
34	226.0	21.0	-2.0
35	242.0	22.0	-1.0
36	252.0	22.0	-1.0
37	271.0	22.0	-1.0
38	300.0	22.0	-1.0
39	320.0	22.0	-1.0
40	335.0	24.0	1.0
41	346.0	25.0	2.0
42	356.0	26.0	3.0
43	362.0	25.0	2.0
44	368.0	25.0	2.0
45	374.0	25.0	2.0
46	376.0	24.0	1.0
47	382.0	23.0	0.0
48	398.0	23.0	0.0
49	399.0	22.0	-1.0

SAND ISLAND (green)

FRED R. WHITE Jr.



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 6/25/85
 VESSEL NAME CHARLES M. BEEGHLY
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 806
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 28.5
 VESSEL SPEED in feet/sec. = 11.35
 BOW ON TIME in sec = 62
 STERN ON TIME in sec = 133
 DISTANCE TO STAFF GAUGE from green side in feet = 40
 BACKGROUND READING in inches = 24

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	24.0	0.0
2	18.0	24.0	0.0
3	27.0	23.5	-0.5
4	32.0	23.0	-1.0
5	45.0	22.5	-1.5
6	50.0	22.0	-2.0
7	65.0	21.0	-3.0
8	72.0	20.5	-3.5
9	76.0	20.0	-4.0
10	83.0	19.5	-4.5
11	87.0	19.0	-5.0
12	92.0	19.0	-5.0
13	100.0	18.5	-5.5
14	107.0	18.0	-6.0
15	114.0	18.0	-6.0
16	121.0	17.5	-6.5
17	137.0	18.0	-6.0
18	145.0	18.5	-5.5
19	149.0	19.0	-5.0
20	152.0	19.5	-4.5

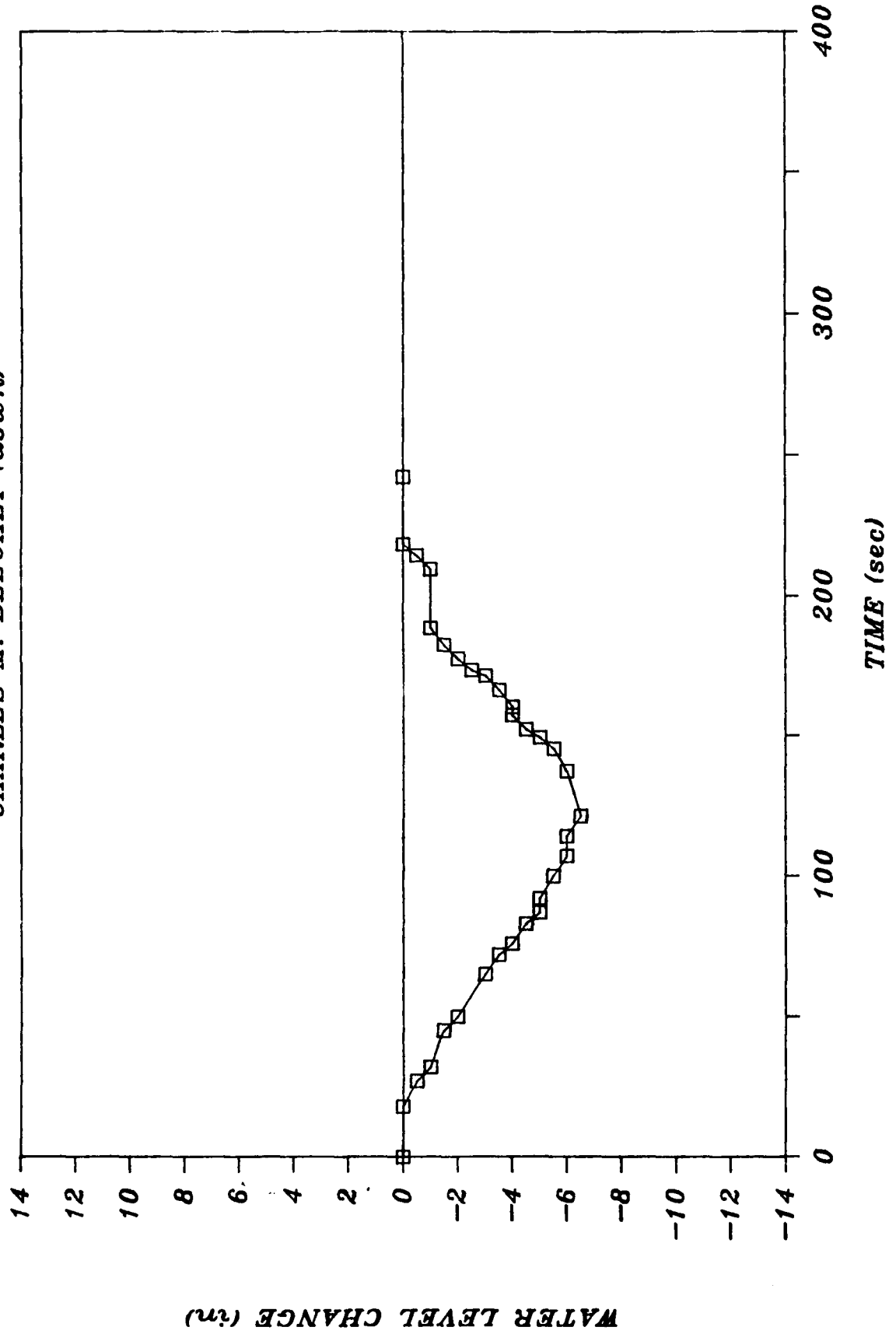
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	157.0	20.0	-4.0
22	160.0	20.0	-4.0
23	166.0	20.5	-3.5
24	171.0	21.0	-3.0
25	173.0	21.5	-2.5
26	177.0	22.0	-2.0
27	182.0	22.5	-1.5
28	188.0	23.0	-1.0
29	209.0	23.0	-1.0
30	214.0	23.5	-0.5
31	218.0	24.0	0.0
32	242.0	24.0	0.0

SAND ISLAND (green)

CHARLES M. BEECHLY (down)



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 6/25/85
 VESSEL NAME CHARLES M. BEEGLY
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 806
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 28.5
 VESSEL SPEED in feet/sec. = 11.35
 BOW ON TIME in sec = 62
 STERN ON TIME in sec = 133
 DISTANCE TO STAFF GAUGE from green side in feet = 2790
 BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	4.0	19.0	0.0
3	33.0	18.0	-1.0
4	46.0	18.0	-1.0
5	60.0	17.0	-2.0
6	73.0	16.0	-3.0
7	77.0	15.0	-4.0
8	83.0	14.0	-5.0
9	88.0	14.0	-5.0
10	93.0	13.0	-6.0
11	97.0	12.0	-7.0
12	103.0	11.0	-8.0
13	111.0	10.0	-9.0
14	123.0	10.0	-9.0
15	128.0	11.0	-8.0
16	138.0	13.0	-6.0
17	140.0	14.0	-5.0
18	142.0	15.0	-4.0
19	146.0	16.0	-3.0
20	155.0	17.0	-2.0

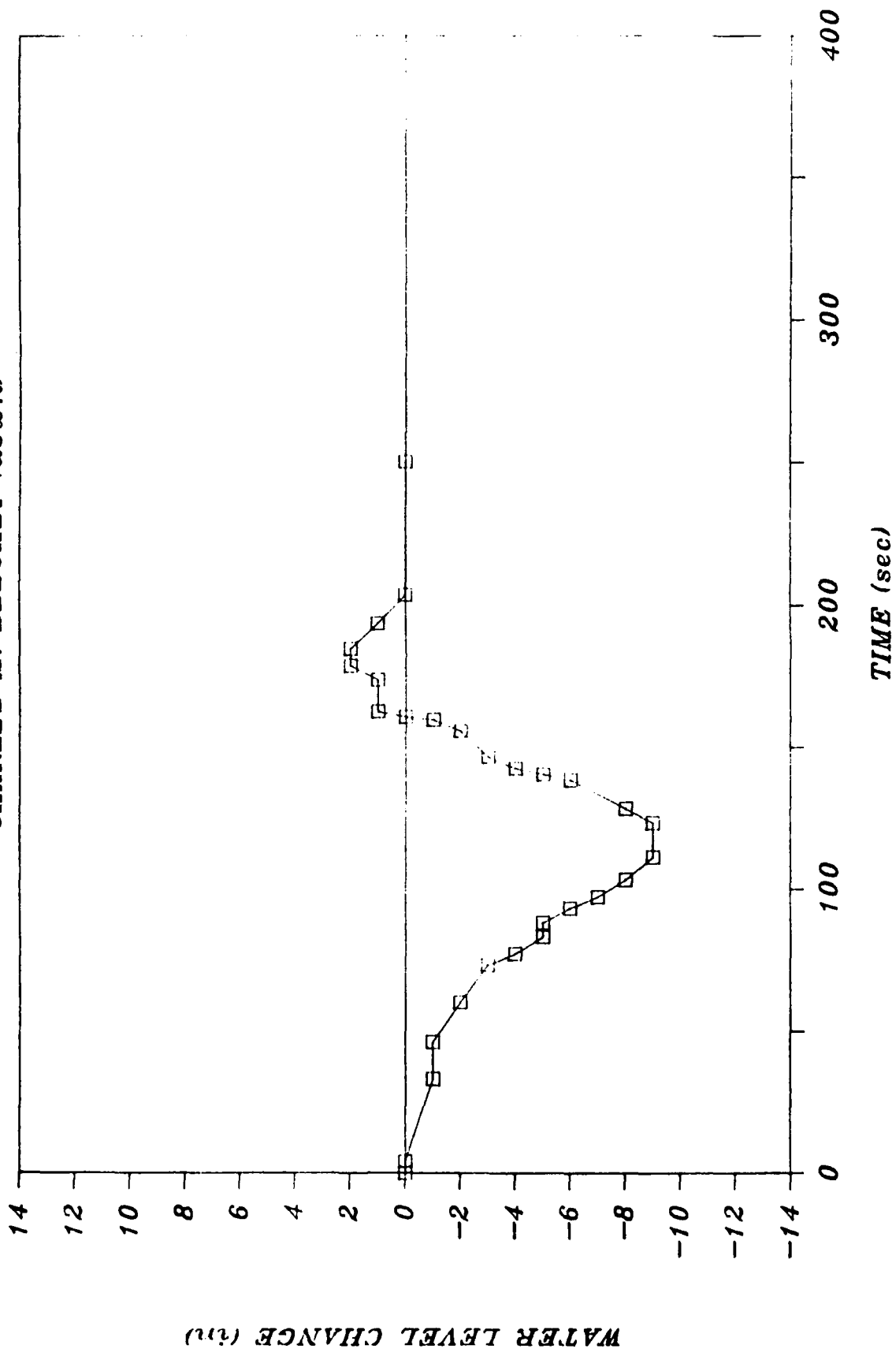
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	159.0	18.0	-1.0
22	160.0	19.0	0.0
23	162.0	20.0	1.0
24	173.0	20.0	1.0
25	178.0	21.0	2.0
26	184.0	21.0	2.0
27	193.0	20.0	1.0
28	203.0	19.0	0.0
29	250.0	19.0	0.0

SAND ISLAND (red)

CHARLES M. BEEGLY (down)



#####

DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 6/25/85

VESSEL NAME STEWART J. CORT

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 27.5

VESSEL SPEED in feet/sec. = 10.75

BOW ON TIME in sec = 102

STERN ON TIME in sec = 195

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	12.0	24.0	1.0
3	17.0	24.0	1.0
4	39.0	23.0	0.0
5	50.0	23.0	0.0
6	69.0	22.0	-1.0
7	86.0	21.5	-1.5
8	90.0	21.0	-2.0
9	99.0	20.5	-2.5
10	108.0	20.0	-3.0
11	116.0	19.5	-3.5
12	121.0	19.0	-4.0
13	129.0	18.5	-4.5
14	133.0	18.0	-5.0
15	137.0	18.0	-5.0
16	145.0	17.5	-5.5
17	151.0	17.0	-6.0
18	159.0	17.0	-6.0
19	170.0	16.5	-6.5
20	176.0	16.0	-7.0

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DRAWDOWN DATA (continued)

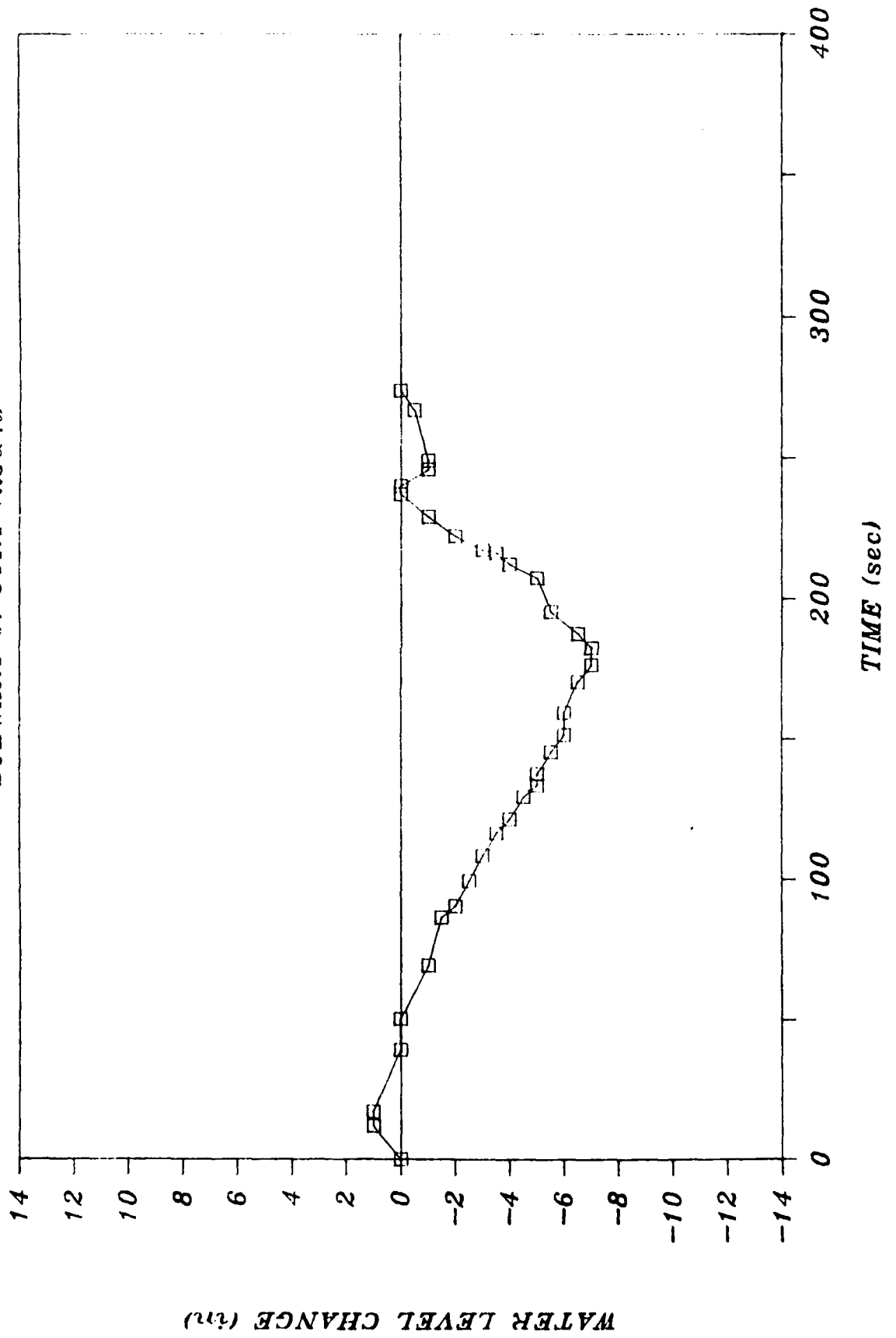
NAME OF SECTION SAND ISLAND

#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	182.0	16.0	-7.0
22	187.0	16.5	-6.5
23	195.0	17.5	-5.5
24	207.0	18.0	-5.0
25	212.0	19.0	-4.0
26	216.0	19.5	-3.5
27	217.0	20.0	-3.0
28	222.0	21.0	-2.0
29	229.0	22.0	-1.0
30	237.0	23.0	0.0
31	240.0	23.0	0.0
32	246.0	22.0	-1.0
33	249.0	22.0	-1.0
34	267.0	22.5	-0.5
35	274.0	23.0	0.0

SAND ISLAND (green)

STEWART J. CORT (down)



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 6/25/85
 VESSEL NAME STEWART J. CORT
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 27.5
 VESSEL SPEED in feet/sec. = 10.75
 BOW ON TIME in sec = 102
 STERN ON TIME in sec = 195
 DISTANCE TO STAFF GAUGE from green side in feet = 2790
 BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	20.0	19.0	0.0
3	56.0	18.0	-1.0
4	76.0	18.0	-1.0
5	89.0	17.0	-2.0
6	102.0	16.0	-3.0
7	108.0	16.0	-3.0
8	114.0	15.0	-4.0
9	118.0	14.0	-5.0
10	128.0	14.0	-5.0
11	130.0	13.0	-6.0
12	132.0	12.0	-7.0
13	136.0	12.0	-7.0
14	138.0	11.0	-8.0
15	142.0	10.0	-9.0
16	151.0	9.0	-10.0
17	157.0	9.0	-10.0
18	160.0	8.0	-11.0
19	169.0	8.0	-11.0
20	185.0	8.0	-11.0

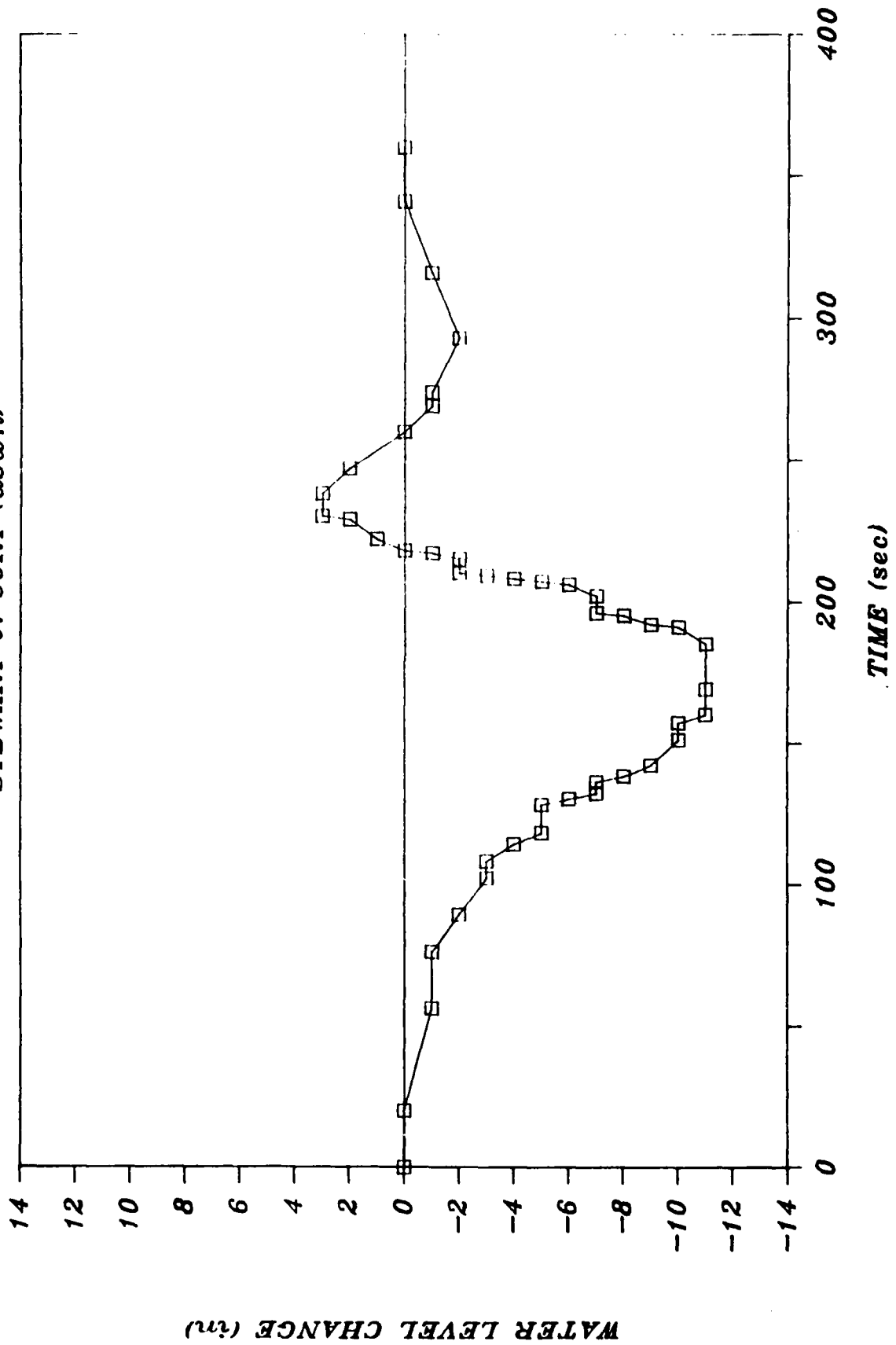
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	191.0	9.0	-10.0
22	192.0	10.0	-9.0
23	195.0	11.0	-8.0
24	196.0	12.0	-7.0
25	202.0	12.0	-7.0
26	206.0	13.0	-6.0
27	207.0	14.0	-5.0
28	208.0	15.0	-4.0
29	209.0	16.0	-3.0
30	210.0	17.0	-2.0
31	215.0	17.0	-2.0
32	217.0	18.0	-1.0
33	218.0	19.0	0.0
34	222.0	20.0	1.0
35	229.0	21.0	2.0
36	230.0	22.0	3.0
37	238.0	22.0	3.0
38	247.0	21.0	2.0
39	260.0	19.0	0.0
40	269.0	18.0	-1.0
41	274.0	18.0	-1.0
42	293.0	17.0	-2.0
43	316.0	18.0	-1.0
44	341.0	19.0	0.0
45	360.0	19.0	0.0

SAND ISLAND (red)

STEWART J. CORT (down)



#####

DRAWDOWN DATA

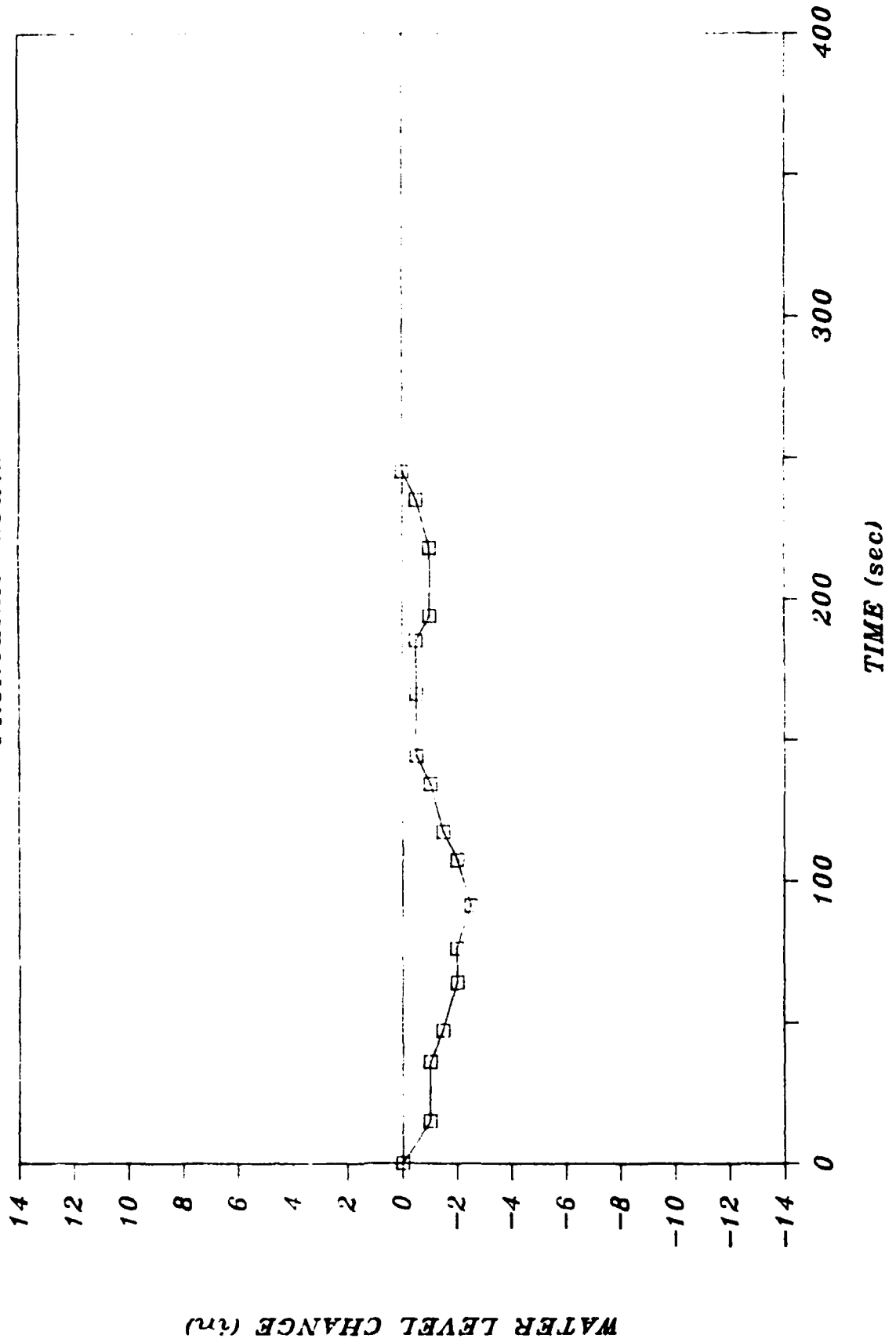
NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 6/25/85
VESSEL NAME FRONTENAC
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 27.5
VESSEL SPEED in feet/sec. = 10.74
BOW ON TIME in sec = 62
STERN ON TIME in sec = 130
DISTANCE TO STAFF GAUGE from green side in feet = 40
BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	15.0	22.0	-1.0
3	36.0	22.0	-1.0
4	47.0	21.5	-1.5
5	64.0	21.0	-2.0
6	76.0	21.0	-2.0
7	91.0	20.5	-2.5
8	107.0	21.0	-2.0
9	117.0	21.5	-1.5
10	134.0	22.0	-1.0
11	144.0	22.5	-0.5
12	166.0	22.5	-0.5
13	185.0	22.5	-0.5
14	194.0	22.0	-1.0
15	218.0	22.0	-1.0
16	235.0	22.5	-0.5
17	245.0	23.0	0.0

SAND ISLAND (green)

FRONTENAC (down)



#####

DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

#####

DATE OF OBSERVATION 6/25/85

VESSEL NAME FRONTENAC

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 27.5

VESSEL SPEED in feet/sec. = 10.74

BOW ON TIME in sec = 62

STERN ON TIME in sec = 130

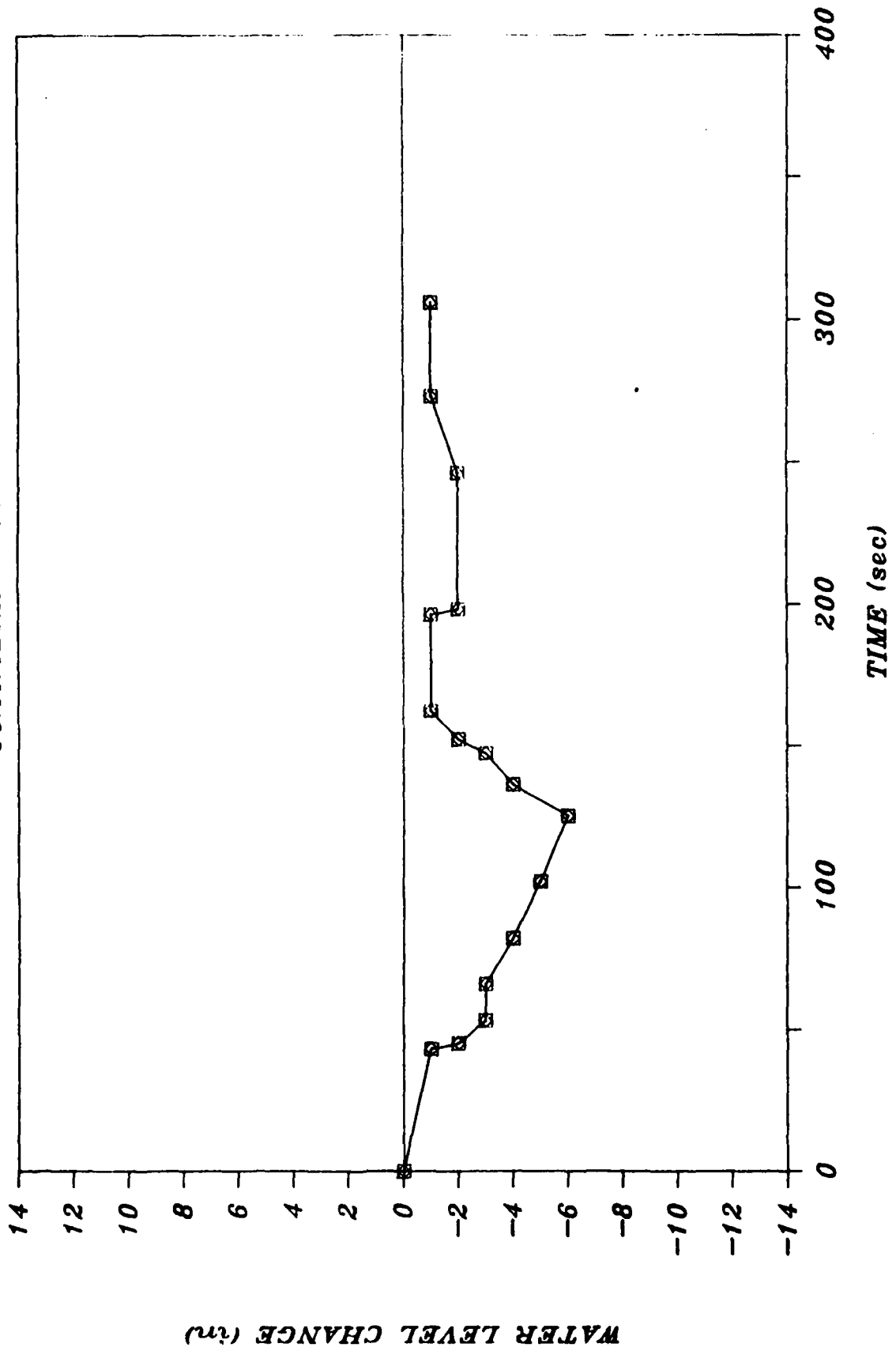
DISTANCE TO STAFF GAUGE from green side in feet = 2790

BACKGROUND READING in inches = 20

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	20.0	0.0
2	43.0	19.0	-1.0
3	45.0	18.0	-2.0
4	53.0	17.0	-3.0
5	66.0	17.0	-3.0
6	82.0	16.0	-4.0
7	102.0	15.0	-5.0
8	125.0	14.0	-6.0
9	136.0	16.0	-4.0
10	147.0	17.0	-3.0
11	152.0	18.0	-2.0
12	162.0	19.0	-1.0
13	196.0	19.0	-1.0
14	198.0	18.0	-2.0
15	246.0	18.0	-2.0
16	273.0	19.0	-1.0
17	306.0	19.0	-1.0

SAND ISLAND (red)

FRONTENAC (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 6/28/85

VESSEL NAME WILLIAM CLAY FORD

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 767

VESSEL BEAM in feet = 70

VESSEL DRAFT in feet = 27?

VESSEL SPEED in feet/sec. = 10.8

BOW ON TIME in sec = 55

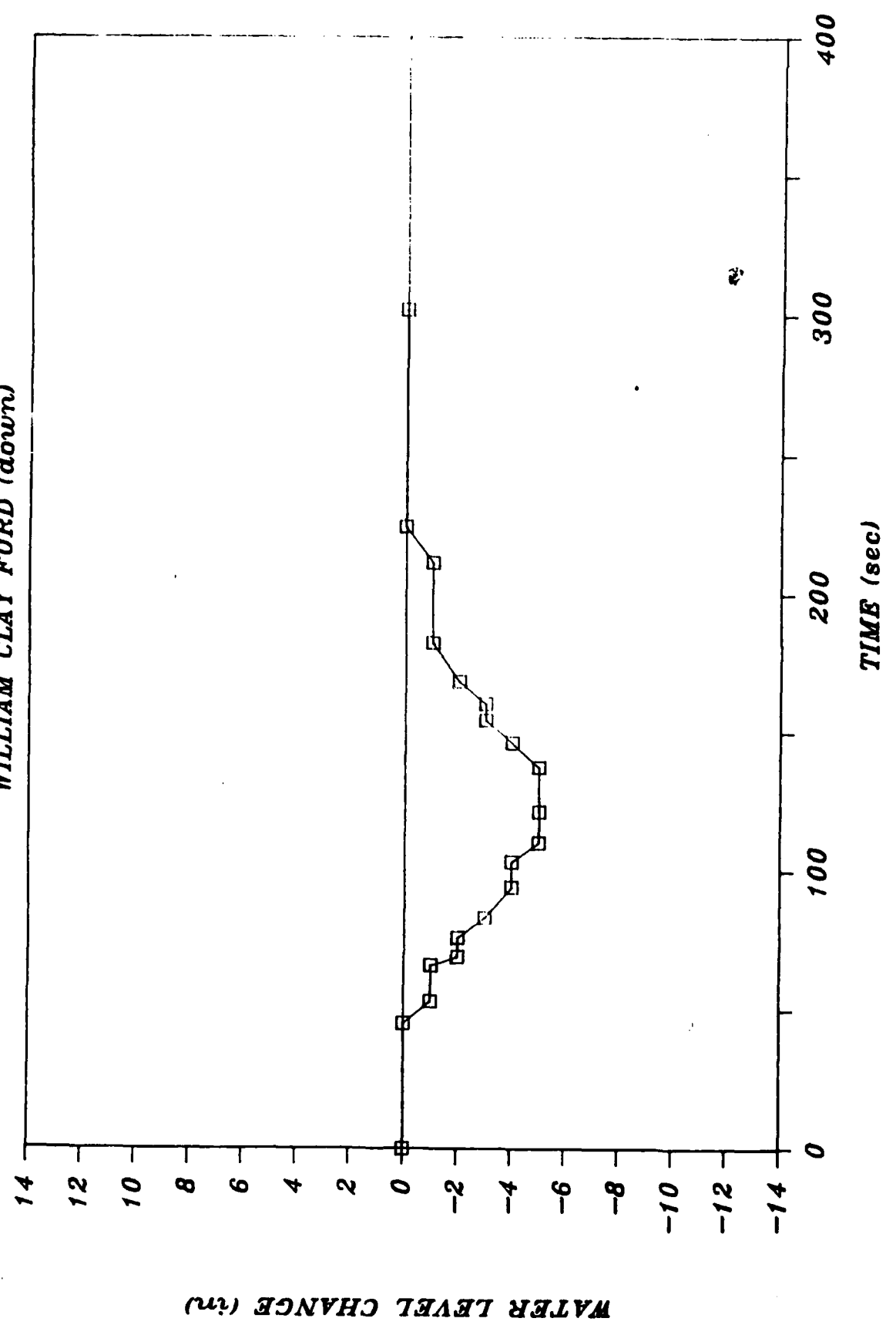
STERN ON TIME in sec = 126

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	45.0	14.0	0.0
3	53.0	13.0	-1.0
4	66.0	13.0	-1.0
5	69.0	12.0	-2.0
6	76.0	12.0	-2.0
7	83.0	11.0	-3.0
8	94.0	10.0	-4.0
9	103.0	10.0	-4.0
10	110.0	9.0	-5.0
11	121.0	9.0	-5.0
12	137.0	9.0	-5.0
13	146.0	10.0	-4.0
14	154.0	11.0	-3.0
15	160.0	11.0	-3.0
16	168.0	12.0	-2.0
17	182.0	13.0	-1.0
18	211.0	13.0	-1.0
19	224.0	14.0	0.0
20	302.0	14.0	0.0

SAND ISLAND (green)
WILLIAM CLAY FORD (down)



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DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 6/28/85

VESSEL NAME WILLIAM CLAY FORD

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 767

VESSEL BEAM in feet = 70

VESSEL DRAFT in feet = 27?

VESSEL SPEED in feet/sec. = 10.8

BOW ON TIME in sec = 55

STERN ON TIME in sec = 126

DISTANCE TO STAFF GAUGE from green side in feet = 2790

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	31.0	22.0	0.0
3	49.0	21.0	-1.0
4	60.0	20.5	-1.5
5	66.0	20.0	-2.0
6	70.0	19.0	-3.0
7	73.0	18.5	-3.5
8	76.0	18.0	-4.0
9	80.0	17.5	-4.5
10	83.0	17.0	-5.0
11	87.0	16.5	-5.5
12	90.0	16.0	-6.0
13	92.0	15.5	-6.5
14	95.0	15.0	-7.0
15	97.0	14.5	-7.5
16	100.0	14.0	-8.0
17	103.0	13.5	-8.5
18	106.0	13.0	-9.0
19	110.0	12.5	-9.5
20	132.0	14.5	-7.5

XX

DRAWDOWN DATA (continued)

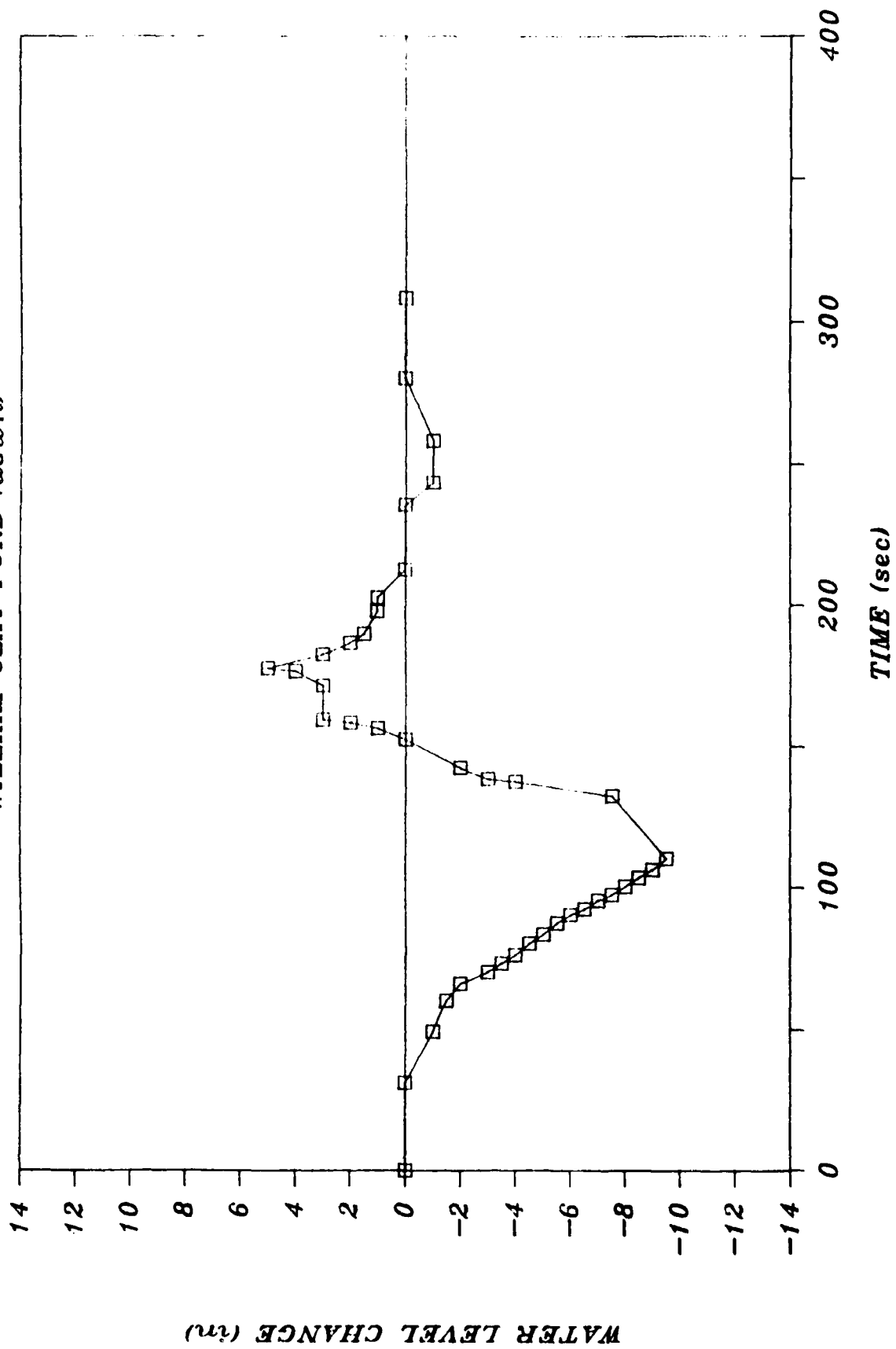
NAME OF SECTION SAND ISLAND

XX

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	137.0	18.0	-4.0
22	138.0	19.0	-3.0
23	142.0	20.0	-2.0
24	152.0	22.0	0.0
25	156.0	23.0	1.0
26	158.0	24.0	2.0
27	159.0	25.0	3.0
28	171.0	25.0	3.0
29	176.0	26.0	4.0
30	177.0	27.0	5.0
31	182.0	25.0	3.0
32	186.0	24.0	2.0
33	189.0	23.5	1.5
34	197.0	23.0	1.0
35	202.0	23.0	1.0
36	212.0	22.0	0.0
37	235.0	22.0	0.0
38	243.0	21.0	-1.0
39	258.0	21.0	-1.0
40	280.0	22.0	0.0
41	308.0	22.0	0.0

SAND ISLAND (red)

WILLIAM CLAY FORD (down)



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 6/28/85

VESSEL NAME H.LEE WHITE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 704

VESSEL BEAM in feet = 78

VESSEL DRAFT in feet = 28

VESSEL SPEED in feet/sec. = 10.67

BOW ON TIME in sec = 61

STERN ON TIME in sec = 127

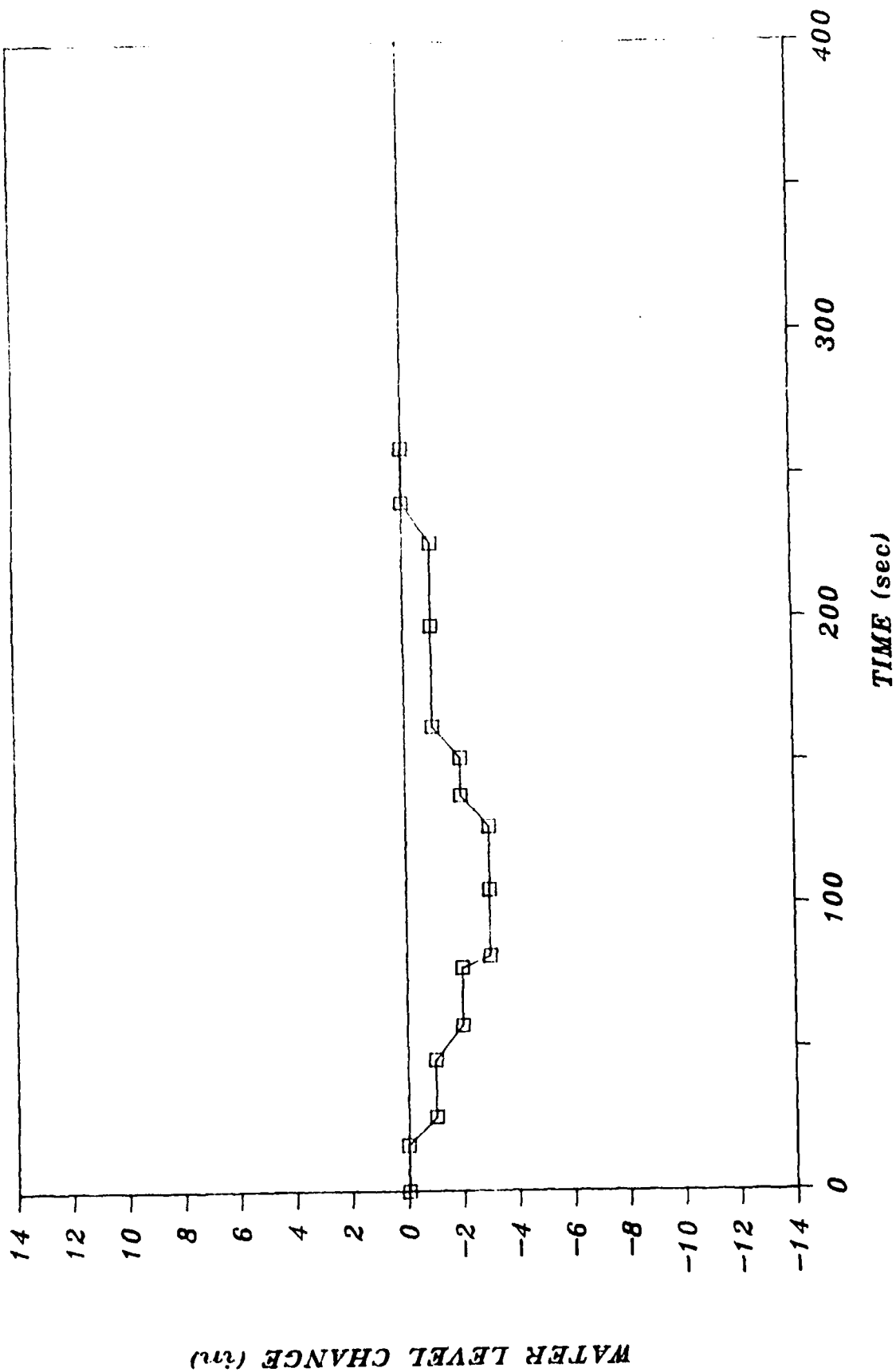
DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 15

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	15.0	0.0
2	16.0	15.0	0.0
3	26.0	14.0	-1.0
4	46.0	14.0	-1.0
5	58.0	13.0	-2.0
6	78.0	13.0	-2.0
7	82.0	12.0	-3.0
8	105.0	12.0	-3.0
9	127.0	12.0	-3.0
10	138.0	13.0	-2.0
11	151.0	13.0	-2.0
12	162.0	14.0	-1.0
13	197.0	14.0	-1.0
14	226.0	14.0	-1.0
15	240.0	15.0	0.0
16	259.0	15.0	0.0

SAND ISLAND (green)

H. LEE WHITE (down)



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 6/28/85
 VESSEL NAME H. LEE WHITE
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 704
 VESSEL BEAM in feet = 78
 VESSEL DRAFT in feet = 28
 VESSEL SPEED in feet/sec. = 10.67
 BOW ON TIME in sec = 61
 STERN ON TIME in sec = 127
 DISTANCE TO STAFF GAUGE from green side in feet = 2790
 BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	3.0	23.0	0.0
3	17.0	22.5	-0.5
4	26.0	22.5	-0.5
5	31.0	22.0	-1.0
6	46.0	22.0	-1.0
7	51.0	21.5	-1.5
8	57.0	21.0	-2.0
9	65.0	20.5	-2.5
10	70.0	20.0	-3.0
11	77.0	19.5	-3.5
12	82.0	19.0	-4.0
13	88.0	18.0	-5.0
14	93.0	17.5	-5.5
15	99.0	17.0	-6.0
16	111.0	17.0	-6.0
17	120.0	17.5	-5.5
18	124.0	18.0	-5.0
19	131.0	18.5	-4.5
20	136.0	19.5	-3.5

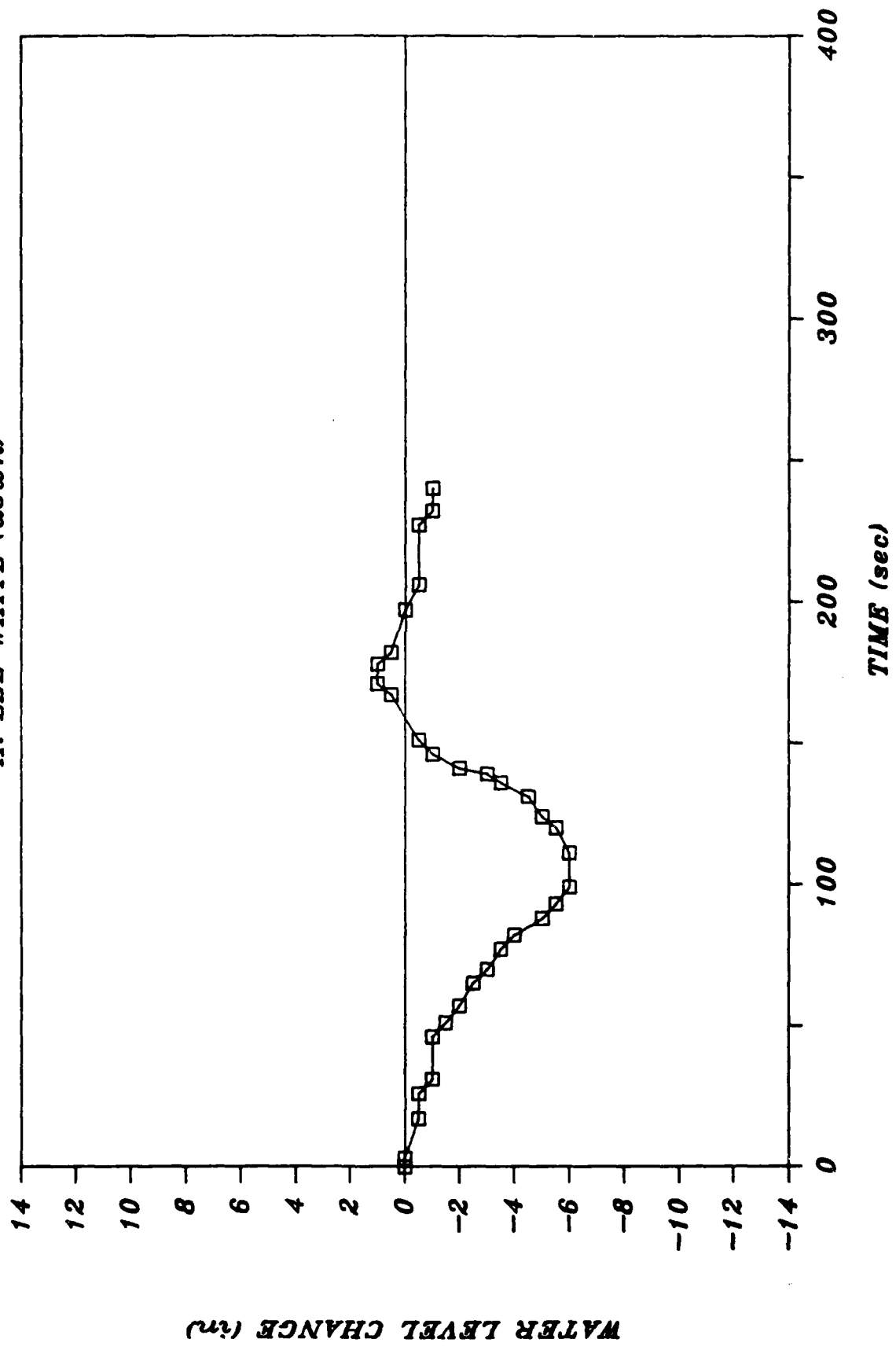
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	139.0	20.0	-3.0
22	141.0	21.0	-2.0
23	146.0	22.0	-1.0
24	151.0	22.5	-0.5
25	167.0	23.5	0.5
26	171.0	24.0	1.0
27	178.0	24.0	1.0
28	182.0	23.5	0.5
29	197.0	23.0	0.0
30	206.0	22.5	-0.5
31	227.0	22.5	-0.5
32	232.0	22.0	-1.0
33	240.0	22.0	-1.0

SAND ISLAND (red)

H. LEE WHITE (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

DATE OF OBSERVATION 6/28/85

VESSEL NAME WILLIAM A. MCGONAGLE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 600

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 22

VESSEL SPEED in feet/sec. = 12.76

BOW ON TIME in sec = 40

STERN ON TIME in sec = 87

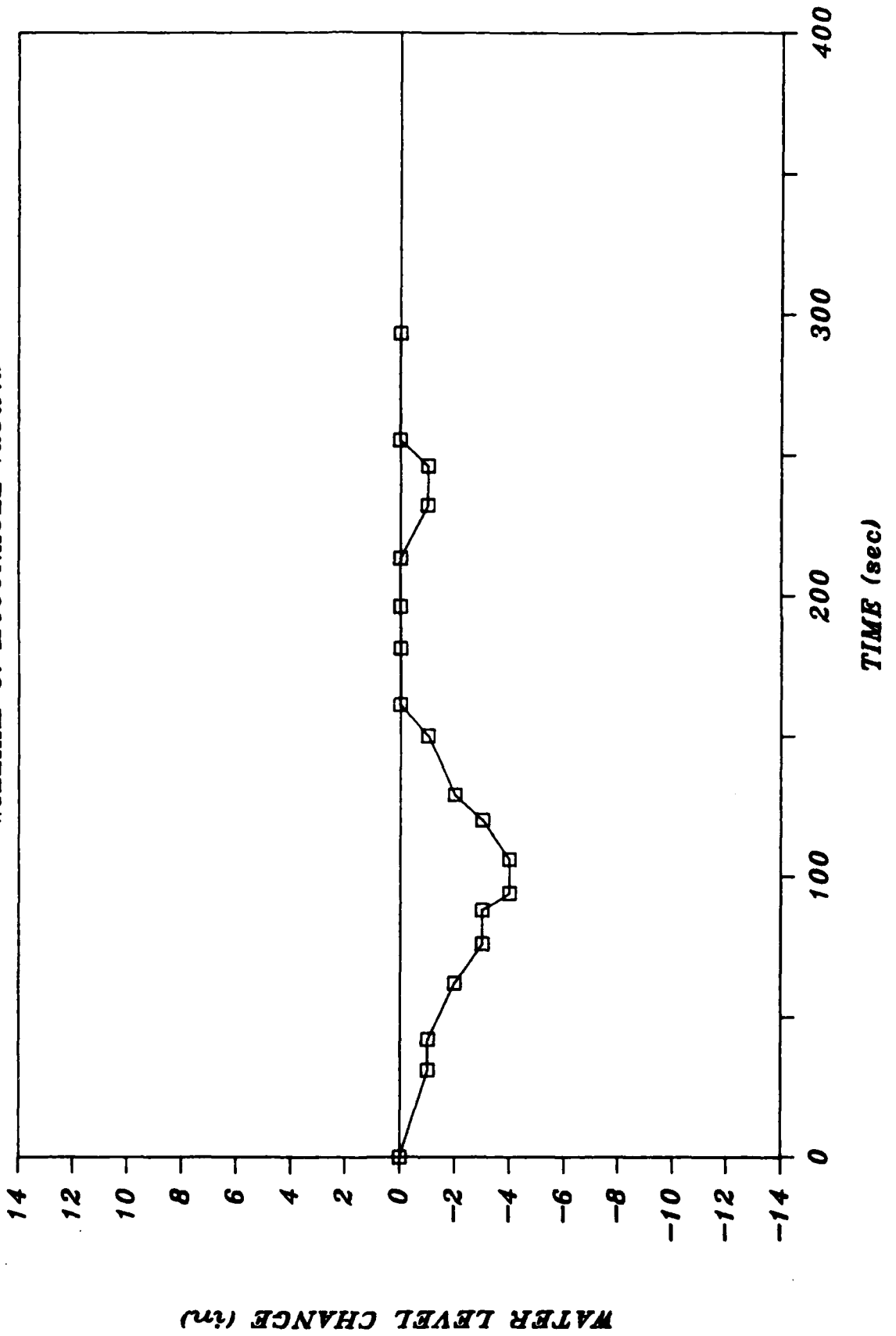
DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	31.0	13.0	-1.0
3	42.0	13.0	-1.0
4	62.0	12.0	-2.0
5	76.0	11.0	-3.0
6	88.0	11.0	-3.0
7	94.0	10.0	-4.0
8	106.0	10.0	-4.0
9	120.0	11.0	-3.0
10	129.0	12.0	-2.0
11	150.0	13.0	-1.0
12	161.0	14.0	0.0
13	181.0	14.0	0.0
14	196.0	14.0	0.0
15	213.0	14.0	0.0
16	232.0	13.0	-1.0
17	246.0	13.0	-1.0
18	255.0	14.0	0.0
19	293.0	14.0	0.0

SAND ISLAND (green)

WILLIAM C. McCONAGLE (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND

DATE OF OBSERVATION 6/28/85

VESSEL NAME WILLIAM A. MCGONAGLE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 600

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 22

VESSEL SPEED in feet/sec. = 12.76

BOW ON TIME in sec = 40

STERN ON TIME in sec = 87?

DISTANCE TO STAFF GAUGE from green side in feet = 2790

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	32.0	22.0	0.0
3	44.0	20.5	-1.5
4	47.0	20.0	-2.0
5	54.0	19.0	-3.0
6	57.0	18.5	-3.5
7	61.0	18.0	-4.0
8	66.0	17.0	-5.0
9	73.0	16.0	-6.0
10	77.0	15.5	-6.5
11	80.0	15.0	-7.0
12	84.0	15.0	-7.0
13	102.0	16.0	-6.0
14	107.0	17.0	-5.0
15	108.0	18.0	-4.0
16	110.0	18.5	-3.5
17	112.0	19.0	-3.0
18	116.0	20.0	-2.0
19	122.0	23.0	1.0
20	125.0	23.5	1.5

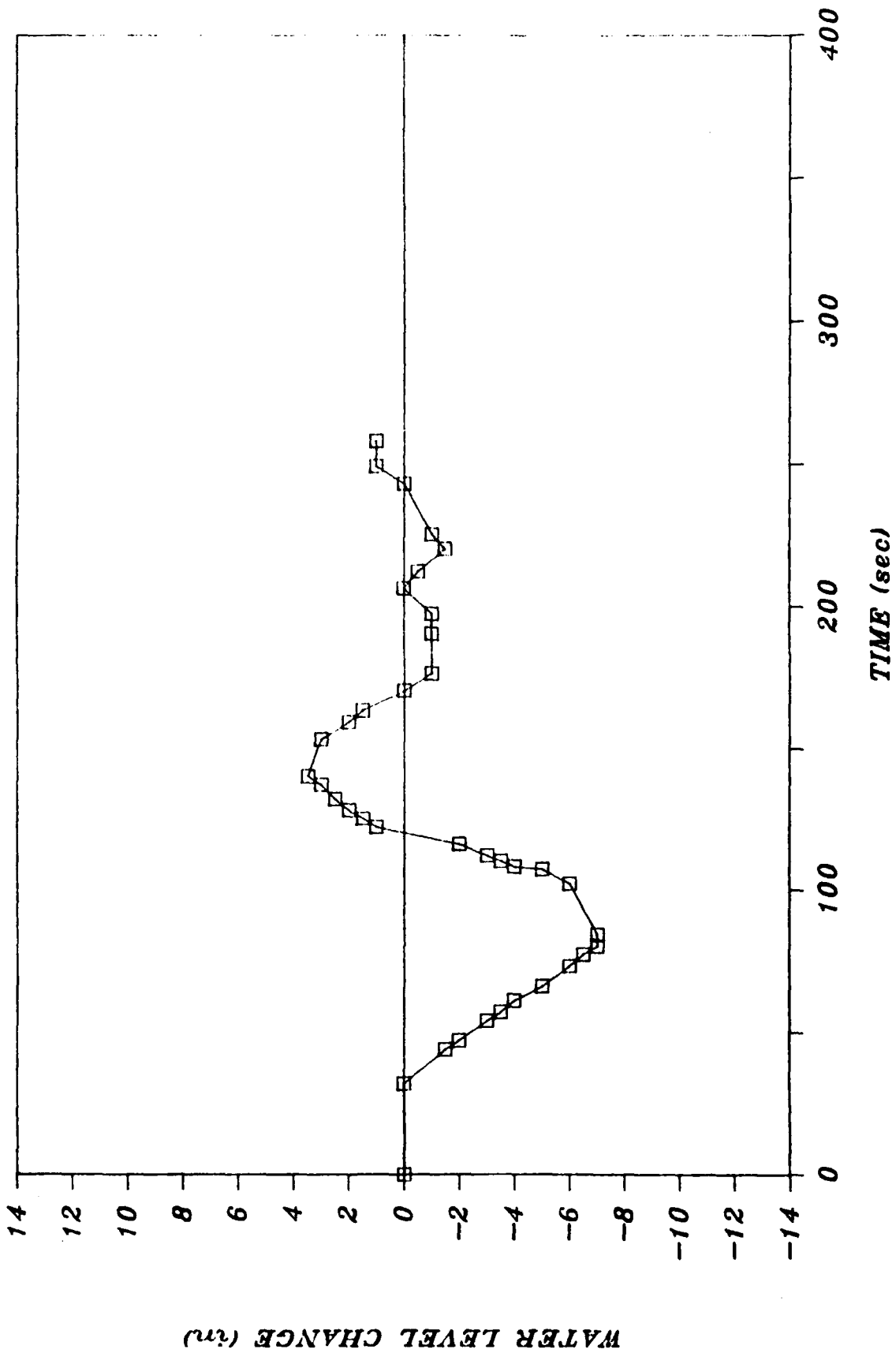
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	128.0	24.0	2.0
22	132.0	24.5	2.5
23	137.0	25.0	3.0
24	140.0	25.5	3.5
25	153.0	25.0	3.0
26	159.0	24.0	2.0
27	163.0	23.5	1.5
28	170.0	22.0	0.0
29	176.0	21.0	-1.0
30	190.0	21.0	-1.0
31	197.0	21.0	-1.0
32	206.0	22.0	0.0
33	212.0	21.5	-0.5
34	220.0	20.5	-1.5
35	225.0	21.0	-1.0
36	243.0	22.0	0.0
37	249.0	23.0	1.0
38	258.0	23.0	1.0

SAND ISLAND (red)

WILLIAM C. McCONAGLE (down)



@@
 DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
 @@

DATE OF OBSERVATION 6/28/85
 VESSEL NAME JAMES R. BARKER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 27
 VESSEL SPEED in feet/sec. = 10.87
 BOW ON TIME in sec = 56
 STERN ON TIME in sec = 148
 DISTANCE TO STAFF GAUGE from green side in feet = 40
 BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	15.0	14.0	0.0
3	34.0	13.0	-1.0
4	45.0	13.0	-1.0
5	49.0	12.0	-2.0
6	62.0	11.0	-3.0
7	76.0	10.0	-4.0
8	87.0	9.0	-5.0
9	100.0	8.0	-6.0
10	118.0	7.0	-7.0
11	130.0	7.0	-7.0
12	151.0	7.0	-7.0
13	158.0	8.0	-6.0
14	167.0	9.0	-5.0
15	172.0	10.0	-4.0
16	182.0	11.0	-3.0
17	184.0	12.0	-2.0
18	188.0	13.0	-1.0
19	193.0	13.0	-1.0
20	197.0	14.0	0.0

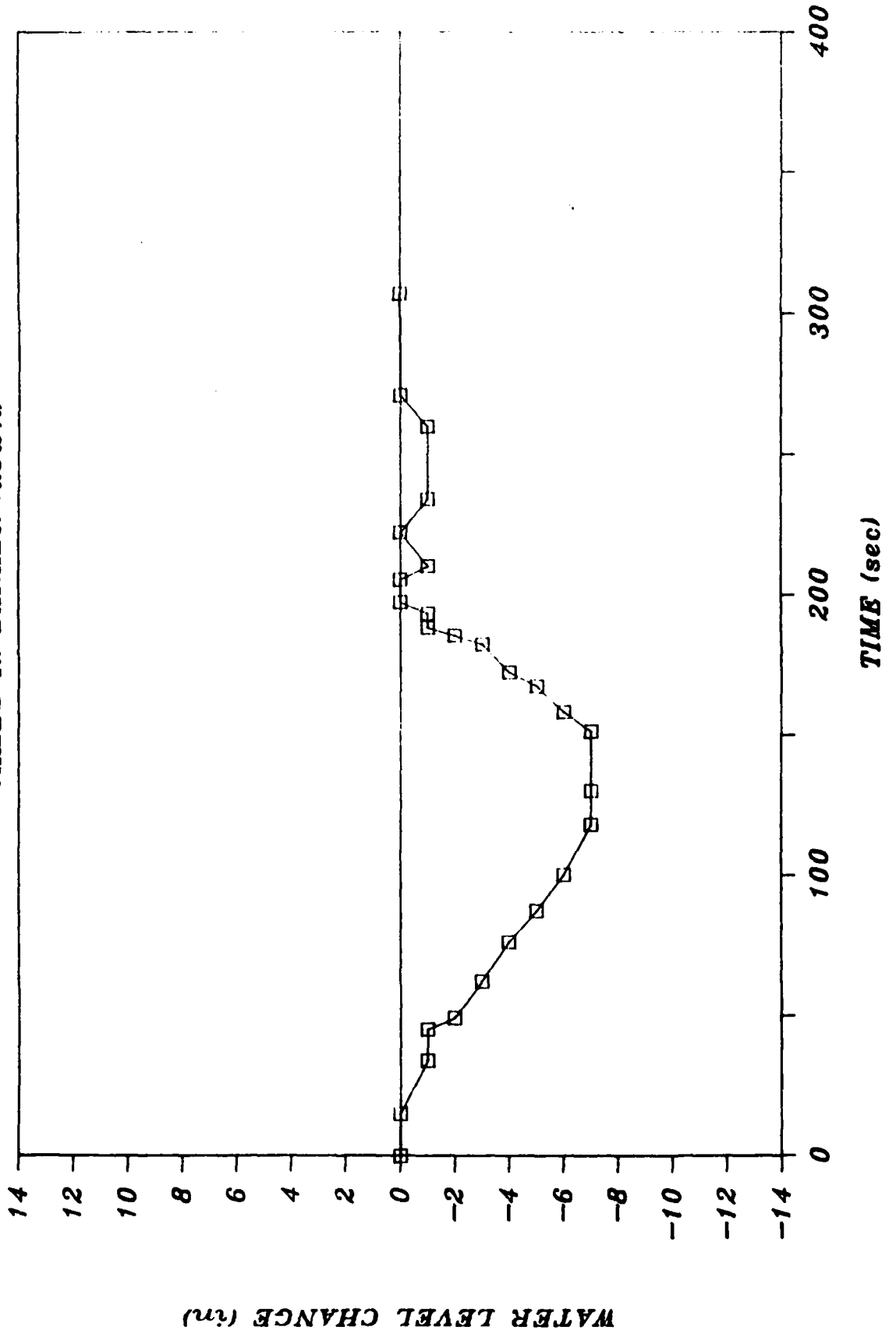
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	205.0	14.0	0.0
22	210.0	13.0	-1.0
23	222.0	14.0	0.0
24	234.0	13.0	-1.0
25	260.0	13.0	-1.0
26	271.0	14.0	0.0
27	307.0	14.0	0.0

SAND ISLAND (green)

JAMES R. BARKER (down)



DRAWDOWN DATA

NAME OF SECTION SAND ISLAND
#####

DATE OF OBSERVATION 6/28/85

VESSEL NAME JAMES R. BARKER

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 27

VESSEL SPEED in feet/sec. = 10.87

BOW ON TIME in sec = 56

STERN ON TIME in sec = 148

DISTANCE TO STAFF GAUGE from green side in feet = 2790

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	26.0	21.5	-0.5
3	32.0	21.0	-1.0
4	48.0	20.5	-1.5
5	60.0	19.5	-2.5
6	64.0	19.0	-3.0
7	70.0	18.0	-4.0
8	74.0	17.5	-4.5
9	78.0	17.0	-5.0
10	82.0	16.5	-5.5
11	85.0	16.0	-6.0
12	88.0	15.0	-7.0
13	92.0	14.5	-7.5
14	97.0	14.0	-8.0
15	105.0	13.0	-9.0
16	112.0	12.5	-9.5
17	118.0	12.0	-10.0
18	123.0	11.5	-10.5
19	127.0	11.0	-11.0
20	135.0	11.0	-11.0

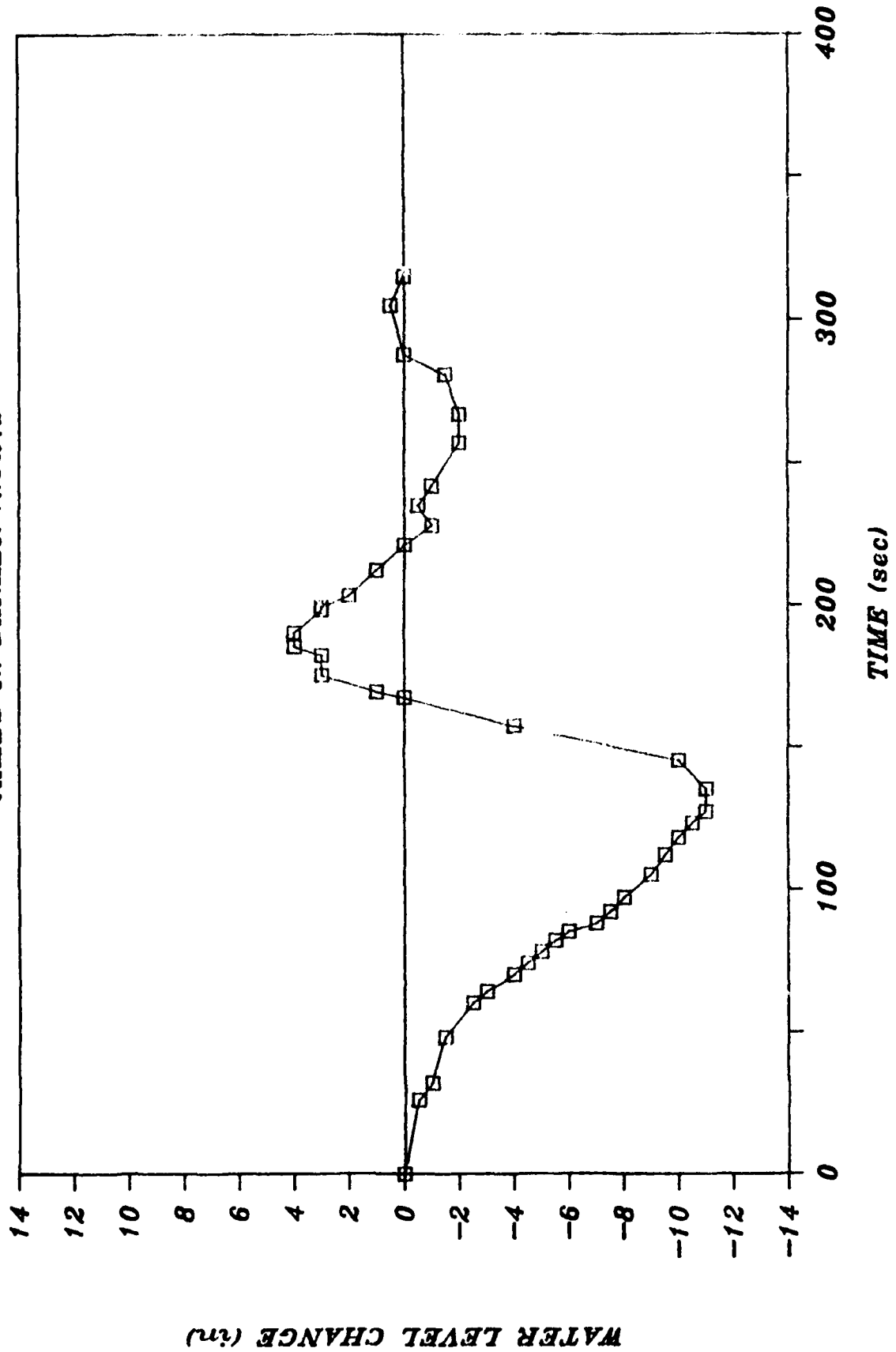
DRAWDOWN DATA (continued)

NAME OF SECTION SAND ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	145.0	12.0	-10.0
22	157.0	18.0	-4.0
23	167.0	22.0	0.0
24	169.0	23.0	1.0
25	175.0	25.0	3.0
26	182.0	25.0	3.0
27	185.0	26.0	4.0
28	190.0	26.0	4.0
29	198.0	25.0	3.0
30	199.0	25.0	3.0
31	203.0	24.0	2.0
32	212.0	23.0	1.0
33	221.0	22.0	0.0
34	228.0	21.0	-1.0
35	235.0	21.5	-0.5
36	242.0	21.0	-1.0
37	257.0	20.0	-2.0
38	267.0	20.0	-2.0
39	281.0	20.5	-1.5
40	288.0	22.0	0.0
41	305.0	22.5	0.5
42	315.0	22.0	0.0

SAND ISLAND (red)

JAMES R. BARKER (down)



BB126

ISLAND VIEW

@@
 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
 @@

DATE OF OBSERVATION 11/15/84
 VESSEL NAME SELKIRK SETTLER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75.8
 VESSEL DRAFT in feet = 27
 VESSEL SPEED in feet/sec. = 14.0
 BOW ON TIME in sec = 55
 STERN ON TIME in sec = 107
 DISTANCE TO STAFF GAUGE from green side in feet = 98
 BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	10.0	18.0	-1.0
3	19.0	18.0	-1.0
4	22.0	17.5	-1.5
5	26.0	18.0	-1.0
6	42.0	18.0	-1.0
7	48.0	17.5	-1.5
8	58.0	17.5	-1.5
9	62.0	17.0	-2.0
10	64.0	17.5	-1.5
11	72.0	17.0	-2.0
12	74.0	16.5	-2.5
13	76.0	17.0	-2.0
14	82.0	17.0	-2.0
15	85.0	16.5	-2.5
16	87.0	16.5	-2.5
17	91.0	17.0	-2.0
18	93.0	18.0	-1.0
19	96.0	17.0	-2.0
20	99.0	17.0	-2.0

@@
 DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW
 @@

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	102.0	17.5	-1.5
22	105.0	17.0	-2.0
23	108.0	17.0	-2.0
24	110.0	17.5	-1.5
25	115.0	18.0	-1.0
26	120.0	17.0	-2.0
27	122.0	16.0	-3.0
28	124.0	15.5	-3.5
29	127.0	15.5	-3.5
30	130.0	15.0	-4.0
31	131.0	15.5	-3.5
32	132.0	16.0	-3.0
33	134.0	17.0	-2.0
34	137.0	16.0	-3.0
35	142.0	16.0	-3.0
36	144.0	16.5	-2.5
37	148.0	16.0	-3.0
38	151.0	16.0	-3.0
39	153.0	16.5	-2.5
40	156.0	16.5	-2.5
41	158.0	17.0	-2.0
42	160.0	17.5	-1.5
43	161.0	18.0	-1.0
44	164.0	18.5	-0.5
45	165.0	18.0	-1.0
46	167.0	18.0	-1.0
47	168.0	19.0	0.0
48	183.0	19.0	0.0
49	185.0	18.0	-1.0
50	193.0	18.0	-1.0
51	195.0	17.5	-1.5
52	201.0	17.5	-1.5
53	204.0	17.0	-2.0
54	206.0	17.0	-2.0
55	209.0	16.5	-2.5
56	212.0	16.5	-2.5
57	214.0	17.0	-2.0
58	216.0	17.5	-1.5
59	219.0	17.5	-1.5
60	221.0	18.0	-1.0
61	226.0	18.0	-1.0
62	227.0	18.5	-0.5
63	230.0	18.5	-0.5
64	234.0	19.0	0.0

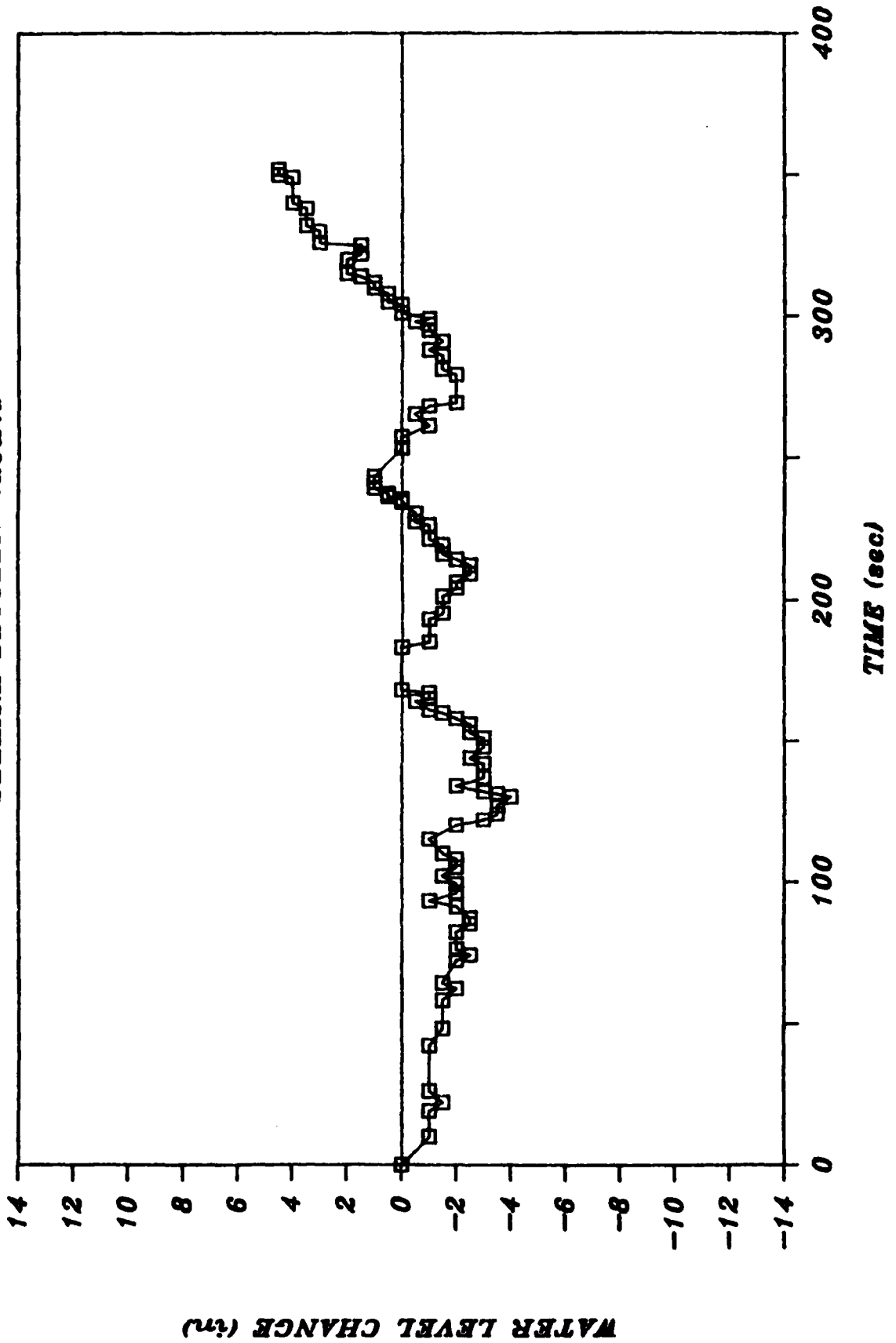
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	235.0	19.0	0.0
66	236.0	19.5	0.5
67	237.0	19.5	0.5
68	239.0	20.0	1.0
69	243.0	20.0	1.0
70	253.0	19.0	0.0
71	257.0	19.0	0.0
72	261.0	18.0	-1.0
73	265.0	18.5	-0.5
74	268.0	18.0	-1.0
75	269.0	17.0	-2.0
76	279.0	17.0	-2.0
77	281.0	17.5	-1.5
78	286.0	17.5	-1.5
79	288.0	18.0	-1.0
80	291.0	17.5	-1.5
81	295.0	18.0	-1.0
82	297.0	18.0	-1.0
83	298.0	18.5	-0.5
84	299.0	18.0	-1.0
85	301.0	19.0	0.0
86	304.0	19.0	0.0
87	305.0	19.5	0.5
88	308.0	19.5	0.5
89	310.0	20.0	1.0
90	312.0	20.0	1.0
91	314.0	20.5	1.5
92	315.0	21.0	2.0
93	320.0	21.0	2.0
94	322.0	20.5	1.5
95	325.0	20.5	1.5
96	326.0	22.0	3.0
97	330.0	22.0	3.0
98	332.0	22.5	3.5
99	338.0	22.5	3.5
100	340.0	23.0	4.0
101	349.0	23.0	4.0
102	350.0	23.5	4.5
103	352.0	23.5	4.5

ISLAND VIEW 11/15/84

SELKIRK SETTLER (down)



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/15/84

VESSEL NAME SELKIRK SETTLER

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75.8

VESSEL DRAFT in feet = 27

VESSEL SPEED in feet/sec. = 14.0

BOW ON TIME in sec = 55

STERN ON TIME in sec = 107

DISTANCE TO STAFF GAUGE from green side in feet = 1990

BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	40.0	21.0	0.0
3	46.0	20.4	-0.6
4	48.0	19.2	-1.8
5	50.0	18.0	-3.0
6	54.0	19.2	-1.8
7	57.0	18.0	-3.0
8	59.0	16.8	-4.2
9	61.0	15.6	-5.4
10	65.0	15.6	-5.4
11	67.0	15.0	-6.0
12	73.0	15.0	-6.0
13	75.0	14.4	-6.6
14	78.0	14.4	-6.6
15	81.0	13.2	-7.8
16	83.0	12.0	-9.0
17	85.0	12.0	-9.0
18	87.0	14.4	-6.6
19	89.0	13.2	-7.8
20	91.0	12.0	-9.0

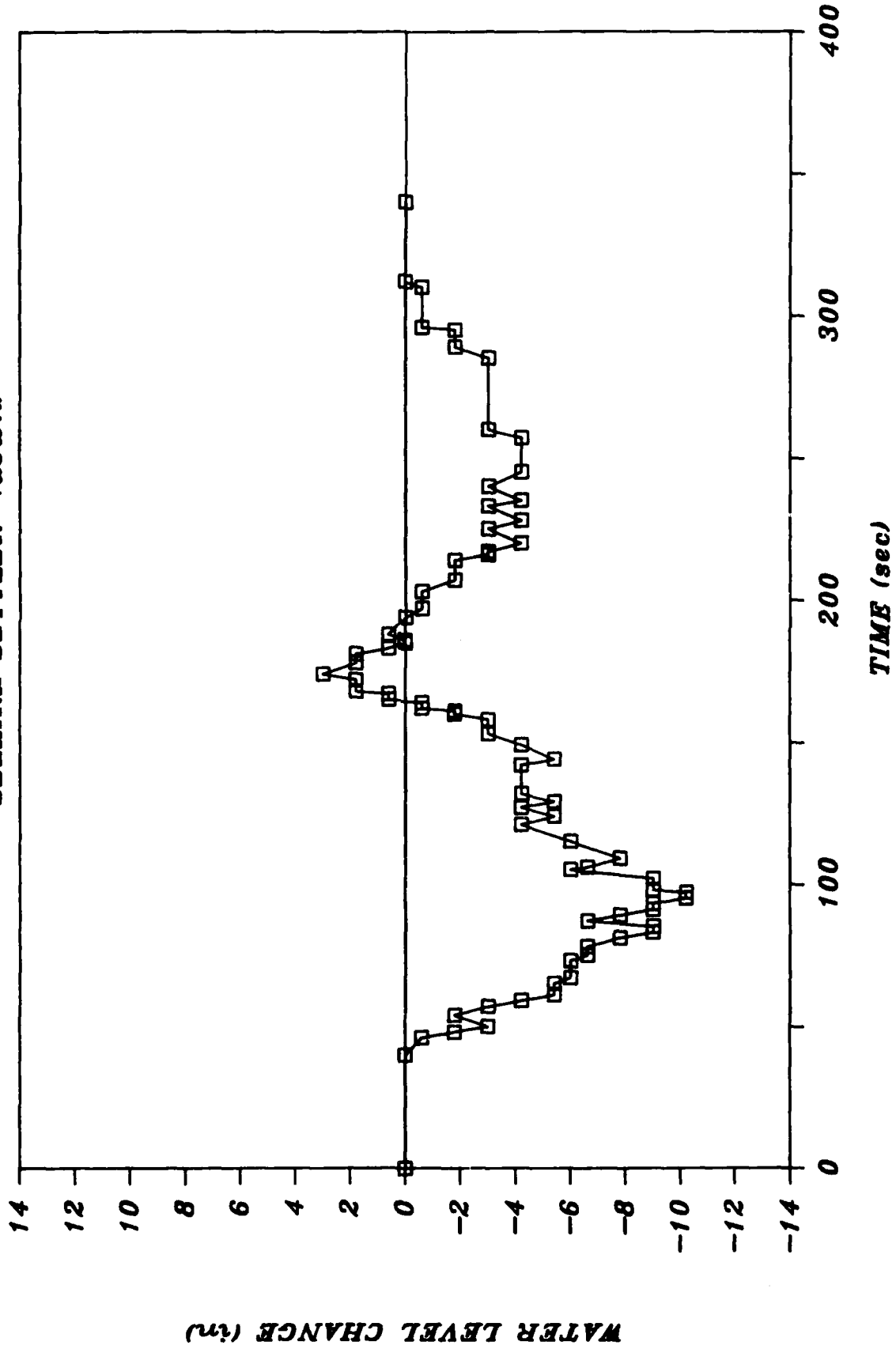
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	233.0	18.0	-3.0
66	235.0	16.8	-4.2
67	240.0	18.0	-3.0
68	245.0	16.8	-4.2
69	257.0	16.8	-4.2
70	260.0	18.0	-3.0
71	285.0	18.0	-3.0
72	289.0	19.2	-1.8
73	295.0	19.2	-1.8
74	296.0	20.4	-0.6
75	310.0	20.4	-0.6
76	312.0	21.0	0.0
77	340.0	21.0	0.0

ISLAND VIEW 11/15/84

SELKIRK SETTLER (down)



 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/15/84
 VESSEL NAME SELKIRK SETTLER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75.8
 VESSEL DRAFT in feet = 27
 VESSEL SPEED in feet/sec. = 14.0
 BOW ON TIME in sec = 55
 STERN ON TIME in sec = 107
 DISTANCE TO STAFF GAUGE from green side in feet = 2211
 BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	9.0	14.0	0.0
3	17.0	13.0	-1.0
4	26.0	13.0	-1.0
5	32.0	13.0	-1.0
6	42.0	12.0	-2.0
7	46.0	12.0	-2.0
8	51.0	11.0	-3.0
9	58.0	11.0	-3.0
10	59.0	10.0	-4.0
11	62.0	10.0	-4.0
12	64.0	9.0	-5.0
13	66.0	9.0	-5.0
14	67.0	8.0	-6.0
15	68.0	8.0	-6.0
16	71.0	8.0	-6.0
17	73.0	8.0	-6.0
18	74.0	7.5	-6.5
19	76.0	7.0	-7.0
20	78.0	7.0	-7.0

DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	79.0	6.0	-8.0
22	81.0	6.0	-8.0
23	83.0	5.0	-9.0
24	86.0	5.0	-9.0
25	87.0	4.0	-10.0
26	91.0	4.0	-10.0
27	92.0	3.0	-11.0
28	96.0	3.0	-11.0
29	98.0	2.0	-12.0
30	102.0	2.0	-12.0
31	107.0	1.0	-13.0
32	111.0	1.0	-13.0
33	113.0	0.0	-14.0
34	114.0	1.0	-13.0
35	120.0	1.0	-13.0
36	124.0	2.0	-12.0
37	127.0	3.0	-11.0
38	128.0	4.0	-10.0
39	129.0	4.0	-10.0
40	133.0	5.0	-9.0
41	134.0	6.0	-8.0
42	135.0	7.0	-7.0
43	137.0	8.0	-6.0
44	139.0	9.0	-5.0
45	141.0	10.0	-4.0
46	142.0	11.0	-3.0
47	144.0	12.0	-2.0
48	147.0	13.0	-1.0
49	149.0	13.0	-1.0
50	151.0	14.0	0.0
51	154.0	14.0	0.0
52	155.0	15.0	1.0
53	156.0	14.0	0.0
54	162.0	14.0	0.0
55	164.0	15.0	1.0
56	169.0	15.0	1.0
57	171.0	16.0	2.0
58	181.0	16.0	2.0
59	183.0	15.0	1.0
60	185.0	14.0	0.0
61	187.0	13.0	-1.0
62	190.0	12.0	-2.0
63	193.0	11.0	-3.0
64	196.0	10.0	-4.0

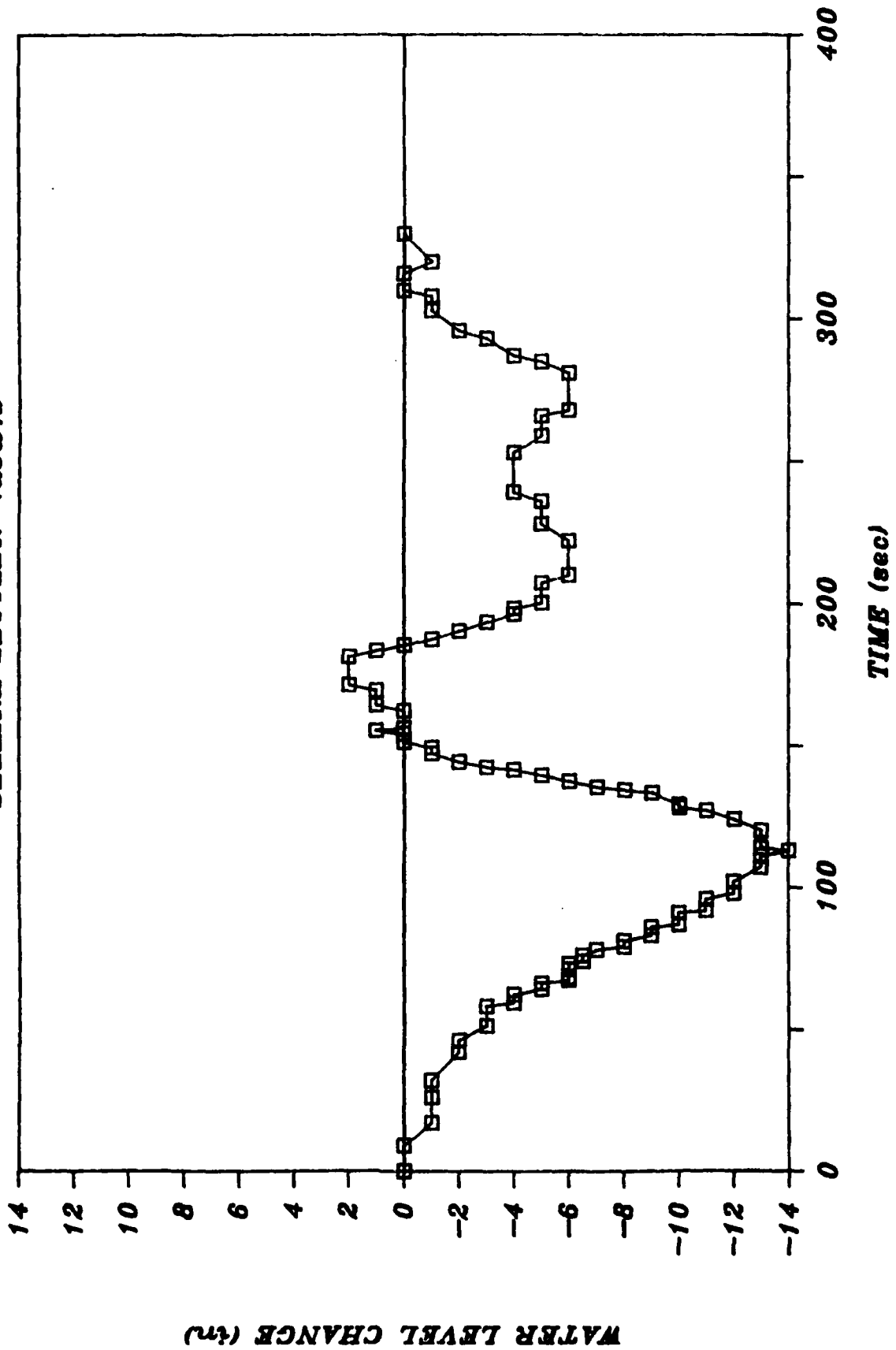
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	198.0	10.0	-4.0
66	200.0	9.0	-5.0
67	207.0	9.0	-5.0
68	210.0	8.0	-6.0
69	222.0	8.0	-6.0
70	228.0	9.0	-5.0
71	236.0	9.0	-5.0
72	239.0	10.0	-4.0
73	253.0	10.0	-4.0
74	259.0	9.0	-5.0
75	266.0	9.0	-5.0
76	268.0	8.0	-6.0
77	281.0	8.0	-6.0
78	285.0	9.0	-5.0
79	287.0	10.0	-4.0
80	293.0	11.0	-3.0
81	296.0	12.0	-2.0
82	303.0	13.0	-1.0
83	308.0	13.0	-1.0
84	310.0	14.0	0.0
85	316.0	14.0	0.0
86	320.0	13.0	-1.0
87	330.0	14.0	0.0

ISLAND VIEW 11/15/84

SELKIRK SETTLER (down)



 DRAWDOWN DATA

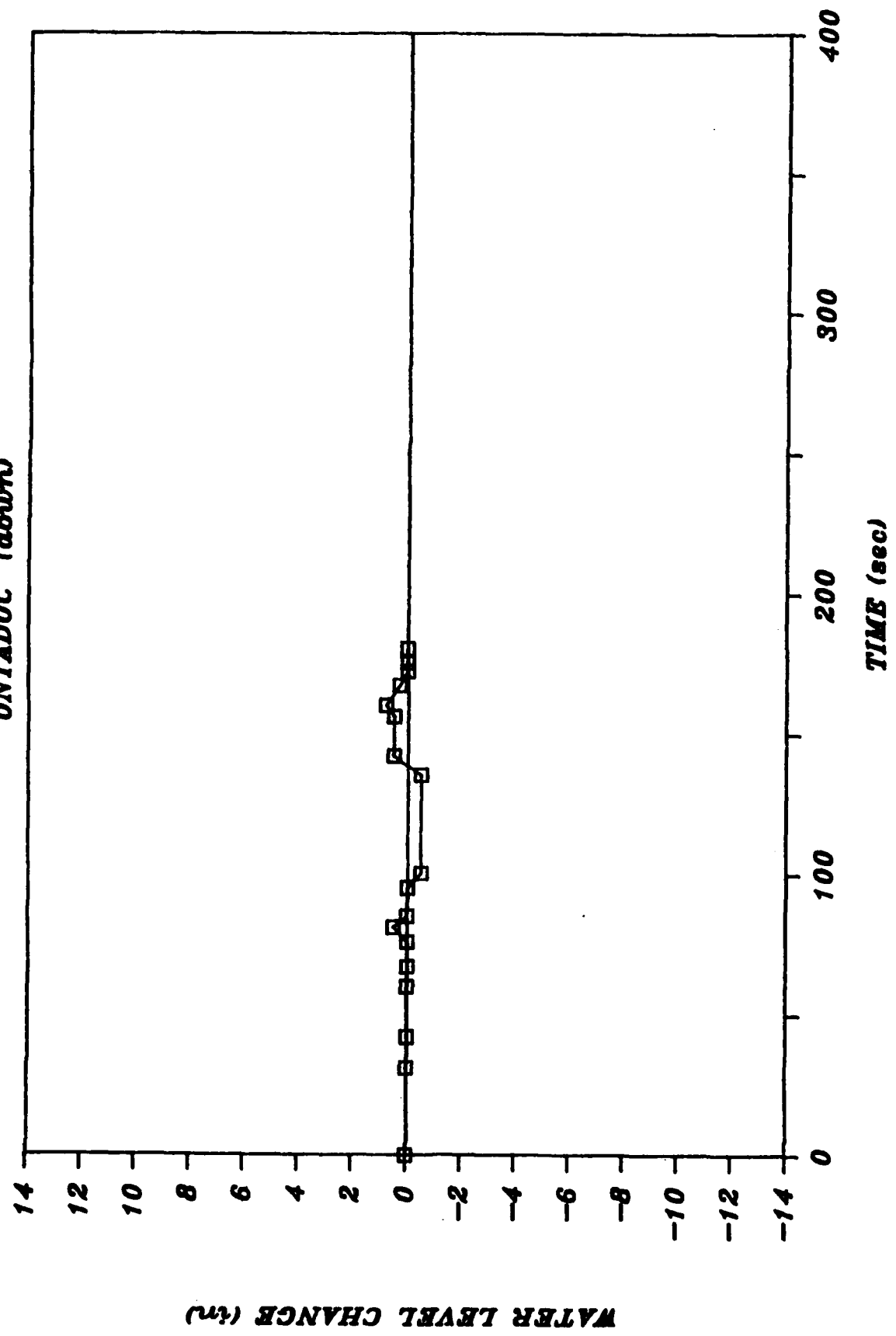
NAME OF SECTION ISLAND VIEW
 #####

DATE OF OBSERVATION 11/15/84
 VESSEL NAME ONTADOC
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 355
 VESSEL BEAM in feet = 49
 VESSEL DRAFT in feet = 24.5
 VESSEL SPEED in feet/sec. = 15.4
 BOW ON TIME in sec = 54
 STERN ON TIME in sec = 77
 DISTANCE TO STAFF GAUGE from green side in feet = 113
 BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	31.0	21.0	0.0
3	42.0	21.0	0.0
4	60.0	21.0	0.0
5	67.0	21.0	0.0
6	76.0	21.0	0.0
7	81.0	21.5	0.5
8	85.0	21.0	0.0
9	95.0	21.0	0.0
10	100.0	20.5	-0.5
11	135.0	20.5	-0.5
12	142.0	21.5	0.5
13	156.0	21.5	0.5
14	160.0	21.8	0.8
15	167.0	21.3	0.3
16	172.0	21.0	0.0
17	175.0	21.0	0.0
18	180.0	21.0	0.0

ISLAND VIEW 11/15/84

ONTADOC (down)



BC14

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 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW  
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DATE OF OBSERVATION 11/15/84
 VESSEL NAME ONTADOC
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 355
 VESSEL BEAM in feet = 49
 VESSEL DRAFT in feet = 24.5
 VESSEL SPEED in feet/sec. = 15.4
 BOW ON TIME in sec = 54
 STERN ON TIME in sec = 77
 DISTANCE TO STAFF GAUGE from green side in feet = 1967
 BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	36.0	21.0	0.0
3	44.0	20.4	-0.6
4	48.0	19.2	-1.8
5	55.0	19.2	-1.8
6	60.0	18.0	-3.0
7	71.0	16.8	-4.2
8	82.0	16.8	-4.2
9	87.0	18.0	-3.0
10	96.0	18.0	-3.0
11	101.0	19.2	-1.8
12	119.0	19.2	-1.8
13	124.0	19.8	-1.2
14	129.0	19.8	-1.2
15	134.0	20.4	-0.6
16	140.0	20.4	-0.6
17	146.0	21.0	0.0
18	151.0	21.0	0.0
19	156.0	21.6	0.6
20	165.0	21.6	0.6

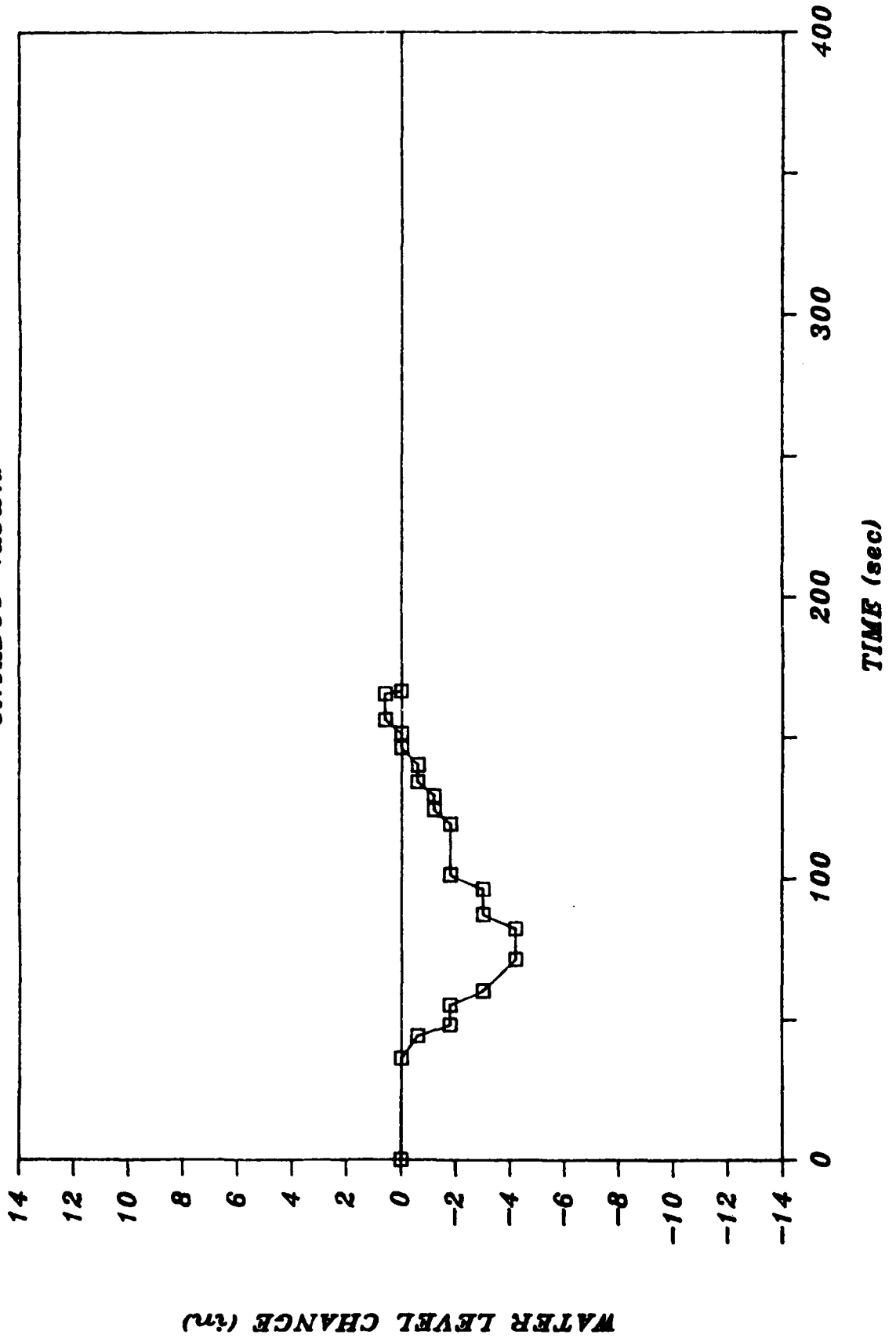
DRAWDOWN DATA (continued)

ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	166.0	21.0	0.0

ISLAND VIEW 11/15/84

ONTADOC (down)



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/15/84
VESSEL NAME ONTADOC
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 355
VESSEL BEAM in feet = 49
VESSEL DRAFT in feet = 24.5
VESSEL SPEED in feet/sec. = 15.4
BOW ON TIME in sec = 54
STERN ON TIME in sec = 77
DISTANCE TO STAFF GAUGE from green side in feet = 2211
BACKGROUND READING in inches = 14.5

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.5	0.0
2	11.0	14.5	0.0
3	16.0	14.0	-0.5
4	31.0	13.5	-1.0
5	39.0	13.0	-1.5
6	47.0	13.0	-1.5
7	56.0	13.0	-1.5
8	60.0	13.0	-1.5
9	69.0	12.0	-2.5
10	73.0	11.5	-3.0
11	81.0	10.0	-4.5
12	83.0	10.0	-4.5
13	84.0	9.5	-5.0
14	88.0	9.5	-5.0
15	89.0	9.0	-5.5
16	91.0	9.0	-5.5
17	93.0	8.5	-6.0
18	96.0	8.5	-6.0
19	100.0	8.5	-6.0
20	104.0	9.0	-5.5

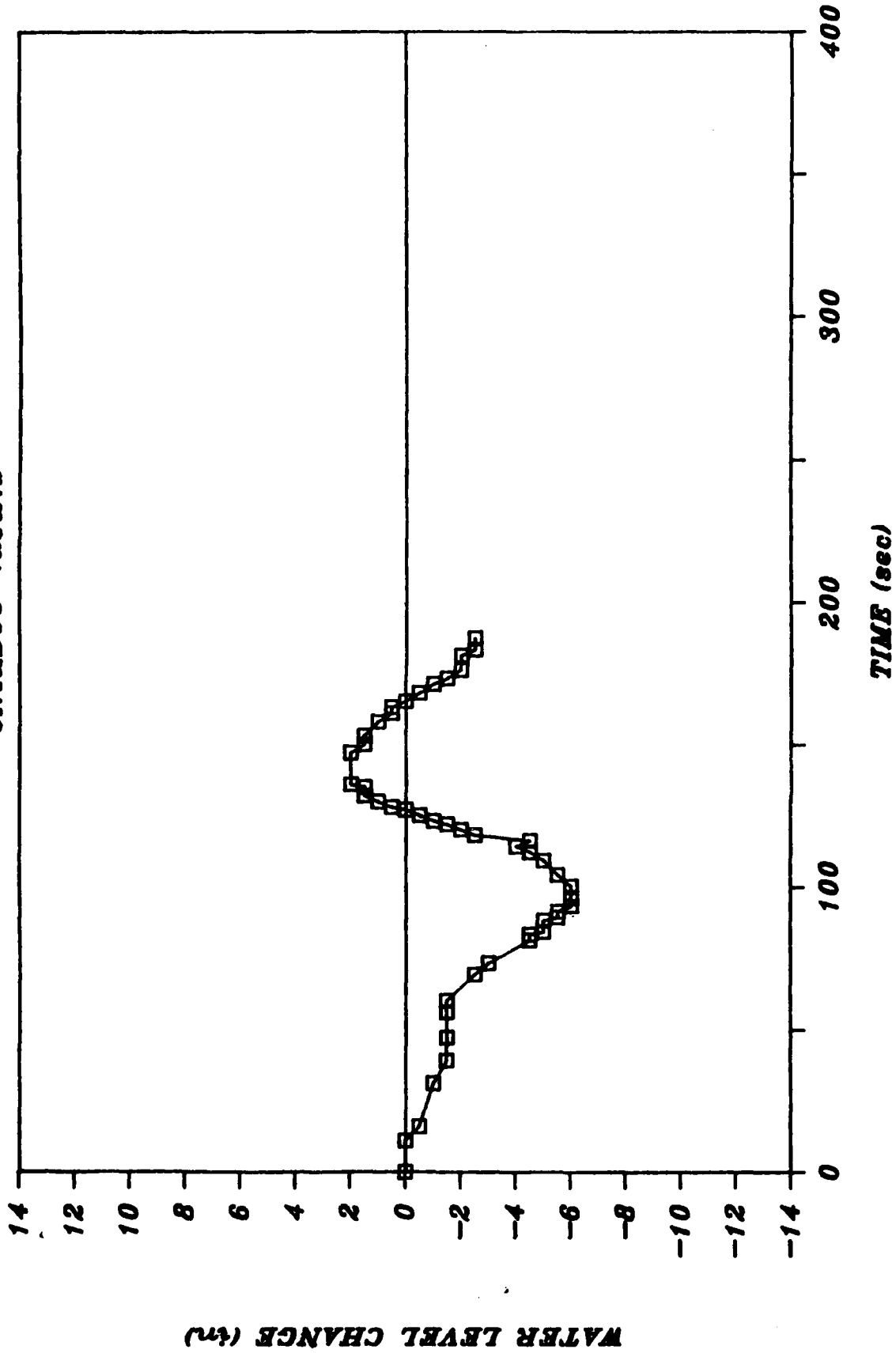
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	109.0	9.5	-5.0
22	112.0	10.0	-4.5
23	114.0	10.5	-4.0
24	116.0	10.0	-4.5
25	118.0	12.0	-2.5
26	120.0	12.5	-2.0
27	122.0	13.0	-1.5
28	123.0	13.5	-1.0
29	125.0	14.0	-0.5
30	127.0	14.5	0.0
31	128.0	15.0	0.5
32	130.0	15.5	1.0
33	132.0	16.0	1.5
34	135.0	16.0	1.5
35	136.0	16.5	2.0
36	147.0	16.5	2.0
37	150.0	16.0	1.5
38	153.0	16.0	1.5
39	158.0	15.5	1.0
40	161.0	15.0	0.5
41	163.0	15.0	0.5
42	165.0	14.5	0.0
43	168.0	14.0	-0.5
44	171.0	13.5	-1.0
45	173.0	13.0	-1.5
46	176.0	12.5	-2.0
47	181.0	12.5	-2.0
48	183.0	12.0	-2.5
49	187.0	12.0	-2.5

ISLAND VIEW 11/15/84

ONTADOC (down)



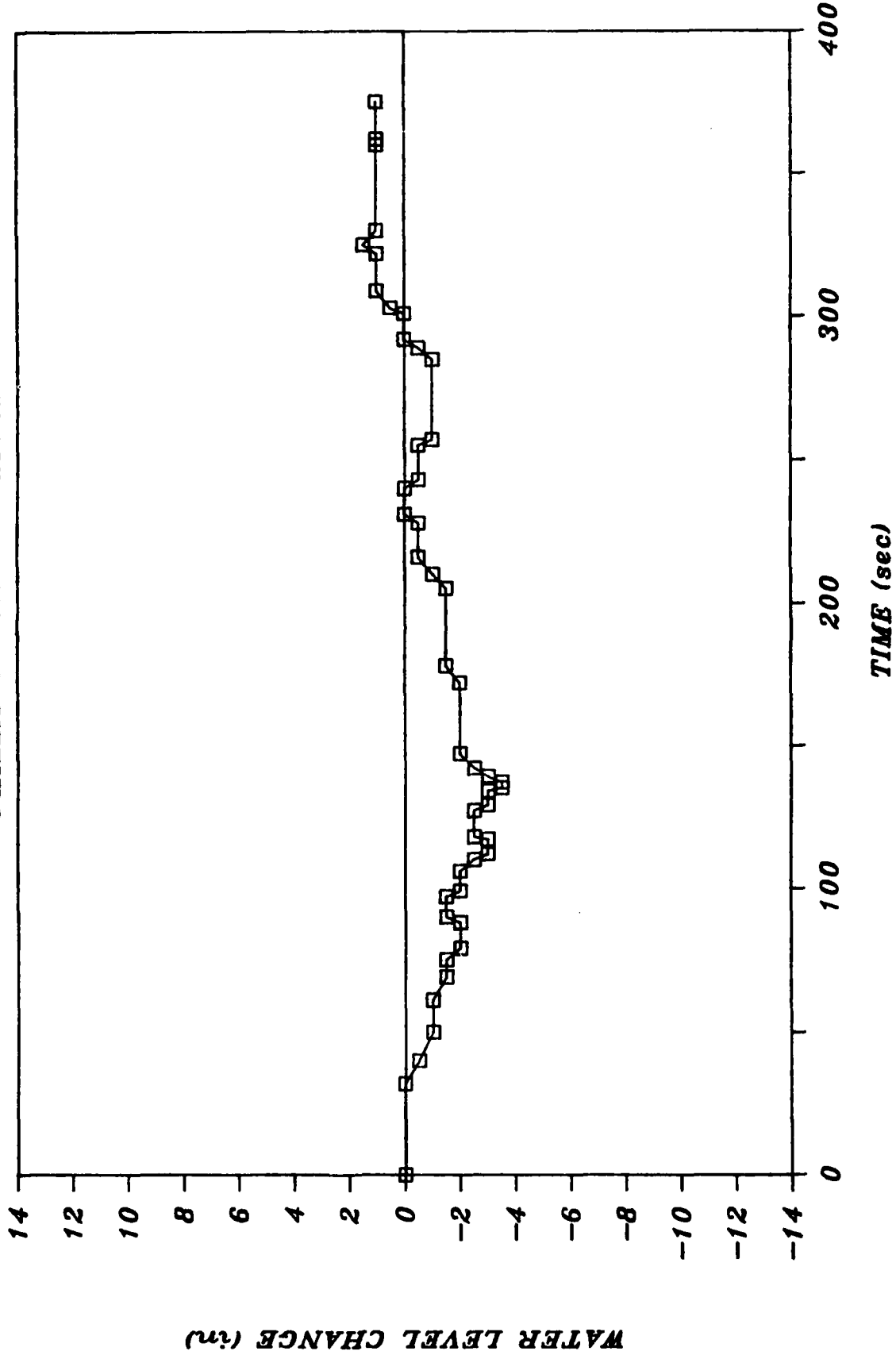
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	135.0	20.5	-3.5
22	137.0	20.5	-3.5
23	139.0	21.0	-3.0
24	142.0	21.5	-2.5
25	147.0	22.0	-2.0
26	172.0	22.0	-2.0
27	178.0	22.5	-1.5
28	205.0	22.5	-1.5
29	210.0	23.0	-1.0
30	216.0	23.5	-0.5
31	228.0	23.5	-0.5
32	231.0	24.0	0.0
33	240.0	24.0	0.0
34	243.0	23.5	-0.5
35	255.0	23.5	-0.5
36	257.0	23.0	-1.0
37	285.0	23.0	-1.0
38	289.0	23.5	-0.5
39	292.0	24.0	0.0
40	301.0	24.0	0.0
41	303.0	24.5	0.5
42	309.0	25.0	1.0
43	322.0	25.0	1.0
44	325.0	25.5	1.5
45	330.0	25.0	1.0
46	360.0	25.0	1.0
47	362.0	25.0	1.0
48	375.0	25.0	1.0

ISLAND VIEW 11/17/84

PHILLIP R. CLARKE (down)



 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/17/84

VESSEL NAME PHILLIP R. CLARKE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 767

VESSEL BEAM in feet = 70

VESSEL DRAFT in feet = 28

VESSEL SPEED in feet/sec. = 12.8

BOW ON TIME in sec = 68

STERN ON TIME in sec = 128

DISTANCE TO STAFF GAUGE from green side in feet = 1877

BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	30.0	27.0	0.0
3	35.0	26.4	-0.6
4	38.0	27.0	0.0
5	42.0	26.4	-0.6
6	46.0	26.4	-0.6
7	48.0	25.8	-1.2
8	56.0	25.8	-1.2
9	60.0	24.6	-2.4
10	67.0	24.0	-3.0
11	70.0	24.6	-2.4
12	87.0	24.6	-2.4
13	90.0	25.2	-1.8
14	92.0	24.6	-2.4
15	97.0	24.6	-2.4
16	99.0	25.8	-1.2
17	103.0	25.2	-1.8
18	110.0	25.2	-1.8
19	115.0	24.6	-2.4
20	126.0	24.6	-2.4

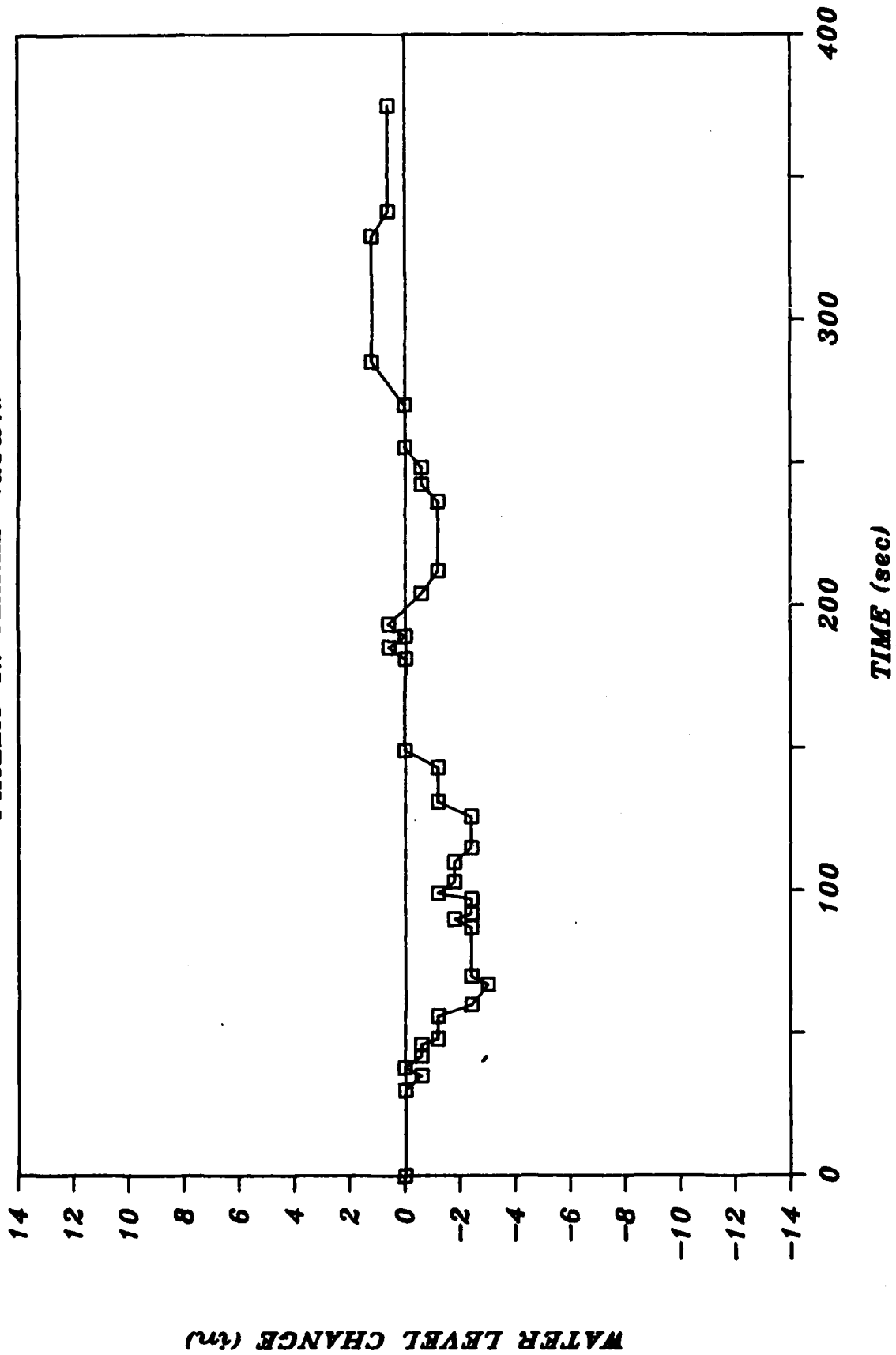
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	131.0	25.8	-1.2
22	143.0	25.8	-1.2
23	149.0	27.0	0.0
24	181.0	27.0	0.0
25	185.0	27.6	0.6
26	189.0	27.0	0.0
27	193.0	27.6	0.6
28	204.0	26.4	-0.6
29	212.0	25.8	-1.2
30	236.0	25.8	-1.2
31	242.0	26.4	-0.6
32	248.0	26.4	-0.6
33	255.0	27.0	0.0
34	270.0	27.0	0.0
35	285.0	28.2	1.2
36	329.0	28.2	1.2
37	338.0	27.6	0.6
38	375.0	27.6	0.6

ISLAND VIEW 11/17/84

PHILLIP R. CLARKE (down)



BC26

DRAWDOWN DATA

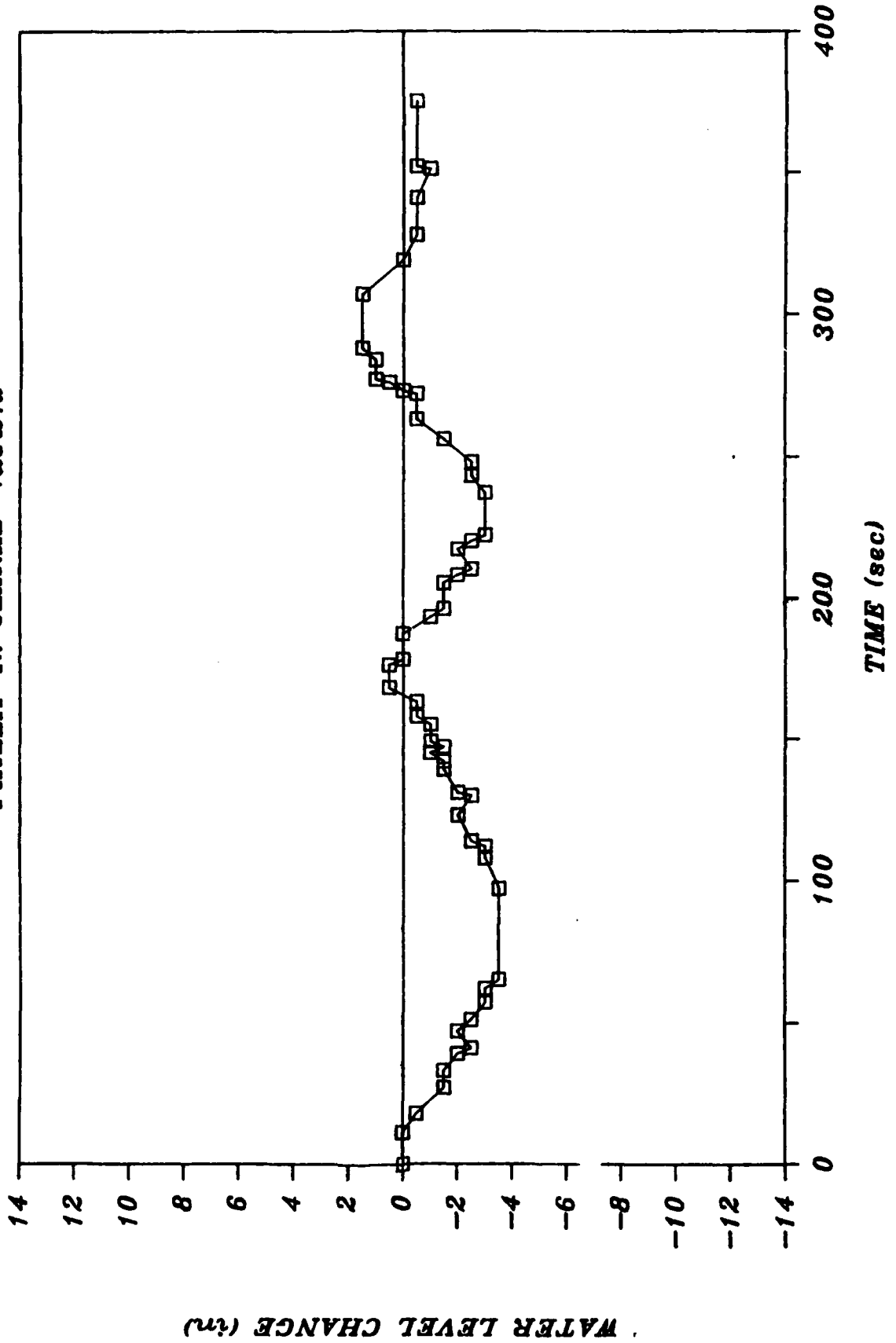
NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/17/84
VESSEL NAME PHILLIP R. CLARKE
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 767
VESSEL BEAM in feet = 70
VESSEL DRAFT in feet = 28
VESSEL SPEED in feet/sec. = 12.8
BOW ON TIME in sec = 68
STERN ON TIME in sec = 128
DISTANCE TO STAFF GAUGE from green side in feet = 2197
BACKGROUND READING in inches = 16.5

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	16.5	0.0
2	11.0	16.5	0.0
3	18.0	16.0	-0.5
4	27.0	15.0	-1.5
5	33.0	15.0	-1.5
6	39.0	14.5	-2.0
7	41.0	14.0	-2.5
8	47.0	14.5	-2.0
9	51.0	14.0	-2.5
10	57.0	13.5	-3.0
11	62.0	13.5	-3.0
12	65.0	13.0	-3.5
13	97.0	13.0	-3.5
14	108.0	13.5	-3.0
15	112.0	13.5	-3.0
16	114.0	14.0	-2.5
17	123.0	14.5	-2.0
18	130.0	14.0	-2.5
19	131.0	14.5	-2.0
20	139.0	15.0	-1.5

ISLAND VIEW 11/17/84

PHILLIP R. CLARKE (down)



 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/17/84
 VESSEL NAME FRONTENAC/LABRADO
 DIRECTION DOWNBOUND/DOWNBOUND
 VESSEL LENGTH in feet = 730/315
 VESSEL BEAM in feet = 75/49
 VESSEL DRAFT in feet = 27/21
 VESSEL SPEED in feet/sec. = 12.8/6.8
 BOW ON TIME in sec = 58/374
 STERN ON TIME in sec = 115/420
 DISTANCE TO STAFF GAUGE from green side in feet = 115
 BACKGROUND READING in inches = 21

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	21.0	0.0
2	32.0	21.0	0.0
3	36.0	20.5	-0.5
4	40.0	20.0	-1.0
5	48.0	19.5	-1.5
6	58.0	19.5	-1.5
7	60.0	19.0	-2.0
8	78.0	18.0	-3.0
9	80.0	17.5	-3.5
10	91.0	18.5	-2.5
11	104.0	17.5	-3.5
12	120.0	18.0	-3.0
13	124.0	18.5	-2.5
14	129.0	19.0	-2.0
15	135.0	19.0	-2.0
16	138.0	19.5	-1.5
17	144.0	19.5	-1.5
18	146.0	20.0	-1.0
19	149.0	19.5	-1.5
20	167.0	19.5	-1.5

DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	171.0	19.0	-2.0
22	175.0	19.5	-1.5
23	195.0	19.5	-1.5
24	204.0	20.0	-1.0
25	216.0	20.0	-1.0
26	228.0	20.5	-0.5
27	237.0	20.5	-0.5
28	240.0	20.0	-1.0
29	245.0	19.5	-1.5
30	252.0	19.0	-2.0
31	271.0	19.5	-1.5
32	289.0	20.5	-0.5
33	291.0	21.0	0.0
34	302.0	21.0	0.0
35	304.0	21.5	0.5
36	321.0	21.5	0.5
37	323.0	22.0	1.0
38	328.0	22.5	1.5
39	339.0	22.5	1.5
40	341.0	22.0	1.0
41	344.0	22.0	1.0
42	349.0	21.5	0.5
43	353.0	21.5	0.5
44	360.0	20.5	-0.5
45	361.0	20.0	-1.0
46	365.0	20.0	-1.0
47	369.0	19.5	-1.5
48	377.0	19.5	-1.5
49	385.0	20.0	-1.0
50	395.0	20.0	-1.0
51	404.0	20.5	-0.5
52	419.0	20.5	-0.5
53	424.0	20.5	-0.5
54	427.0	20.0	-1.0
55	429.0	20.5	-0.5
56	431.0	20.0	-1.0
57	451.0	20.0	-1.0
58	468.0	21.0	0.0
59	474.0	21.0	0.0
60	476.0	21.5	0.5
61	485.0	21.5	0.5
62	489.0	22.0	1.0
63	527.0	22.0	1.0
64	530.0	21.5	0.5

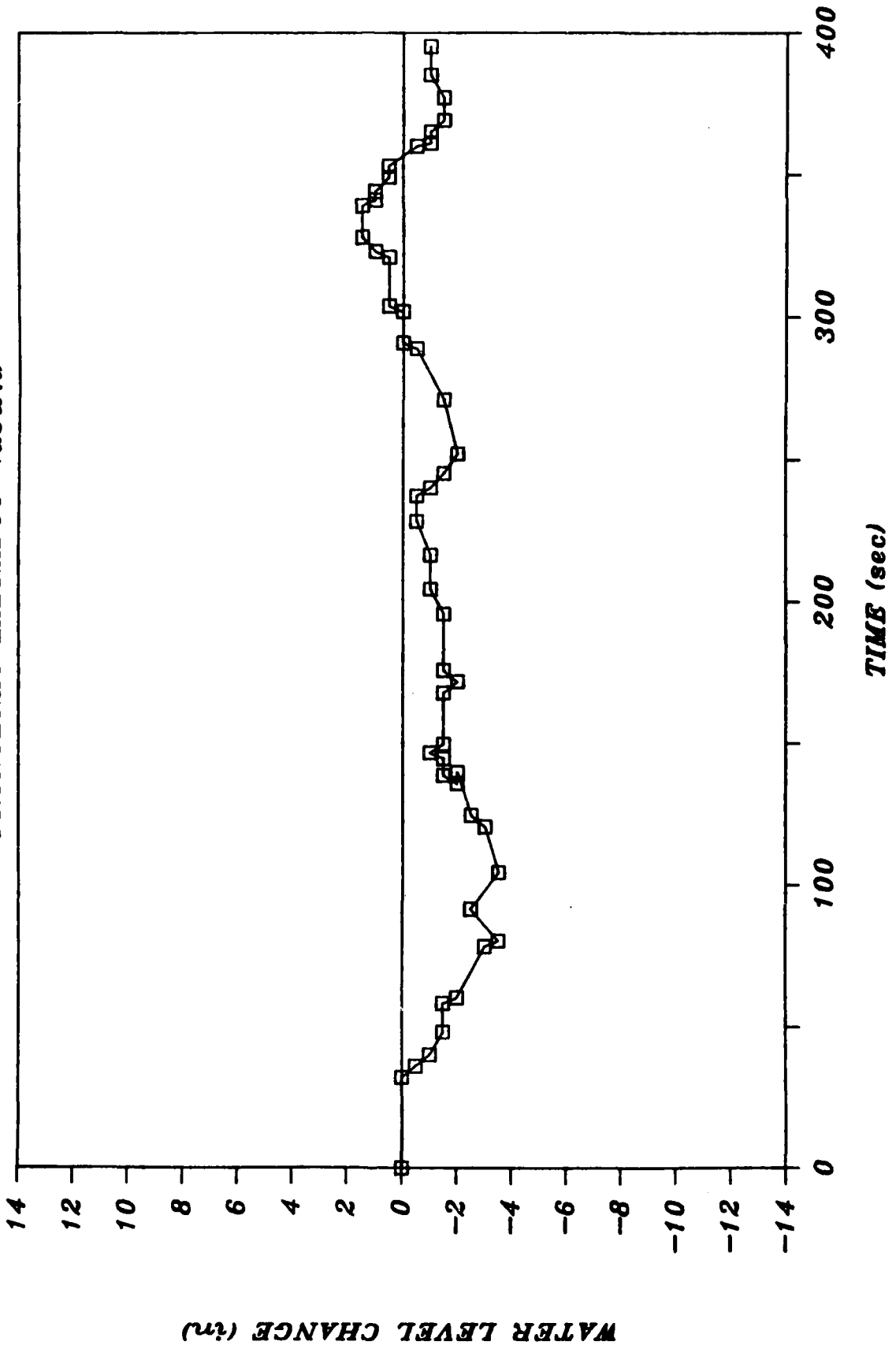
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	535.0	21.0	0.0
66	540.0	20.5	-0.5
67	546.0	20.0	-1.0
68	551.0	20.0	-1.0
69	555.0	19.5	-1.5
70	570.0	19.5	-1.5
71	575.0	20.0	-1.0
72	585.0	20.0	-1.0
73	589.0	20.5	-0.5
74	604.0	20.5	-0.5
75	607.0	20.8	-0.3
76	614.0	20.8	-0.3
77	618.0	20.5	-0.5
78	630.0	20.5	-0.5

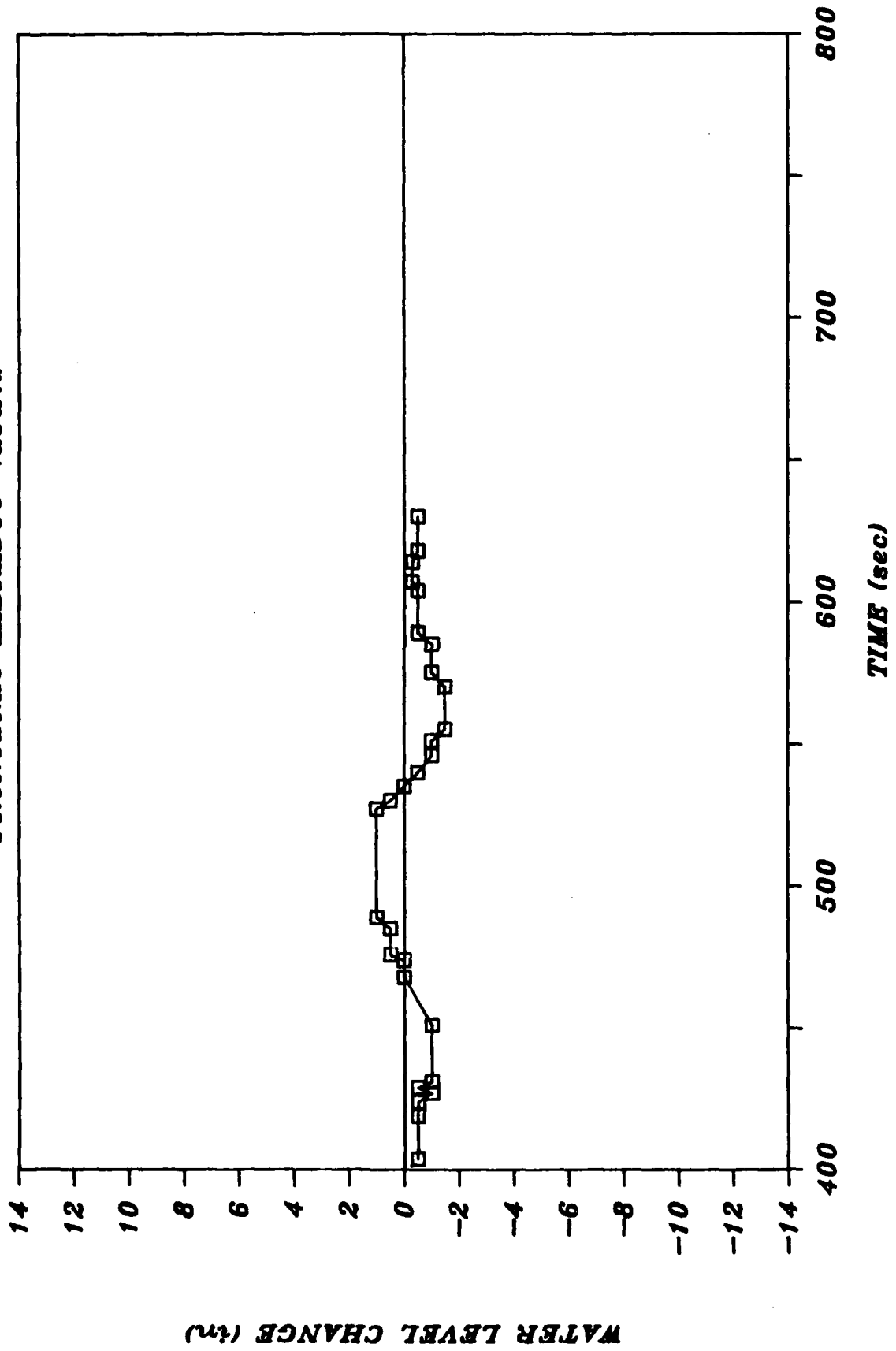
ISLAND VIEW 11/17/84

FRONTENAC/LABRADOR (down)



ISLAND VIEW 11/17/84

FRONTENAC/LABRADOR (down)



DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

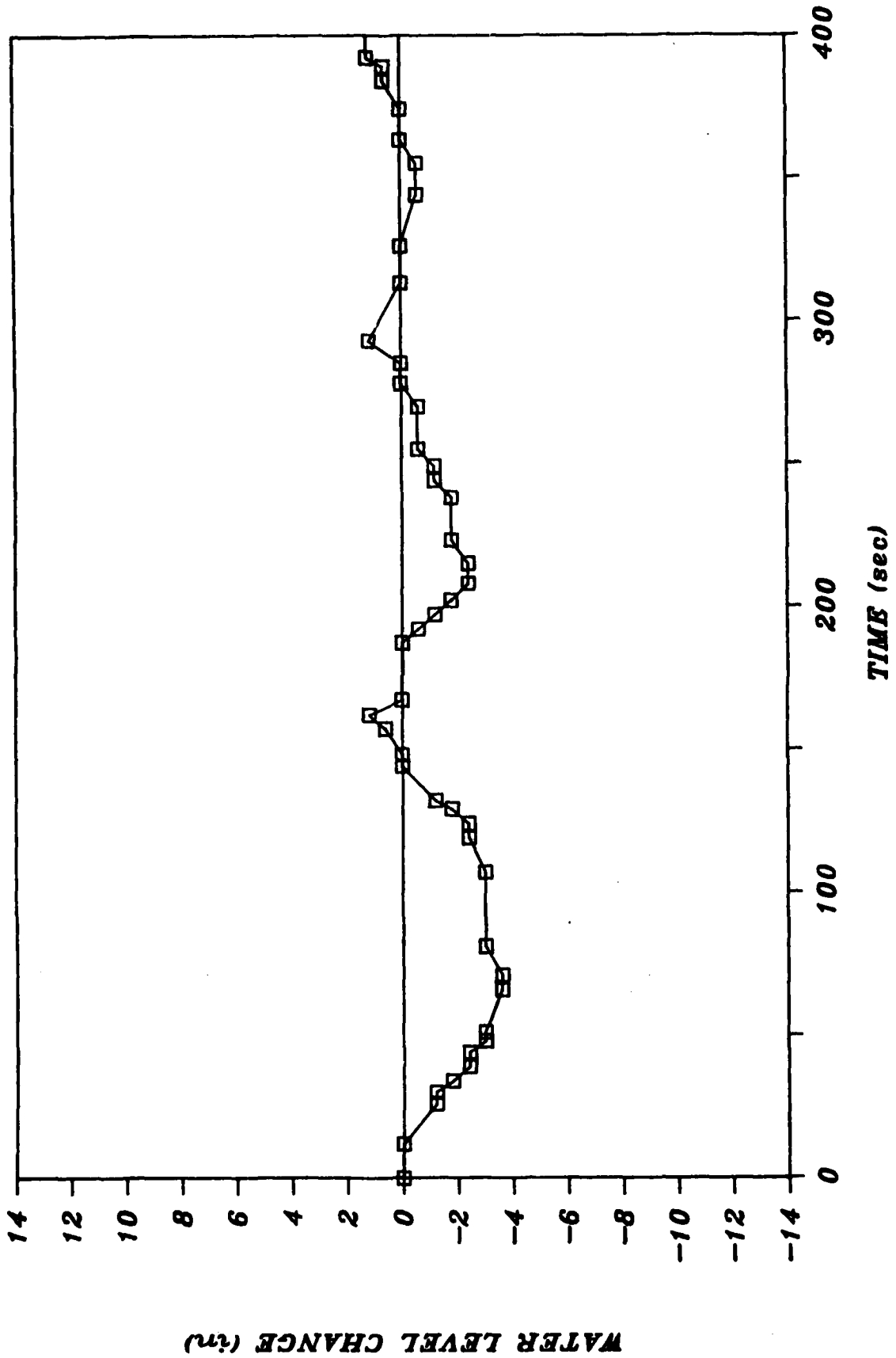
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	162.0	25.2	1.2
22	167.0	24.0	0.0
23	187.0	24.0	0.0
24	192.0	23.4	-0.6
25	197.0	22.8	-1.2
26	202.0	22.2	-1.8
27	208.0	21.6	-2.4
28	215.0	21.6	-2.4
29	223.0	22.2	-1.8
30	238.0	22.2	-1.8
31	244.0	22.8	-1.2
32	249.0	22.8	-1.2
33	255.0	23.4	-0.6
34	270.0	23.4	-0.6
35	278.0	24.0	0.0
36	285.0	24.0	0.0
37	293.0	25.2	1.2
38	313.0	24.0	0.0
39	326.0	24.0	0.0
40	344.0	23.4	-0.6
41	355.0	23.4	-0.6
42	363.0	24.0	0.0
43	374.0	24.0	0.0
44	384.0	24.6	0.6
45	389.0	24.6	0.6
46	392.0	25.2	1.2
47	402.0	25.2	1.2
48	410.0	24.6	0.6
49	419.0	25.2	1.2
50	432.0	25.2	1.2
51	445.0	24.0	0.0
52	468.0	23.4	-0.6
53	472.0	25.2	1.2
54	503.0	25.2	1.2
55	506.0	23.4	-0.6
56	514.0	23.4	-0.6
57	522.0	24.0	0.0
58	526.0	24.0	0.0
59	535.0	23.4	-0.6
60	541.0	25.2	1.2
61	569.0	25.2	1.2
62	572.0	25.8	1.8
63	582.0	25.8	1.8
64	589.0	25.2	1.2

DRAWDOWN DATA (continued)

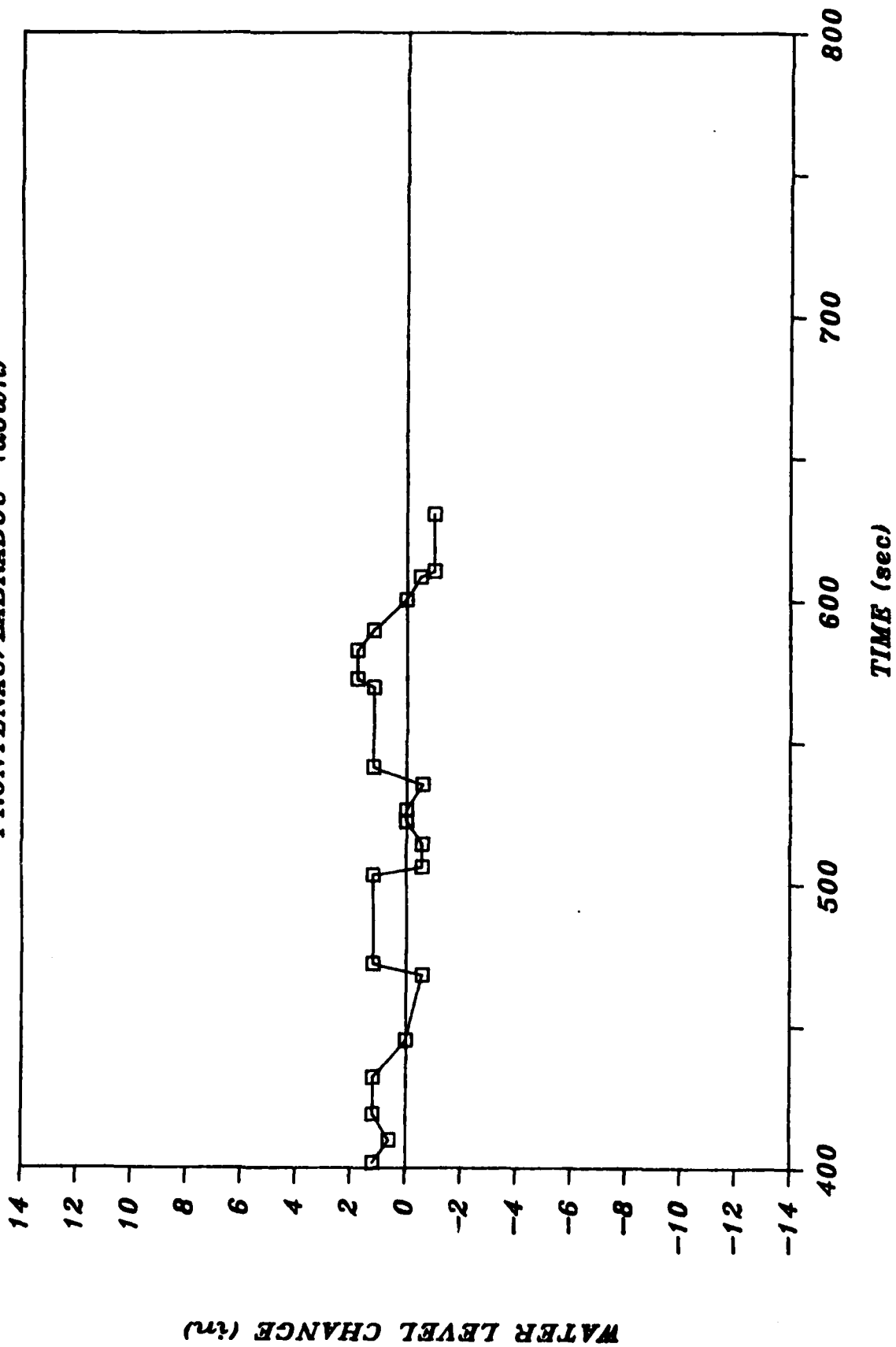
NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	600.0	25.2	1.2
66	608.0	24.6	0.6
67	610.0	24.0	0.0
68	630.0	24.0	0.0

ISLAND VIEW 11/17/84
FRONTENAC/LABRADOR (down)



ISLAND VIEW 11/17/84
FRONTENAC/LABRADOR (down)



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/17/84

VESSEL NAME STANDACONA

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 664

VESSEL BEAM in feet = 67

VESSEL DRAFT in feet = 15

VESSEL SPEED in feet/sec. = 14.4

BOW ON TIME in sec = 85

STERN ON TIME in sec = 131

DISTANCE TO STAFF GAUGE from green side in feet = 115

BACKGROUND READING in inches = 25.5

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	25.5	0.0
2	9.0	25.0	-0.5
3	76.0	25.0	-0.5
4	87.0	24.5	-1.0
5	93.0	24.5	-1.0
6	107.0	24.0	-1.5
7	130.0	24.0	-1.5
8	137.0	23.5	-2.0
9	166.0	23.5	-2.0
10	171.0	24.0	-1.5
11	180.0	24.0	-1.5
12	187.0	24.5	-1.0
13	196.0	24.5	-1.0
14	206.0	24.0	-1.5
15	225.0	24.0	-1.5
16	227.0	24.5	-1.0
17	231.0	25.0	-0.5
18	238.0	25.0	-0.5
19	240.0	25.5	0.0
20	245.0	25.5	0.0

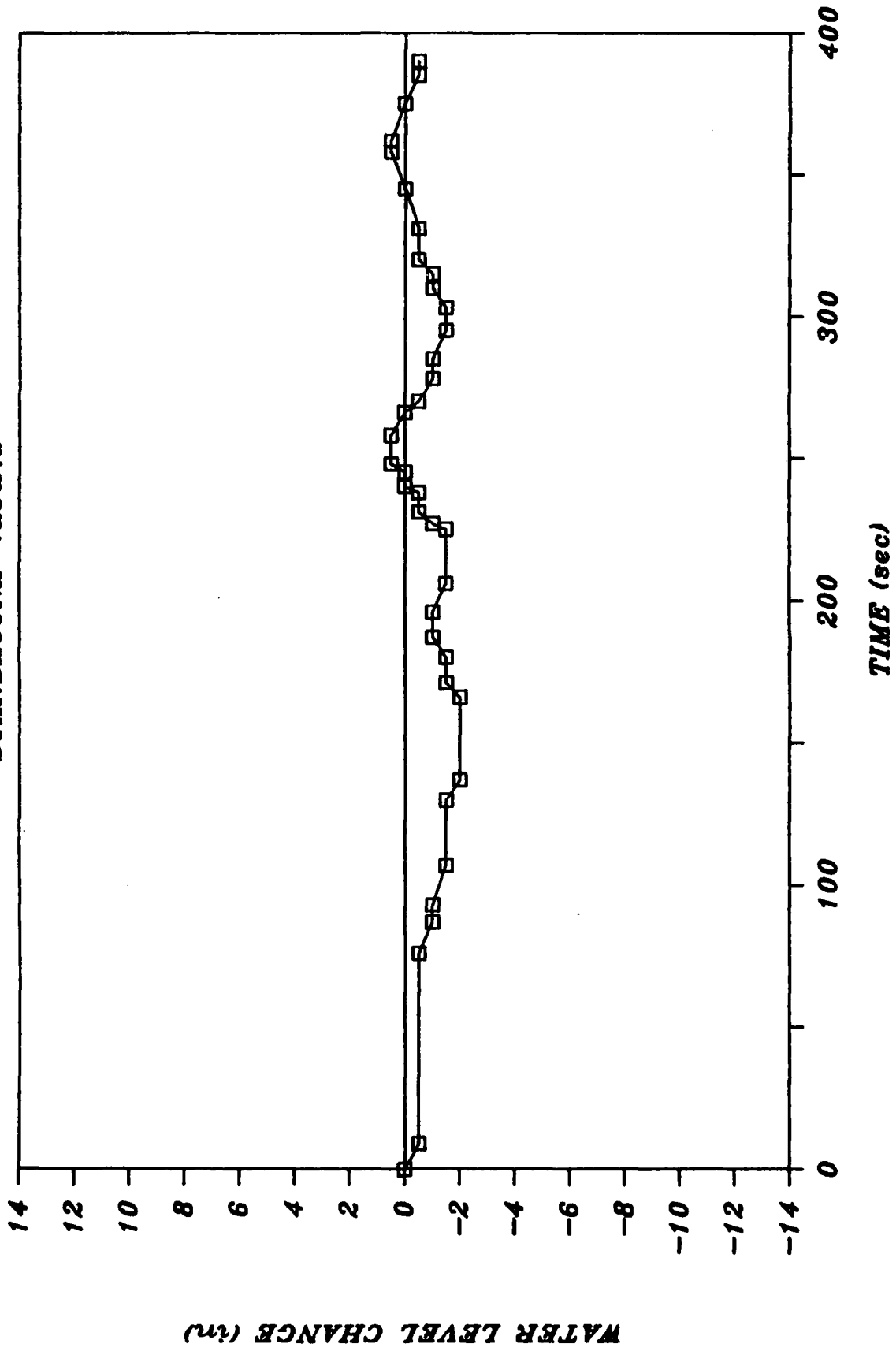
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	248.0	26.0	0.5
22	258.0	26.0	0.5
23	266.0	25.5	0.0
24	270.0	25.0	-0.5
25	278.0	24.5	-1.0
26	285.0	24.5	-1.0
27	295.0	24.0	-1.5
28	303.0	24.0	-1.5
29	310.0	24.5	-1.0
30	315.0	24.5	-1.0
31	320.0	25.0	-0.5
32	331.0	25.0	-0.5
33	345.0	25.5	0.0
34	358.0	26.0	0.5
35	362.0	26.0	0.5
36	375.0	25.5	0.0
37	385.0	25.0	-0.5
38	390.0	25.0	-0.5
39	405.0	24.5	-1.0
40	409.0	24.5	-1.0
41	416.0	24.0	-1.5
42	421.0	24.5	-1.0
43	434.0	24.5	-1.0
44	441.0	25.0	-0.5
45	480.0	25.0	-0.5

ISLAND VIEW 11/17/84

STANDACONA (down)



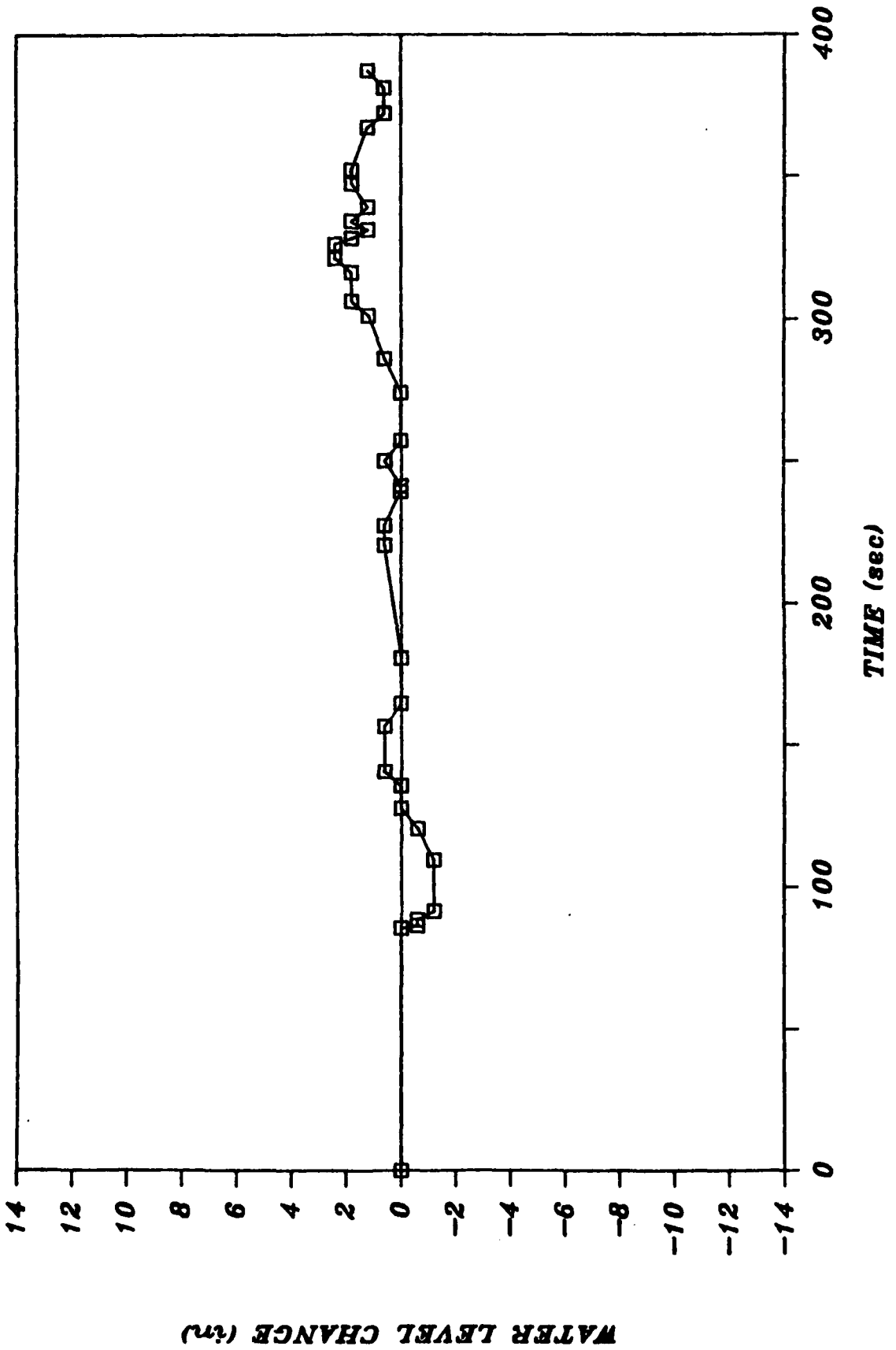
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	286.0	28.2	0.6
22	301.0	28.8	1.2
23	306.0	29.4	1.8
24	316.0	29.4	1.8
25	321.0	30.0	2.4
26	326.0	30.0	2.4
27	328.0	29.4	1.8
28	331.0	28.8	1.2
29	334.0	29.4	1.8
30	339.0	28.8	1.2
31	347.0	29.4	1.8
32	352.0	29.4	1.8
33	368.0	28.8	1.2
34	372.0	28.2	0.6
35	381.0	28.2	0.6
36	387.0	28.8	1.2
37	480.0	28.8	1.2

ISLAND VIEW 11/17/84

STANDACONA (down)



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 11/17/84

VESSEL NAME STANDACONA

DIRECTION DOW. BOUND

VESSEL LENGTH in feet = 664

VESSEL BEAM in feet = 67

VESSEL DRAFT in feet = 15

VESSEL SPEED in feet/sec. = 14.4

BOW ON TIME in sec = 85

STERN ON TIME in sec = 131

DISTANCE TO STAFF GAUGE from green side in feet = 2197

BACKGROUND READING in inches = 18

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	18.0	0.0
2	23.0	18.0	0.0
3	32.0	17.5	-0.5
4	43.0	17.5	-0.5
5	47.0	17.0	-1.0
6	56.0	16.5	-1.5
7	58.0	16.0	-2.0
8	69.0	16.0	-2.0
9	71.0	16.5	-1.5
10	74.0	15.0	-3.0
11	77.0	16.0	-2.0
12	79.0	16.5	-1.5
13	86.0	15.0	-3.0
14	87.0	15.5	-2.5
15	94.0	15.0	-3.0
16	96.0	15.0	-3.0
17	100.0	14.5	-3.5
18	102.0	14.5	-3.5
19	106.0	14.0	-4.0
20	123.0	14.0	-4.0

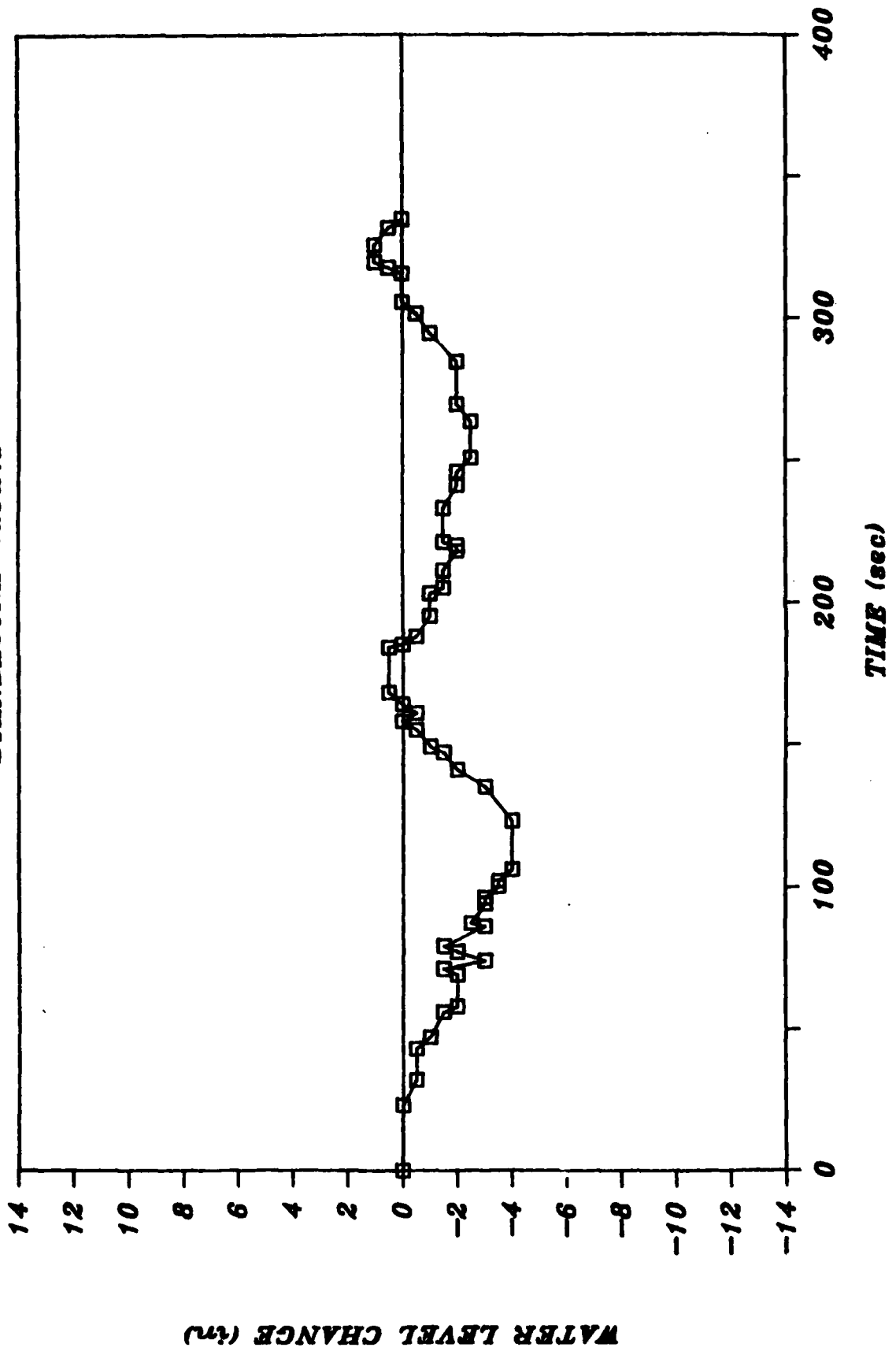
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	135.0	15.0	-3.0
22	141.0	16.0	-2.0
23	147.0	16.5	-1.5
24	149.0	17.0	-1.0
25	155.0	17.5	-0.5
26	158.0	18.0	0.0
27	161.0	17.5	-0.5
28	164.0	18.0	0.0
29	168.0	18.5	0.5
30	184.0	18.5	0.5
31	185.0	18.0	0.0
32	188.0	17.5	-0.5
33	195.0	17.0	-1.0
34	203.0	17.0	-1.0
35	205.0	16.5	-1.5
36	211.0	16.5	-1.5
37	218.0	16.0	-2.0
38	220.0	16.0	-2.0
39	221.0	16.5	-1.5
40	233.0	16.5	-1.5
41	241.0	16.0	-2.0
42	246.0	16.0	-2.0
43	251.0	15.5	-2.5
44	264.0	15.5	-2.5
45	270.0	16.0	-2.0
46	285.0	16.0	-2.0
47	295.0	17.0	-1.0
48	302.0	17.5	-0.5
49	306.0	18.0	0.0
50	316.0	18.0	0.0
51	318.0	18.5	0.5
52	320.0	19.0	1.0
53	326.0	19.0	1.0
54	332.0	18.5	0.5
55	335.0	18.0	0.0
56	354.0	18.0	0.0
57	362.0	17.0	-1.0
58	415.0	17.0	-1.0
59	432.0	18.0	0.0
60	442.0	19.0	1.0
61	452.0	18.5	0.5
62	458.0	18.0	0.0
63	480.0	18.0	0.0

ISLAND VIEW 11/17/84

STANDACONA (down)



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/27/85

VESSEL NAME OTTERCLIFFE HALL

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 25.75

VESSEL SPEED in feet/sec. = 11.23

BOW ON TIME in sec = 119

STERN ON TIME in sec = 184

DISTANCE TO STAFF GAUGE from green side in feet = 50

BACKGROUND READING in inches = 29

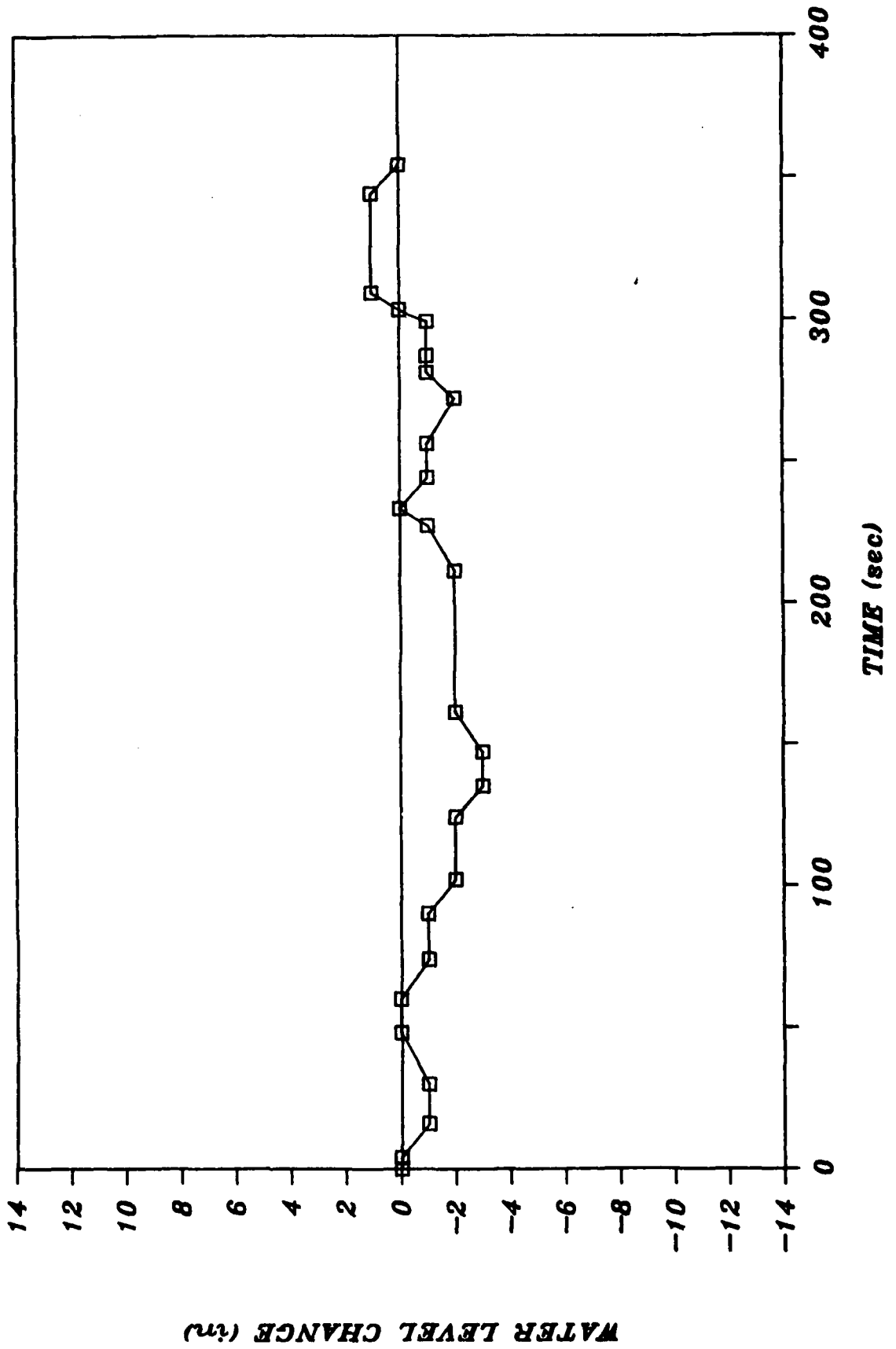
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	4.0	29.0	0.0
3	16.0	28.0	-1.0
4	30.0	28.0	-1.0
5	48.0	29.0	0.0
6	60.0	29.0	0.0
7	74.0	28.0	-1.0
8	90.0	28.0	-1.0
9	102.0	27.0	-2.0
10	124.0	27.0	-2.0
11	135.0	26.0	-3.0
12	147.0	26.0	-3.0
13	161.0	27.0	-2.0
14	211.0	27.0	-2.0
15	227.0	28.0	-1.0
16	233.0	29.0	0.0
17	244.0	28.0	-1.0
18	256.0	28.0	-1.0
19	272.0	27.0	-2.0
20	281.0	28.0	-1.0

DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	287.0	28.0	-1.0
22	299.0	29.0	0.0
23	303.0	29.0	0.0
24	309.0	30.0	1.0
25	344.0	30.0	1.0
26	354.0	29.0	0.0

ISLAND VIEW (green)
OTTERCLIFFE HALL



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/27/85

VESSEL NAME OTTERCLIFFE HALL

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 25.75

VESSEL SPEED in feet/sec. = 11.23

BOW ON TIME in sec = 119

STERN ON TIME in sec = 184

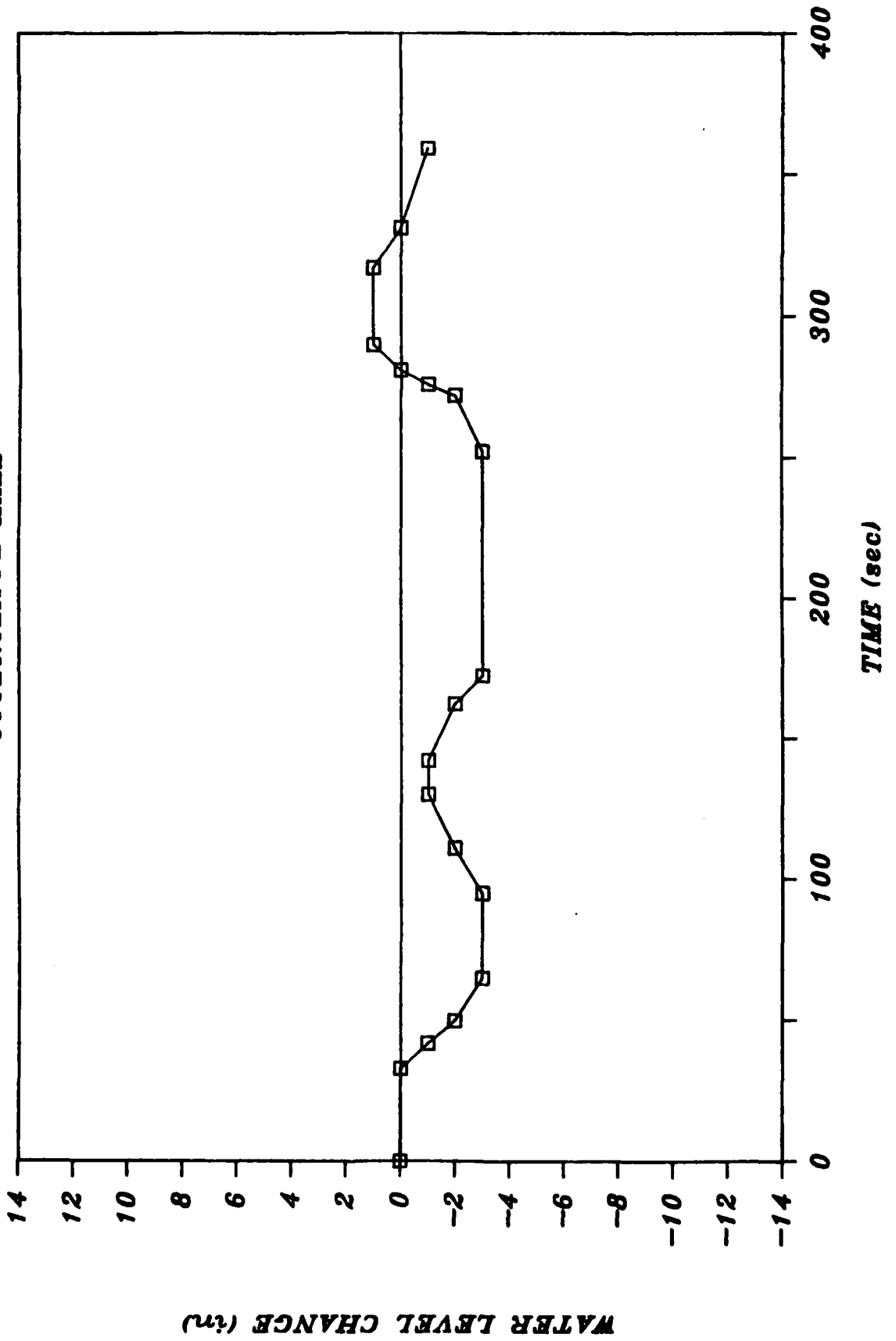
DISTANCE TO STAFF GAUGE from green side in feet = 2170

BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	33.0	29.0	0.0
3	42.0	28.0	-1.0
4	50.0	27.0	-2.0
5	65.0	26.0	-3.0
6	95.0	26.0	-3.0
7	111.0	27.0	-2.0
8	130.0	28.0	-1.0
9	142.0	28.0	-1.0
10	162.0	27.0	-2.0
11	172.0	26.0	-3.0
12	252.0	26.0	-3.0
13	272.0	27.0	-2.0
14	276.0	28.0	-1.0
15	281.0	29.0	0.0
16	290.0	30.0	1.0
17	317.0	30.0	1.0
18	331.0	29.0	0.0
19	359.0	28.0	-1.0

ISLAND VIEW (red)

OTTERCLIFFE HALL



DRAWDOWN DATA
 NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/27/85
 VESSEL NAME KINSMAN INDEPENDENT
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 600
 VESSEL BEAM in feet = 60
 VESSEL DRAFT in feet = 21
 VESSEL SPEED in feet/sec. = 12.0
 BOW ON TIME in sec = 94
 STERN ON TIME in sec = 144
 DISTANCE TO STAFF GAUGE from green side in feet = 28
 BACKGROUND READING in inches = 28

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	28.0	0.0
2	73.0	28.0	0.0
3	98.0	27.0	-1.0
4	106.0	26.0	-2.0
5	116.0	25.0	-3.0
6	124.0	25.0	-3.0
7	148.0	27.0	-1.0
8	167.0	27.0	-1.0
9	186.0	28.0	0.0
10	197.0	28.0	0.0
11	212.0	29.0	1.0
12	223.0	28.0	0.0
13	235.0	28.0	0.0
14	253.0	27.0	-1.0
15	267.0	28.0	0.0
16	279.0	27.0	-1.0
17	287.0	27.0	-1.0
18	299.0	28.0	0.0
19	304.0	28.0	0.0
20	314.0	29.0	1.0

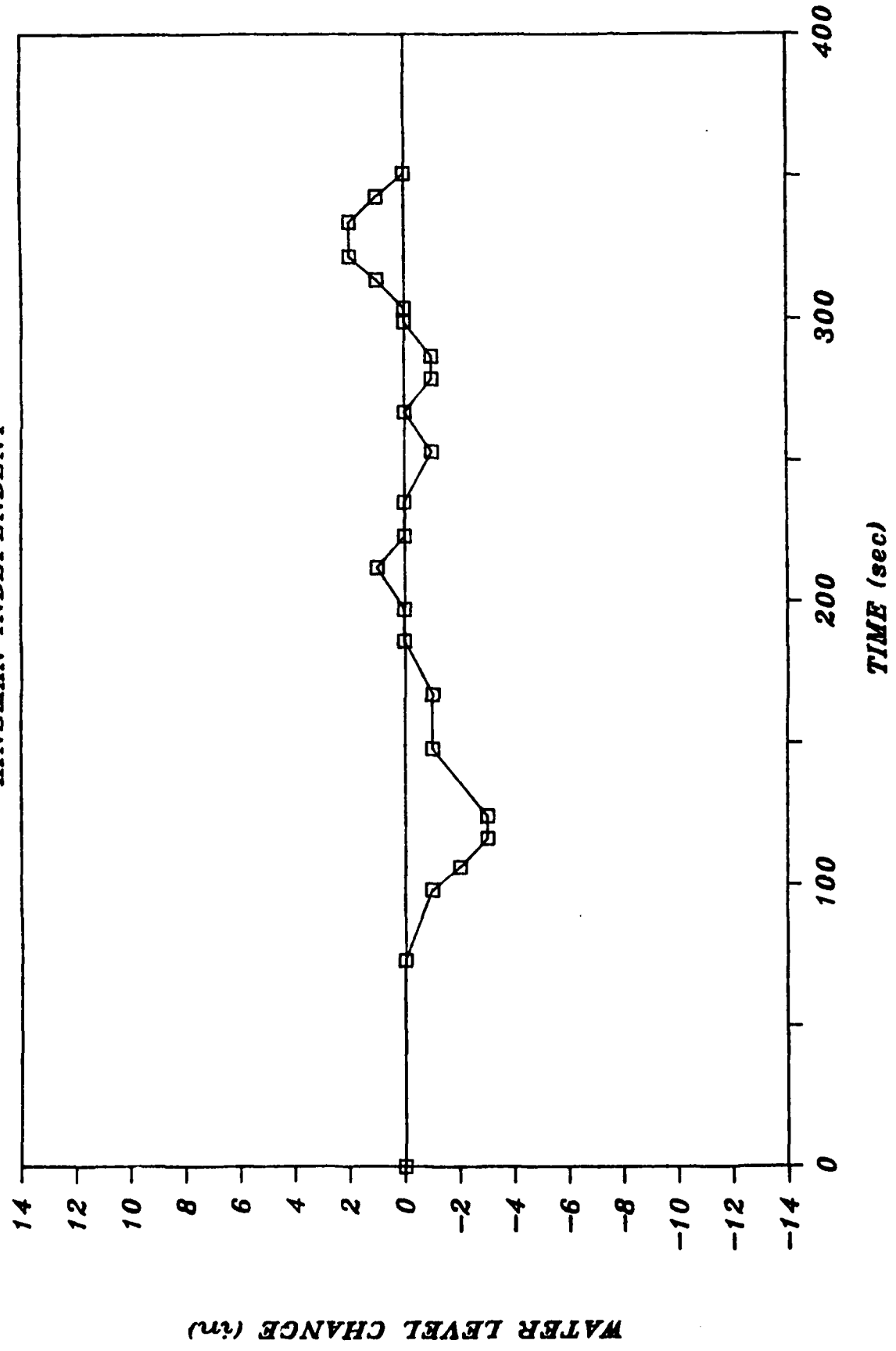
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	322.0	30.0	2.0
22	334.0	30.0	2.0
23	343.0	29.0	1.0
24	351.0	28.0	0.0

ISLAND VIEW (green)

KINSMAN INDEPENDENT



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/27/85

VESSEL NAME KINSMAN INDEPENDENT

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 600

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 21

VESSEL SPEED in feet/sec. = 12

BOW ON TIME in sec = 93

STERN ON TIME in sec = 144

DISTANCE TO STAFF GAUGE from green side in feet = 2170

BACKGROUND READING in inches = 29

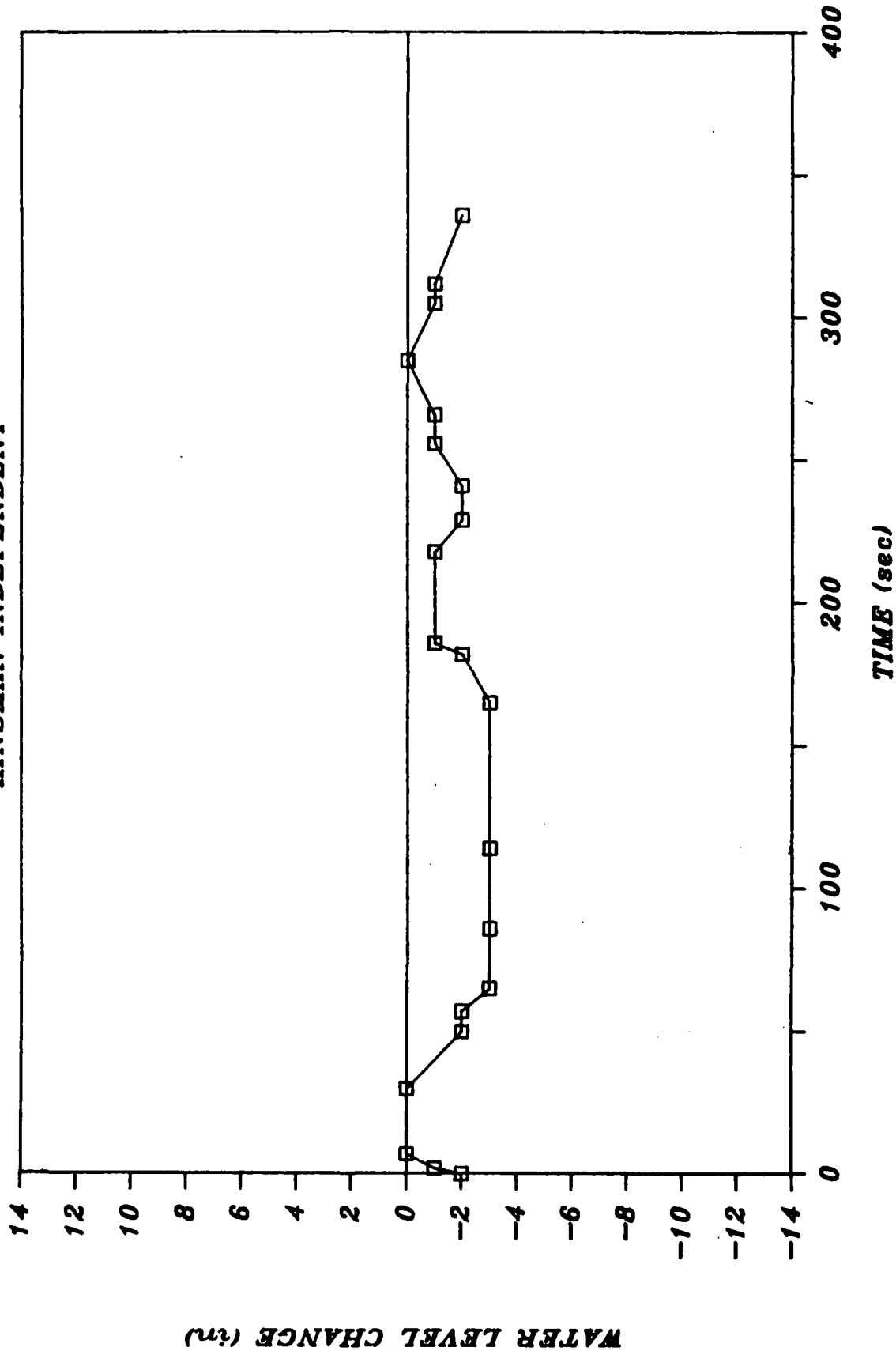
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	-2.0
2	2.0	28.0	-1.0
3	7.0	29.0	0.0
4	30.0	29.0	0.0
5	39.0	28.0	-1.0
6	50.0	27.0	-2.0
7	57.0	27.0	-2.0
8	65.0	26.0	-3.0
9	86.0	26.0	-3.0
10	114.0	26.0	-3.0
11	165.0	26.0	-3.0
12	182.0	27.0	-2.0
13	186.0	28.0	-1.0
14	218.0	28.0	-1.0
15	229.0	27.0	-2.0
16	241.0	27.0	-2.0
17	256.0	28.0	-1.0
18	266.0	28.0	-1.0
19	285.0	29.0	0.0
20	305.0	28.0	-1.0

DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	312.0	28.0	-1.0
22	336.0	27.0	-2.0

ISLAND VIEW (red)
KINSMAN INDEPENDENT



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
#####

DATE OF OBSERVATION 5/27/85

VESSEL NAME RICHELIEU

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 26

VESSEL SPEED in feet/sec. = 12.37

BOW ON TIME in sec = 113

STERN ON TIME in sec = 172

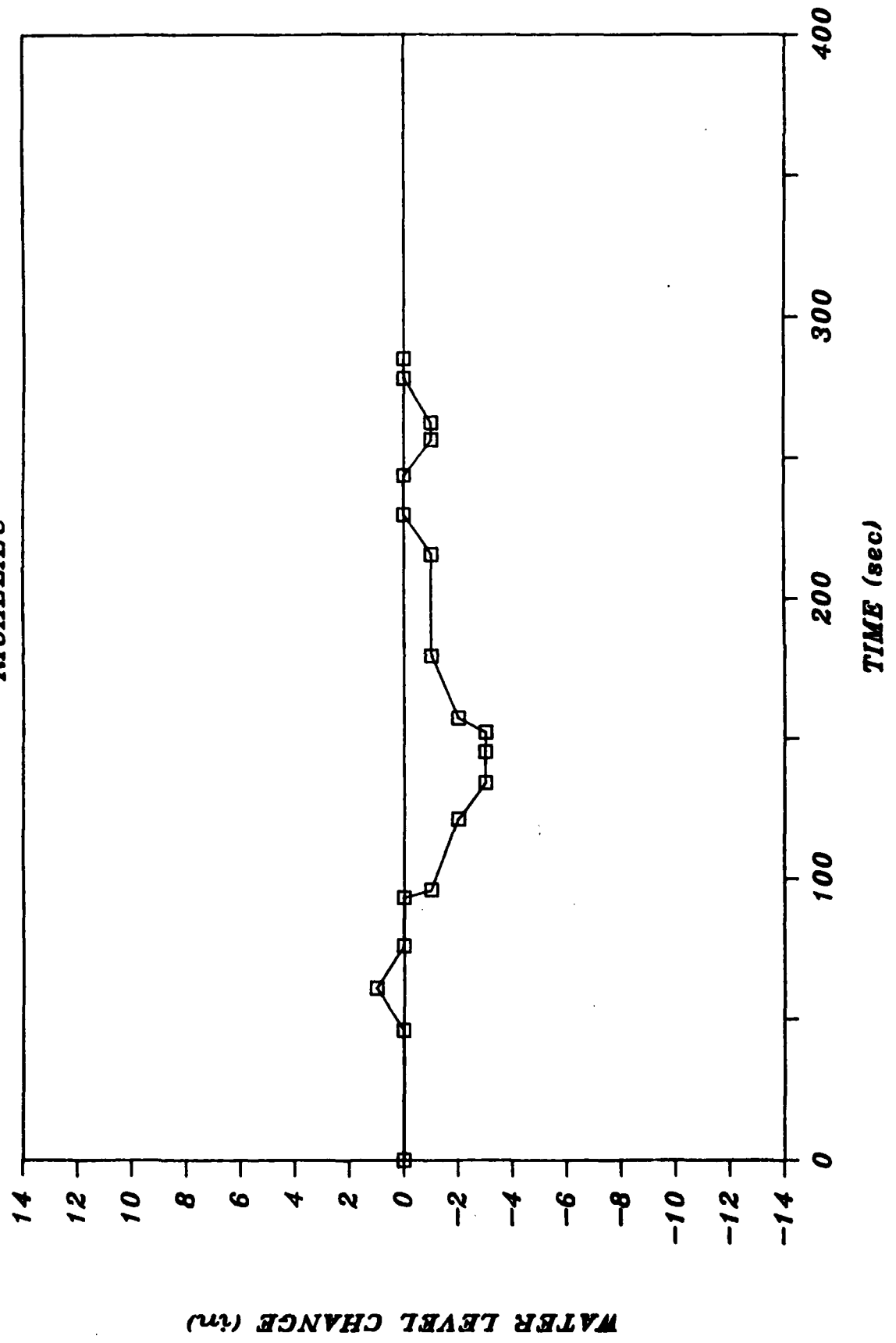
DISTANCE TO STAFF GAUGE from green side in feet = 50

BACKGROUND READING in inches = 28

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	28.0	0.0
2	46.0	28.0	0.0
3	61.0	29.0	1.0
4	76.0	28.0	0.0
5	93.0	28.0	0.0
6	96.0	27.0	-1.0
7	121.0	26.0	-2.0
8	134.0	25.0	-3.0
9	145.0	25.0	-3.0
10	152.0	25.0	-3.0
11	157.0	26.0	-2.0
12	179.0	27.0	-1.0
13	215.0	27.0	-1.0
14	229.0	28.0	0.0
15	243.0	28.0	0.0
16	256.0	27.0	-1.0
17	262.0	27.0	-1.0
18	278.0	28.0	0.0
19	285.0	28.0	0.0

ISLAND VIEW (green)

RICHELIEU



@@
 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
 @@

DATE OF OBSERVATION 5/27/85
 VESSEL NAME RICHELIEU
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 26
 VESSEL SPEED in feet/sec. = 12.37
 BOW ON TIME in sec = 113
 STERN ON TIME in sec = 172
 DISTANCE TO STAFF GAUGE from green side in feet = 2170
 BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	25.0	29.0	0.0
3	33.0	28.0	-1.0
4	53.0	27.0	-2.0
5	57.0	27.0	-2.0
6	70.0	26.0	-3.0
7	93.0	26.0	-3.0
8	103.0	25.0	-4.0
9	119.0	26.0	-3.0
10	132.0	27.0	-2.0
11	143.0	28.0	-1.0
12	153.0	28.0	-1.0
13	169.0	27.0	-2.0
14	213.0	27.0	-2.0
15	220.0	26.0	-3.0
16	232.0	25.0	-4.0
17	242.0	25.0	-4.0
18	260.0	26.0	-3.0
19	265.0	26.0	-3.0
20	273.0	27.0	-2.0

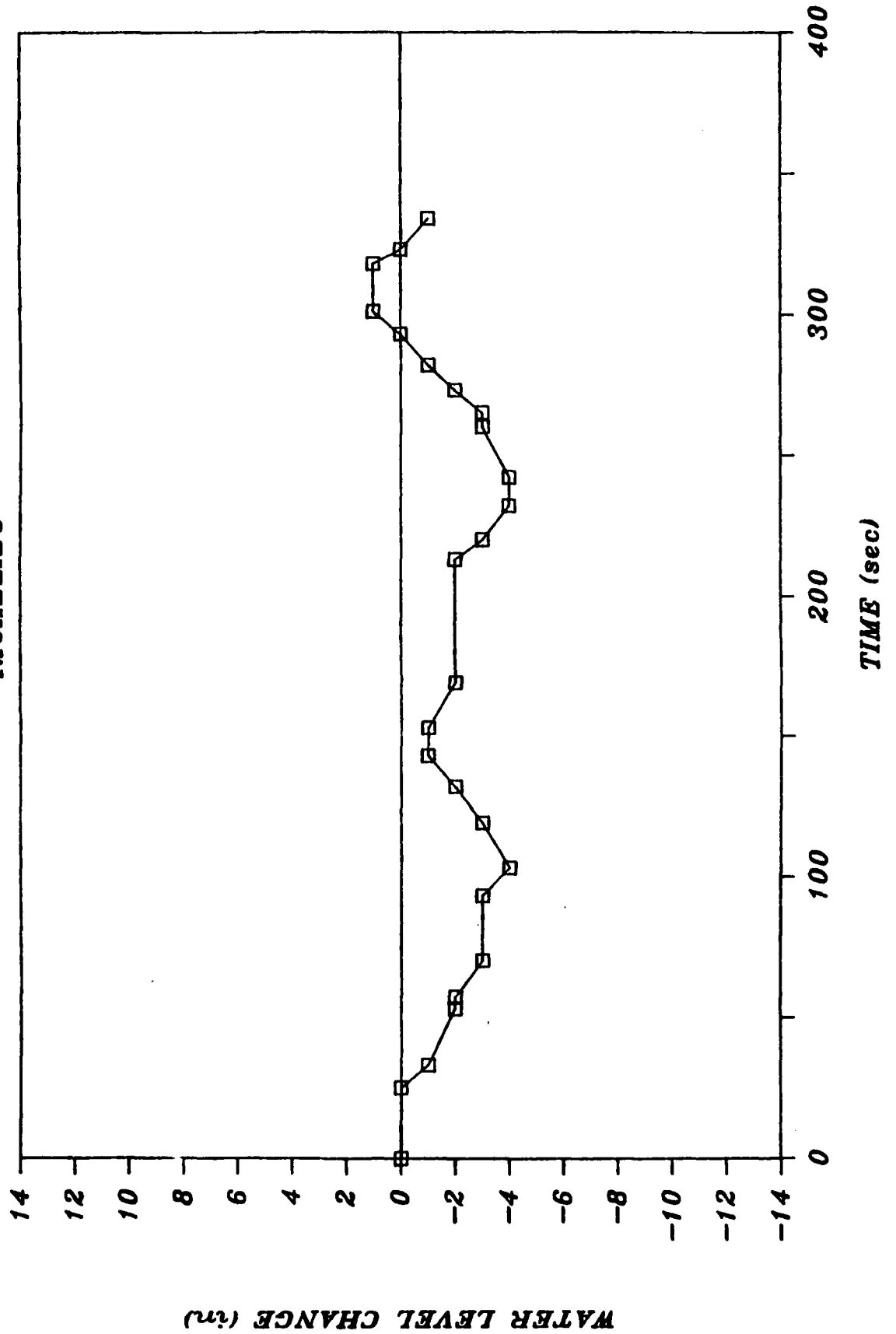
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	282.0	28.0	-1.0
22	293.0	29.0	0.0
23	301.0	30.0	1.0
24	318.0	30.0	1.0
25	323.0	29.0	0.0
26	334.0	28.0	-1.0

ISLAND VIEW (red)

RICHELIEU



BC64

DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/28/85
VESSEL NAME EDGAR B. SPEER
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 1004
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 27.5
VESSEL SPEED in feet/sec. = 9.65
BOW ON TIME in sec = 108
STERN ON TIME in sec = 210
DISTANCE TO STAFF GAUGE from green side in feet = 50
BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	16.0	25.0	-1.0
3	31.0	25.0	-1.0
4	46.0	25.0	-1.0
5	58.0	24.0	-2.0
6	71.0	23.0	-3.0
7	92.0	22.0	-4.0
8	108.0	22.0	-4.0
9	120.0	22.0	-4.0
10	132.0	23.0	-3.0
11	172.0	23.0	-3.0
12	185.0	22.0	-4.0
13	196.0	22.0	-4.0
14	205.0	23.0	-3.0
15	218.0	24.0	-2.0
16	228.0	24.0	-2.0
17	251.0	25.0	-1.0
18	258.0	25.0	-1.0
19	273.0	26.0	0.0
20	288.0	26.0	0.0

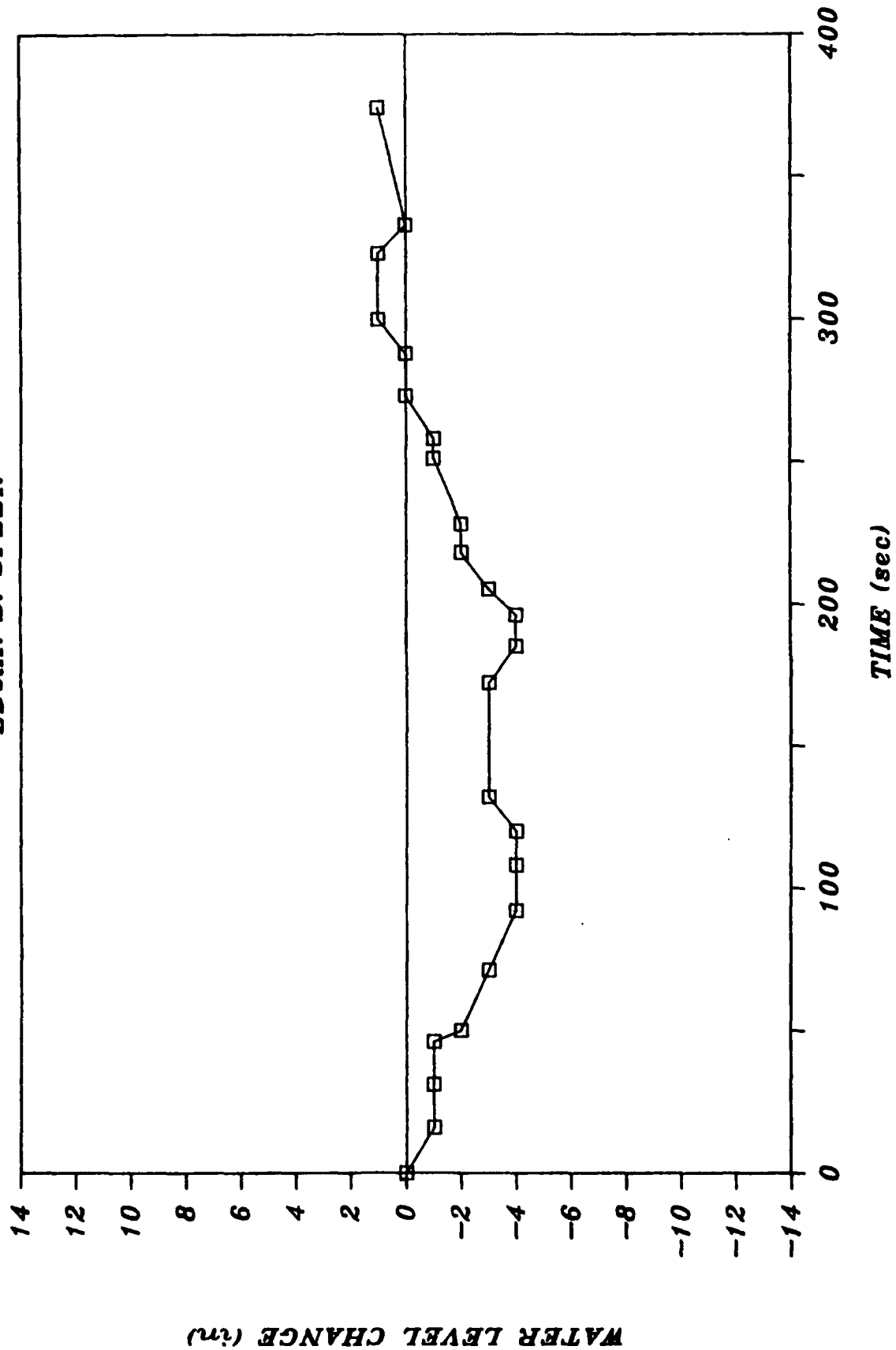
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	300.0	27.0	1.0
22	323.0	27.0	1.0
23	333.0	26.0	0.0
24	374.0	26.0	0.0

ISLAND VIEW (green)

EDGAR B. SPEER



@@
 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
 @@

DATE OF OBSERVATION 5/28/85
 VESSEL NAME EDGAR B. SPEER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1004
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 27.5
 VESSEL SPEED in feet/sec. = 9.65
 BOW ON TIME in sec = 106
 STERN ON TIME in sec = 210
 DISTANCE TO STAFF GAUGE from green side in feet = 2170
 BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	12.0	28.0	-1.0
3	24.0	27.0	-2.0
4	33.0	27.0	-2.0
5	49.0	28.0	-1.0
6	53.0	28.0	-1.0
7	83.0	28.0	-1.0
8	103.0	28.0	-1.0
9	115.0	28.0	-1.0
10	125.0	27.0	-2.0
11	135.0	26.0	-3.0
12	144.0	25.0	-4.0
13	153.0	24.0	-5.0
14	170.0	24.0	-5.0
15	188.0	24.0	-5.0
16	193.0	25.0	-4.0
17	206.0	25.0	-4.0
18	208.0	26.0	-3.0
19	218.0	27.0	-2.0
20	221.0	28.0	-1.0

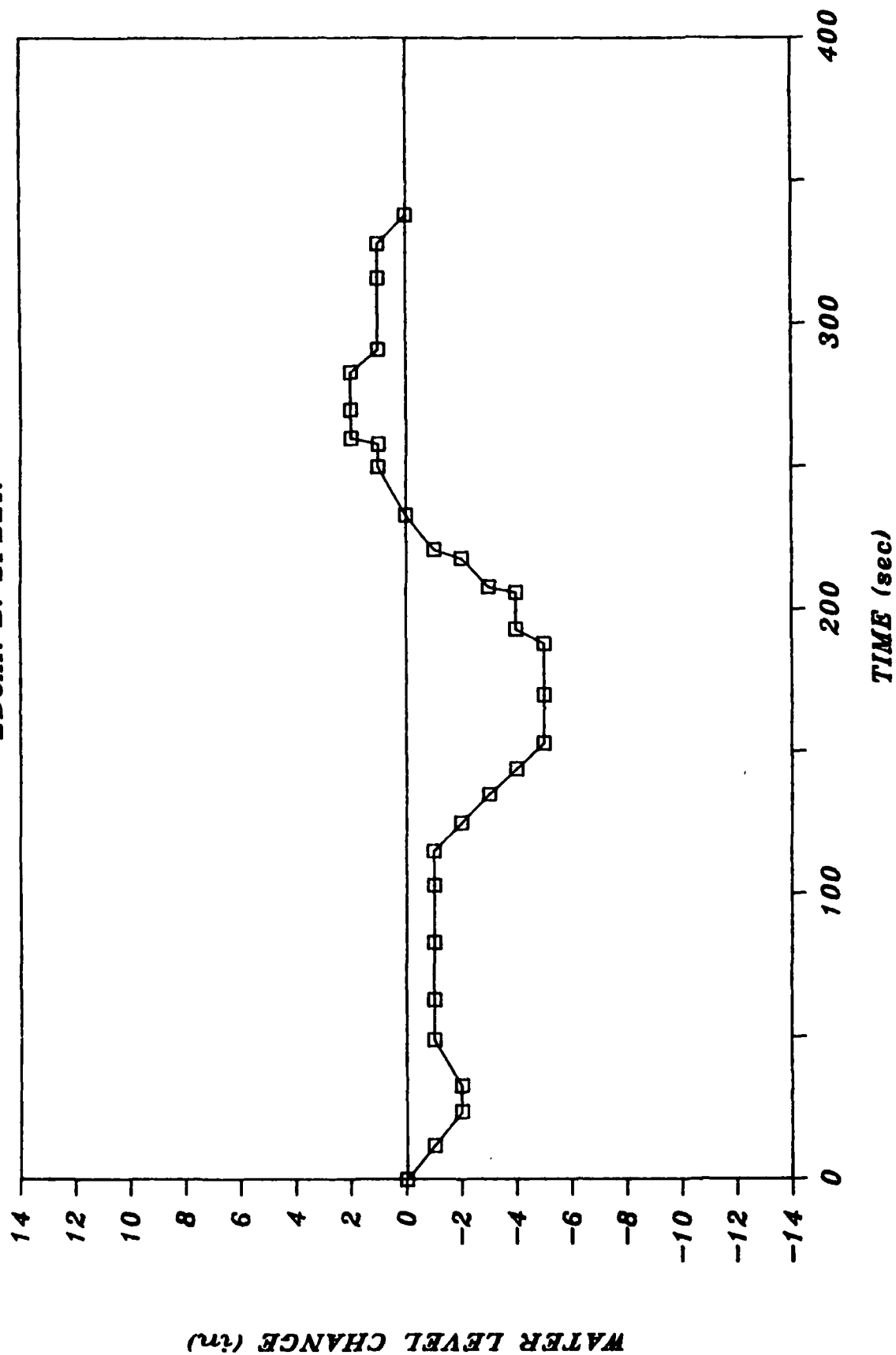
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	233.0	29.0	0.0
22	250.0	30.0	1.0
23	258.0	30.0	1.0
24	260.0	31.0	2.0
25	270.0	31.0	2.0
26	283.0	31.0	2.0
27	291.0	30.0	1.0
28	316.0	30.0	1.0
29	328.0	30.0	1.0
30	338.0	29.0	0.0

ISLAND VIEW (red)

EDGAR B. SPEER



BC70

DRAWDOWN DATA

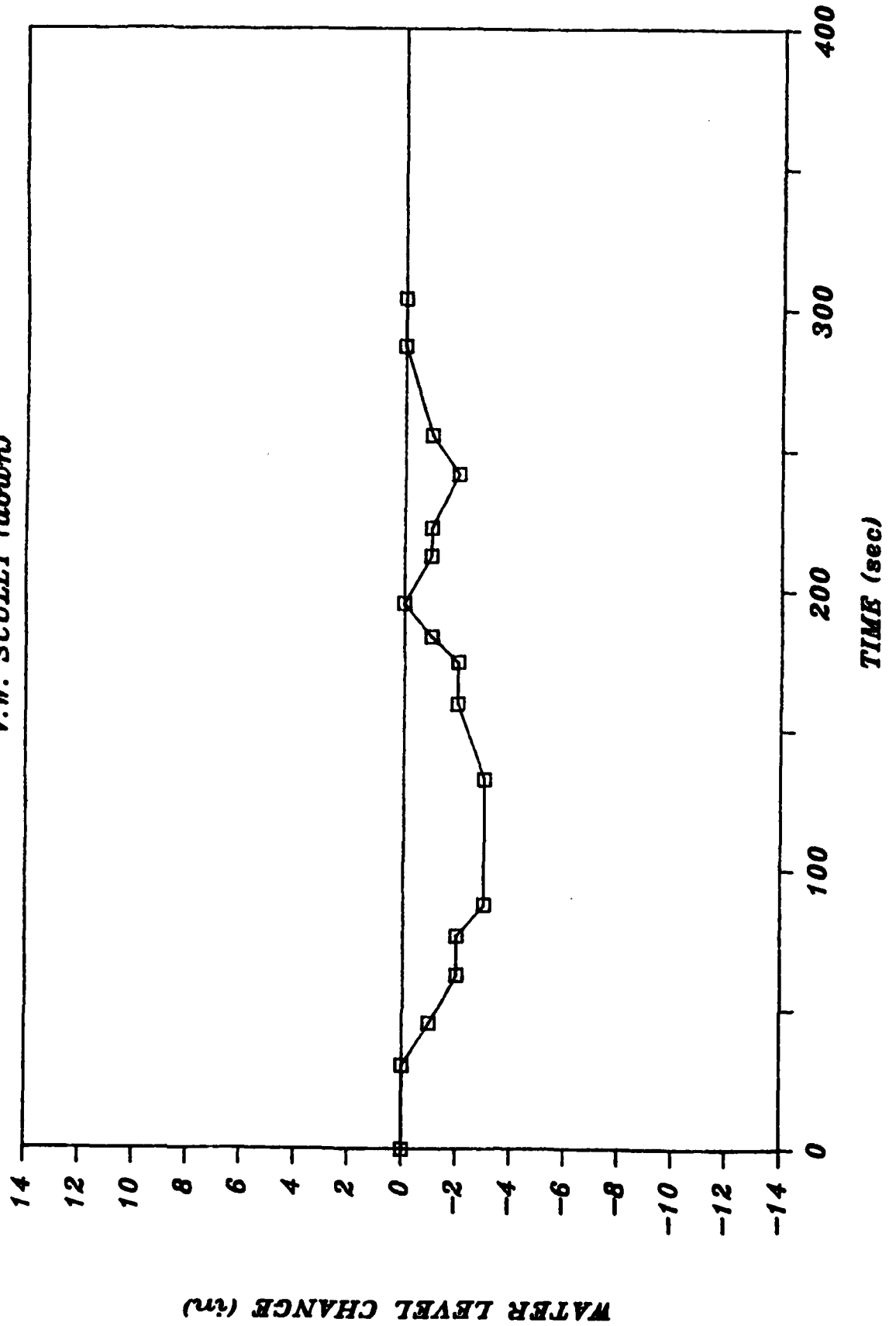
NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/28/85
VESSEL NAME V. W. SCULLY
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 26
VESSEL SPEED in feet/sec. = 9.36
BOW ON TIME in sec = 75
STERN ON TIME in sec = 133
DISTANCE TO STAFF GAUGE from green side in feet = 50
BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	30.0	26.0	0.0
3	45.0	25.0	-1.0
4	62.0	24.0	-2.0
5	76.0	24.0	-2.0
6	87.0	23.0	-3.0
7	132.0	23.0	-3.0
8	159.0	24.0	-2.0
9	174.0	24.0	-2.0
10	183.0	25.0	-1.0
11	195.0	26.0	0.0
12	212.0	25.0	-1.0
13	222.0	25.0	-1.0
14	241.0	24.0	-2.0
15	255.0	25.0	-1.0
16	287.0	26.0	0.0
17	304.0	26.0	0.0

ISLAND VIEW (green)

V.W. SCULLY (down)



BC72

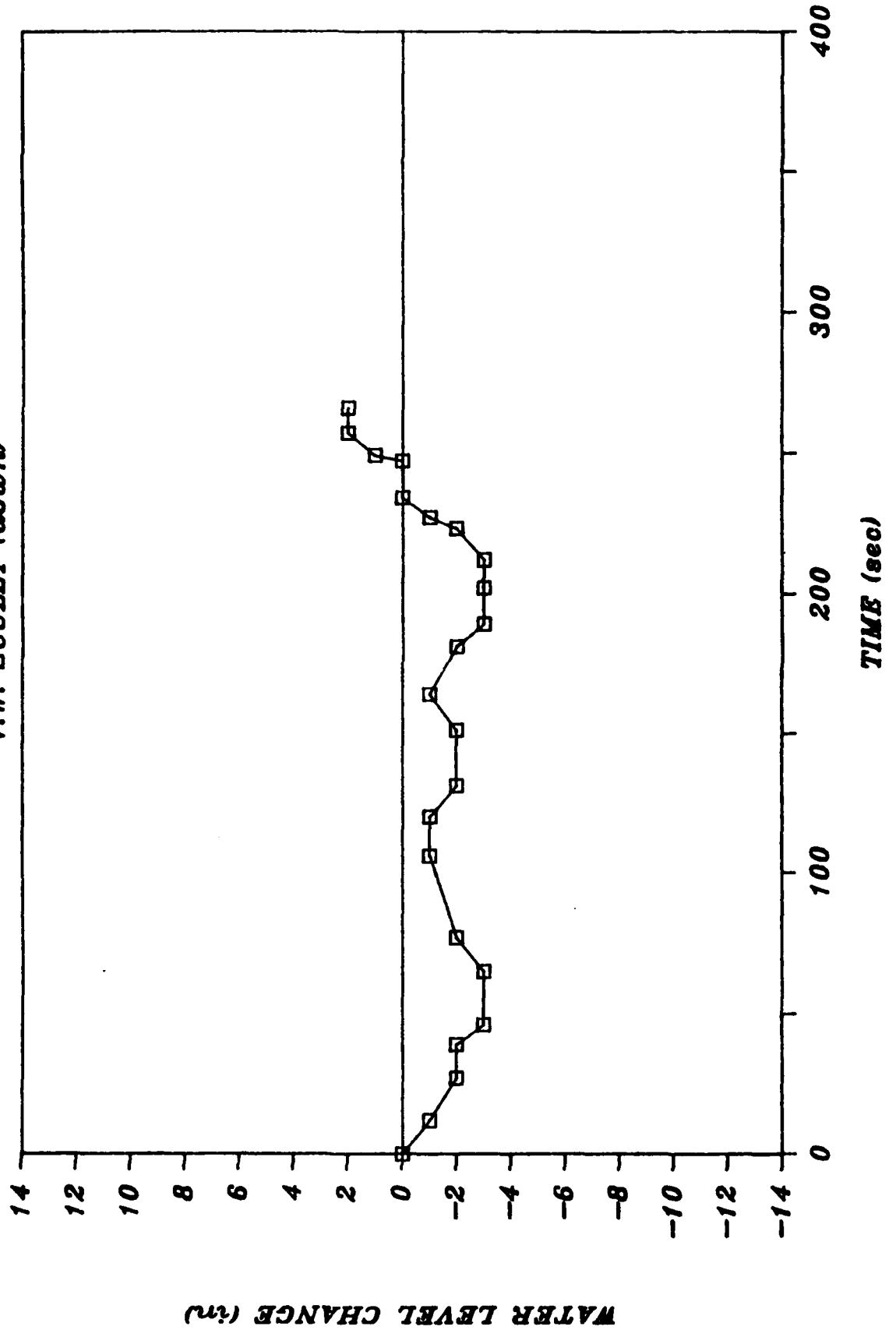
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	249.0	30.0	1.0
22	257.0	31.0	2.0
23	266.0	31.0	2.0

ISLAND VIEW (red)

V.M. SCULLY (down)



BC75

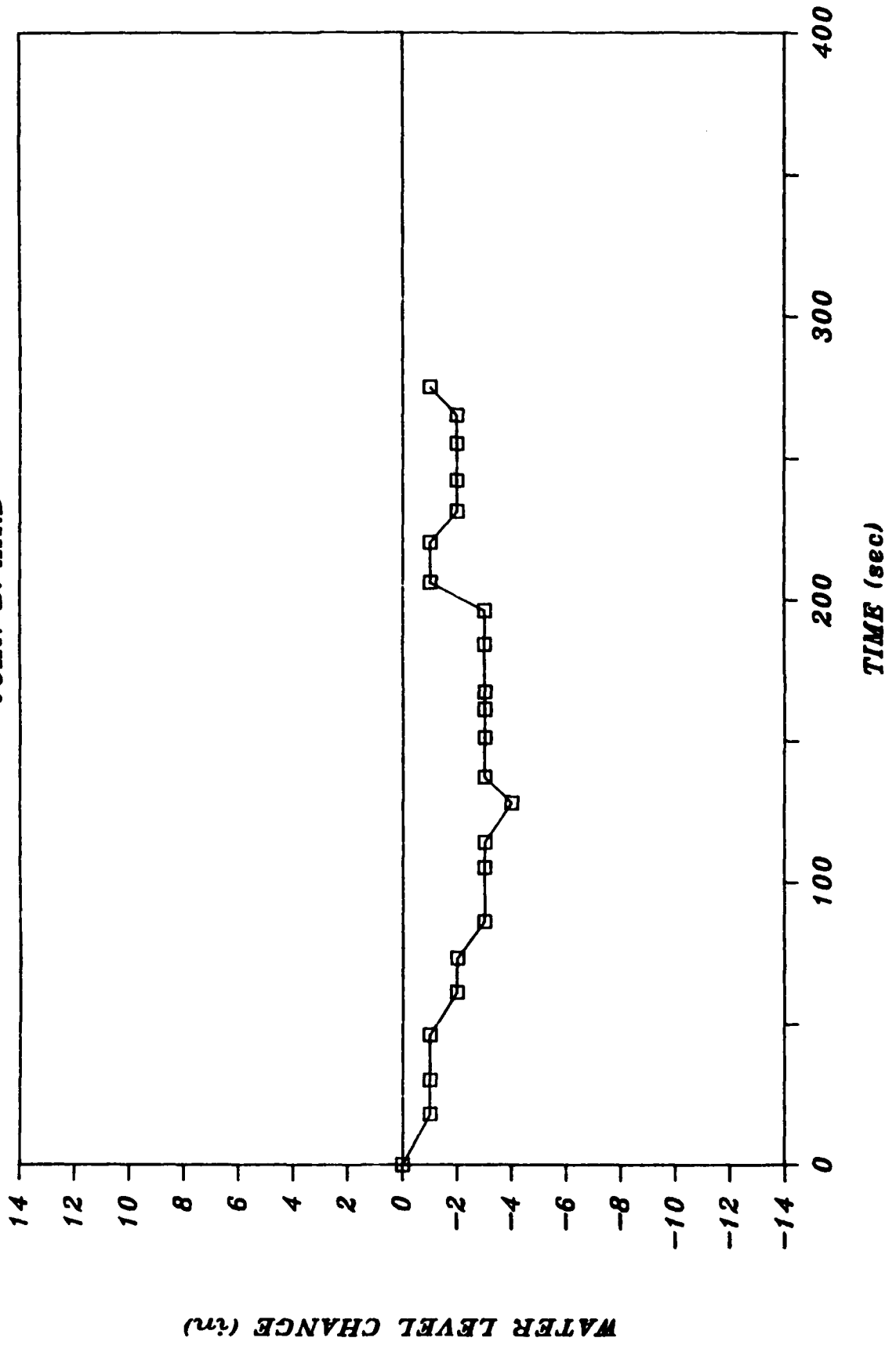
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	255.0	24.0	-2.0
22	265.0	24.0	-2.0
23	275.0	25.0	-1.0
24	282.0	26.0	0.0
25	303.0	26.0	0.0
26	317.0	26.0	0.0
27	332.0	26.0	0.0
28	338.0	26.0	0.0

ISLAND VIEW (green)

JOHN B. AIRD



BC78

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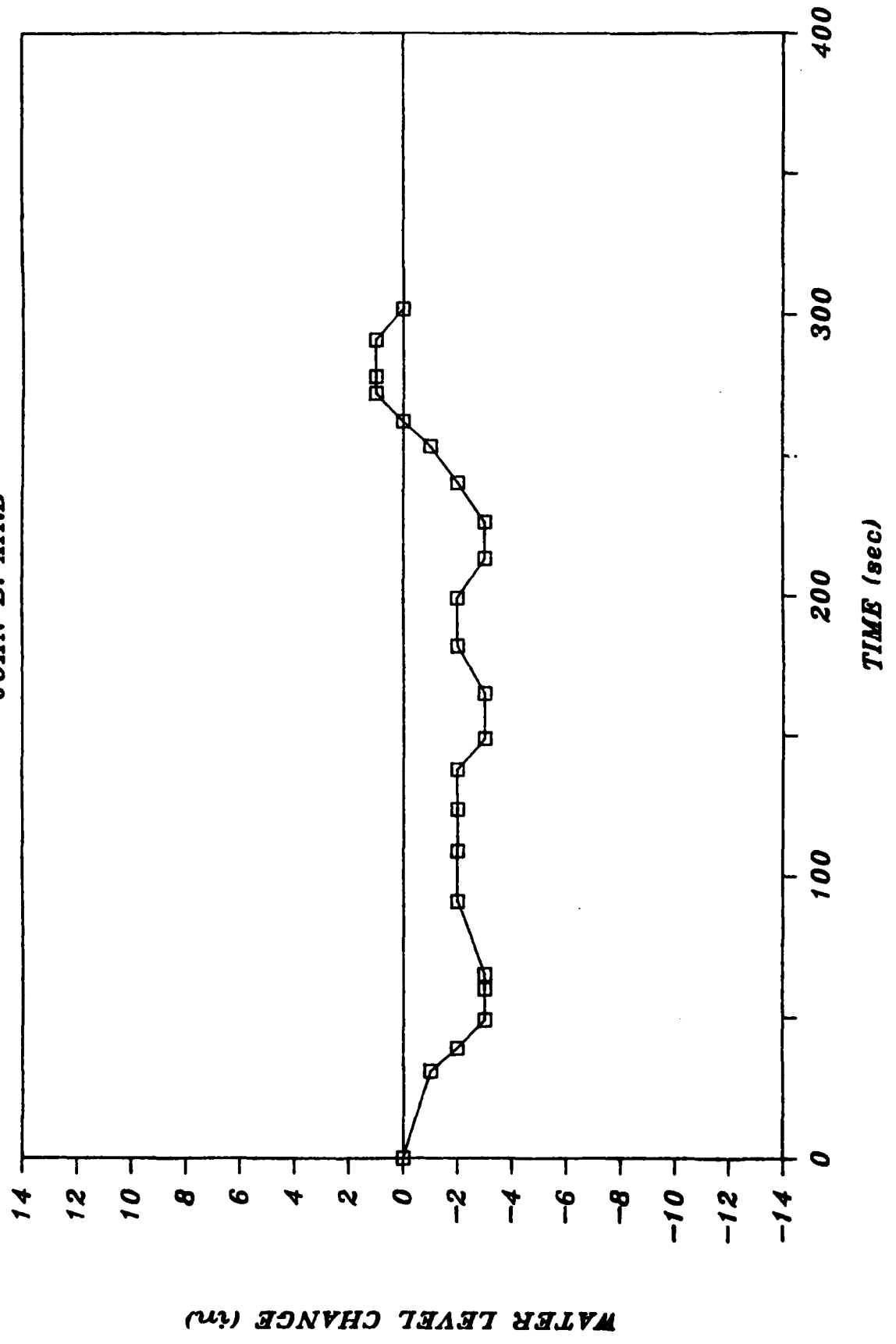
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW
#####

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	278.0	30.0	1.0
22	291.0	30.0	1.0
23	302.0	29.0	0.0

ISLAND VIEW (red)

JOHN B. AIRD



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
#####

DATE OF OBSERVATION 5/29/85

VESSEL NAME CANADOC

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 605

VESSEL BEAM in feet = 62

VESSEL DRAFT in feet = 24

VESSEL SPEED in feet/sec. = 12.54

BOW ON TIME in sec = 74

STERN ON TIME in sec = 122

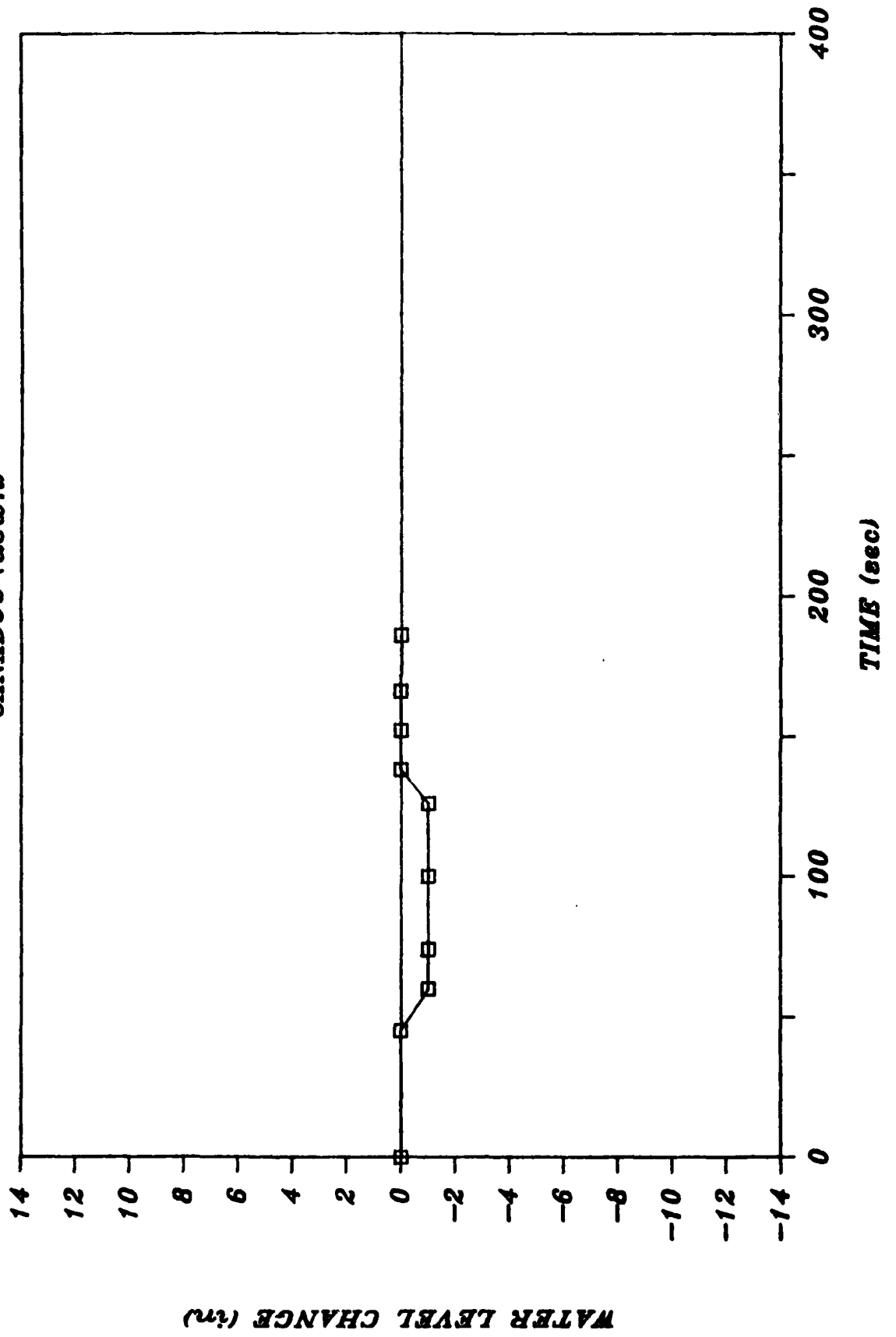
DISTANCE TO STAFF GAUGE from green side in feet = 50

BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	45.0	29.0	0.0
3	60.0	28.0	-1.0
4	74.0	28.0	-1.0
5	100.0	28.0	-1.0
6	126.0	28.0	-1.0
7	138.0	29.0	0.0
8	152.0	29.0	0.0
9	166.0	29.0	0.0
10	186.0	29.0	0.0

ISLAND VIEW (green)

CANADOC (down)



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85

VESSEL NAME CANADOC

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 605

VESSEL BEAM in feet = 62

VESSEL DRAFT in feet = 24

VESSEL SPEED in feet/sec. = 12.54

BOW ON TIME in sec = 74

STERN ON TIME in sec = 122

DISTANCE TO STAFF GAUGE from green side in feet = 2170

BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	2.0	26.0	0.0
3	6.0	27.0	1.0
4	11.0	26.0	0.0
5	17.0	26.0	0.0
6	24.0	25.0	-1.0
7	30.0	24.5	-1.5
8	33.0	24.0	-2.0
9	38.0	23.0	-3.0
10	46.0	23.0	-3.0
11	55.0	22.0	-4.0
12	79.0	23.5	-2.5
13	93.0	23.5	-2.5
14	102.0	24.0	-2.0
15	105.0	25.0	-1.0
16	109.0	26.0	0.0
17	114.0	27.0	1.0
18	135.0	27.0	1.0
19	150.0	27.0	1.0
20	165.0	26.0	0.0

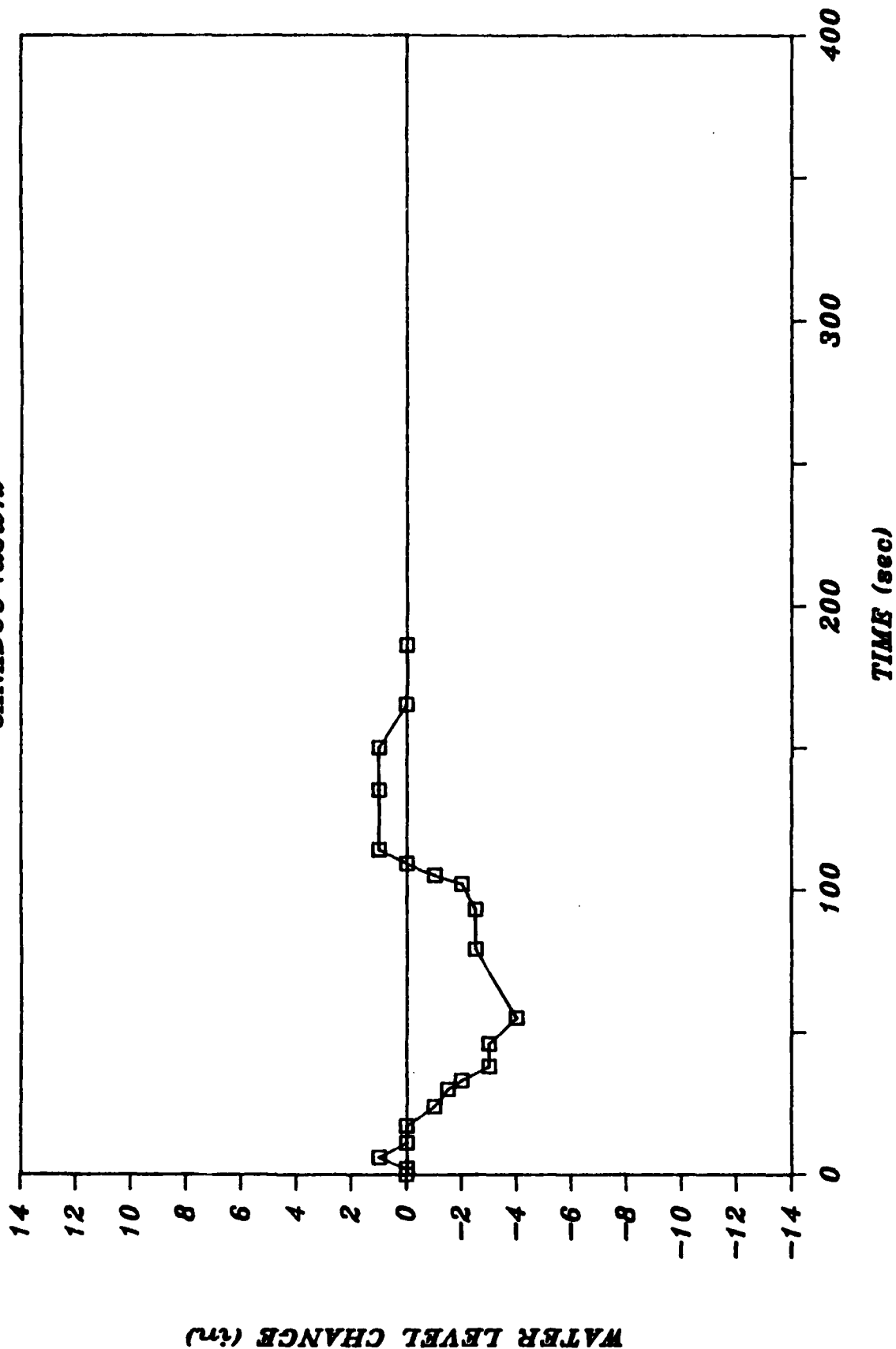
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	186.0	26.0	0.0

ISLAND VIEW (red)

CANADOC (down)



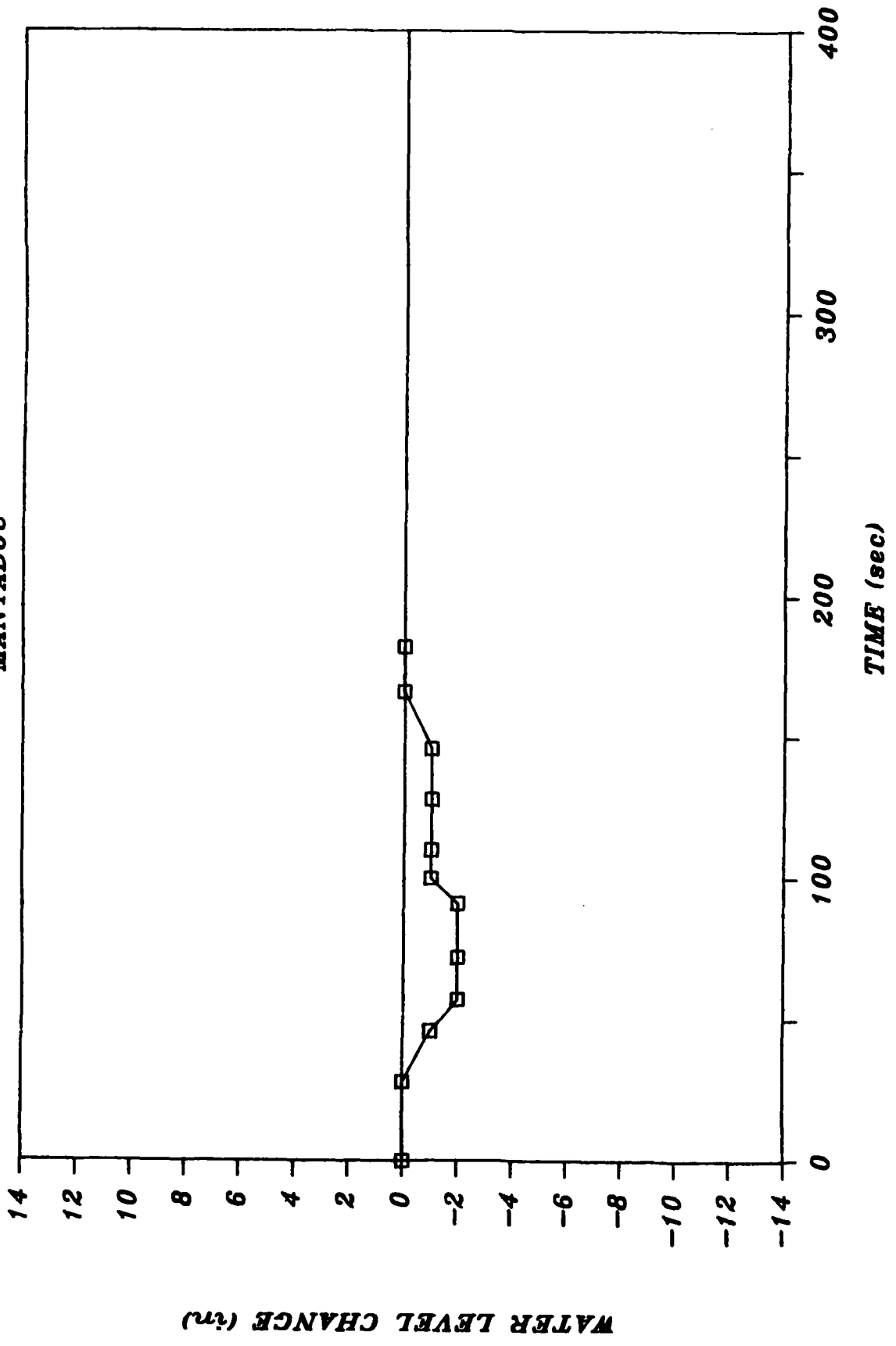
DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85
VESSEL NAME MANTADOC
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 605
VESSEL BEAM in feet = 62
VESSEL DRAFT in feet = 26
VESSEL SPEED in feet/sec. = 13.15
BOW ON TIME in sec = 46
STERN ON TIME in sec = 92
DISTANCE TO STAFF GAUGE from green side in feet = 50
BACKGROUND READING in inches = 31

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	31.0	0.0
2	28.0	31.0	0.0
3	46.0	30.0	-1.0
4	57.0	29.0	-2.0
5	72.0	29.0	-2.0
6	91.0	29.0	-2.0
7	100.0	30.0	-1.0
8	110.0	30.0	-1.0
9	128.0	30.0	-1.0
10	146.0	30.0	-1.0
11	166.0	31.0	0.0
12	182.0	31.0	0.0

ISLAND VIEW (green)
MANTADOC



 DRAWDOWN DATA

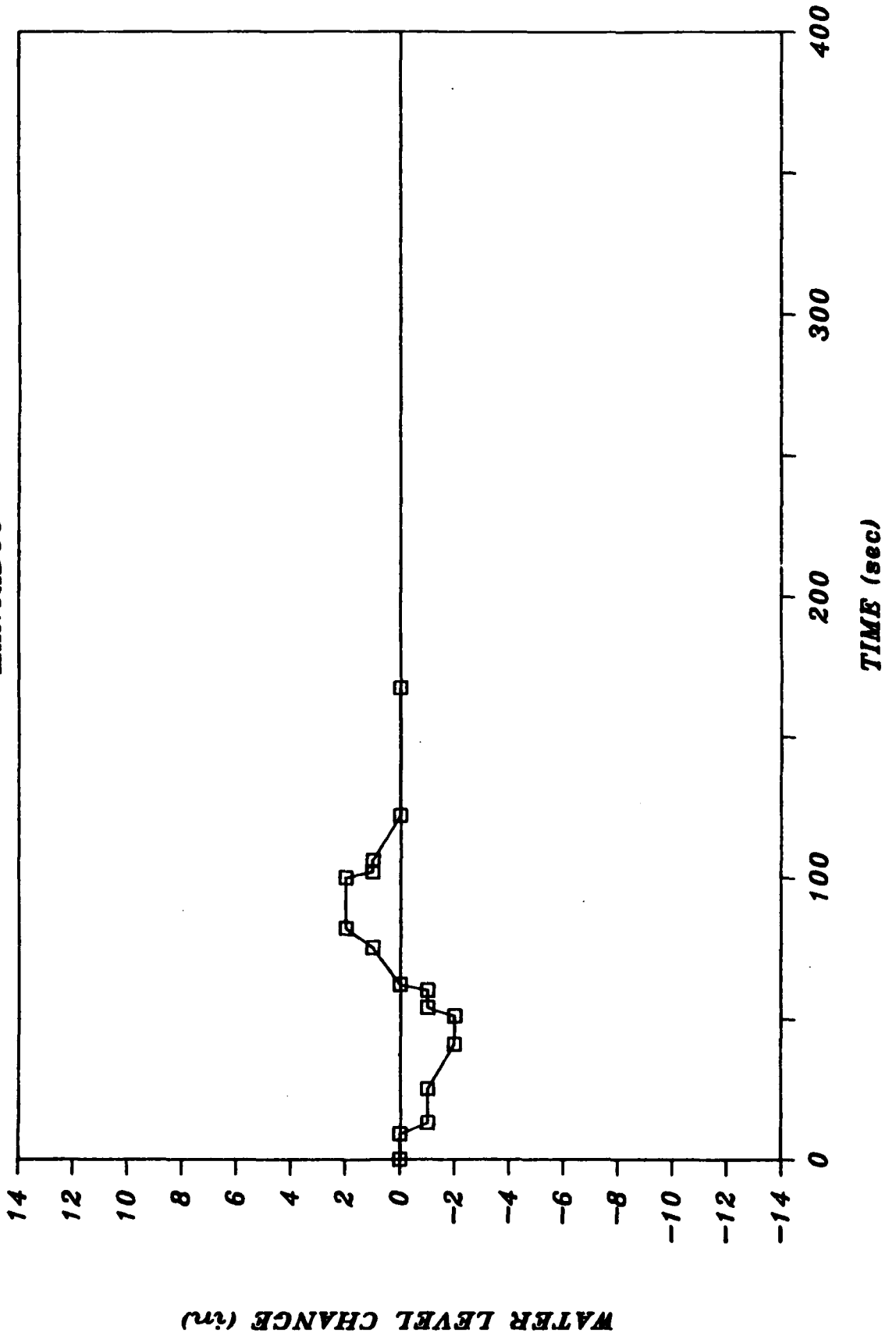
NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85
 VESSEL NAME MANTADOC
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 605
 VESSEL BEAM in feet = 62
 VESSEL DRAFT in feet = 26
 VESSEL SPEED in feet/sec. = 13.15
 BOW ON TIME in sec = 46
 STERN ON TIME in sec = 92
 DISTANCE TO STAFF GAUGE from green side in feet = 2170
 BACKGROUND READING in inches = 26

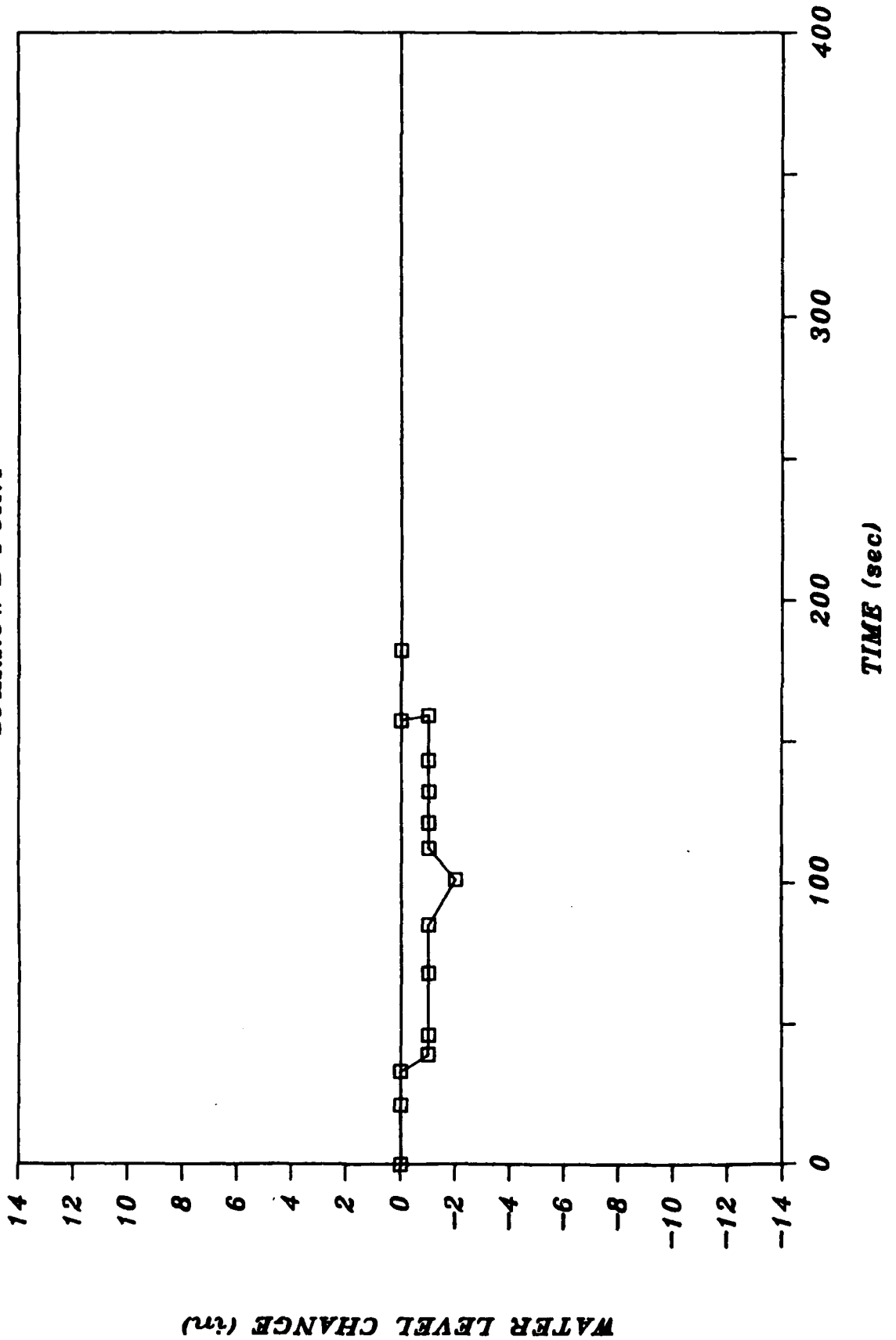
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	9.0	13.0	-13.0
3	13.0	25.0	-1.0
4	25.0	25.0	-1.0
5	41.0	24.0	-2.0
6	51.0	24.0	-2.0
7	54.0	25.0	-1.0
8	60.0	25.0	-1.0
9	62.0	26.0	0.0
10	75.0	27.0	1.0
11	82.0	28.0	2.0
12	100.0	28.0	2.0
13	102.0	27.0	1.0
14	106.0	27.0	1.0
15	122.0	26.0	0.0
16	167.0	26.0	0.0

ISLAND VIEW (red)

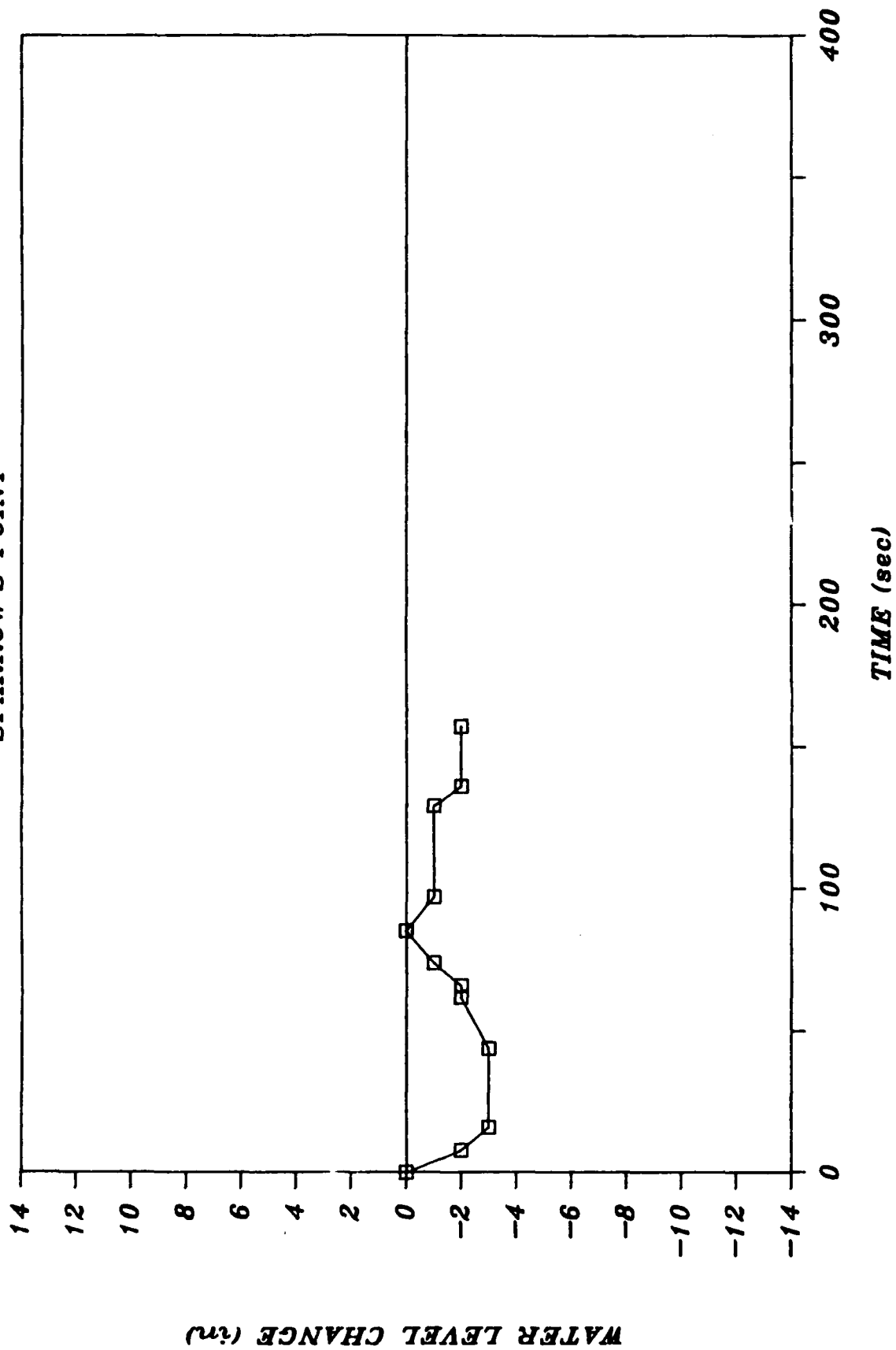
MANTADOC



ISLAND VIEW (green)
SPARROW'S POINT



ISLAND VIEW (red)
SPARROW'S POINT



BC94

 DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85
 VESSEL NAME MESABI MINER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 28
 VESSEL SPEED in feet/sec. = 10.99
 BOW ON TIME in sec = 82
 STERN ON TIME in sec = 173
 DISTANCE TO STAFF GAUGE from green side in feet = 50
 BACKGROUND READING in inches = 28

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	28.0	0.0
2	11.0	27.0	-1.0
3	46.0	27.0	-1.0
4	56.0	26.0	-2.0
5	67.0	25.0	-3.0
6	82.0	25.0	-3.0
7	97.0	24.0	-4.0
8	130.0	24.0	-4.0
9	143.0	25.0	-3.0
10	159.0	24.0	-4.0
11	172.0	24.0	-4.0
12	178.0	25.0	-3.0
13	195.0	26.0	-2.0
14	213.0	27.0	-1.0
15	243.0	27.0	-1.0
16	250.0	28.0	0.0
17	260.0	28.0	0.0
18	280.0	29.0	1.0
19	289.0	29.0	1.0
20	302.0	28.0	0.0

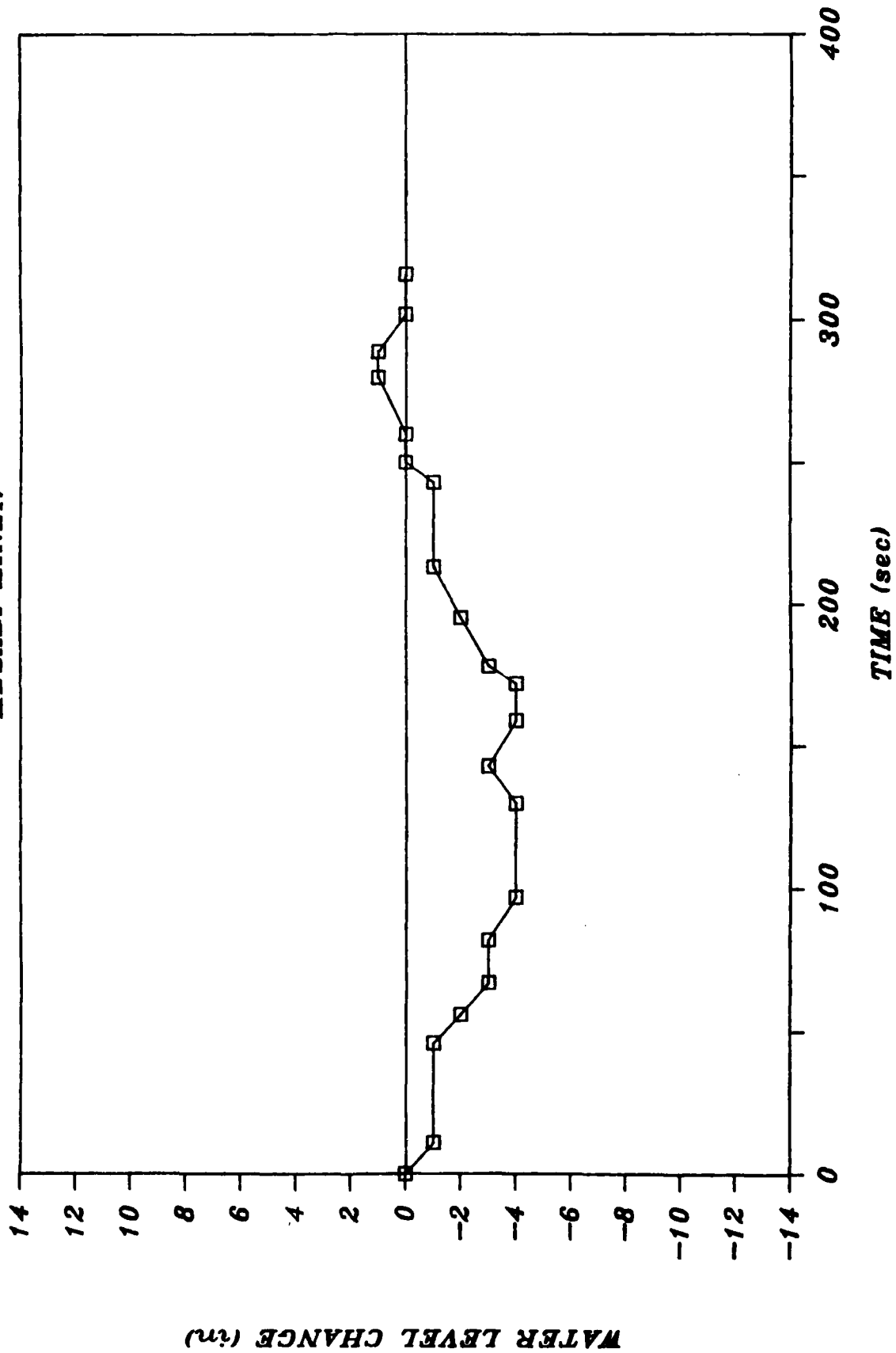
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	316.0	28.0	0.0

ISLAND VIEW (green)

MESABI MINER



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85
 VESSEL NAME MESABI MINER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 28
 VESSEL SPEED in feet/sec. = 10.99
 BOW ON TIME in sec = 82
 STERN ON TIME in sec = 173
 DISTANCE TO STAFF GAUGE from green side in feet = 2170
 BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	51.0	23.0	0.0
3	65.0	22.0	-1.0
4	90.0	22.0	-1.0
5	108.0	21.5	-1.5
6	111.0	21.0	-2.0
7	115.0	20.5	-2.5
8	118.0	20.0	-3.0
9	122.0	19.5	-3.5
10	125.0	19.0	-4.0
11	129.0	19.5	-3.5
12	135.0	19.5	-3.5
13	140.0	18.0	-5.0
14	144.0	19.0	-4.0
15	150.0	18.5	-4.5
16	154.0	18.5	-4.5
17	165.0	18.0	-5.0
18	175.0	20.5	-2.5
19	176.0	21.0	-2.0
20	186.0	21.5	-1.5

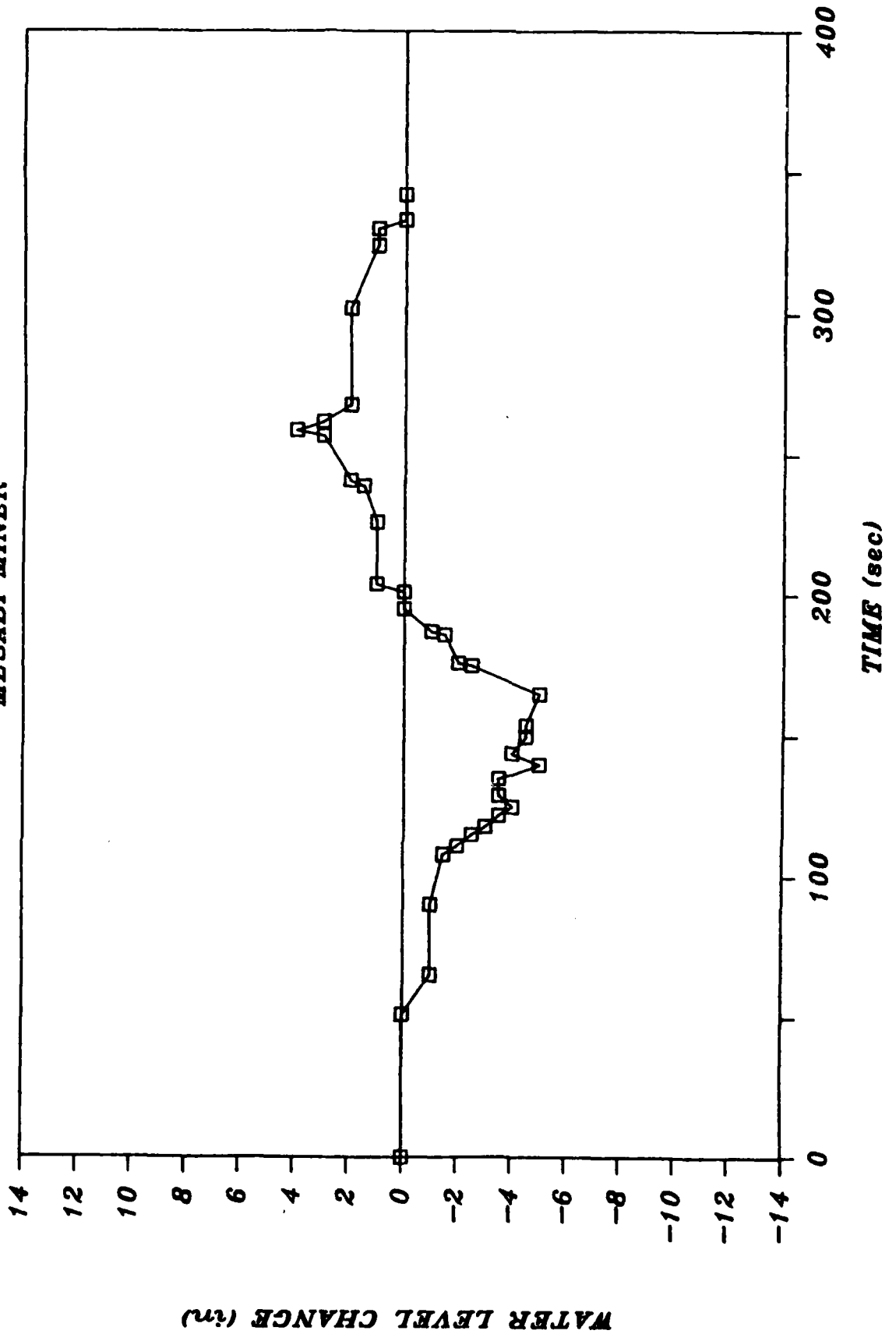
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	187.0	22.0	-1.0
22	195.0	23.0	0.0
23	201.0	23.0	0.0
24	204.0	24.0	1.0
25	226.0	24.0	1.0
26	239.0	24.5	1.5
27	241.0	25.0	2.0
28	257.0	26.0	3.0
29	259.0	27.0	4.0
30	262.0	26.0	3.0
31	268.0	25.0	2.0
32	302.0	25.0	2.0
33	324.0	24.0	1.0
34	330.0	24.0	1.0
35	333.0	23.0	0.0
36	342.0	23.0	0.0

ISLAND VIEW (red)

MESABI MINER



BC100

DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
#####

DATE OF OBSERVATION 5/29/85
VESSEL NAME JAMES R. BARKER
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 27.5
VESSEL SPEED in feet/sec. = 12.05
BOW ON TIME in sec = 88
STERN ON TIME in sec = 171
DISTANCE TO STAFF GAUGE from green side in feet = 50
BACKGROUND READING in inches = 28

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	28.0	0.0
2	23.0	28.0	0.0
3	34.0	28.0	0.0
4	62.0	27.0	-1.0
5	69.0	26.0	-2.0
6	81.0	26.0	-2.0
7	93.0	26.0	-2.0
8	101.0	25.0	-3.0
9	107.0	24.0	-4.0
10	114.0	23.0	-5.0
11	121.0	23.0	-5.0
12	129.0	24.0	-4.0
13	139.0	23.0	-5.0
14	152.0	23.0	-5.0
15	160.0	24.0	-4.0
16	162.0	25.0	-3.0
17	176.0	25.0	-3.0
18	188.0	25.0	-3.0
19	211.0	25.0	-3.0
20	220.0	26.0	-2.0

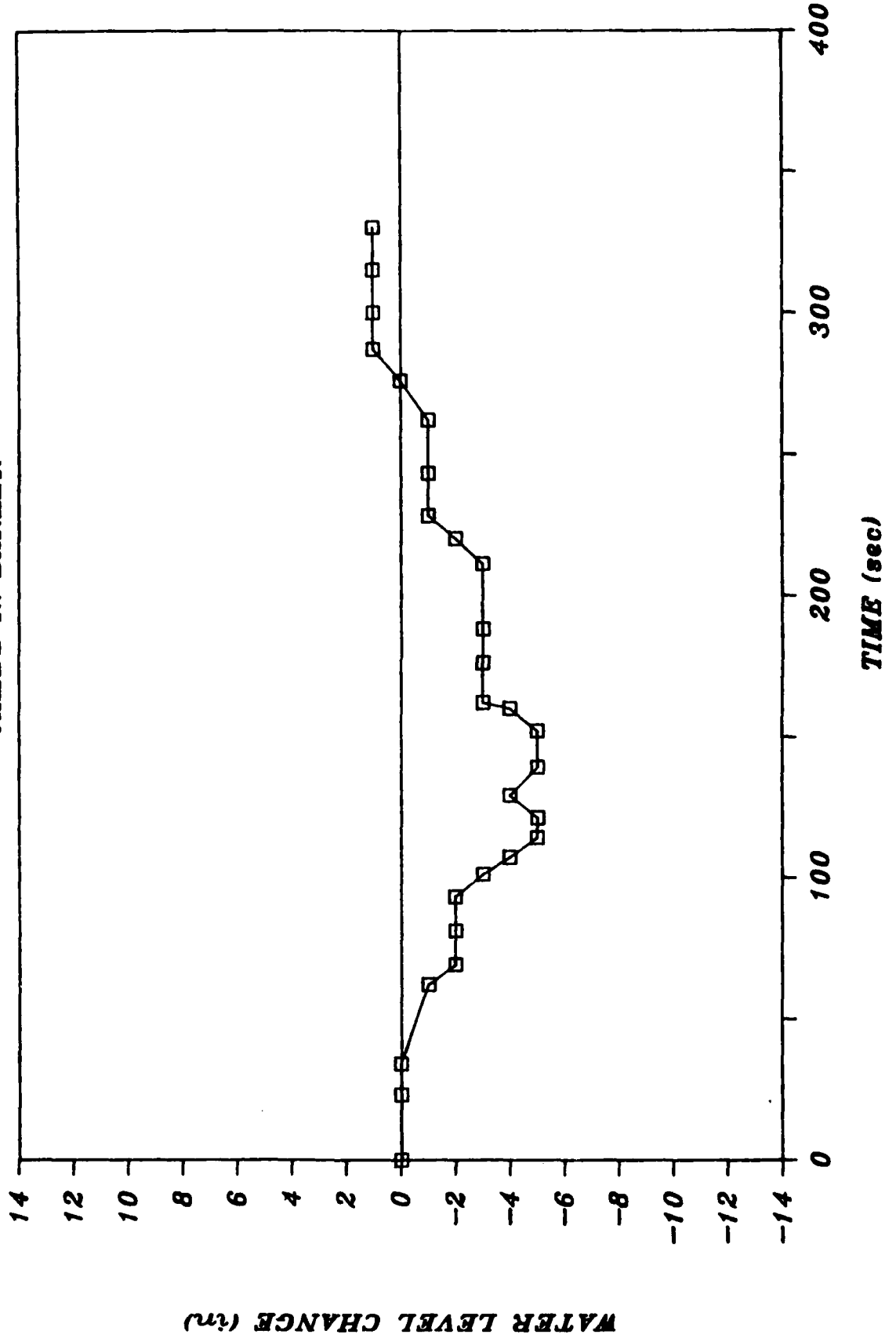
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	228.0	27.0	-1.0
22	243.0	27.0	-1.0
23	262.0	27.0	-1.0
24	276.0	28.0	0.0
25	287.0	29.0	1.0
26	300.0	29.0	1.0
27	315.0	29.0	1.0
28	330.0	29.0	1.0

ISLAND VIEW (green)

JAMES R. BARKER



#####

DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
#####

DATE OF OBSERVATION 5/29/85
VESSEL NAME JAMES R. BARKER
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 27.5
VESSEL SPEED in feet/sec. = 12.05
BOW ON TIME in sec = 88
STERN ON TIME in sec = 171
DISTANCE TO STAFF GAUGE from green side in feet = 2170
BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	15.0	26.0	-1.0
3	25.0	25.0	-2.0
4	30.0	24.0	-3.0
5	35.0	23.0	-4.0
6	45.0	23.0	-4.0
7	60.0	22.5	-4.5
8	72.0	22.5	-4.5
9	80.0	22.0	-5.0
10	90.0	22.0	-5.0
11	105.0	22.0	-5.0
12	120.0	21.5	-5.5
13	127.0	21.0	-6.0
14	135.0	20.5	-6.5
15	150.0	21.0	-6.0
16	155.0	24.0	-3.0
17	160.0	20.5	-6.5
18	165.0	21.0	-6.0
19	180.0	21.0	-6.0
20	188.0	20.0	-7.0

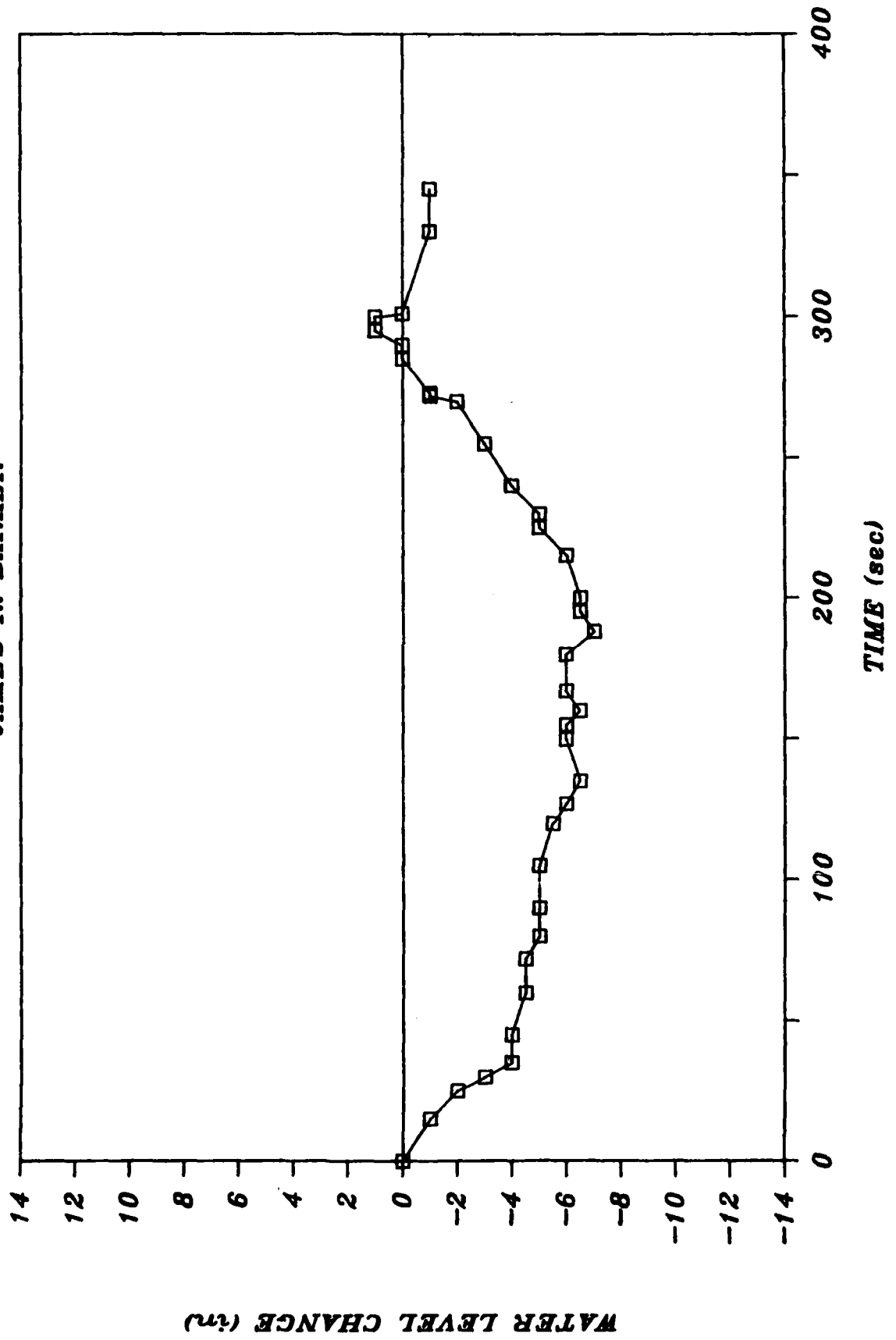
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	195.0	20.5	-6.5
22	200.0	20.5	-6.5
23	215.0	21.0	-6.0
24	225.0	22.0	-5.0
25	230.0	22.0	-5.0
26	240.0	23.0	-4.0
27	255.0	24.0	-3.0
28	270.0	25.0	-2.0
29	272.0	26.0	-1.0
30	273.0	26.0	-1.0
31	285.0	27.0	0.0
32	290.0	27.0	0.0
33	295.0	28.0	1.0
34	300.0	28.0	1.0
35	301.0	27.0	0.0
36	330.0	26.0	-1.0
37	345.0	26.0	-1.0

ISLAND VIEW (red)

JAMES R. BARKER



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85

VESSEL NAME STEWART J. CORT

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 28

VESSEL SPEED in feet/sec. = 12.05

BOW ON TIME in sec = 64

STERN ON TIME in sec = 147

DISTANCE TO STAFF GAUGE from green side in feet = 50

BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	30.0	1.0
2	2.0	29.0	0.0
3	19.0	29.0	0.0
4	30.0	28.0	-1.0
5	39.0	28.0	-1.0
6	50.0	27.0	-2.0
7	68.0	27.0	-2.0
8	75.0	26.0	-3.0
9	79.0	25.0	-4.0
10	87.0	24.0	-5.0
11	94.0	24.0	-5.0
12	105.0	24.0	-5.0
13	118.0	23.0	-6.0
14	125.0	24.0	-5.0
15	132.0	25.0	-4.0
16	138.0	26.0	-3.0
17	151.0	26.0	-3.0
18	165.0	26.0	-3.0
19	190.0	26.0	-3.0
20	212.0	27.0	-2.0

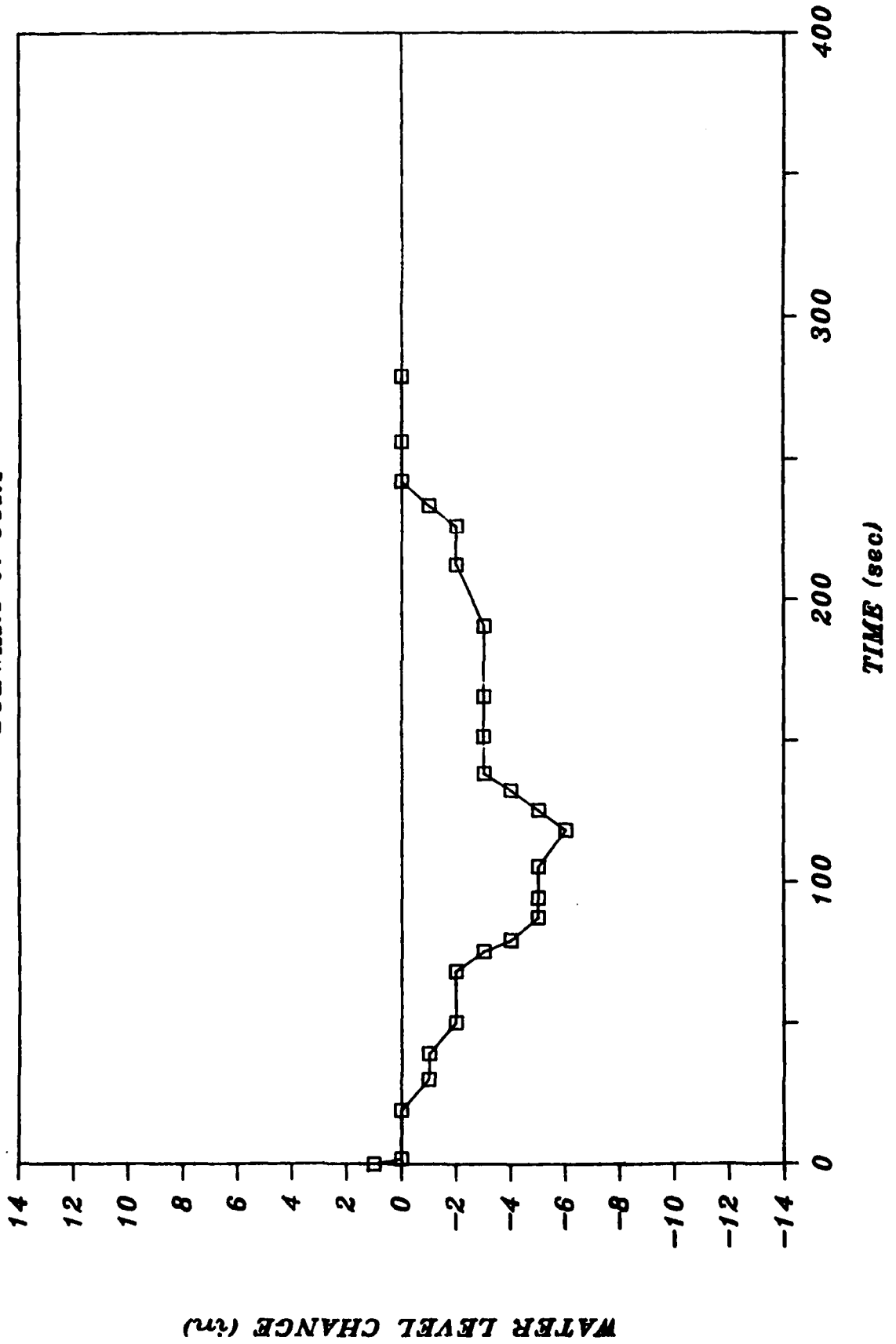
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	226.0	27.0	-2.0
22	233.0	28.0	-1.0
23	242.0	29.0	0.0
24	256.0	29.0	0.0
25	279.0	29.0	0.0

ISLAND VIEW (green)

STEWART J. CORT



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85

VESSEL NAME STEWART J. CORT

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 28

VESSEL SPEED in feet/sec. = 12.05

BOW ON TIME in sec = 64

STERN ON TIME in sec = 147

DISTANCE TO STAFF GAUGE from green side in feet = 2170

BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	2.0	24.0	-2.0
3	13.0	24.0	-2.0
4	17.0	23.0	-3.0
5	37.0	23.0	-3.0
6	45.0	22.0	-4.0
7	50.0	22.0	-4.0
8	65.0	23.0	-3.0
9	84.0	23.0	-3.0
10	93.0	22.0	-4.0
11	100.0	21.5	-4.5
12	105.0	21.0	-5.0
13	110.0	21.5	-4.5
14	120.0	22.0	-4.0
15	125.0	22.0	-4.0
16	127.0	23.0	-3.0
17	130.0	22.5	-3.5
18	135.0	22.0	-4.0
19	139.0	21.5	-4.5
20	150.0	21.0	-5.0

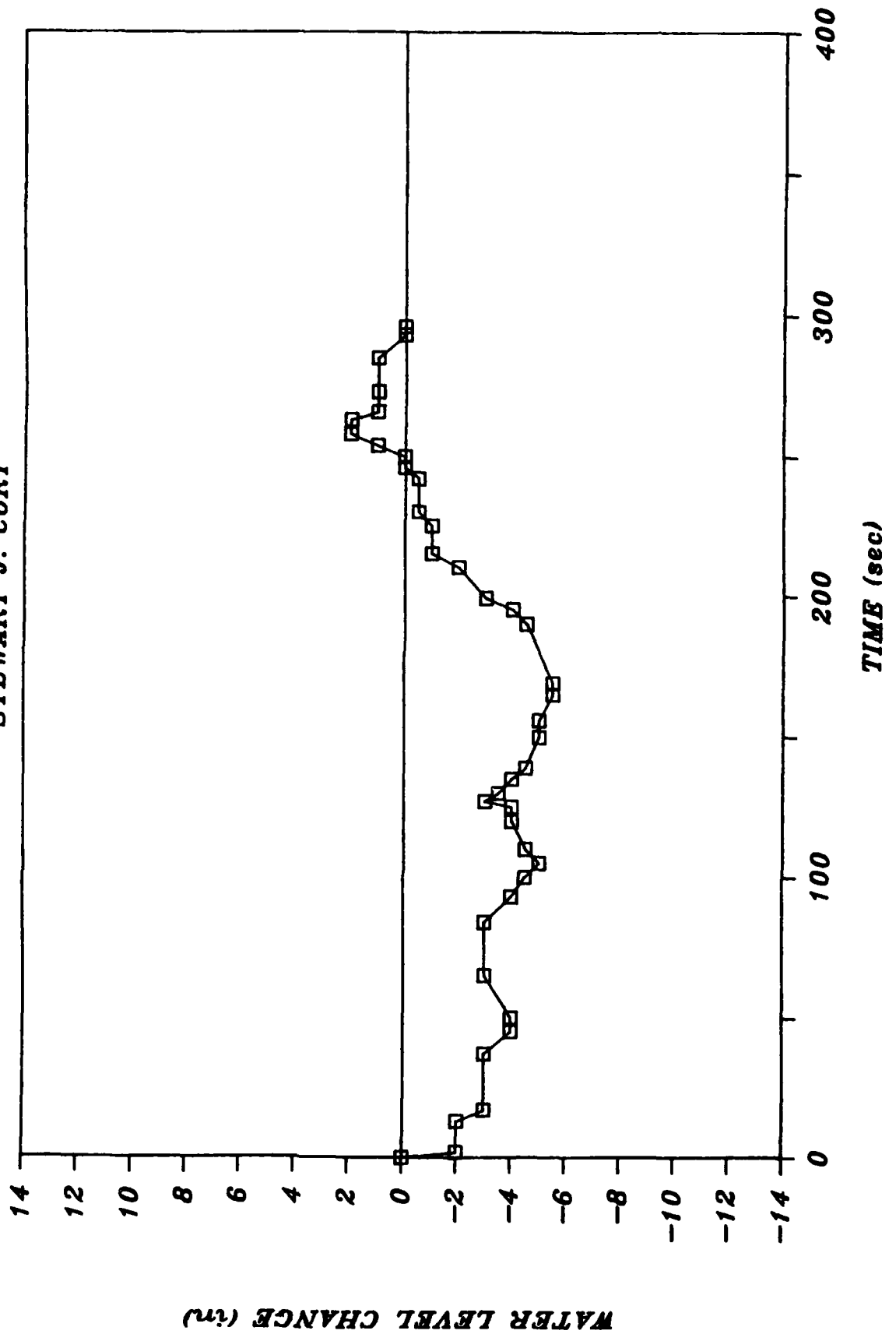
DRAWDOWN DATA (continued)

NAME OF SECTION ISLAND VIEW
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	156.0	21.0	-5.0
22	165.0	20.5	-5.5
23	169.0	20.5	-5.5
24	190.0	21.5	-4.5
25	195.0	22.0	-4.0
26	199.0	23.0	-3.0
27	210.0	24.0	-2.0
28	215.0	25.0	-1.0
29	225.0	25.0	-1.0
30	230.0	25.5	-0.5
31	242.0	25.5	-0.5
32	246.0	26.0	0.0
33	250.0	26.0	0.0
34	254.0	27.0	1.0
35	258.0	28.0	2.0
36	263.0	28.0	2.0
37	266.0	27.0	1.0
38	273.0	27.0	1.0
39	285.0	27.0	1.0
40	293.0	26.0	0.0
41	296.0	26.0	0.0

ISLAND VIEW (red)

STEWART J. CORT



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85

VESSEL NAME JOHN G. MUNSON

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 768

VESSEL BEAM in feet = 72

VESSEL DRAFT in feet = 26.5

VESSEL SPEED in feet/sec. = 10.24

BOW ON TIME in sec = 78

STERN ON TIME in sec = 153

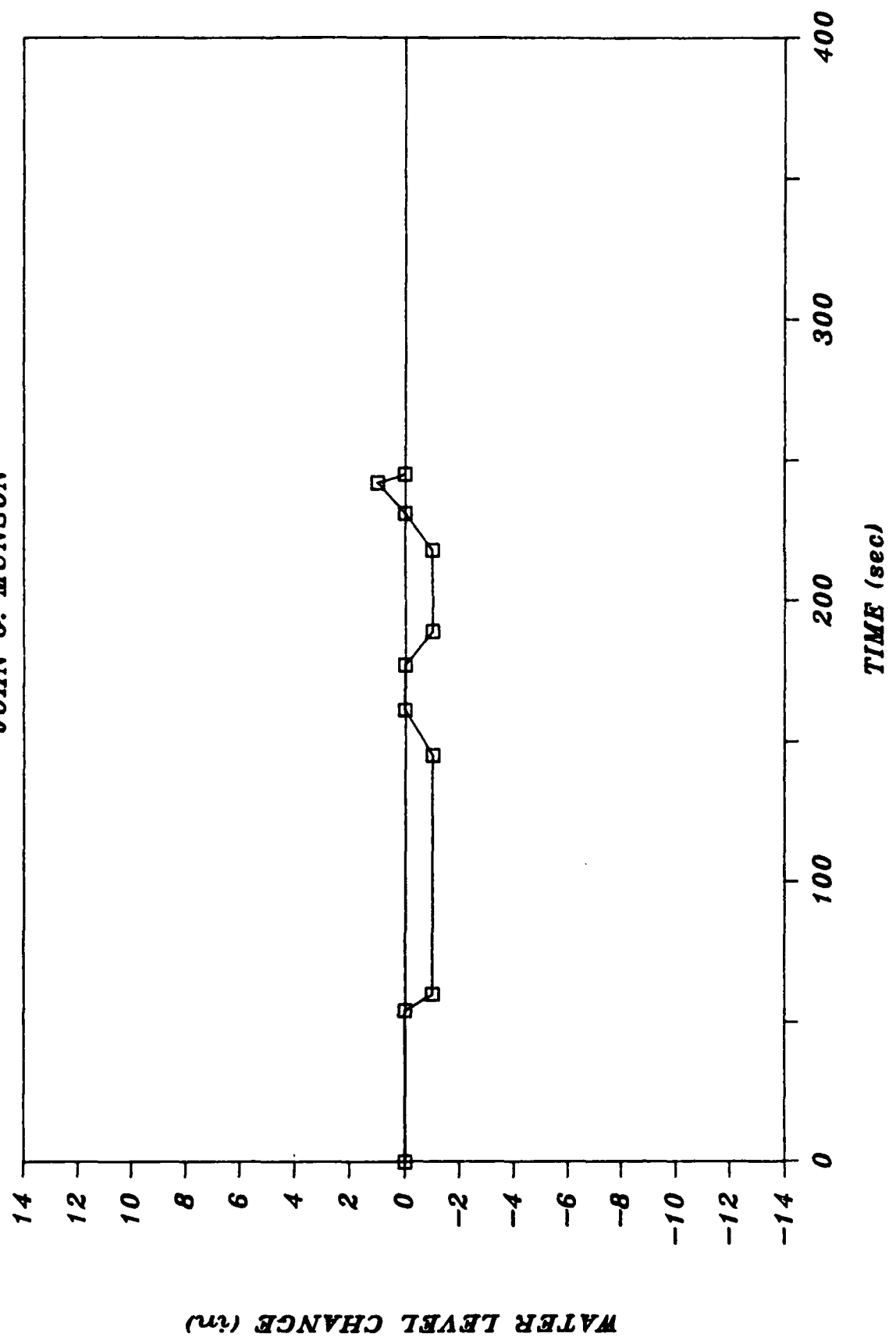
DISTANCE TO STAFF GAUGE from green side in feet = 50

BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	54.0	27.0	0.0
3	60.0	26.0	-1.0
4	145.0	26.0	-1.0
5	161.0	27.0	0.0
6	177.0	27.0	0.0
7	189.0	26.0	-1.0
8	218.0	26.0	-1.0
9	231.0	27.0	0.0
10	242.0	28.0	1.0
11	245.0	27.0	0.0

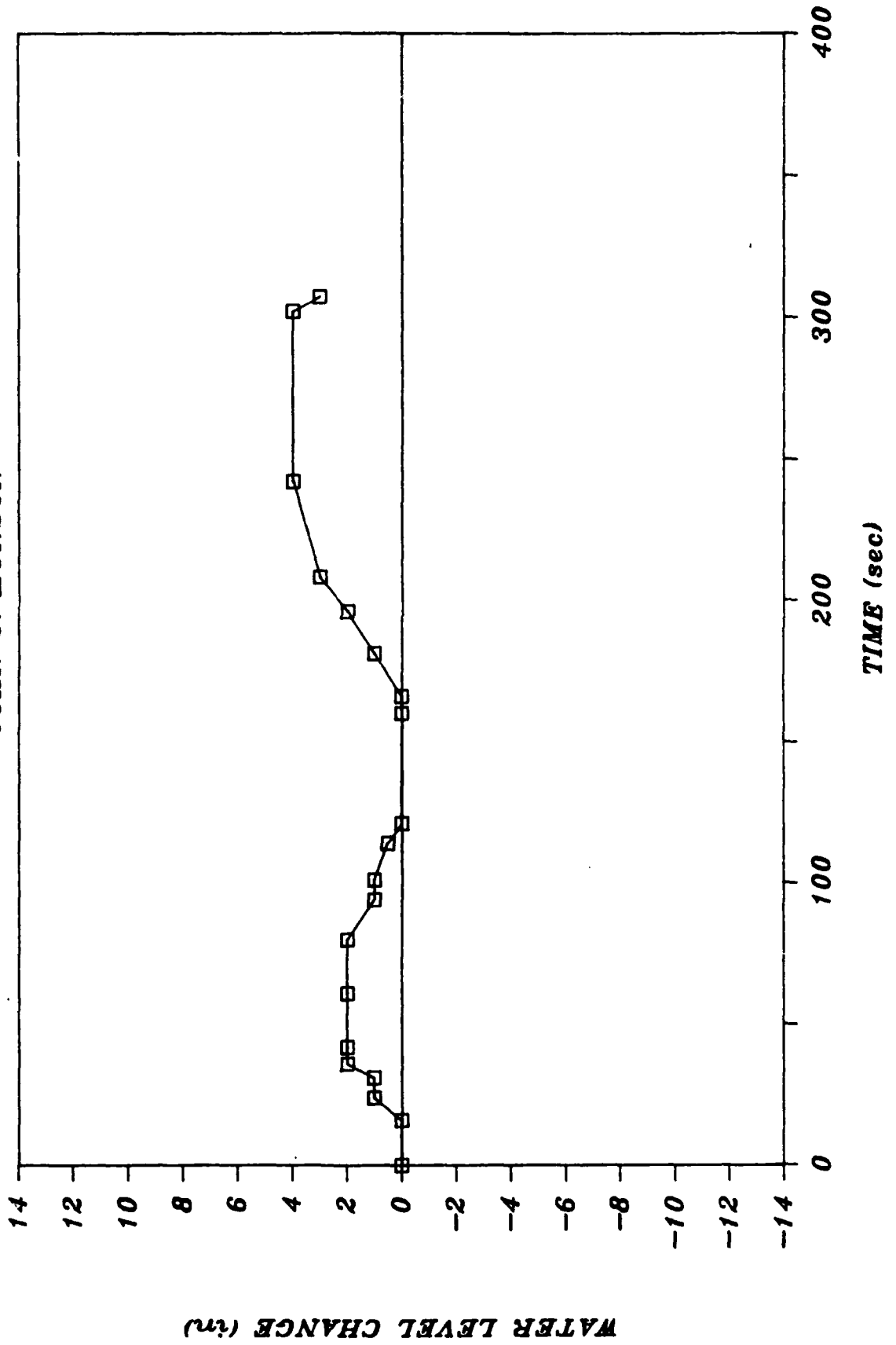
ISLAND VIEW (green)

JOHN C. MUNSON



ISLAND VIEW (red)

JOHN G. MUNSON



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85

VESSEL NAME PAUL THAYER

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 630

VESSEL BEAM in feet = 68

VESSEL DRAFT in feet = 26.5

VESSEL SPEED in feet/sec. = 13.4

BOW ON TIME in sec = 64

STERN ON TIME in sec = 111

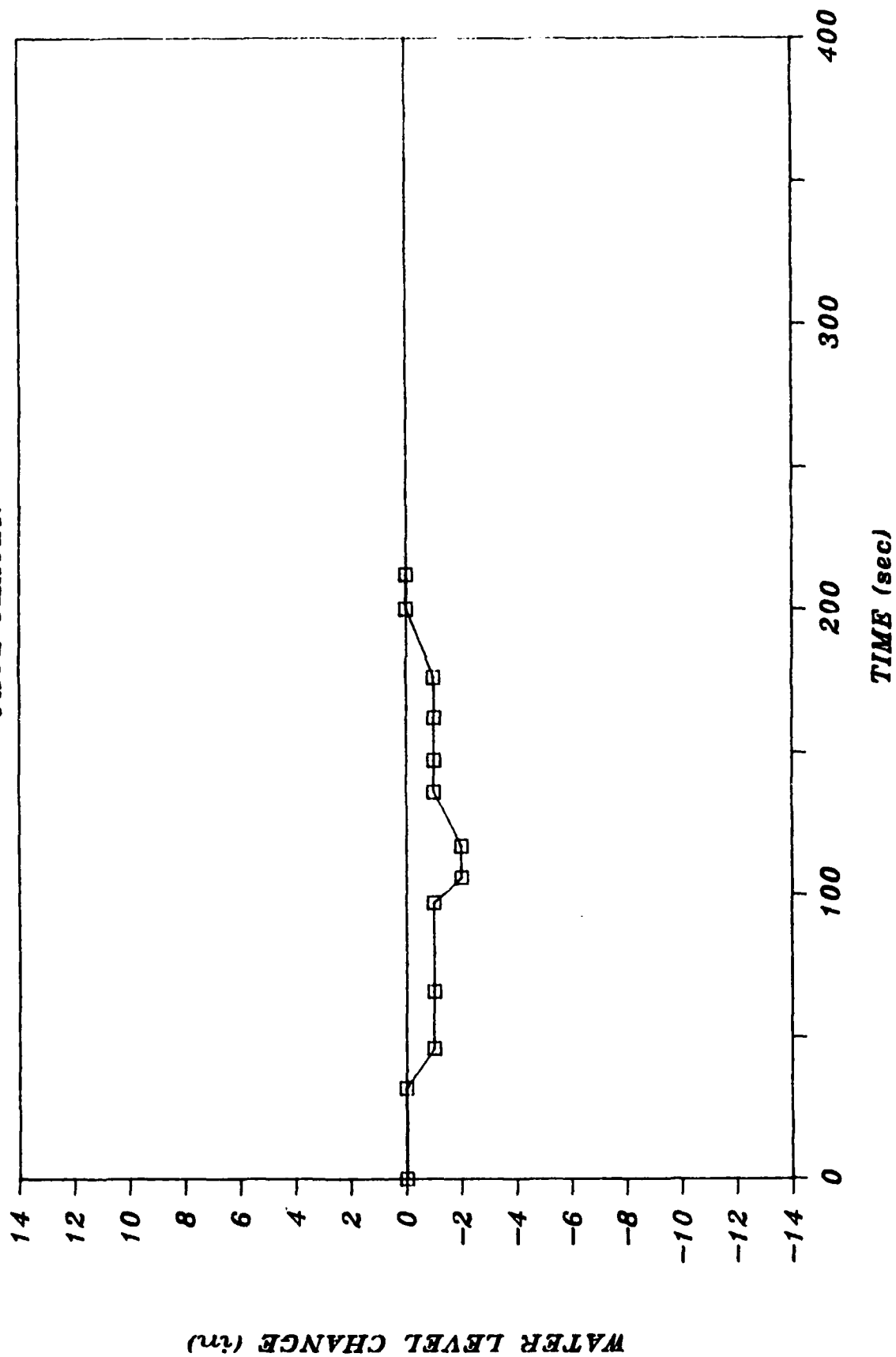
DISTANCE TO STAFF GAUGE from green side in feet = 50

BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	32.0	29.0	0.0
3	46.0	28.0	-1.0
4	66.0	28.0	-1.0
5	97.0	28.0	-1.0
6	106.0	27.0	-2.0
7	117.0	27.0	-2.0
8	136.0	28.0	-1.0
9	147.0	28.0	-1.0
10	162.0	28.0	-1.0
11	176.0	28.0	-1.0
12	200.0	29.0	0.0
13	212.0	29.0	0.0

ISLAND VIEW (green)

PAUL THAYER



DRAWDOWN DATA

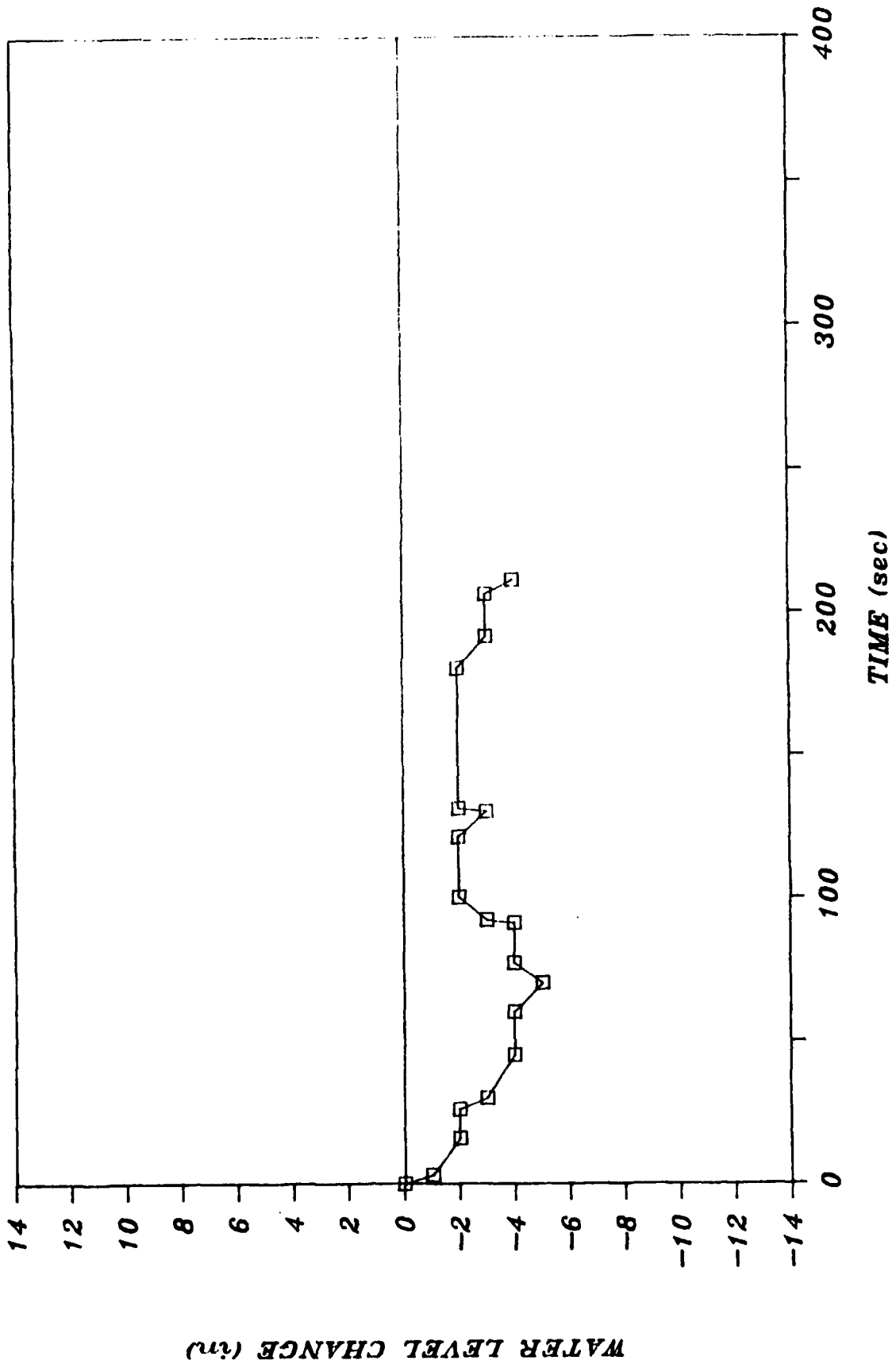
NAME OF SECTION ISLAND VIEW

DATE OF OBSERVATION 5/29/85
VESSEL NAME PAUL THAYER
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 630
VESSEL BEAM in feet = 68
VESSEL DRAFT in feet = 26.5
VESSEL SPEED in feet/sec. = 13.4
BOW ON TIME in sec = 64
STERN ON TIME in sec = 111
DISTANCE TO STAFF GAUGE from green side in feet = 2170
BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	3.0	26.0	-1.0
3	16.0	25.0	-2.0
4	26.0	25.0	-2.0
5	30.0	24.0	-3.0
6	45.0	23.0	-4.0
7	60.0	23.0	-4.0
8	70.0	22.0	-5.0
9	77.0	23.0	-4.0
10	91.0	23.0	-4.0
11	92.0	24.0	-3.0
12	100.0	25.0	-2.0
13	121.0	25.0	-2.0
14	130.0	24.0	-3.0
15	131.0	25.0	-2.0
16	180.0	25.0	-2.0
17	191.0	24.0	-3.0
18	206.0	24.0	-3.0
19	211.0	23.0	-4.0

ISLAND VIEW (red)

PAUL THAYER



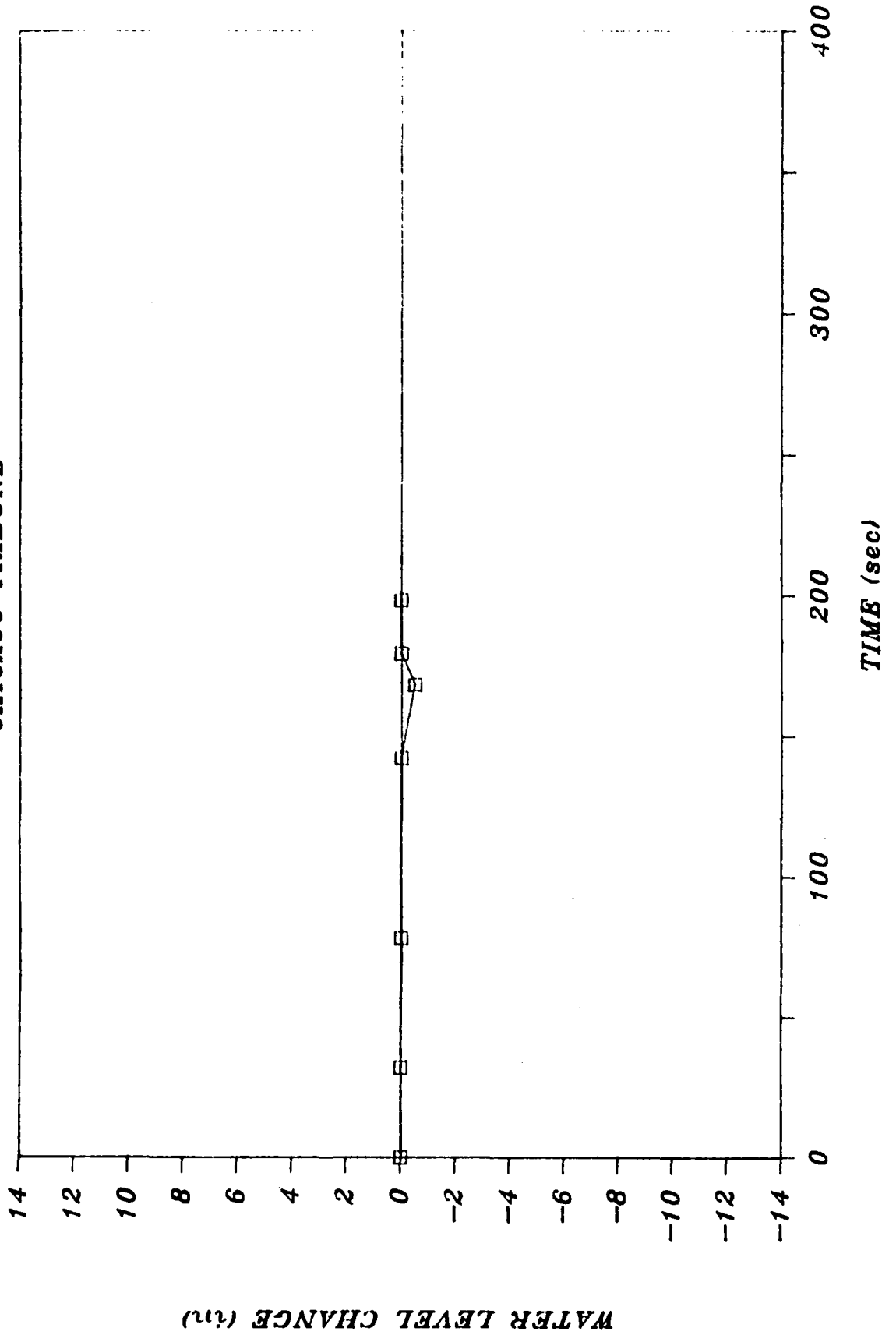
DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
#####

DATE OF OBSERVATION 5/29/85
VESSEL NAME CHICAGO TRIBUNE
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 319
VESSEL BEAM in feet = 44
VESSEL DRAFT in feet = 19.7
VESSEL SPEED in feet/sec. = 12.27
BOW ON TIME in sec = 77
STERN ON TIME in sec = 103
DISTANCE TO STAFF GAUGE from green side in feet = 50
BACKGROUND READING in inches = 28

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	28.0	0.0
2	32.0	28.0	0.0
3	78.0	28.0	0.0
4	142.0	28.0	0.0
5	168.0	27.5	-0.5
6	179.0	28.0	0.0
7	198.0	28.0	0.0

ISLAND VIEW (green)
CHICAGO TRIBUNE



DRAWDOWN DATA

NAME OF SECTION ISLAND VIEW
#####

DATE OF OBSERVATION 5/29/85

VESSEL NAME CHICAGO TRIBUNE

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 319

VESSEL BEAM in feet = 44

VESSEL DRAFT in feet = 19.7

VESSEL SPEED in feet/sec. = 12.27

BOW ON TIME in sec = 77

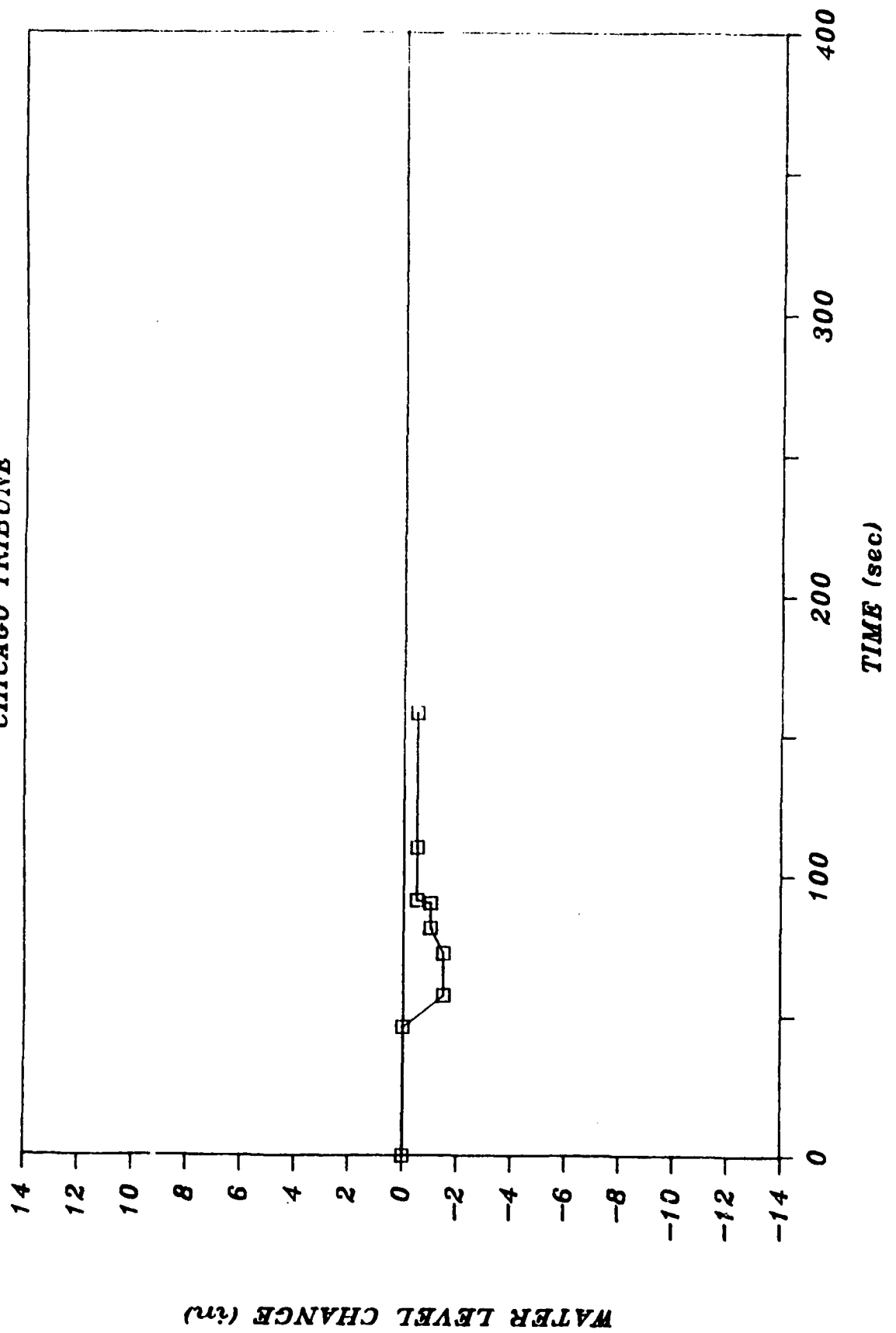
STERN ON TIME in sec = 103

DISTANCE TO STAFF GAUGE from green side in feet = 2170

BACKGROUND READING in inches = 25

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	25.0	0.0
2	46.0	25.0	0.0
3	57.0	23.5	-1.5
4	72.0	23.5	-1.5
5	81.0	24.0	-1.0
6	90.0	24.0	-1.0
7	91.0	24.5	-0.5
8	110.0	24.5	-0.5
9	158.0	24.5	-0.5

ISLAND VIEW (red)
CHICAGO TRIBUNE



BC124

NINE . MILE

DRAWDOWN DATA

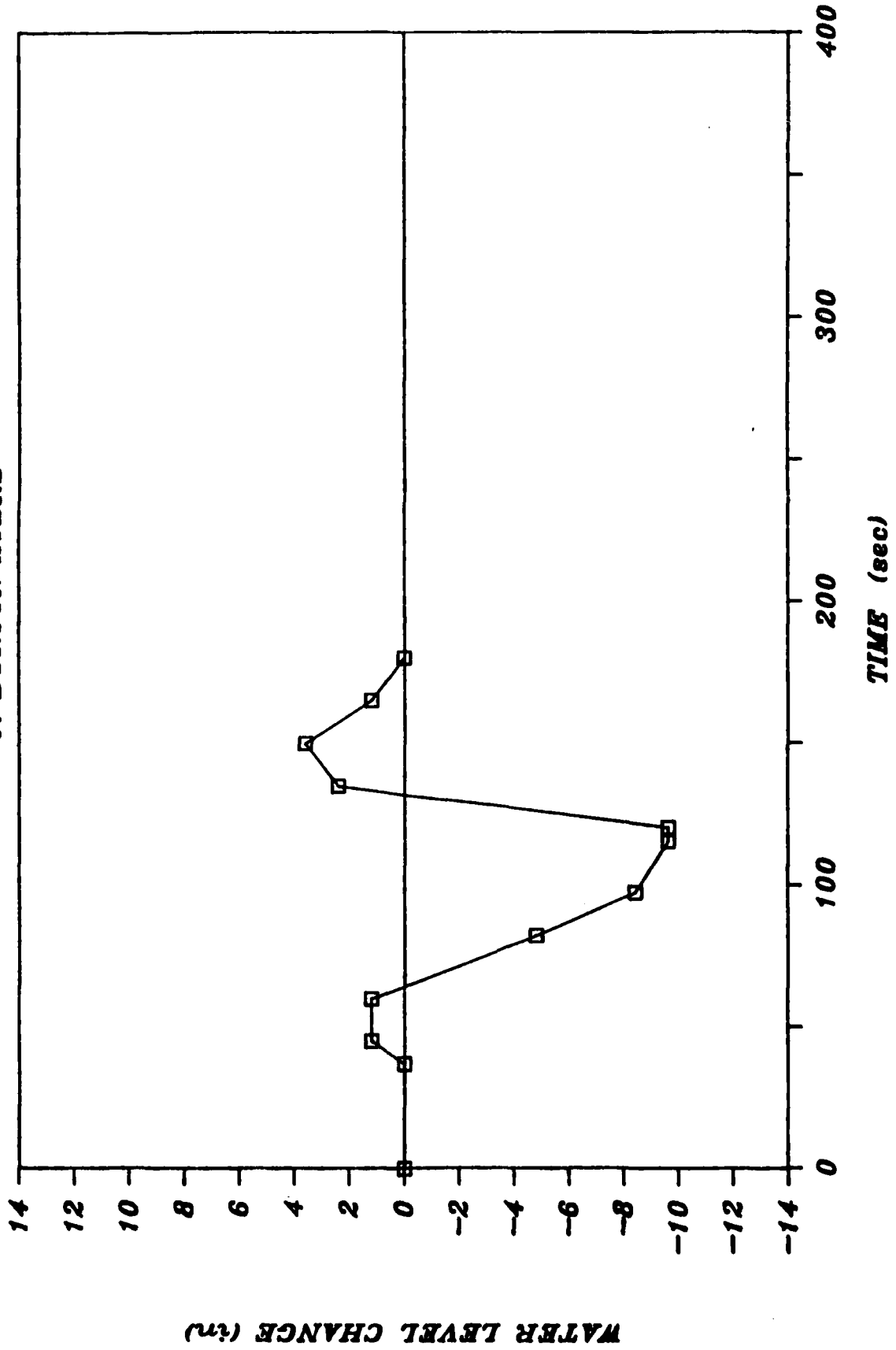
NAME OF SECTION NINE MILE

DATE OF OBSERVATION 10/15/77
VESSEL NAME J. BURTON AYERS
DIRECTION UPBOUND
VESSEL LENGTH in feet = 620
VESSEL BEAM in feet = 60
VESSEL DRAFT in feet = 23
VESSEL SPEED in feet/sec. = 15.5
BOW ON TIME in sec = 56
STERN ON TIME in sec = 96
DISTANCE TO STAFF GAUGE from green side in feet = 129red (R-7)
BACKGROUND READING in inches = 12

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	12.0	0.0
2	37.0	12.0	0.0
3	45.0	13.2	1.2
4	60.0	13.2	1.2
5	82.0	7.2	-4.8
6	97.0	3.6	-8.4
7	115.0	2.4	-9.6
8	120.0	2.4	-9.6
9	135.0	14.4	2.4
10	150.0	15.6	3.6
11	165.0	13.2	1.2
12	180.0	12.0	0.0

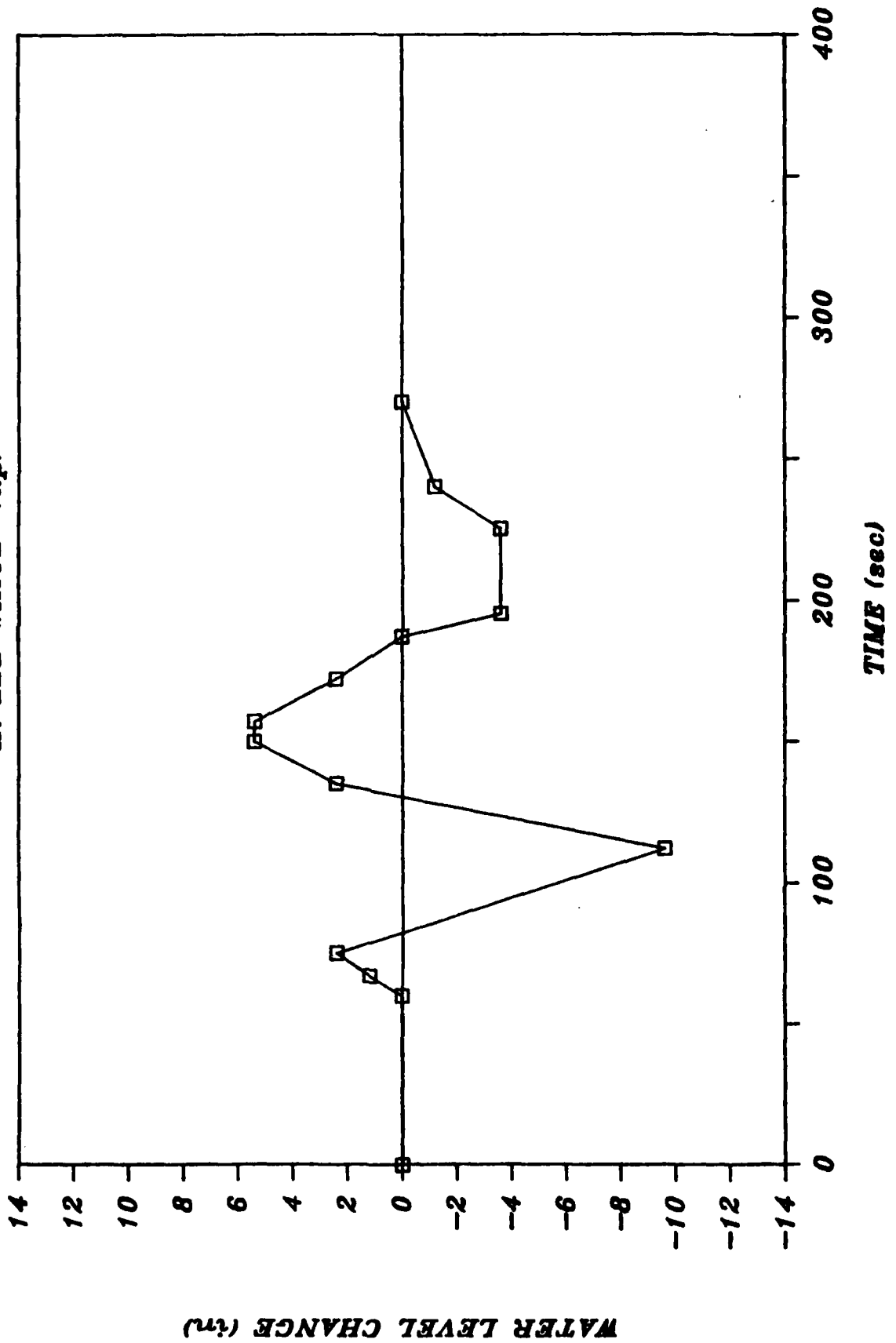
NINE MILE 10/15/77

J. BURTON AYERS



NINE MILE 10/15/77

H. LEB WHITE (wp)



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 10/15/77

VESSEL NAME COLLINGWOOD

DIRECTION UPBOUND

VESSEL LENGTH in feet = 332

VESSEL BEAM in feet = 44

VESSEL DRAFT in feet = 21

VESSEL SPEED in feet/sec. = 14.4

BOW ON TIME in sec = 67

STERN ON TIME in sec = 90

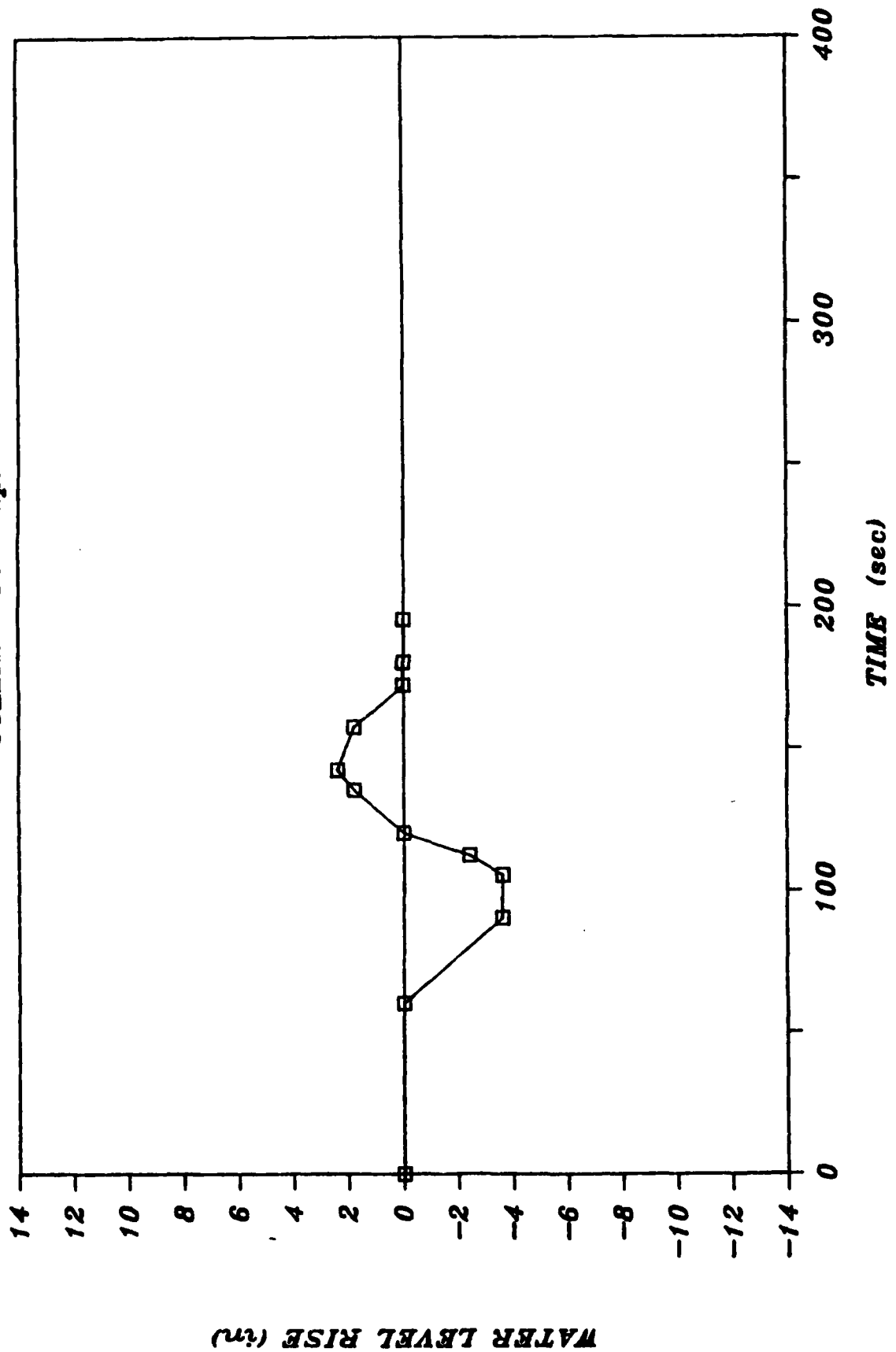
DISTANCE TO STAFF GAUGE from green side in feet = 129red (R-7)

BACKGROUND READING in inches = 12

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	12.0	0.0
2	60.0	12.0	0.0
3	90.0	8.4	-3.6
4	105.0	8.4	-3.6
5	112.0	9.6	-2.4
6	120.0	12.0	0.0
7	135.0	13.8	1.8
8	142.0	14.4	2.4
9	157.0	13.8	1.8
10	172.0	12.0	0.0
11	180.0	12.0	0.0
12	195.0	12.0	0.0

NINE MILE 10/15/77

COLLINGWOOD (usp)



@@
 DRAWDOWN DATA

NAME OF SECTION NINE MILE
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DATE OF OBSERVATION 11/3/84
 VESSEL NAME TARANTAU
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 26.5
 VESSEL SPEED in feet/sec. = 14.9
 BOW ON TIME in sec = 67
 STERN ON TIME in sec = 116
 DISTANCE TO STAFF GAUGE from green side in feet = 5794
 BACKGROUND READING in inches = 15

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	15.0	0.0
2	10.0	15.0	0.0
3	20.0	15.0	0.0
4	30.0	15.0	0.0
5	40.0	15.0	0.0
6	50.0	15.0	0.0
7	60.0	15.0	0.0
8	70.0	15.0	0.0
9	80.0	14.0	-1.0
10	89.0	14.0	-1.0
11	90.0	13.0	-2.0
12	91.0	12.0	-3.0
13	100.0	12.0	-3.0
14	110.0	11.0	-4.0
15	120.0	12.0	-3.0
16	129.0	12.0	-3.0
17	130.0	13.0	-2.0
18	140.0	13.0	-2.0
19	150.0	13.0	-2.0
20	160.0	14.0	-1.0

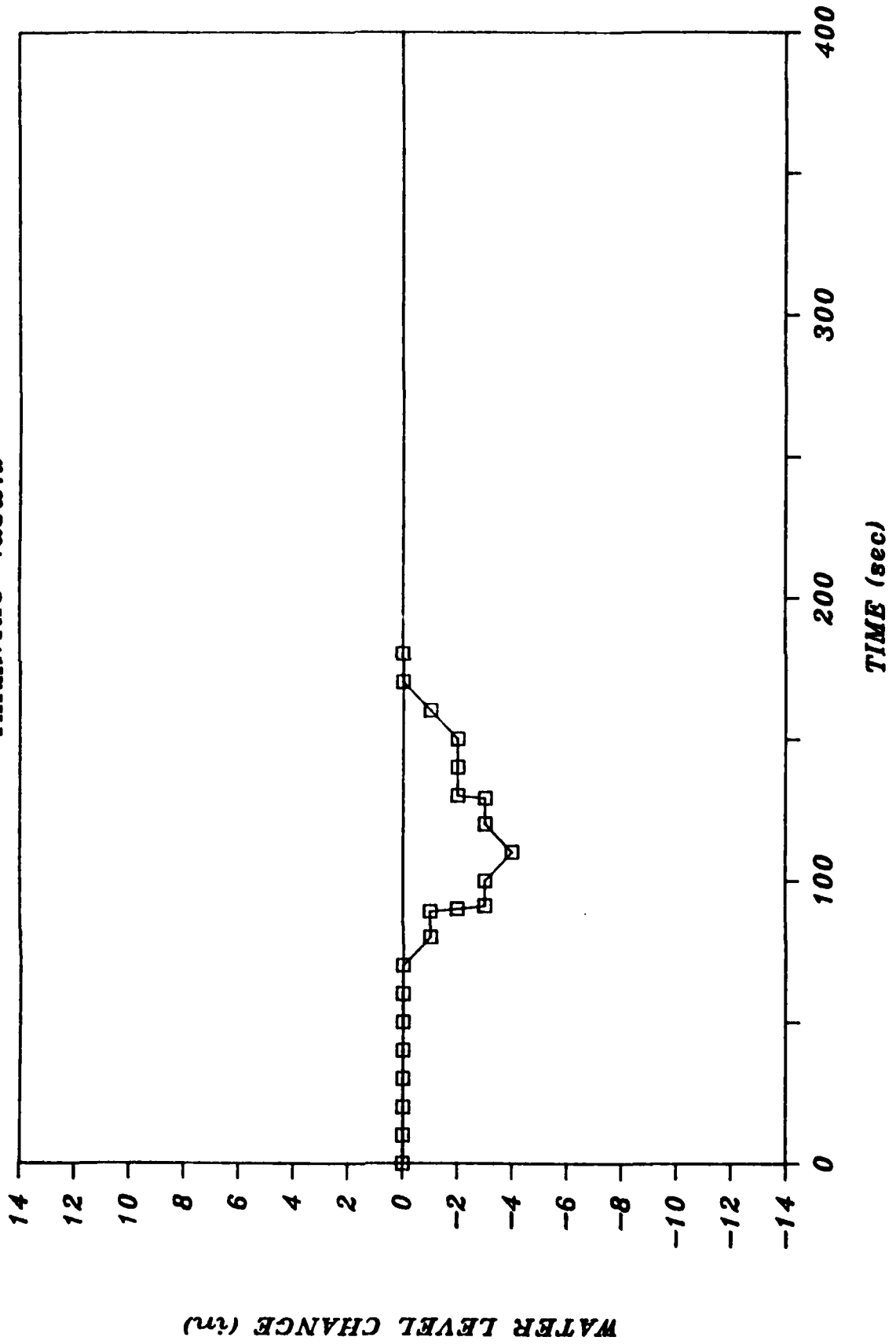
DRAWDOWN DATA (continued)

NAME OF SECTION NINE MILE

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	170.0	15.0	0.0
22	180.0	15.0	0.0
23	190.0	15.0	0.0

NINE MILE 11/3/84

TARANTAU (down)



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 11/3/84

VESSEL NAME TARANTAU

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 26.5

VESSEL SPEED in feet/sec. = 14.9

BOW ON TIME in sec = 67

STERN ON TIME in sec = 116

DISTANCE TO STAFF GAUGE from green side in feet = 5842

BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	15.0	1.0
2	2.0	14.0	0.0
3	10.0	14.0	0.0
4	11.0	15.0	1.0
5	19.0	14.0	0.0
6	20.0	13.0	-1.0
7	21.0	14.0	0.0
8	29.0	14.0	0.0
9	30.0	15.0	1.0
10	40.0	13.0	-1.0
11	60.0	13.0	-1.0
12	70.0	14.0	0.0
13	80.0	13.0	-1.0
14	89.0	13.0	-1.0
15	90.0	12.0	-2.0
16	100.0	11.0	-3.0
17	110.0	11.0	-3.0
18	120.0	12.0	-2.0
19	129.0	11.0	-3.0
20	130.0	12.0	-2.0

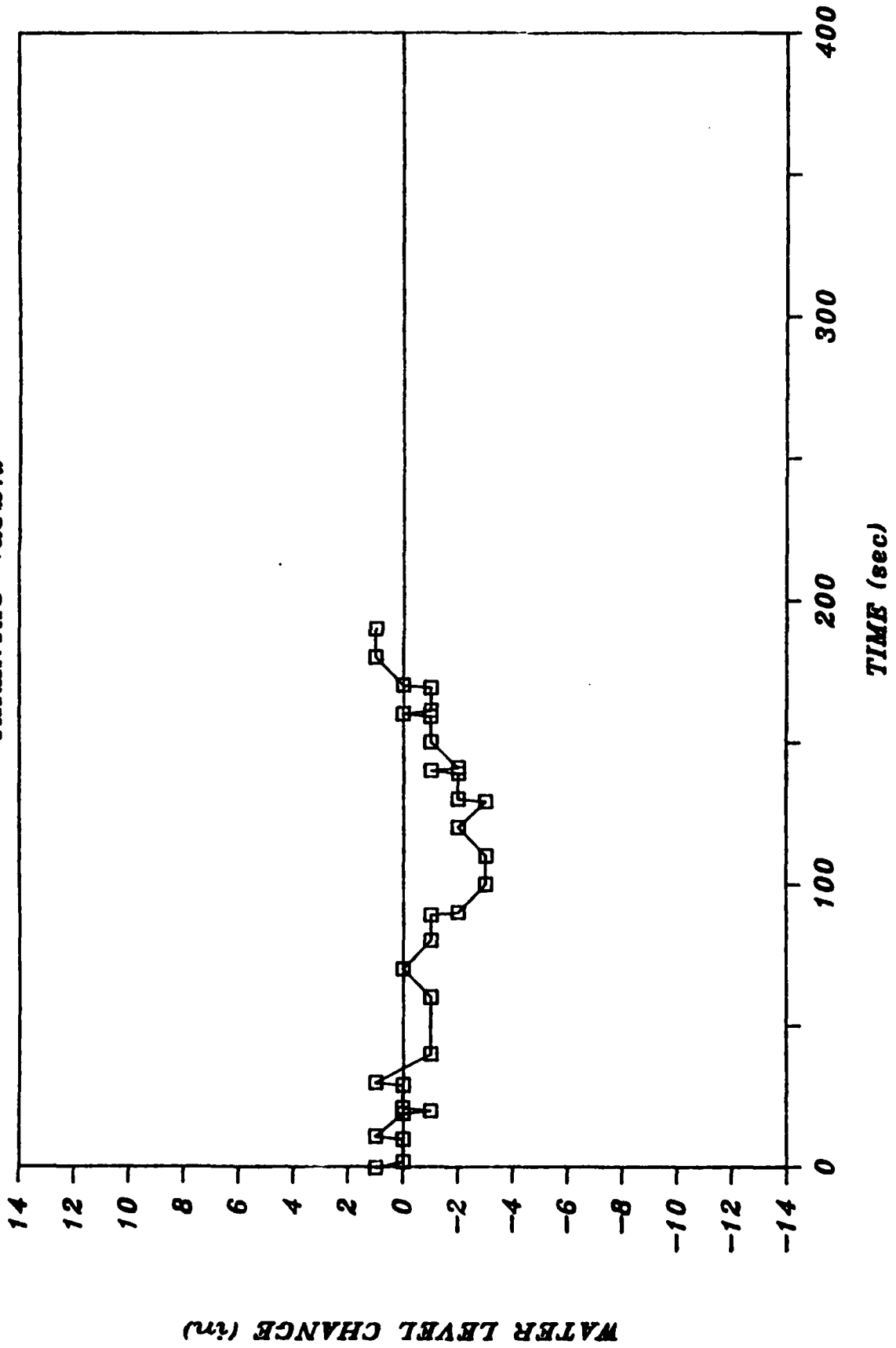
DRAWDOWN DATA (continued)

NAME OF SECTION NINE MILE

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	139.0	12.0	-2.0
22	140.0	13.0	-1.0
23	141.0	12.0	-2.0
24	150.0	13.0	-1.0
25	159.0	13.0	-1.0
26	160.0	14.0	0.0
27	161.0	13.0	-1.0
28	169.0	13.0	-1.0
29	170.0	14.0	0.0
30	180.0	15.0	1.0
31	190.0	15.0	1.0

NINE MILE 11/3/84

TARANTAU (down)



 DRAWDOWN DATA

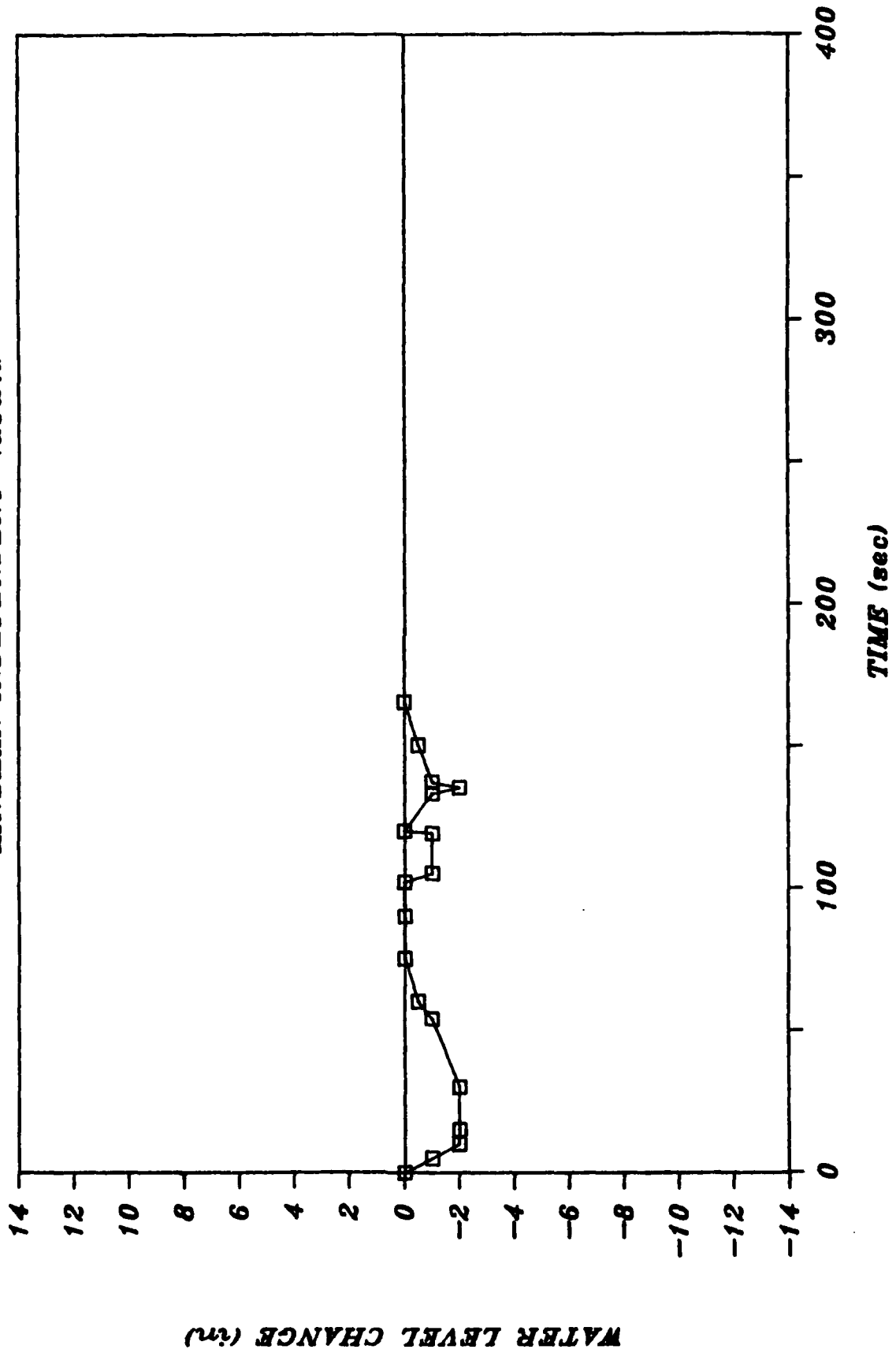
NAME OF SECTION NINE MILE

DATE OF OBSERVATION 11/3/84
 VESSEL NAME KINSMAN INDEPENDENT
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 600
 VESSEL BEAM in feet = 60
 VESSEL DRAFT in feet = 21
 VESSEL SPEED in feet/sec. = 12.5
 BOW ON TIME in sec = 54
 STERN ON TIME in sec = 102
 DISTANCE TO STAFF GAUGE from green side in feet = 5794
 BACKGROUND READING in inches = 15

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	15.0	0.0
2	5.0	14.0	-1.0
3	10.0	13.0	-2.0
4	15.0	13.0	-2.0
5	30.0	13.0	-2.0
6	54.0	14.0	-1.0
7	60.0	14.5	-0.5
8	75.0	15.0	0.0
9	90.0	15.0	0.0
10	102.0	15.0	0.0
11	105.0	14.0	-1.0
12	119.0	14.0	-1.0
13	120.0	15.0	0.0
14	133.0	14.0	-1.0
15	135.0	13.0	-2.0
16	137.0	14.0	-1.0
17	150.0	14.5	-0.5
18	165.0	15.0	0.0

NINE MILE 11/3/84

KINSMAN INDEPENDENT (down)



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 11/3/84

VESSEL NAME KINSMAN INDEPENDENT

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 600

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 21

VESSEL SPEED in feet/sec. = 12.5

BOW ON TIME in sec = 54

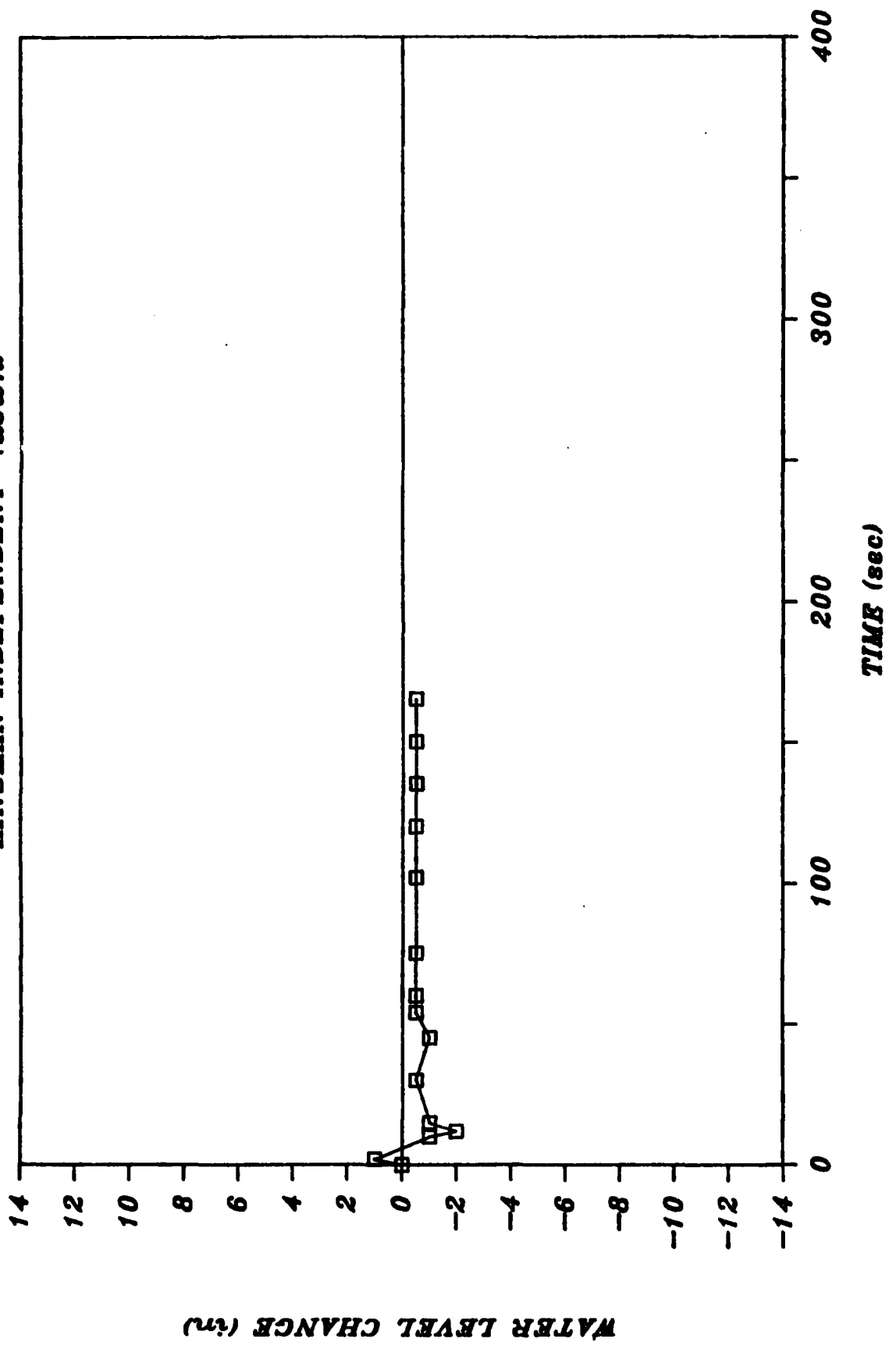
STERN ON TIME in sec = 102

DISTANCE TO STAFF GAUGE from green side in feet = 5842

BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	2.0	15.0	1.0
3	10.0	13.0	-1.0
4	12.0	12.0	-2.0
5	15.0	13.0	-1.0
6	30.0	13.5	-0.5
7	45.0	13.0	-1.0
8	54.0	13.5	-0.5
9	60.0	13.5	-0.5
10	75.0	13.5	-0.5
11	102.0	13.5	-0.5
12	120.0	13.5	-0.5
13	135.0	13.5	-0.5
14	150.0	13.5	-0.5
15	165.0	13.5	-0.5

NINE MILE 11/3/84
KINSMAN INDEPENDENT (down)



DRAWDOWN DATA

NAME OF SECTION NINE MILE
#####

DATE OF OBSERVATION 5/22/85

VESSEL NAME SASKATCHEWAN PIONEER

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75.75

VESSEL DRAFT in feet = 22

VESSEL SPEED in feet/sec. = 12.17

BOW ON TIME in sec = 64

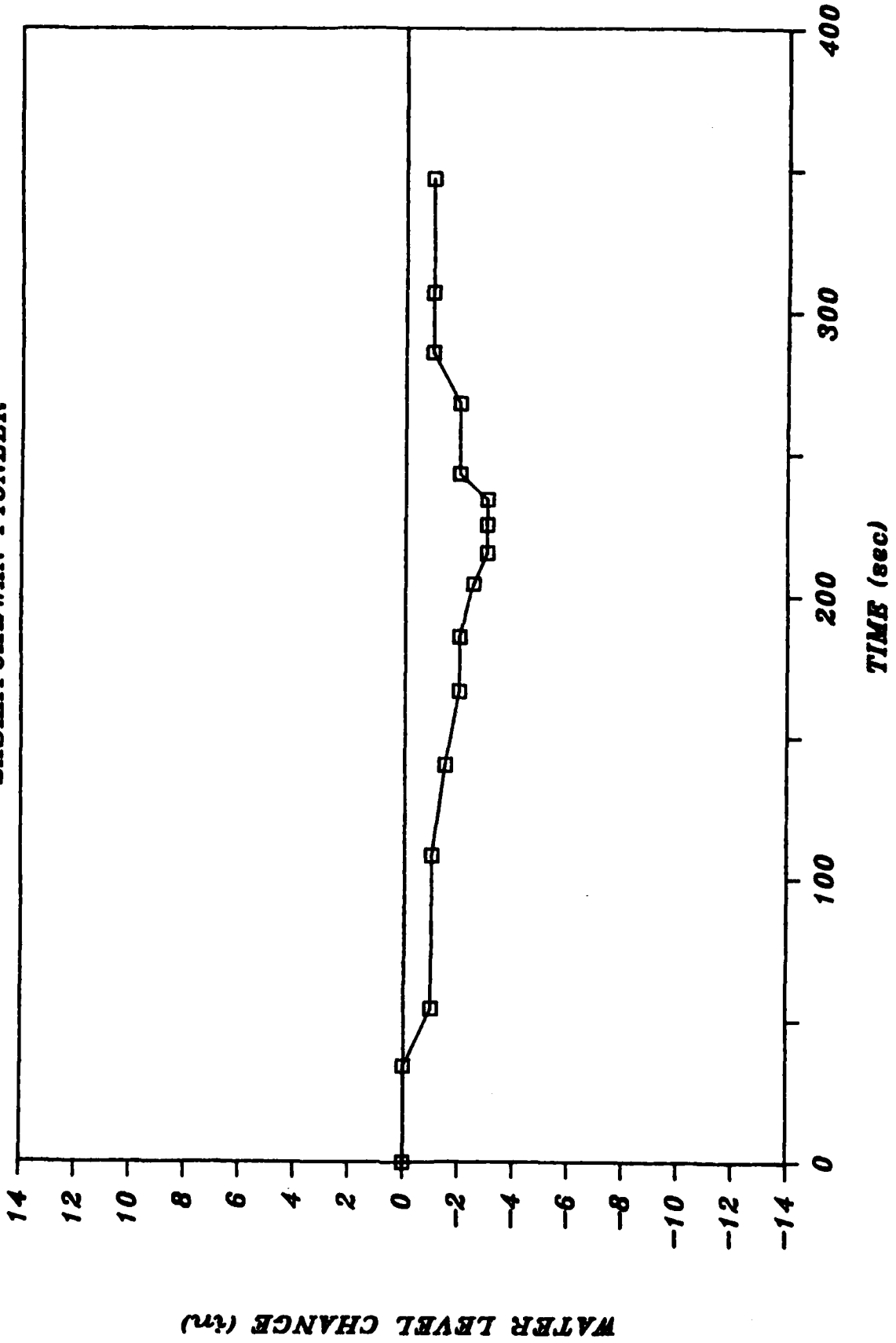
STERN ON TIME in sec = 124

DISTANCE TO STAFF GAUGE from green side in feet = 250

BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	34.0	19.0	0.0
3	54.0	18.0	-1.0
4	108.0	18.0	-1.0
5	140.0	17.5	-1.5
6	166.0	17.0	-2.0
7	185.0	17.0	-2.0
8	204.0	16.5	-2.5
9	215.0	16.0	-3.0
10	225.0	16.0	-3.0
11	234.0	16.0	-3.0
12	243.0	17.0	-2.0
13	268.0	17.0	-2.0
14	286.0	18.0	-1.0
15	307.0	18.0	-1.0
16	347.0	18.0	-1.0

NINE MILE (green)
SASKATCHEWAN PIONEER



 DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 5/22/85

VESSEL NAME SASKACHEWAN PIONEER

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75.75

VESSEL DRAFT in feet = 22

VESSEL SPEED in feet/sec. = 12.17

BOW ON TIME in sec = 64

STERN ON TIME in sec = 124

DISTANCE TO STAFF GAUGE from green side in feet = 5800

BACKGROUND READING in inches = 28

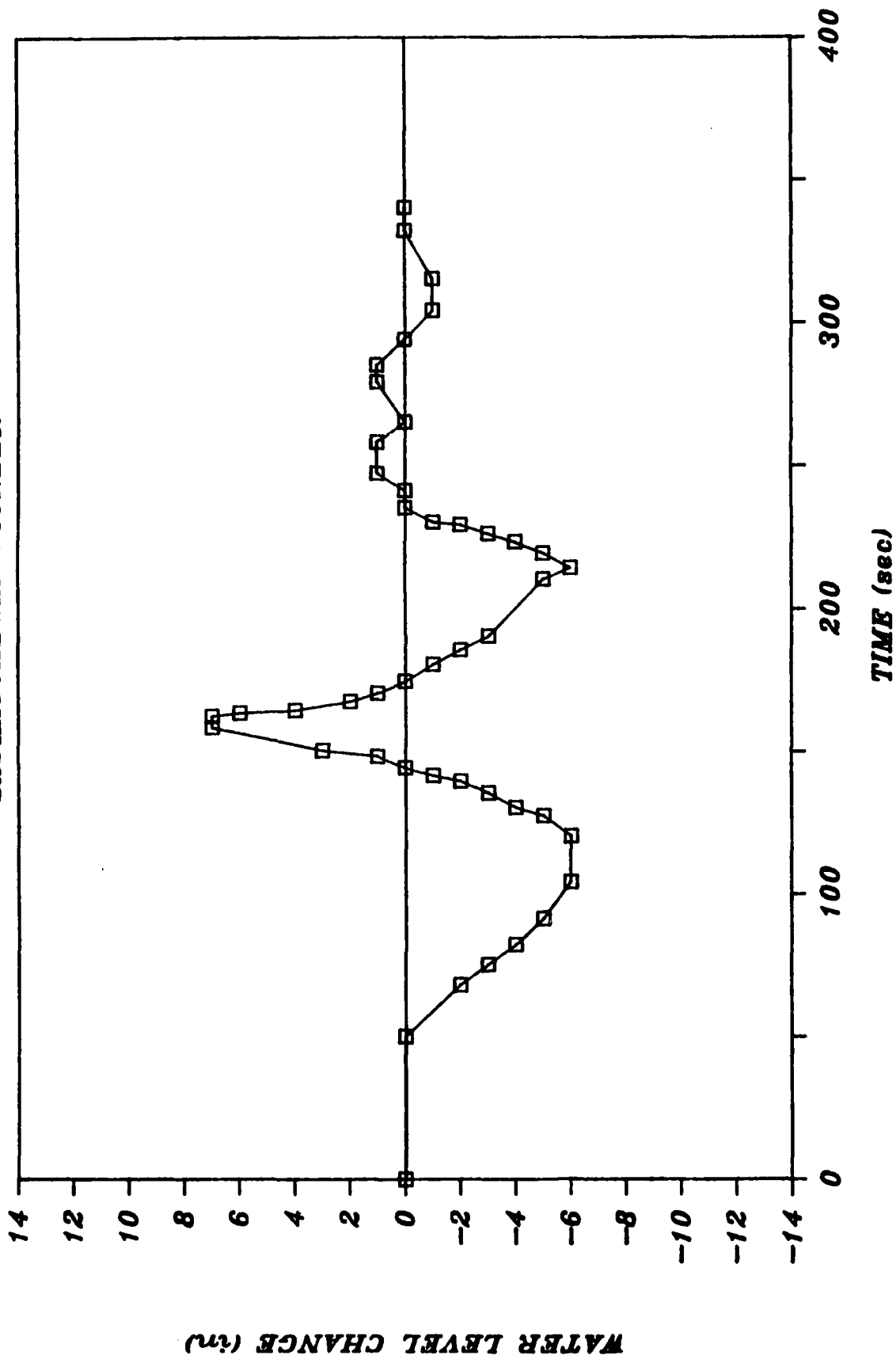
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	28.0	0.0
2	50.0	28.0	0.0
3	68.0	26.0	-2.0
4	75.0	25.0	-3.0
5	82.0	24.0	-4.0
6	91.0	23.0	-5.0
7	104.0	22.0	-6.0
8	120.0	22.0	-6.0
9	127.0	23.0	-5.0
10	130.0	24.0	-4.0
11	135.0	25.0	-3.0
12	139.0	26.0	-2.0
13	141.0	27.0	-1.0
14	144.0	28.0	0.0
15	148.0	29.0	1.0
16	150.0	31.0	3.0
17	158.0	35.0	7.0
18	162.0	35.0	7.0
19	163.0	34.0	6.0
20	164.0	32.0	4.0

DRAWDOWN DATA (continued)

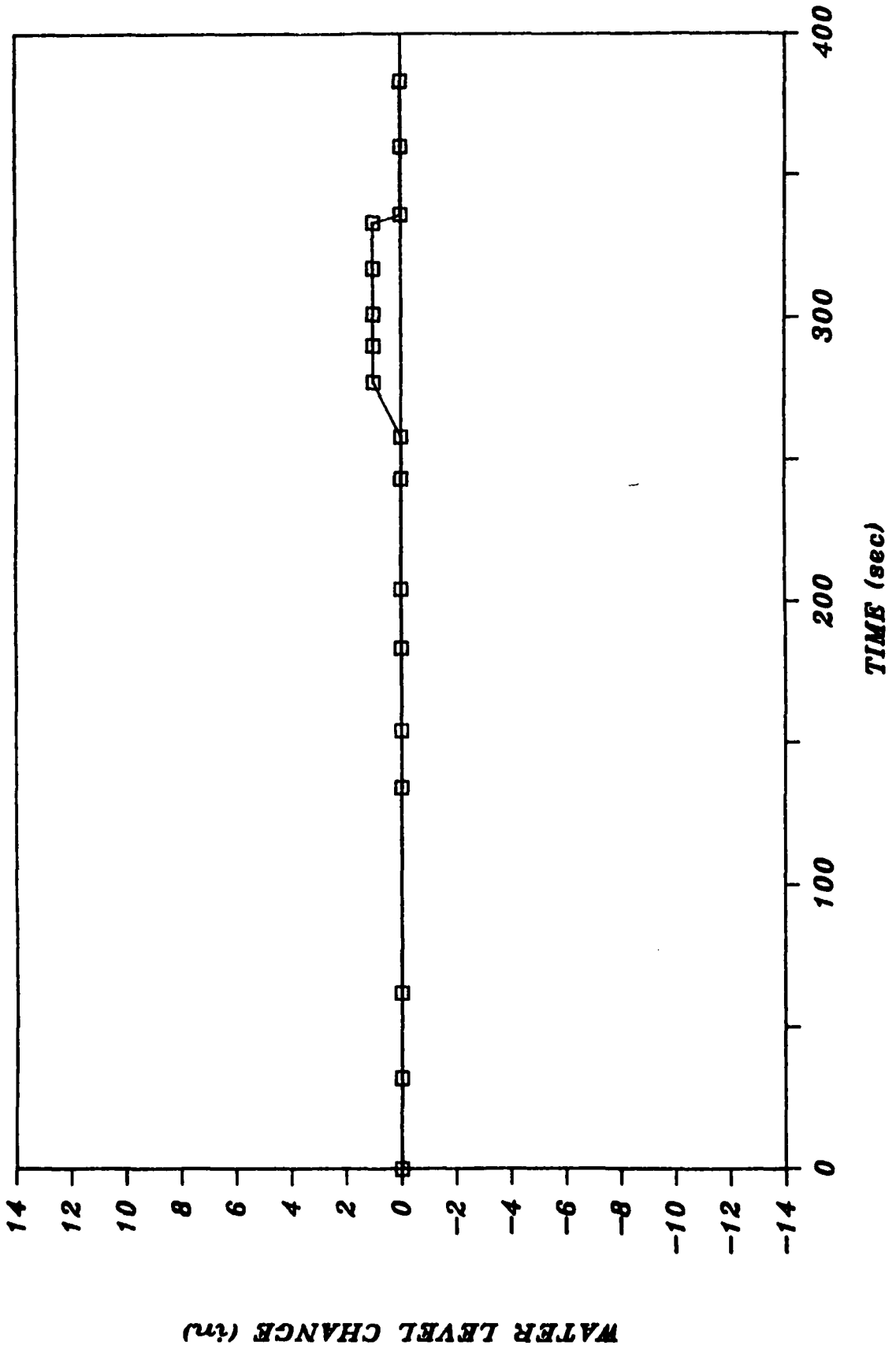
NAME OF SECTION NINE MILE

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	167.0	30.0	2.0
22	170.0	29.0	1.0
23	174.0	28.0	0.0
24	180.0	27.0	-1.0
25	185.0	26.0	-2.0
26	190.0	25.0	-3.0
27	210.0	23.0	-5.0
28	214.0	22.0	-6.0
29	219.0	23.0	-5.0
30	223.0	24.0	-4.0
31	226.0	25.0	-3.0
32	229.0	26.0	-2.0
33	230.0	27.0	-1.0
34	235.0	28.0	0.0
35	241.0	28.0	0.0
36	247.0	29.0	1.0
37	258.0	29.0	1.0
38	265.0	28.0	0.0
39	279.0	29.0	1.0
40	285.0	29.0	1.0
41	294.0	28.0	0.0
42	304.0	27.0	-1.0
43	315.0	27.0	-1.0
44	332.0	28.0	0.0
45	340.0	28.0	0.0

NINE MILE (red)
SASKATCHEWAN PIONEER



NINE MILE (green)
TARANTAU



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 5/22/85

VESSEL NAME TAURANTAU

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 24

VESSEL SPEED in feet/sec. = 13.04

BOW ON TIME in sec = 124

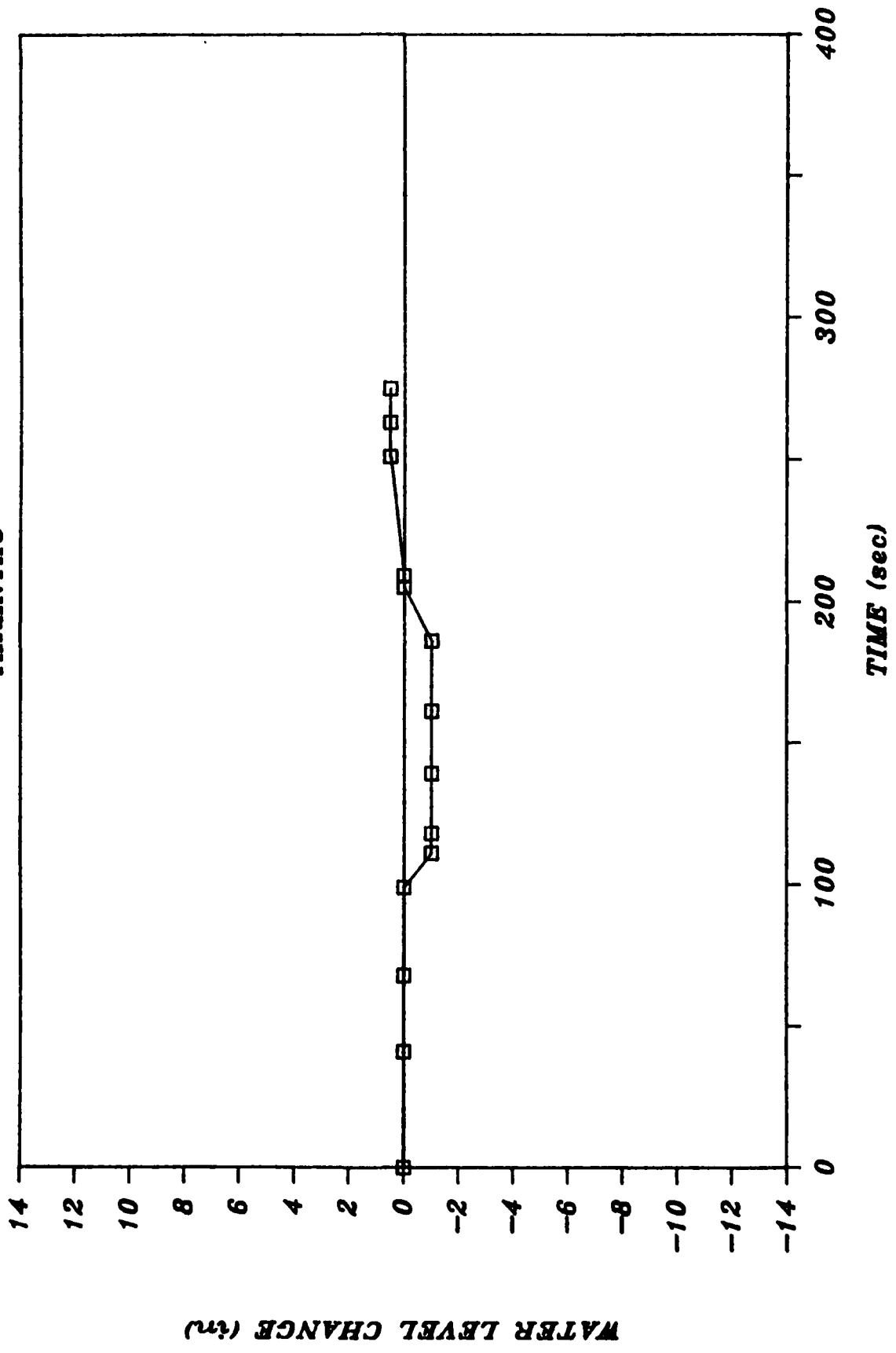
STERN ON TIME in sec = 180

DISTANCE TO STAFF GAUGE from green side in feet = 5800

BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	41.0	27.0	0.0
3	68.0	27.0	0.0
4	99.0	27.0	0.0
5	111.0	26.0	-1.0
6	118.0	26.0	-1.0
7	139.0	26.0	-1.0
8	161.0	26.0	-1.0
9	186.0	26.0	-1.0
10	205.0	27.0	0.0
11	209.0	27.0	0.0
12	251.0	27.5	0.5
13	263.0	27.5	0.5
14	275.0	27.5	0.5

NINE MILE (red)
TARANTAU



DRAWDOWN DATA

NAME OF SECTION NINE MILE
#####

DATE OF OBSERVATION 5/22/85

VESSEL NAME HERBERT C. JACKSON

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 690

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 27.5

VESSEL SPEED in feet/sec. = 14.08

BOW ON TIME in sec = 64

STERN ON TIME in sec = 113

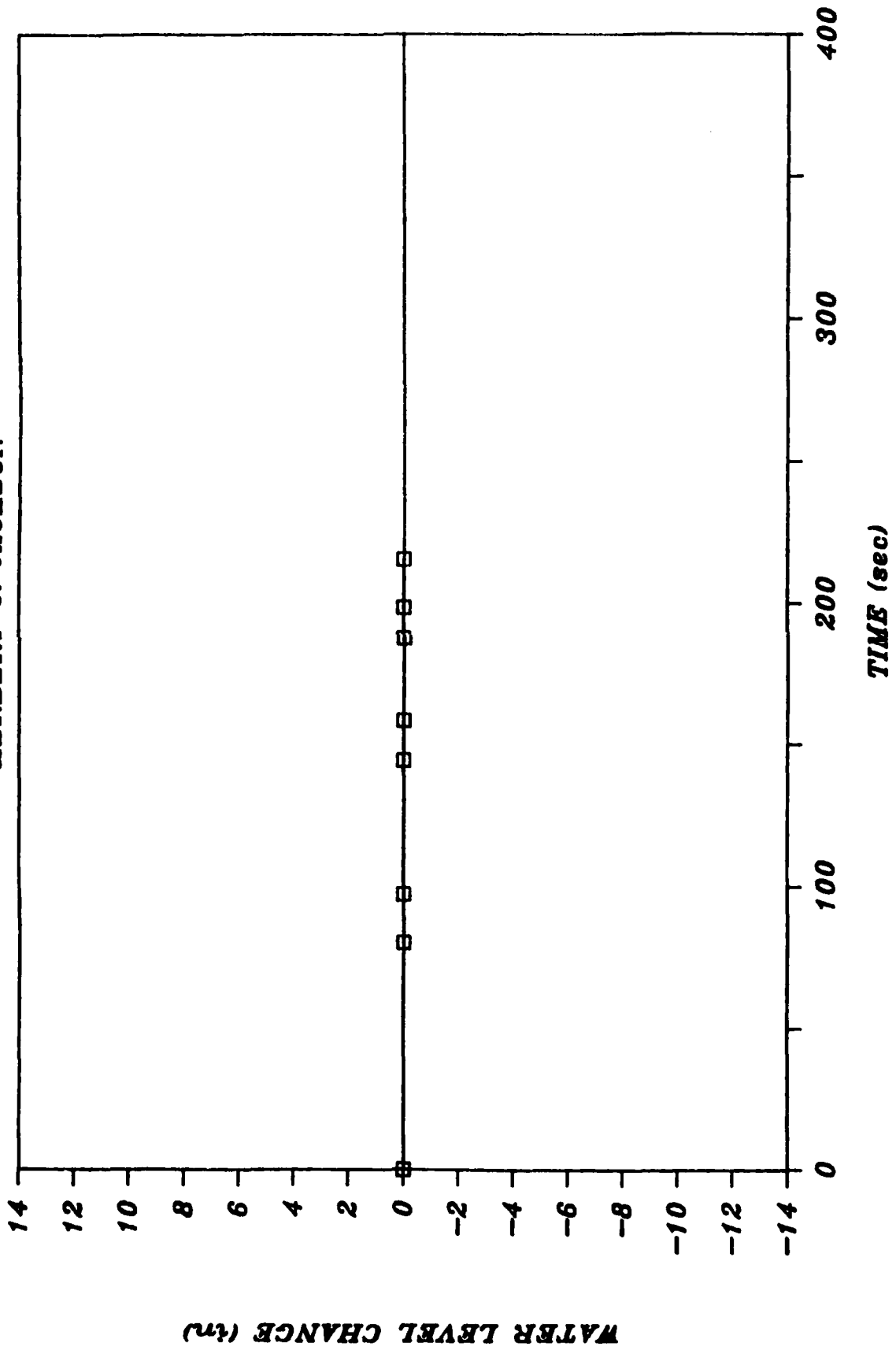
DISTANCE TO STAFF GAUGE from green side in feet = 250

BACKGROUND READING in inches = 18

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	18.0	0.0
2	80.0	18.0	0.0
3	97.0	18.0	0.0
4	144.0	18.0	0.0
5	158.0	18.0	0.0
6	187.0	18.0	0.0
7	198.0	18.0	0.0
8	215.0	18.0	0.0

NINE MILE (green)

HERBERT C. JACKSON



DRAWDOWN DATA

NAME OF SECTION NINE MILE
#####

DATE OF OBSERVATION 5/22/85

VESSEL NAME HERBERT C. JACKSON

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 690

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 27.5

VESSEL SPEED in feet/sec. = 14.08

BOW ON TIME in sec = 64

STERN ON TIME in sec = 113

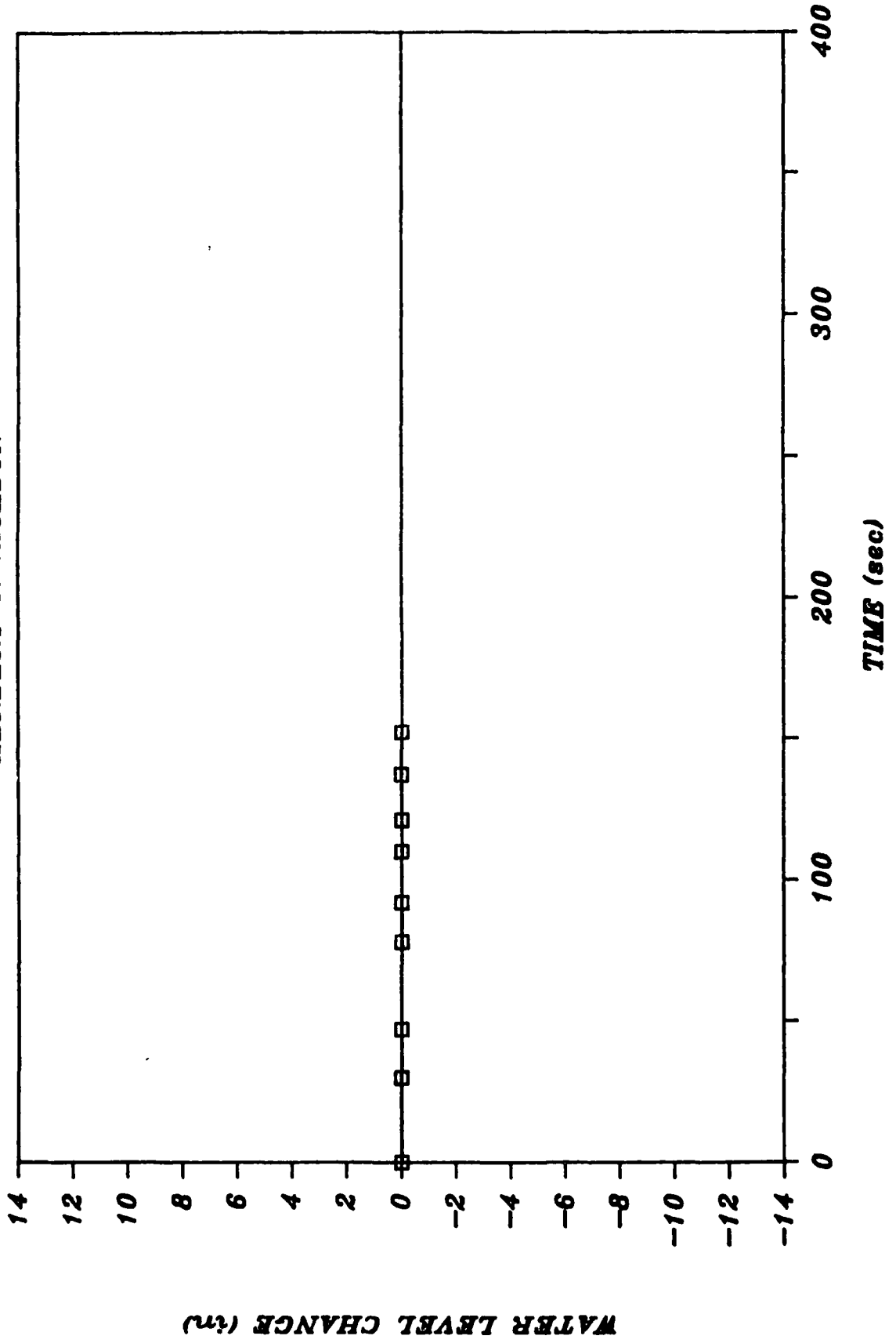
DISTANCE TO STAFF GAUGE from green side in feet = 5800

BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	30.0	27.0	0.0
3	47.0	27.0	0.0
4	78.0	27.0	0.0
5	92.0	27.0	0.0
6	110.0	27.0	0.0
7	121.0	27.0	0.0
8	137.0	27.0	0.0
9	152.0	27.0	0.0

NINE MILE (red)

HERBERT C. JACKSON



DRAWDOWN DATA
 NAME OF SECTION NINE MILE

DATE OF OBSERVATION 5/22/85
 VESSEL NAME JENSEN STAR
 DIRECTION UPBOUND
 VESSEL LENGTH in feet = 404
 VESSEL BEAM in feet = 60
 VESSEL DRAFT in feet = 14.5
 VESSEL SPEED in feet/sec. = 17.57
 BOW ON TIME in sec = 49
 STERN ON TIME in sec = 72
 DISTANCE TO STAFF GAUGE from green side in feet = 5800
 BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	52.0	27.0	0.0
3	77.0	27.0	0.0
4	83.0	26.5	-0.5
5	88.0	26.0	-1.0
6	93.0	25.0	-2.0
7	100.0	24.0	-3.0
8	112.0	24.0	-3.0
9	129.0	26.0	-1.0
10	131.0	27.0	0.0
11	140.0	28.0	1.0
12	146.0	29.0	2.0
13	165.0	29.0	2.0
14	178.0	28.0	1.0
15	183.0	28.0	1.0
16	189.0	27.0	0.0
17	198.0	26.0	-1.0
18	206.0	25.0	-2.0
19	211.0	25.0	-2.0
20	218.0	26.0	-1.0

7

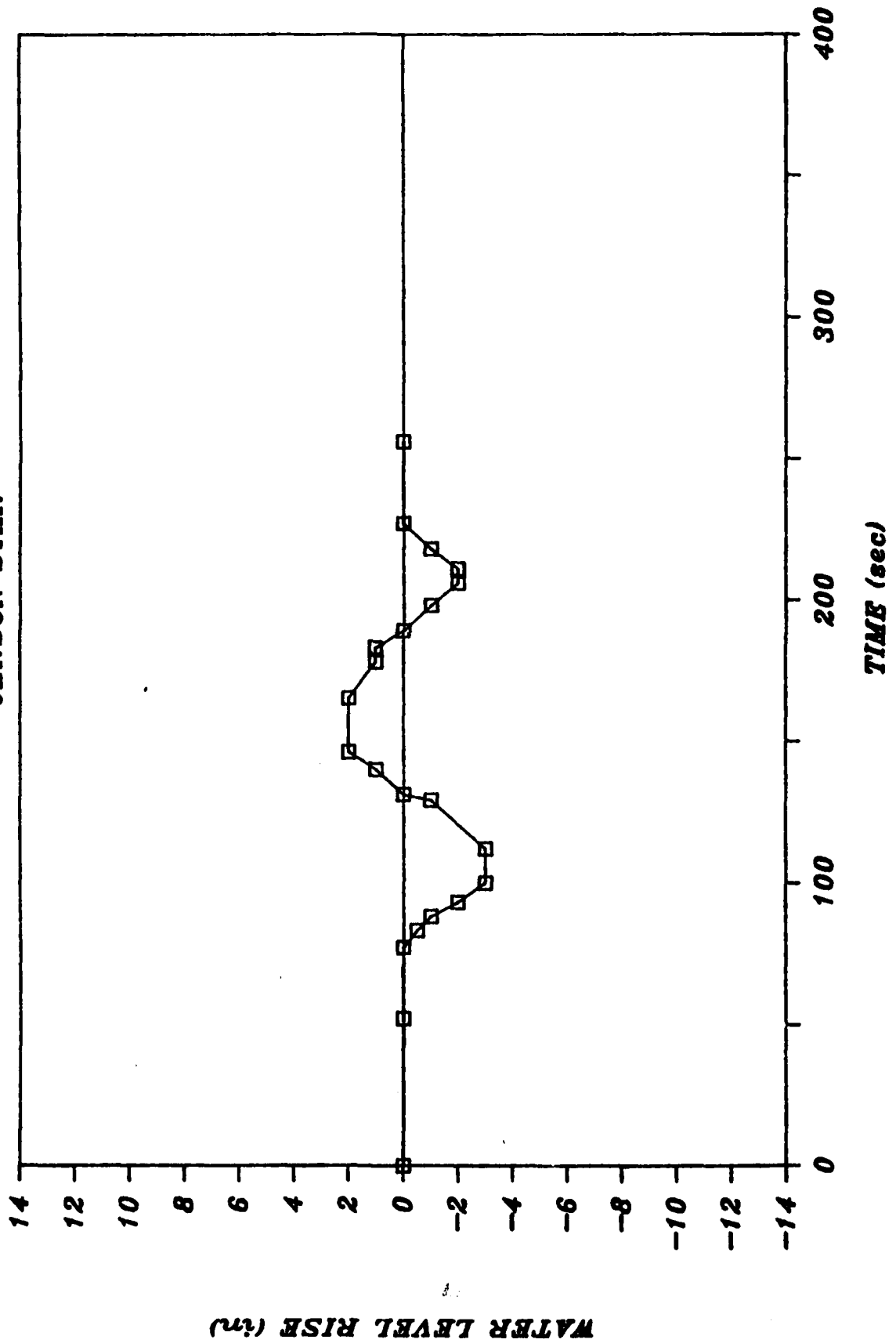
DRAWDOWN DATA (continued)

NAME OF SECTION NINE MILE

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	227.0	27.0	0.0
22	256.0	27.0	0.0

NINE MILE (red)

JENSON STAR



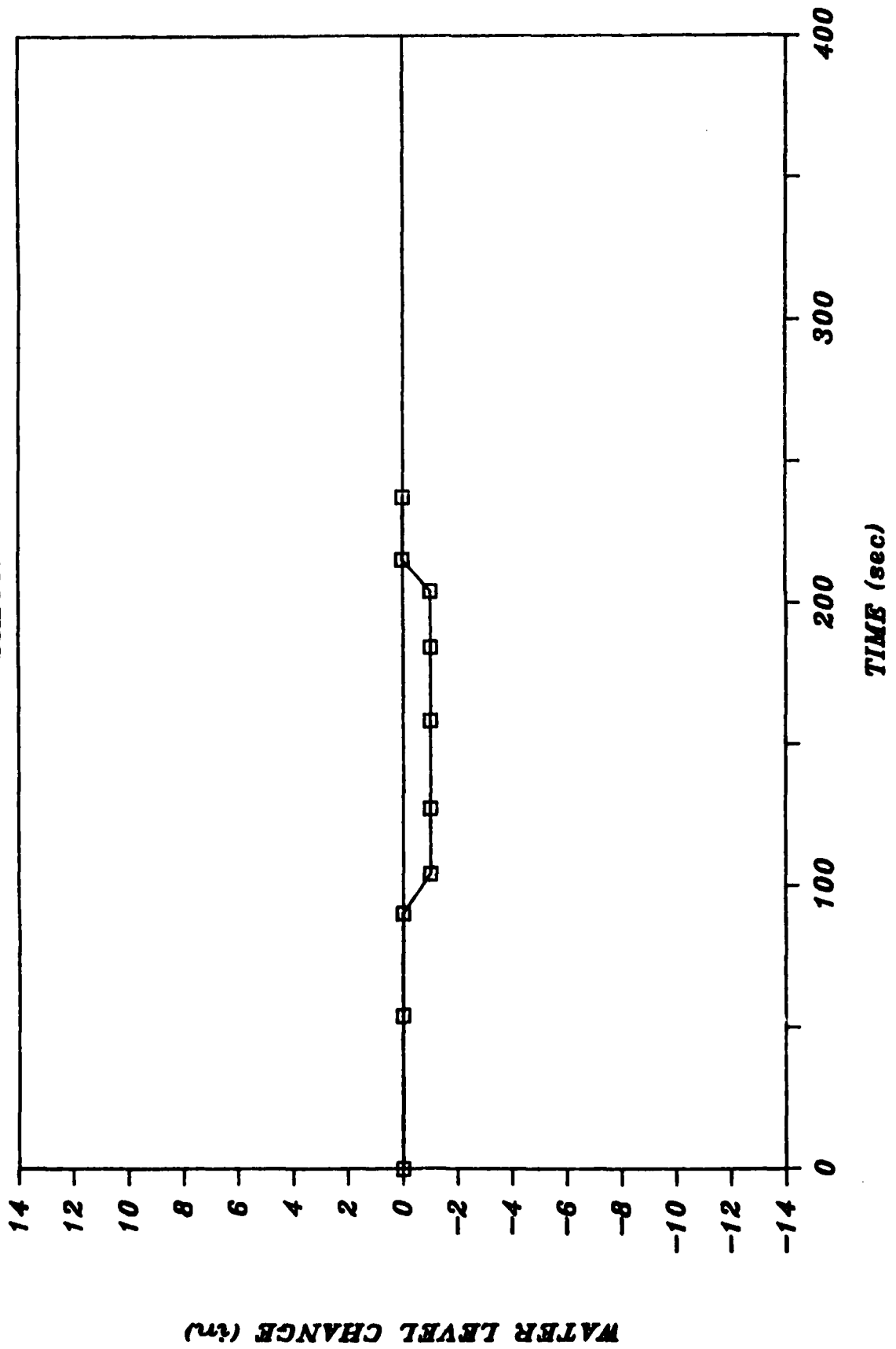
DRAWDOWN DATA

NAME OF SECTION NINE MILE
#####

DATE OF OBSERVATION 5/23/85
VESSEL NAME SIMCOE
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 25.5
VESSEL SPEED in feet/sec. = 13.27
BOW ON TIME in sec = 99
STERN ON TIME in sec = 154
DISTANCE TO STAFF GAUGE from green side in feet = 5800
BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	54.0	27.0	0.0
3	90.0	27.0	0.0
4	104.0	26.0	-1.0
5	127.0	26.0	-1.0
6	158.0	26.0	-1.0
7	184.0	26.0	-1.0
8	204.0	26.0	-1.0
9	215.0	27.0	0.0
10	237.0	27.0	0.0

NINE MILE (red) SIMCOE



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 5/23/85

VESSEL NAME J.A.W. IGLEHART

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 502

VESSEL BEAM in feet = 68

VESSEL DRAFT in feet =

VESSEL SPEED in feet/sec. = 13.94

BOW ON TIME in sec = 125

STERN ON TIME in sec = 161

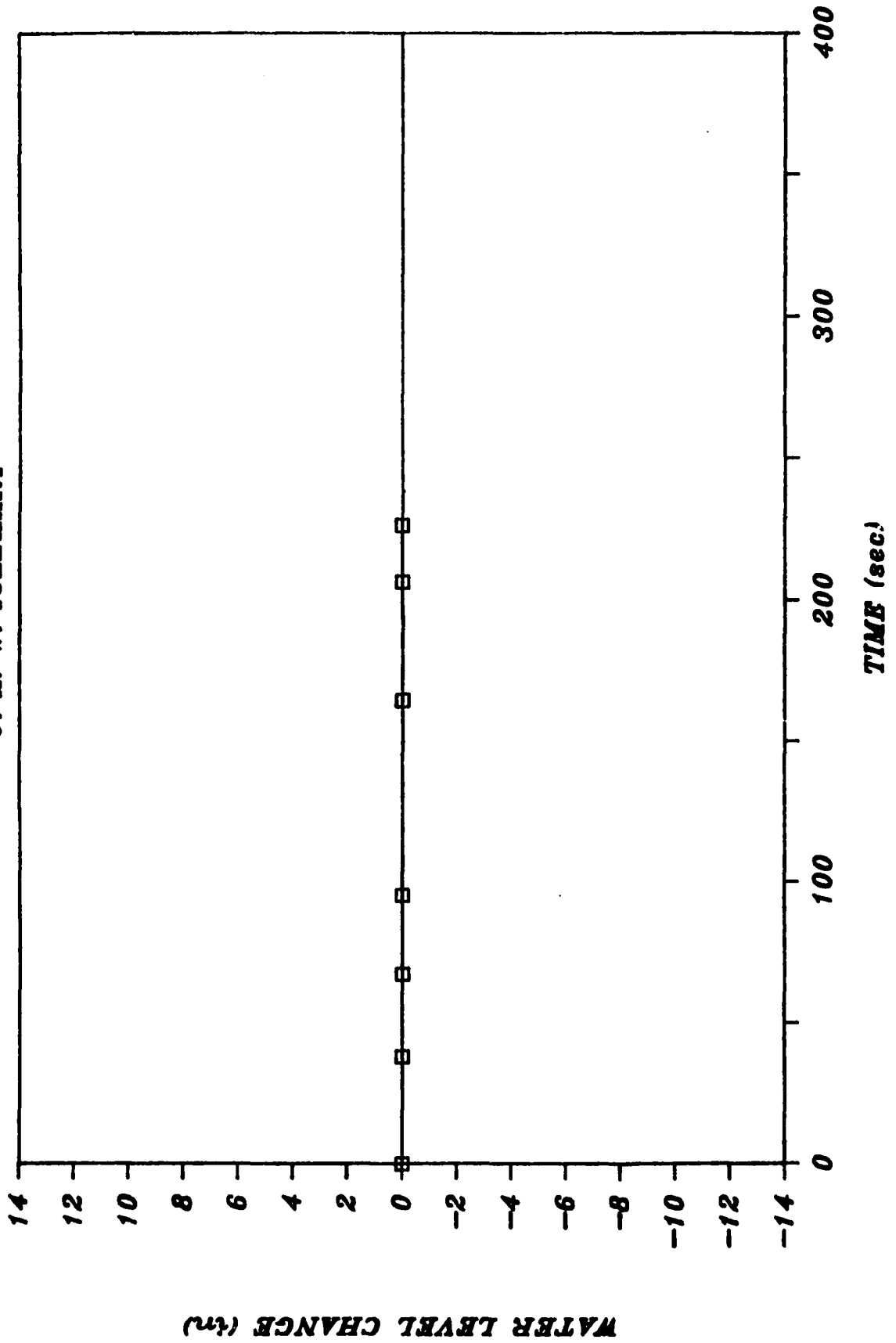
DISTANCE TO STAFF GAUGE from green side in feet = 5800

BACKGROUND READING in inches = 27

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	27.0	0.0
2	38.0	27.0	0.0
3	67.0	27.0	0.0
4	95.0	27.0	0.0
5	164.0	27.0	0.0
6	206.0	27.0	0.0
7	226.0	27.0	0.0

NINE MILE (red)

J. A. W. IGLEHART



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 5/23/85

VESSEL NAME ALGOLAKE/CANADIAN TRANSPORT

DIRECTION DOWNBOUND/UPBOUND

VESSEL LENGTH in feet = 730/730

VESSEL BEAM in feet = 75/75.67

VESSEL DRAFT in feet = 28/18.04

VESSEL SPEED in feet/sec. = 13.27/12.37

BOW ON TIME in sec = 132/152

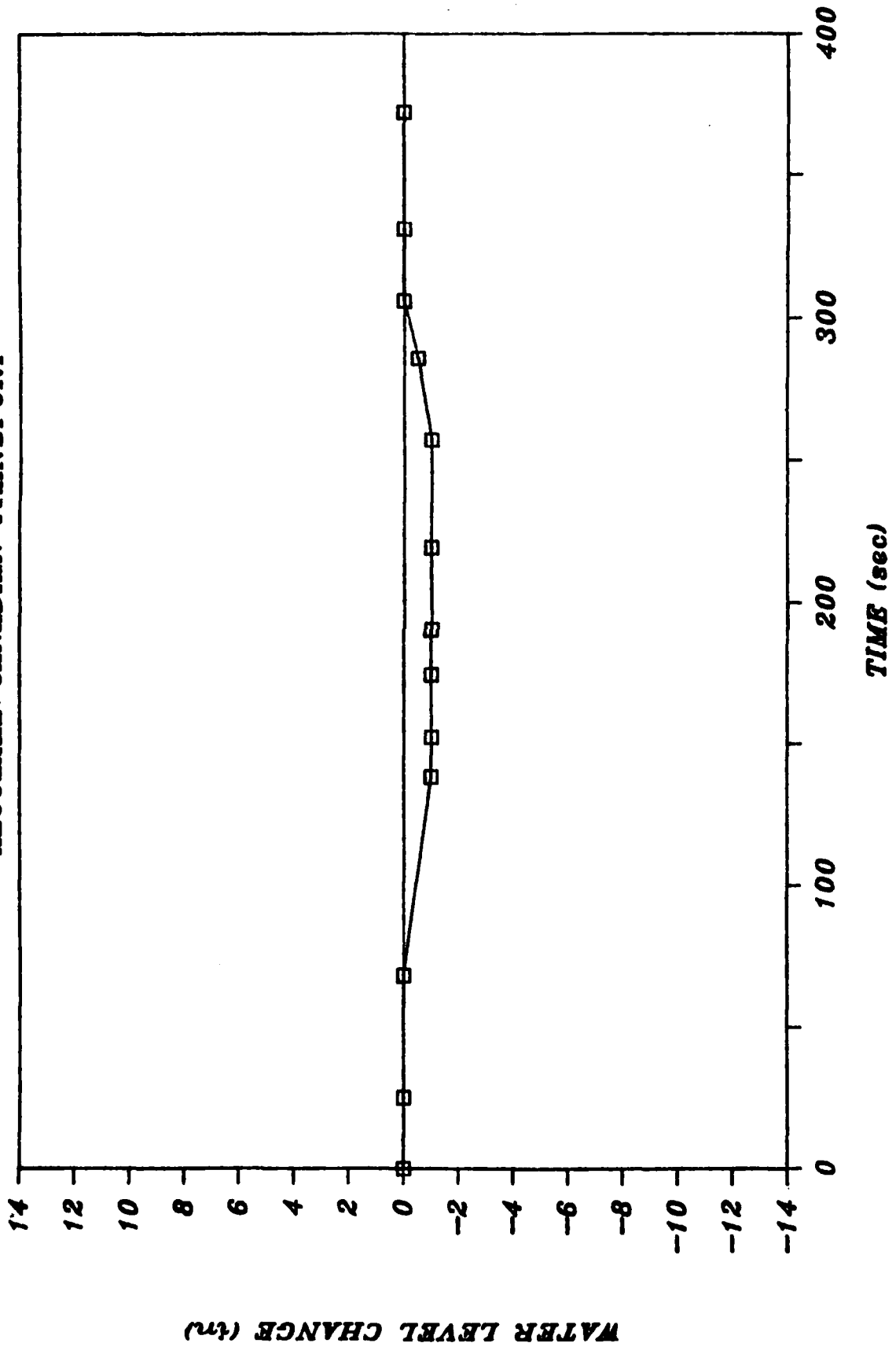
STERN ON TIME in sec = 187/211

DISTANCE TO STAFF GAUGE from green side in feet = 250

BACKGROUND READING in inches = 14

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	14.0	0.0
2	25.0	14.0	0.0
3	68.0	14.0	0.0
4	138.0	13.0	-1.0
5	152.0	13.0	-1.0
6	174.0	13.0	-1.0
7	190.0	13.0	-1.0
8	219.0	13.0	-1.0
9	257.0	13.0	-1.0
10	286.0	13.5	-0.5
11	306.0	14.0	0.0
12	331.0	14.0	0.0
13	372.0	14.0	0.0

**NINE MILE (green)
ALCOLAKE/CANADIAN TRANSPORT**



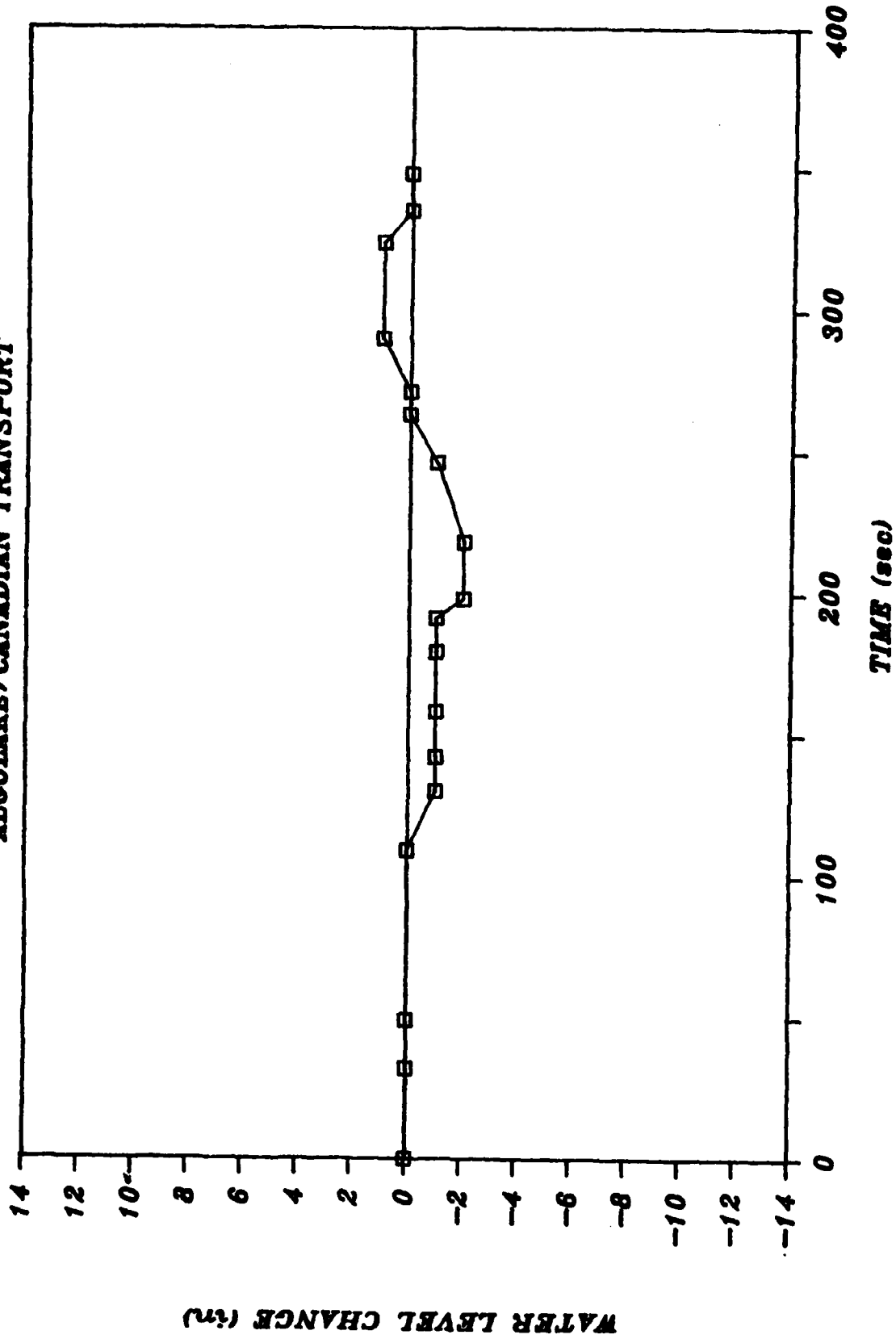
@@
 DRAWDOWN DATA

NAME OF SECTION NINE MILE
 @@

DATE OF OBSERVATION 5/23/85
 VESSEL NAME ALGOLAKE/CANADIAN TRANSPORT
 DIRECTION DOUNBOUND/UPBOUND
 VESSEL LENGTH in feet = 730/730
 VESSEL BEAM in feet = 75/75.67
 VESSEL DRAFT in feet = 28/18.04
 VESSEL SPEED in feet/sec. = 13.27/12.37
 BOW ON TIME in sec = 132/152
 STERN ON TIME in sec = 187/211
 DISTANCE TO STAFF GAUGE from green side in feet = 5800
 BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	32.0	26.0	0.0
3	49.0	26.0	0.0
4	109.0	26.0	0.0
5	130.0	25.0	-1.0
6	142.0	25.0	-1.0
7	158.0	25.0	-1.0
8	179.0	25.0	-1.0
9	191.0	25.0	-1.0
10	198.0	24.0	-2.0
11	218.0	24.0	-2.0
12	246.0	25.0	-1.0
13	263.0	26.0	0.0
14	271.0	26.0	0.0
15	290.0	27.0	1.0
16	324.0	27.0	1.0
17	335.0	26.0	0.0
18	348.0	26.0	0.0

NINE MILE (red)
ALGO LAKE/CANADIAN TRANSPORT



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 5/23/85

VESSEL NAME BURNS HARBOR

DIRECTION UPBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 19

VESSEL SPEED in feet/sec. = 12.35

BOW ON TIME in sec = 102

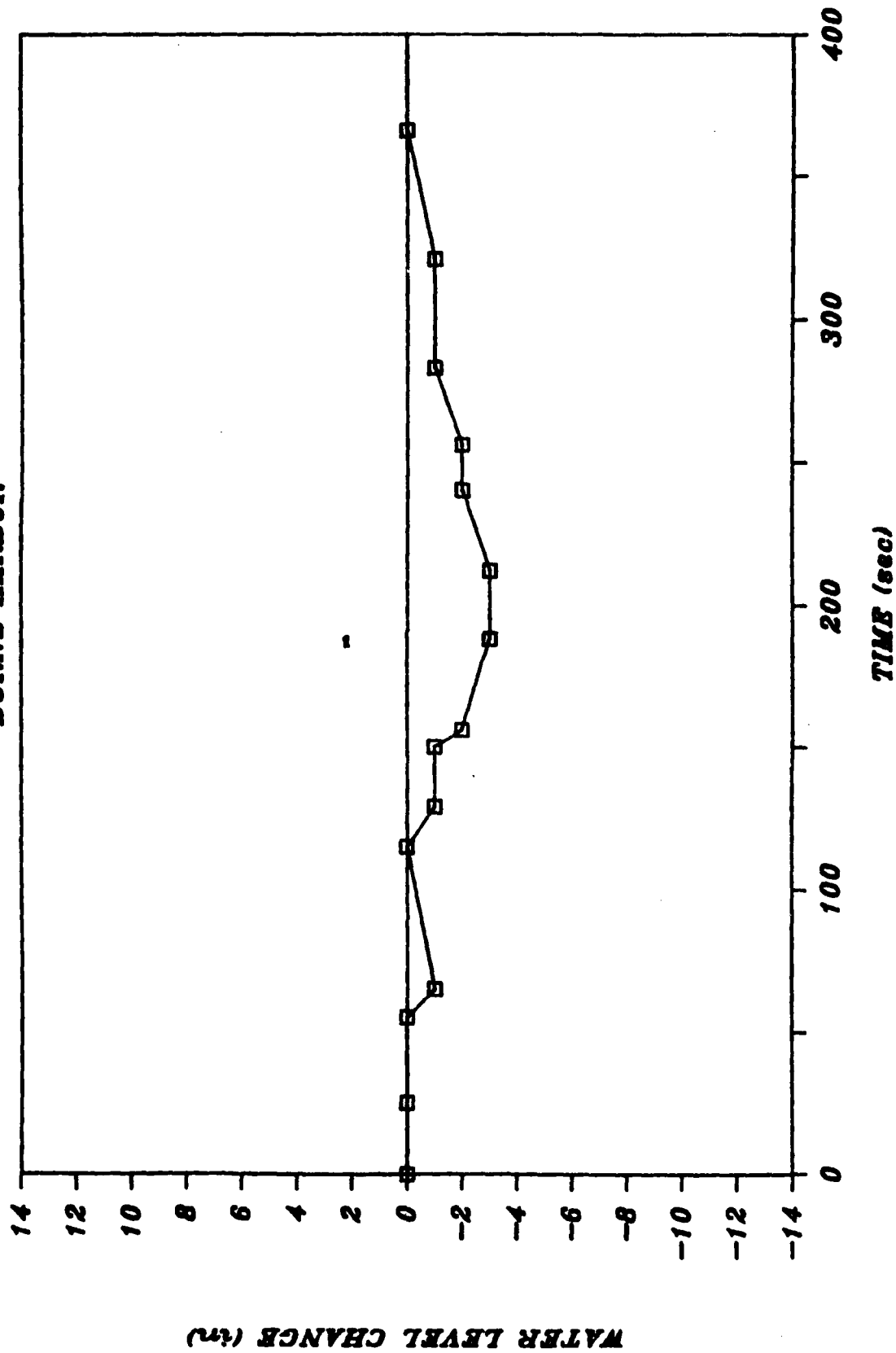
STERN ON TIME in sec = 183

DISTANCE TO STAFF GAUGE from green side in feet = 250

BACKGROUND READING in inches = 13

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	13.0	0.0
2	25.0	13.0	0.0
3	55.0	13.0	0.0
4	65.0	12.0	-1.0
5	115.0	13.0	0.0
6	129.0	12.0	-1.0
7	150.0	12.0	-1.0
8	156.0	11.0	-2.0
9	188.0	10.0	-3.0
10	212.0	10.0	-3.0
11	240.0	11.0	-2.0
12	256.0	11.0	-2.0
13	283.0	12.0	-1.0
14	321.0	12.0	-1.0
15	366.0	13.0	0.0

**NINE MILE (green)
BURNS HARBOR**



DRAWDOWN DATA

NAME OF SECTION NINE MILE

DATE OF OBSERVATION 5/23/85

VESSEL NAME BURNS HARBOR

DIRECTION UPBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 19

VESSEL SPEED in feet/sec. = 12.35

BOW ON TIME in sec = 102

STERN ON TIME in sec = 183

DISTANCE TO STAFF GAUGE from green side in feet = 5800

BACKGROUND READING in inches = 26

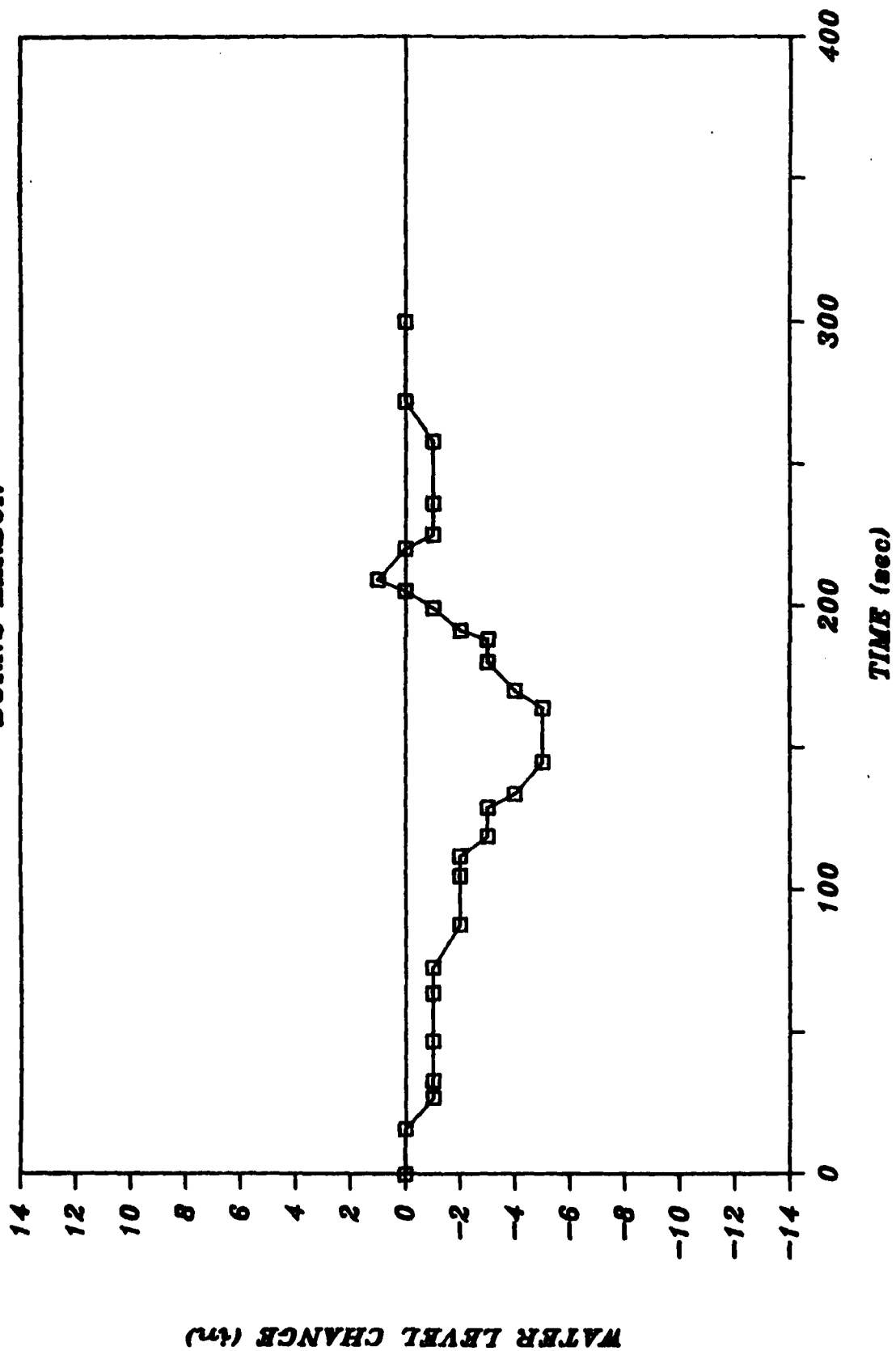
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	16.0	26.0	0.0
3	27.0	25.0	-1.0
4	33.0	25.0	-1.0
5	47.0	25.0	-1.0
6	64.0	25.0	-1.0
7	73.0	25.0	-1.0
8	88.0	24.0	-2.0
9	105.0	24.0	-2.0
10	112.0	24.0	-2.0
11	119.0	23.0	-3.0
12	129.0	23.0	-3.0
13	134.0	22.0	-4.0
14	145.0	21.0	-5.0
15	164.0	21.0	-5.0
16	170.0	22.0	-4.0
17	180.0	23.0	-3.0
18	188.0	23.0	-3.0
19	191.0	24.0	-2.0
20	199.0	25.0	-1.0

DRAWDOWN DATA (continued)

NAME OF SECTION NINE MILE

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	205.0	26.0	0.0
22	209.0	27.0	1.0
23	220.0	26.0	0.0
24	225.0	25.0	-1.0
25	236.0	25.0	-1.0
26	258.0	25.0	-1.0
27	272.0	26.0	0.0
28	300.0	26.0	0.0

NINE MILE (red)
BURNS HARBOR



EAST CELL DOCK

 DRAWDOWN DATA

NAME OF SECTION EAST CELL DOCK

DATE OF OBSERVATION 11/12/84
 VESSEL NAME SELKIRK SETTLER
 DIRECTION UPBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75.5
 VESSEL DRAFT in feet = 24
 VESSEL SPEED in feet/sec. = 14.0
 BOW ON TIME in sec = 90
 STERN ON TIME in sec = 142
 DISTANCE TO STAFF GAUGE from green side in feet = 2975(R-BE)
 BACKGROUND READING in inches = 11

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	11.0	0.0
2	2.0	11.0	0.0
3	9.0	11.0	0.0
4	17.0	11.0	0.0
5	21.0	11.0	0.0
6	29.0	11.0	0.0
7	37.0	11.0	0.0
8	43.0	11.0	0.0
9	51.0	11.0	0.0
10	57.0	11.0	0.0
11	62.0	11.0	0.0
12	64.0	10.5	-0.5
13	67.0	10.5	-0.5
14	75.0	10.5	-0.5
15	77.0	10.0	-1.0
16	80.0	10.0	-1.0
17	85.0	10.0	-1.0
18	91.0	10.0	-1.0
19	93.0	9.5	-1.5
20	95.0	9.5	-1.5

DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	99.0	9.5	-1.5
22	111.0	9.5	-1.5
23	113.0	9.5	-1.5
24	115.0	9.5	-1.5
25	120.0	9.5	-1.5
26	134.0	9.0	-2.0
27	153.0	9.0	-2.0
28	157.0	8.5	-2.5
29	160.0	8.5	-2.5
30	163.0	8.0	-3.0
31	175.0	8.0	-3.0
32	182.0	7.5	-3.5
33	185.0	7.5	-3.5
34	188.0	8.0	-3.0
35	189.0	8.0	-3.0
36	191.0	7.5	-3.5
37	195.0	7.5	-3.5
38	199.0	8.0	-3.0
39	202.0	8.0	-3.0
40	205.0	8.5	-2.5
41	220.0	8.5	-2.5
42	231.0	10.0	-1.0
43	237.0	11.0	0.0
44	245.0	11.5	0.5
45	248.0	12.0	1.0
46	259.0	12.0	1.0
47	260.0	11.5	0.5
48	263.0	11.0	0.0
49	267.0	10.5	-0.5
50	270.0	10.5	-0.5
51	275.0	10.0	-1.0
52	277.0	10.0	-1.0
53	280.0	9.5	-1.5
54	281.0	9.0	-2.0
55	283.0	9.0	-2.0
56	287.0	8.5	-2.5
57	290.0	8.0	-3.0
58	292.0	8.0	-3.0
59	294.0	7.5	-3.5
60	296.0	7.5	-3.5
61	298.0	7.0	-4.0
62	302.0	7.0	-4.0
63	306.0	6.5	-4.5
64	313.0	7.5	-3.5

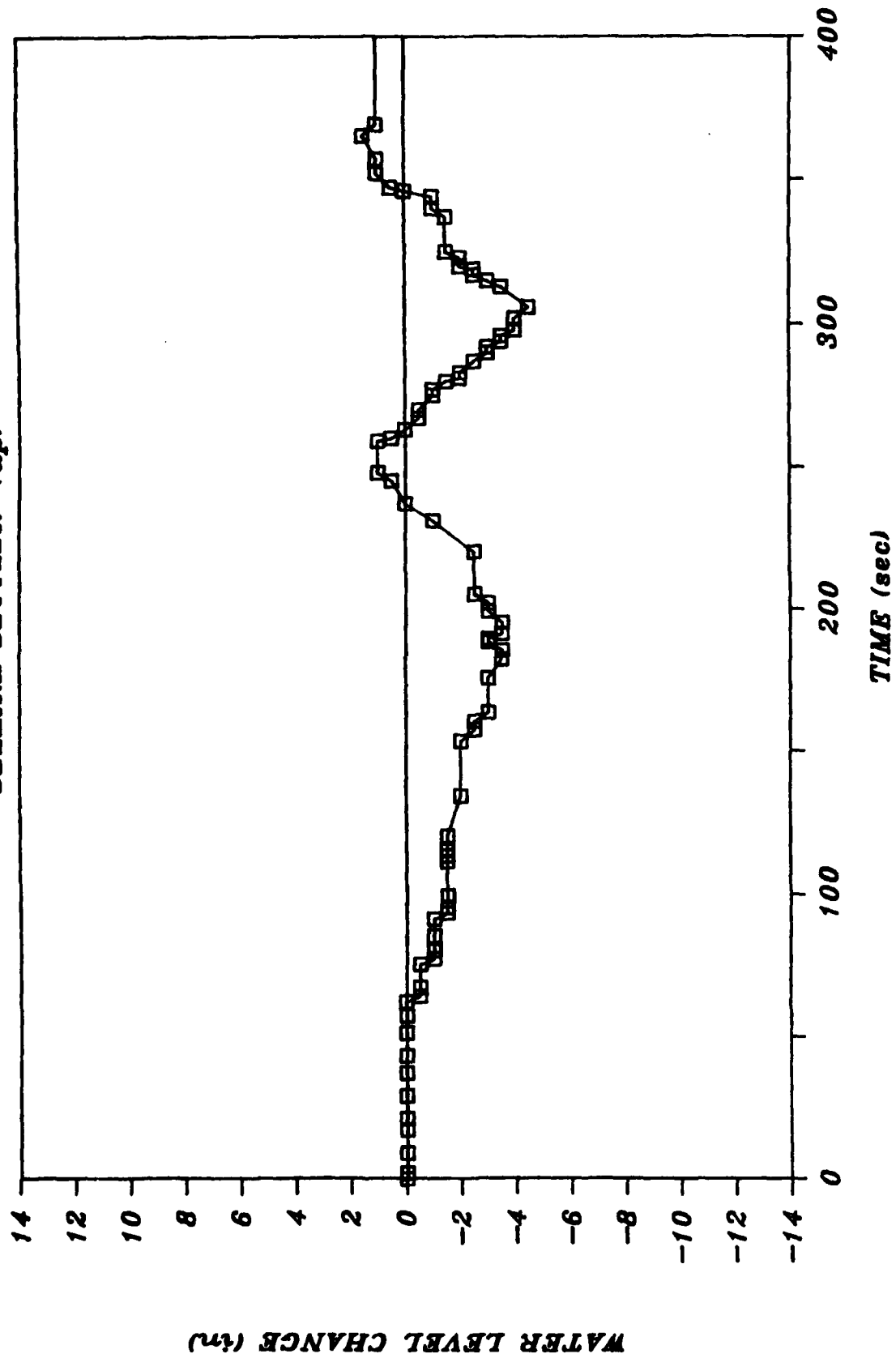
 DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	315.0	8.0	-3.0
66	317.0	8.5	-2.5
67	319.0	8.5	-2.5
68	320.0	9.0	-2.0
69	323.0	9.0	-2.0
70	325.0	9.5	-1.5
71	337.0	9.5	-1.5
72	340.0	10.0	-1.0
73	344.0	10.0	-1.0
74	346.0	11.0	0.0
75	347.0	11.5	0.5
76	352.0	12.0	1.0
77	357.0	12.0	1.0
78	365.0	12.5	1.5
79	369.0	12.0	1.0
80	404.0	12.0	1.0
81	407.0	11.5	0.5
82	422.0	11.5	0.5
83	424.0	11.0	0.0
84	426.0	11.0	0.0
85	428.0	10.0	-1.0
86	437.0	10.0	-1.0
87	441.0	9.5	-1.5
88	444.0	9.0	-2.0
89	455.0	9.0	-2.0
90	461.0	9.5	-1.5
91	467.0	10.0	-1.0
92	470.0	11.0	0.0
93	507.0	11.0	0.0

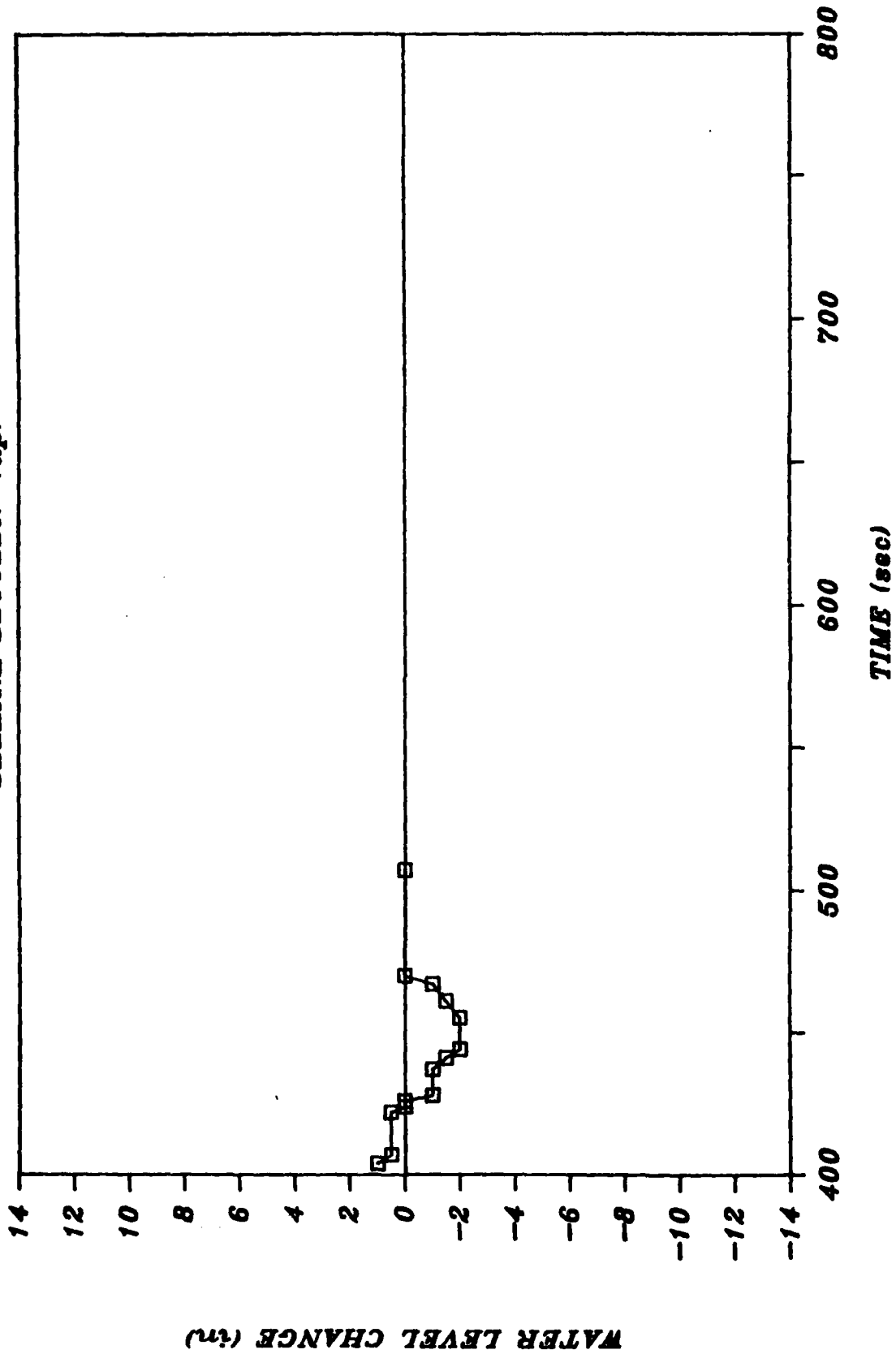
EAST CELL DOCK 11/12/84

SELKIRK SETTLER (wp)



EAST CELL DOCK 11/12/84

SELKIRK SETTLER (wp)



DRAWDOWN DATA

NAME OF SECTION EAST CELL DOCK

DATE OF OBSERVATION 11/12/84
VESSEL NAME SELKIRK SETTLER
DIRECTION UPBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75.5
VESSEL DRAFT in feet = 24
VESSEL SPEED in feet/sec. = 14.0
BOW ON TIME in sec = 66.2
STERN ON TIME in sec = 118.2
DISTANCE TO STAFF GAUGE from green side in feet = 3005(R-AF)
BACKGROUND READING in inches = 18

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	23.0	18.0	0.0
2	40.0	17.5	-0.5
3	43.0	17.5	-0.5
4	47.0	17.0	-1.0
5	56.0	17.0	-1.0
6	65.0	17.0	-1.0
7	66.0	17.0	-1.0
8	68.0	16.5	-1.5
9	73.0	16.0	-2.0
10	77.0	16.0	-2.0
11	84.0	16.0	-2.0
12	91.0	15.5	-2.5
13	96.0	15.5	-2.5
14	101.0	16.0	-2.0
15	107.0	15.5	-2.5
16	118.0	15.5	-2.5
17	122.0	15.0	-3.0
18	124.0	15.0	-3.0
19	132.0	15.0	-3.0
20	137.0	15.0	-3.0

 DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	138.0	14.5	-3.5
22	140.0	15.0	-3.0
23	146.0	15.0	-3.0
24	147.0	14.5	-3.5
25	148.0	14.0	-4.0
26	150.0	14.0	-4.0
27	153.0	14.5	-3.5
28	160.0	14.5	-3.5
29	165.0	14.5	-3.5
30	172.0	14.0	-4.0
31	177.0	14.0	-4.0
32	182.0	15.0	-3.0
33	189.0	15.0	-3.0
34	191.0	15.5	-2.5
35	196.0	16.0	-2.0
36	199.0	16.0	-2.0
37	206.0	16.5	-1.5
38	208.0	17.0	-1.0
39	210.0	17.5	-0.5
40	215.0	17.5	-0.5
41	218.0	18.0	0.0
42	222.0	18.5	0.5
43	225.0	18.5	0.5
44	236.0	19.0	1.0
45	243.0	19.0	1.0
46	245.0	19.0	1.0
47	248.0	18.5	0.5
48	266.0	17.0	-1.0
49	270.0	16.5	-1.5
50	281.0	15.5	-2.5
51	285.0	15.0	-3.0
52	289.0	15.0	-3.0
53	291.0	14.0	-4.0
54	294.0	14.0	-4.0
55	298.0	13.5	-4.5
56	303.0	13.5	-4.5
57	306.0	13.0	-5.0
58	308.0	13.5	-4.5
59	310.0	13.5	-4.5
60	313.0	14.0	-4.0
61	316.0	15.0	-3.0
62	319.0	15.0	-3.0
63	320.0	15.5	-2.5
64	326.0	16.0	-2.0

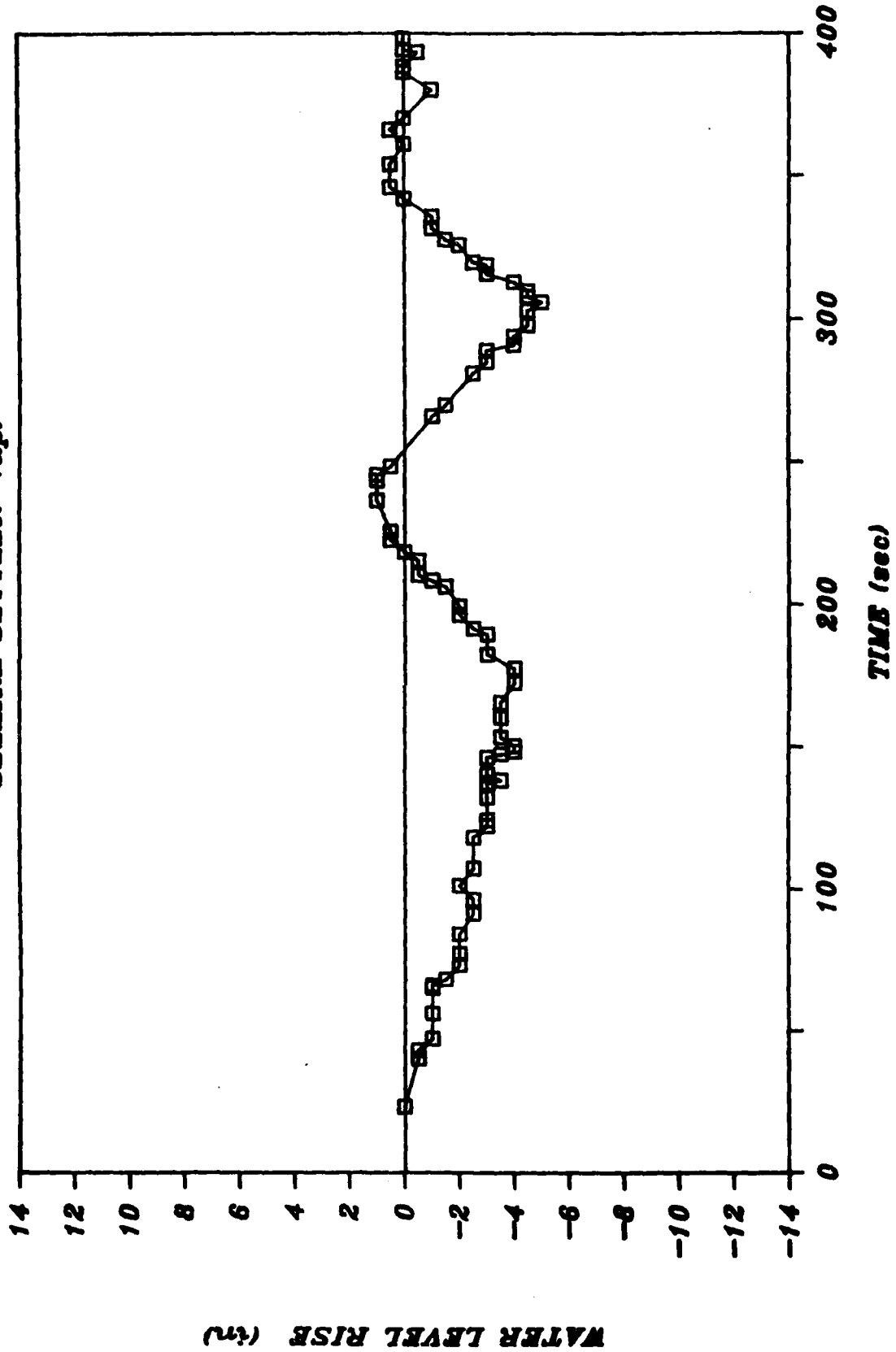
DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	328.0	16.5	-1.5
66	332.0	17.0	-1.0
67	336.0	17.0	-1.0
68	342.0	18.0	0.0
69	346.0	18.5	0.5
70	354.0	18.5	0.5
71	361.0	18.0	0.0
72	366.0	18.5	0.5
73	370.0	18.0	0.0
74	380.0	17.0	-1.0
75	386.0	18.0	0.0
76	388.0	18.0	0.0
77	393.0	17.5	-0.5
78	394.0	18.0	0.0
79	398.0	18.0	0.0
80	404.0	18.0	0.0
81	406.0	18.0	0.0
82	415.0	18.5	0.5
83	420.0	18.5	0.5
84	422.0	18.0	0.0
85	423.0	18.0	0.0
86	430.0	17.5	-0.5
87	434.0	17.5	-0.5
88	437.0	17.0	-1.0
89	441.0	16.5	-1.5
90	448.0	16.0	-2.0
91	451.0	15.5	-2.5
92	456.0	15.0	-3.0
93	459.0	15.0	-3.0
94	463.0	14.5	-3.5
95	464.0	15.0	-3.0
96	469.0	15.0	-3.0
97	476.0	16.0	-2.0
98	478.0	16.5	-1.5
99	480.0	17.0	-1.0
100	482.0	16.5	-1.5
101	488.0	17.5	-0.5
102	492.0	18.0	0.0
103	496.0	18.5	0.5
104	498.0	19.0	1.0
105	500.0	19.0	1.0
106	511.0	19.0	1.0
107	521.0	19.0	1.0

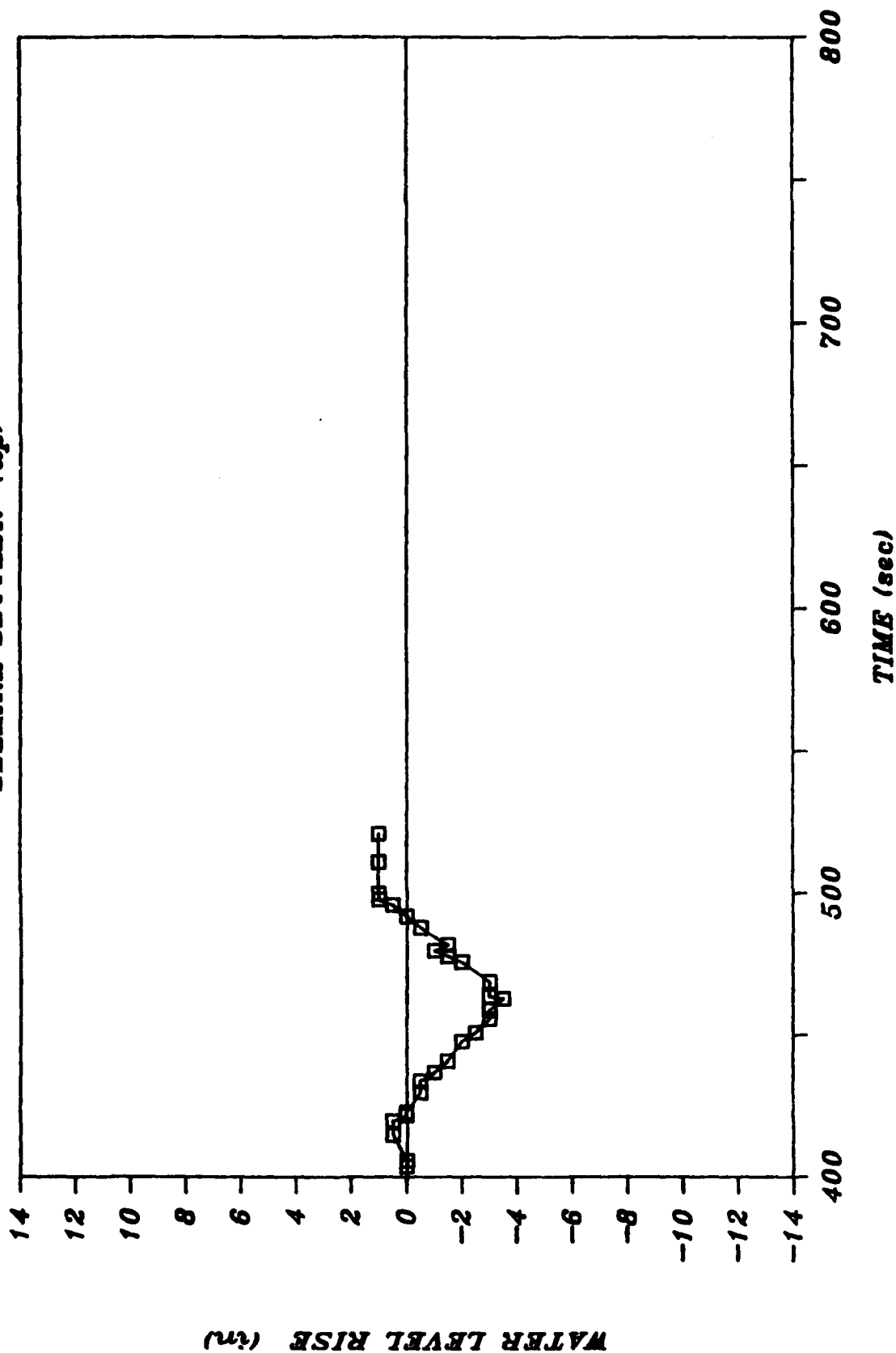
EAST CELL DOCK 11/12/84

SELKIRK SETTLER (usp)



EAST CELL DOCK 11/12/84

SBLKIRK SETTLER (wp)



 DRAWDOWN DATA

NAME OF SECTION EAST CELL DOCK

DATE OF OBSERVATION 11/12/84
 VESSEL NAME BLACK BAY/MURRAY BAY
 DIRECTION UPBOUND/UPBOUND
 VESSEL LENGTH in feet = 730/730
 VESSEL BEAM in feet = 75/75
 VESSEL DRAFT in feet = 25/24
 VESSEL SPEED in feet/sec. = 14.3/14.8
 BOW ON TIME in sec = 45/316
 STERN ON TIME in sec = 96/365
 DISTANCE TO STAFF GAUGE from green side in feet = 2975(R-BE)
 BACKGROUND READING in inches = 11

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	212.0	13.0	2.0
2	221.0	12.5	1.5
3	237.0	13.0	2.0
4	246.0	12.0	1.0
5	248.0	12.5	1.5
6	251.0	13.0	2.0
7	255.0	12.0	1.0
8	279.0	9.0	-2.0
9	289.0	9.0	-2.0
10	305.0	10.0	-1.0
11	309.0	11.0	0.0
12	311.0	12.0	1.0
13	316.0	13.0	2.0
14	319.0	12.5	1.5
15	334.0	15.0	4.0
16	336.0	15.0	4.0
17	339.0	13.5	2.5
18	351.0	13.0	2.0
19	353.0	13.0	2.0
20	357.0	12.0	1.0

DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	360.0	12.5	1.5
22	364.0	11.0	0.0
23	367.0	10.5	-0.5
24	372.0	9.5	-1.5
25	375.0	9.5	-1.5
26	378.0	9.0	-2.0
27	383.0	9.0	-2.0
28	386.0	8.5	-2.5
29	392.0	8.5	-2.5
30	395.0	9.0	-2.0
31	397.0	8.5	-2.5
32	402.0	8.0	-3.0
33	405.0	8.0	-3.0
34	407.0	6.0	-5.0
35	411.0	7.0	-4.0
36	479.0	10.0	-1.0
37	482.0	10.5	-0.5
38	485.0	11.0	0.0
39	488.0	11.5	0.5
40	489.0	11.0	0.0
41	494.0	12.0	1.0
42	500.0	12.0	1.0
43	505.0	11.0	0.0
44	541.0	7.0	-4.0
45	544.0	6.5	-4.5
46	561.0	6.5	-4.5
47	564.0	6.5	-4.5
48	566.0	8.0	-3.0
49	569.0	9.0	-2.0
50	573.0	9.5	-1.5
51	577.0	10.0	-1.0
52	579.0	9.5	-1.5
53	581.0	10.0	-1.0
54	583.0	10.5	-0.5
55	589.0	10.5	-0.5
56	592.0	11.0	0.0
57	595.0	11.0	0.0
58	596.0	11.5	0.5
59	598.0	12.0	1.0
60	609.0	12.0	1.0
61	610.0	11.0	0.0
62	615.0	10.0	-1.0
63	623.0	10.0	-1.0
64	627.0	9.0	-2.0

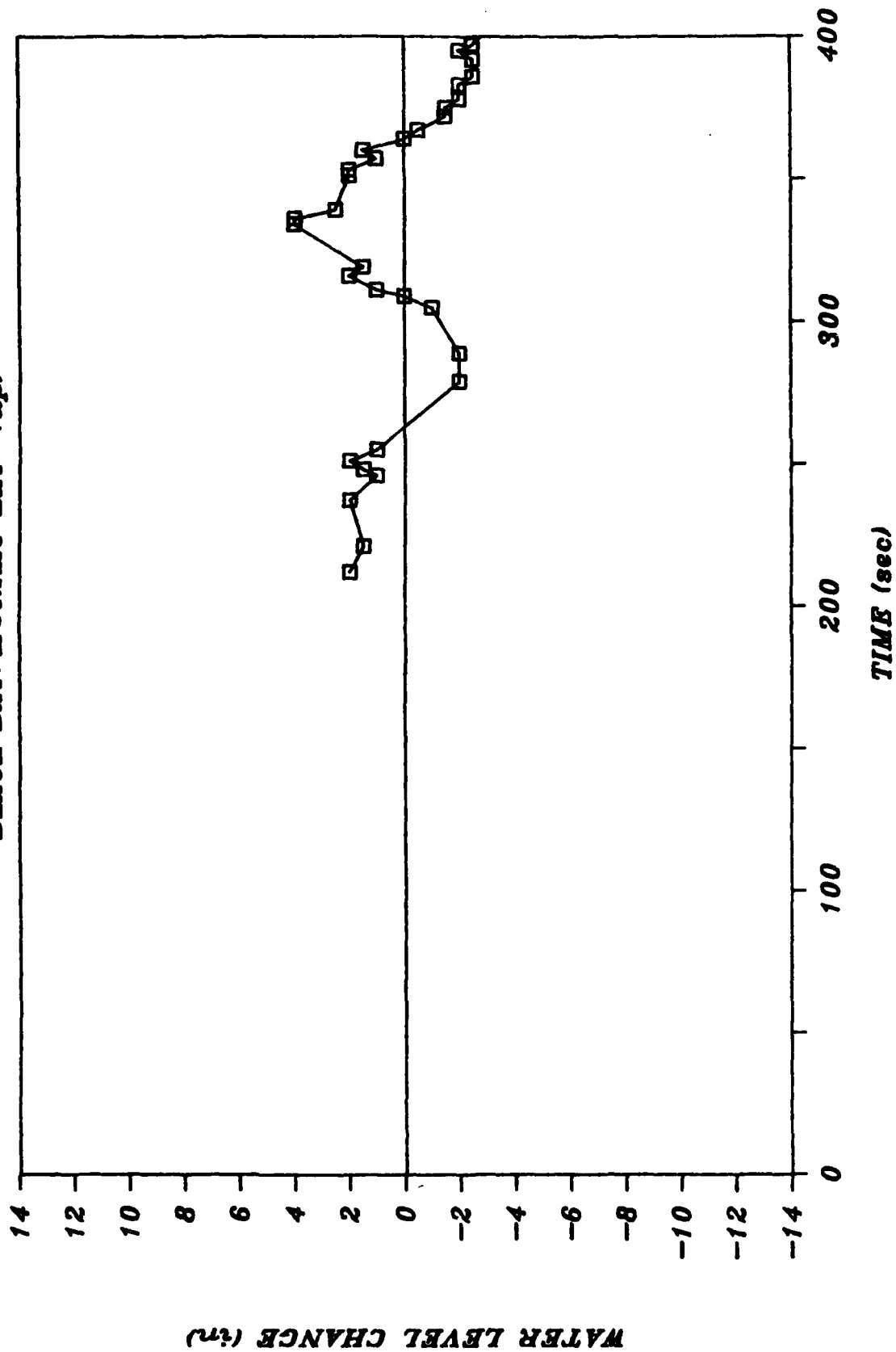
DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
65	640.0	9.0	-2.0
66	644.0	10.0	-1.0
67	650.0	10.0	-1.0
68	652.0	10.5	-0.5
69	654.0	10.5	-0.5
70	658.0	11.0	0.0
71	661.0	12.0	1.0
72	663.0	13.0	2.0
73	665.0	12.5	1.5
74	669.0	13.0	2.0
75	677.0	13.0	2.0
76	680.0	12.5	1.5
77	684.0	12.5	1.5
78	686.0	12.0	1.0
79	690.0	12.0	1.0
80	693.0	11.5	0.5
81	696.0	11.5	0.5
82	698.0	11.0	0.0
83	728.0	11.0	0.0

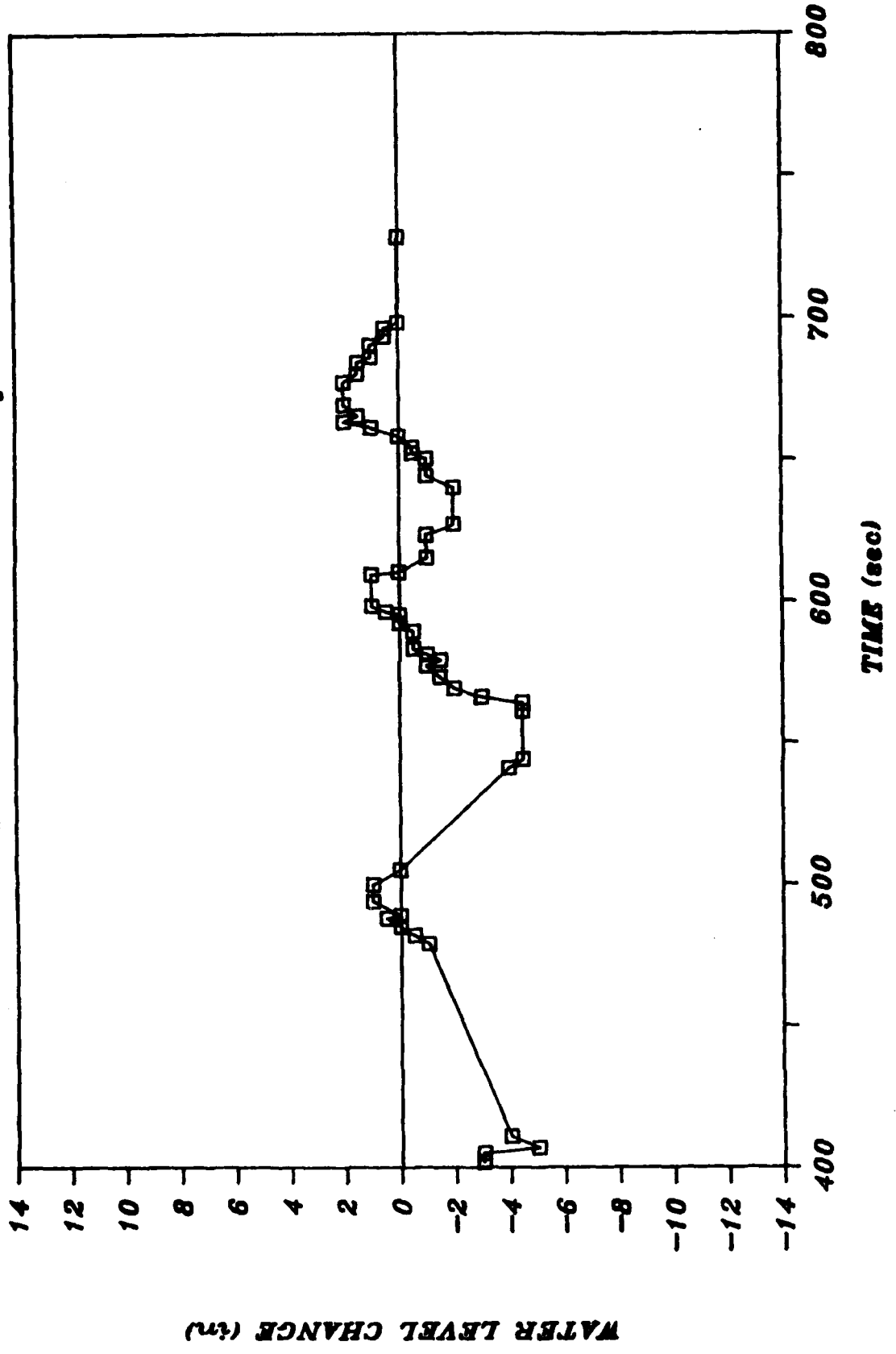
EAST CELL DOCK 11/12/84

BLACK BAY/MURRAY BAY (wsp)



EAST CELL DOCK 11/12/84

BLACK BAY/MURRAY BAY (usp)



oo

DRAWDOWN DATA

NAME OF SECTION EAST CELL DOCK
oo

DATE OF OBSERVATION 11/12/84

VESSEL NAME BLACK BAY/MURRAY BAY

DIRECTION UPBOUND/UPBOUND

VESSEL LENGTH in feet = 730/730

VESSEL BEAM in feet = 75/75

VESSEL DRAFT in feet = 25/24

VESSEL SPEED in feet/sec. = 14.3/14.8

BOW ON TIME in sec = 22/294

STERN ON TIME in sec = 73/343

DISTANCE TO STAFF GAUGE from green side in feet = 3005(R-AF)

BACKGROUND READING in inches = 18

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	18.0	0.0
2	24.0	18.0	0.0
3	26.0	17.5	-0.5
4	43.0	17.5	-0.5
5	44.0	17.0	-1.0
6	65.0	17.0	-1.0
7	76.0	16.5	-1.5
8	86.0	16.5	-1.5
9	93.0	16.0	-2.0
10	98.0	16.0	-2.0
11	111.0	16.5	-1.5
12	114.0	16.5	-1.5
13	126.0	17.0	-1.0
14	143.0	17.5	-0.5
15	146.0	17.5	-0.5
16	149.0	18.0	0.0
17	152.0	18.0	0.0
18	156.0	18.5	0.5
19	159.0	19.0	1.0
20	161.0	19.0	1.0

 DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	168.0	19.5	1.5
22	176.0	19.5	1.5
23	177.0	20.0	2.0
24	178.0	20.0	2.0
25	186.0	19.5	1.5
26	193.0	19.5	1.5
27	202.0	19.0	1.0
28	207.0	18.5	0.5
29	209.0	18.0	0.0
30	218.0	17.5	-0.5
31	221.0	17.5	-0.5
32	224.0	17.0	-1.0
33	229.0	16.5	-1.5
34	232.0	16.0	-2.0
35	240.0	15.5	-2.5
36	249.0	15.5	-2.5
37	254.0	16.0	-2.0
38	257.0	17.0	-1.0
39	260.0	17.5	-0.5
40	262.0	18.0	0.0
41	270.0	18.0	0.0
42	271.0	18.5	0.5
43	272.0	19.0	1.0
44	275.0	19.5	1.5
45	278.0	20.0	2.0
46	281.0	20.5	2.5
47	286.0	21.0	3.0
48	300.0	21.0	3.0
49	302.0	21.5	3.5
50	305.0	21.0	3.0
51	309.0	21.0	3.0
52	313.0	19.5	1.5
53	315.0	18.0	0.0
54	318.0	18.5	0.5
55	322.0	18.0	0.0
56	327.0	17.5	-0.5
57	329.0	17.0	-1.0
58	334.0	16.0	-2.0
59	337.0	15.5	-2.5
60	342.0	15.0	-3.0
61	362.0	15.0	-3.0
62	368.0	15.5	-2.5
63	371.0	16.0	-2.0
64	374.0	16.0	-2.0

DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

Table with 4 columns: DATA POINT, TIME(sec), GAUGE READING(in), CHANGE FROM BG(in). Rows 65-108.

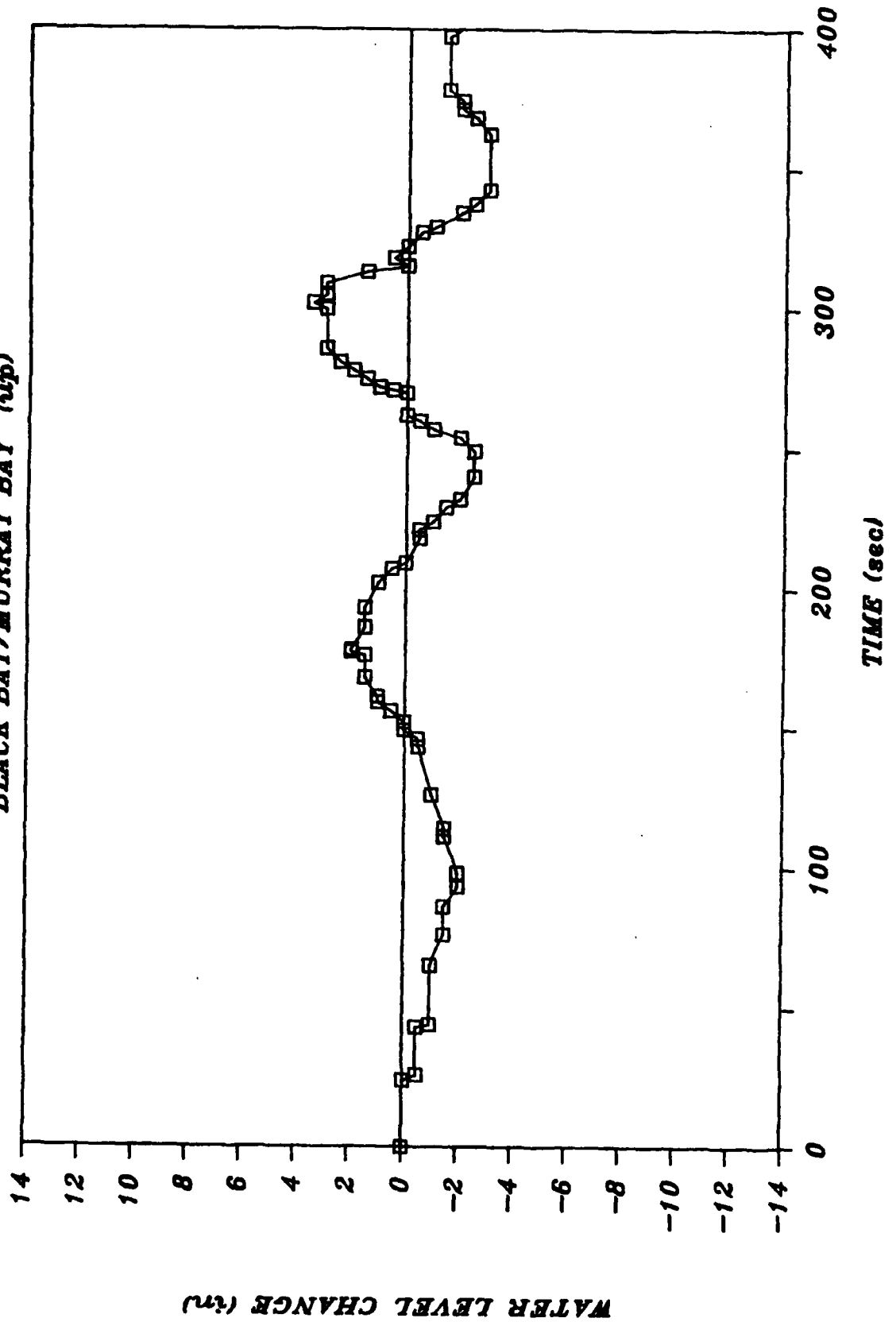
DRAWDOWN DATA (continued)

NAME OF SECTION EAST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
109	558.0	20.0	2.0
110	560.0	20.0	2.0
111	561.0	19.5	1.5
112	563.0	19.5	1.5
113	567.0	18.5	0.5
114	569.0	18.0	0.0
115	570.0	17.5	-0.5
116	575.0	17.0	-1.0
117	580.0	16.0	-2.0
118	589.0	16.0	-2.0
119	591.0	15.5	-2.5
120	594.0	16.0	-2.0
121	596.0	15.5	-2.5
122	600.0	15.5	-2.5
123	602.0	16.0	-2.0
124	609.0	16.5	-1.5
125	615.0	17.0	-1.0
126	619.0	17.5	-0.5
127	622.0	17.5	-0.5
128	624.0	18.0	0.0
129	635.0	18.0	0.0
130	643.0	19.0	1.0
131	645.0	18.5	0.5
132	648.0	19.0	1.0
133	658.0	19.0	1.0
134	660.0	18.5	0.5
135	664.0	18.5	0.5

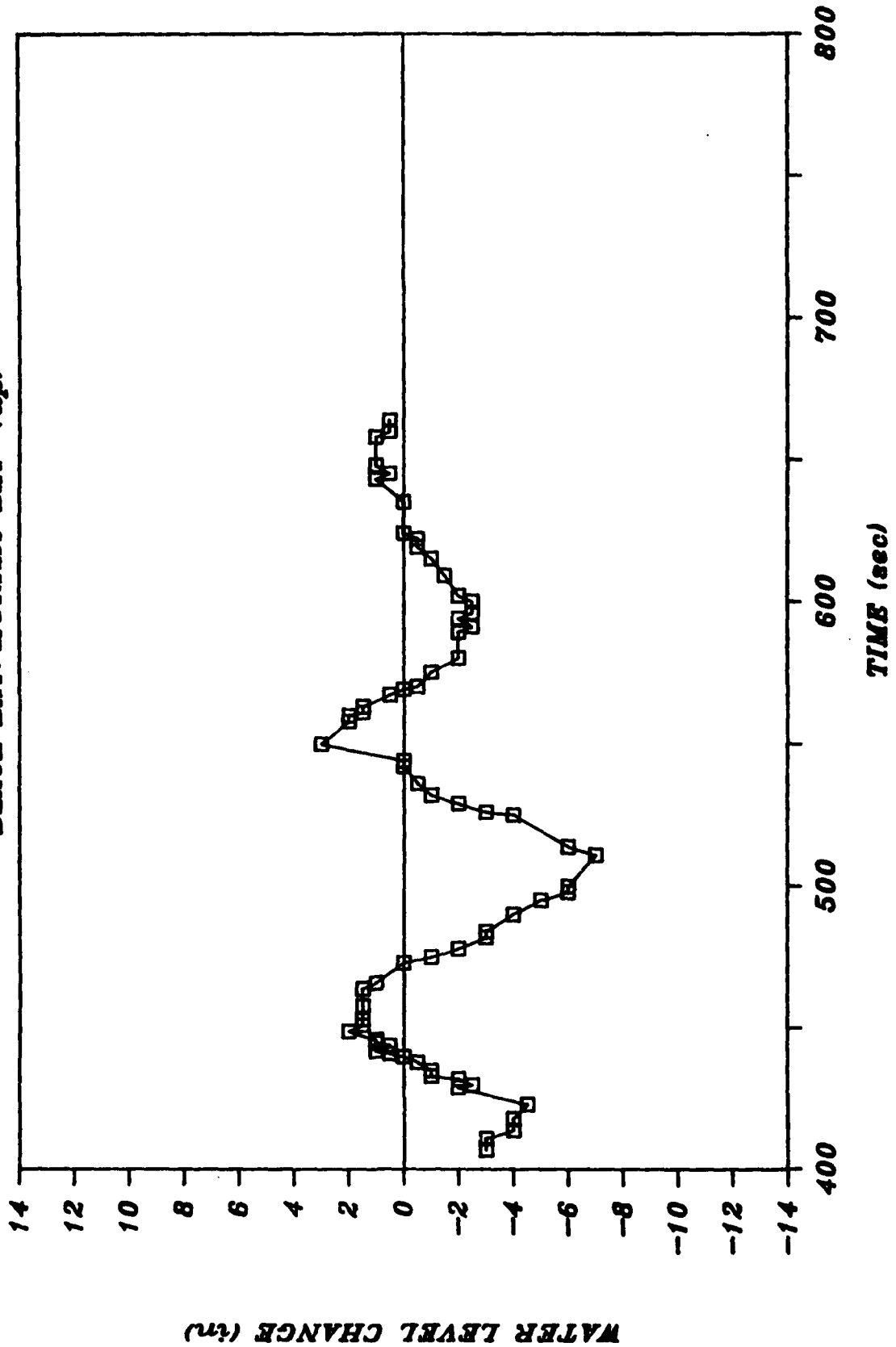
EAST CELL DOCK 11/12/84

BLACK BAY/MURRAY BAY (wsp)



BE20

EAST CELL DOCK 11/12/84
BLACK BAY/MURRAY BAY (usp)



BE21

WEST CELL DOCK

DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85

VESSEL NAME RICHELIEU

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 15

VESSEL SPEED in feet/sec. = 12.37

BOW ON TIME in sec = 55

STERN ON TIME in sec = 114

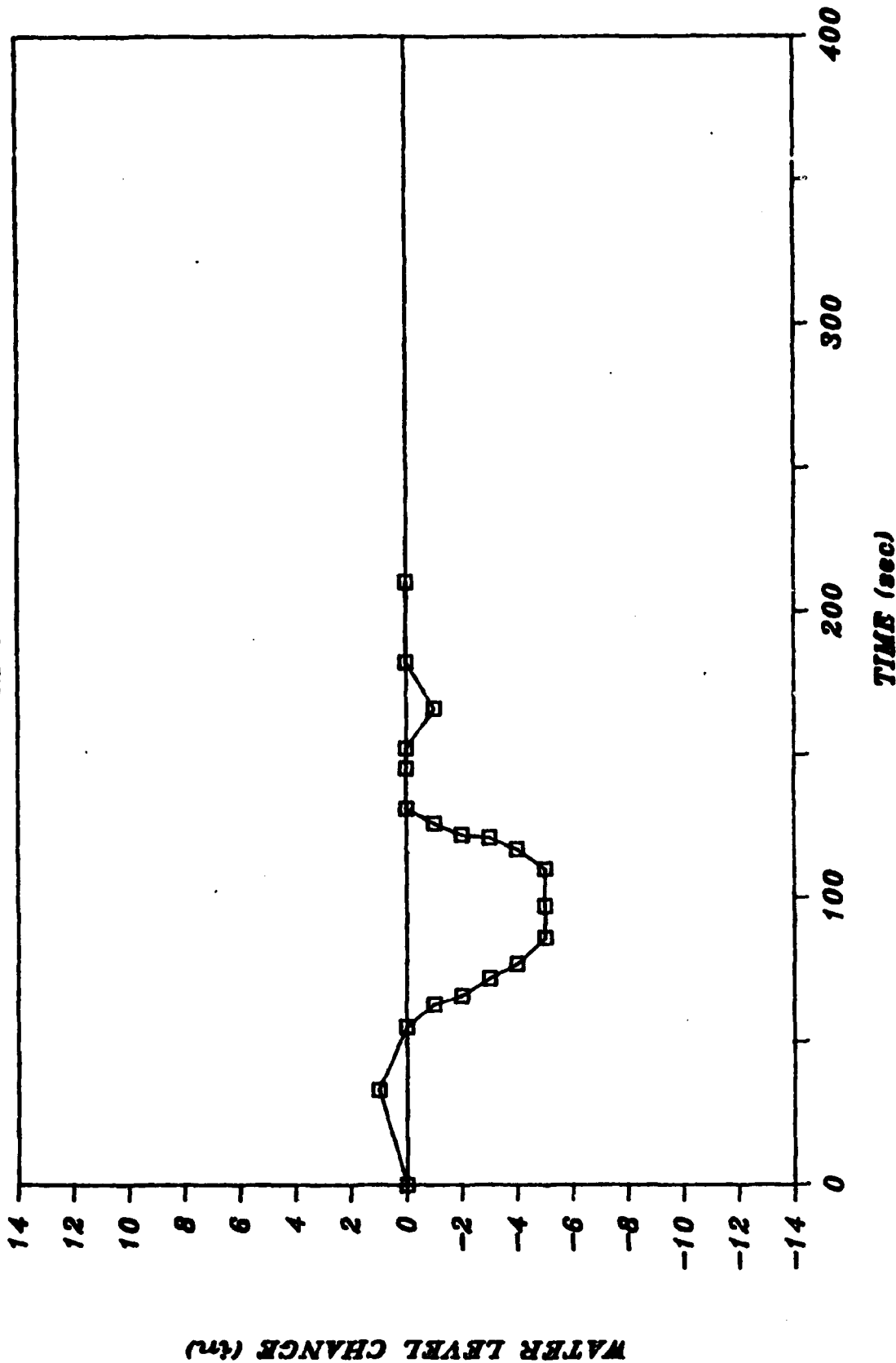
DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	33.0	23.0	1.0
3	55.0	22.0	0.0
4	63.0	21.0	-1.0
5	66.0	20.0	-2.0
6	72.0	19.0	-3.0
7	77.0	18.0	-4.0
8	86.0	17.0	-5.0
9	97.0	17.0	-5.0
10	110.0	17.0	-5.0
11	117.0	18.0	-4.0
12	121.0	19.0	-3.0
13	122.0	20.0	-2.0
14	126.0	21.0	-1.0
15	131.0	22.0	0.0
16	145.0	22.0	0.0
17	152.0	22.0	0.0
18	166.0	21.0	-1.0
19	182.0	22.0	0.0
20	210.0	22.0	0.0

WEST CELL DOCK (green)

RICHBLIBU



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85
VESSEL NAME RICHELIEU
DIRECTION UPBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 15
VESSEL SPEED in feet/sec. = 12.37
BOW ON TIME in sec = 55
STERN ON TIME in sec = 114
DISTANCE TO STAFF GAUGE from green side in feet = 1395
BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	30.0	26.0	0.0
3	37.0	25.0	-1.0
4	46.0	25.0	-1.0
5	56.0	24.0	-2.0
6	70.0	23.0	-3.0
7	76.0	23.0	-3.0
8	86.0	22.0	-4.0
9	88.0	21.0	-5.0
10	97.0	21.0	-5.0
11	106.0	22.0	-4.0
12	108.0	23.0	-3.0
13	119.0	23.0	-3.0
14	135.0	24.0	-2.0
15	140.0	25.0	-1.0
16	151.0	26.0	0.0
17	159.0	25.0	-1.0
18	166.0	25.0	-1.0
19	182.0	25.0	-1.0
20	196.0	25.0	-1.0

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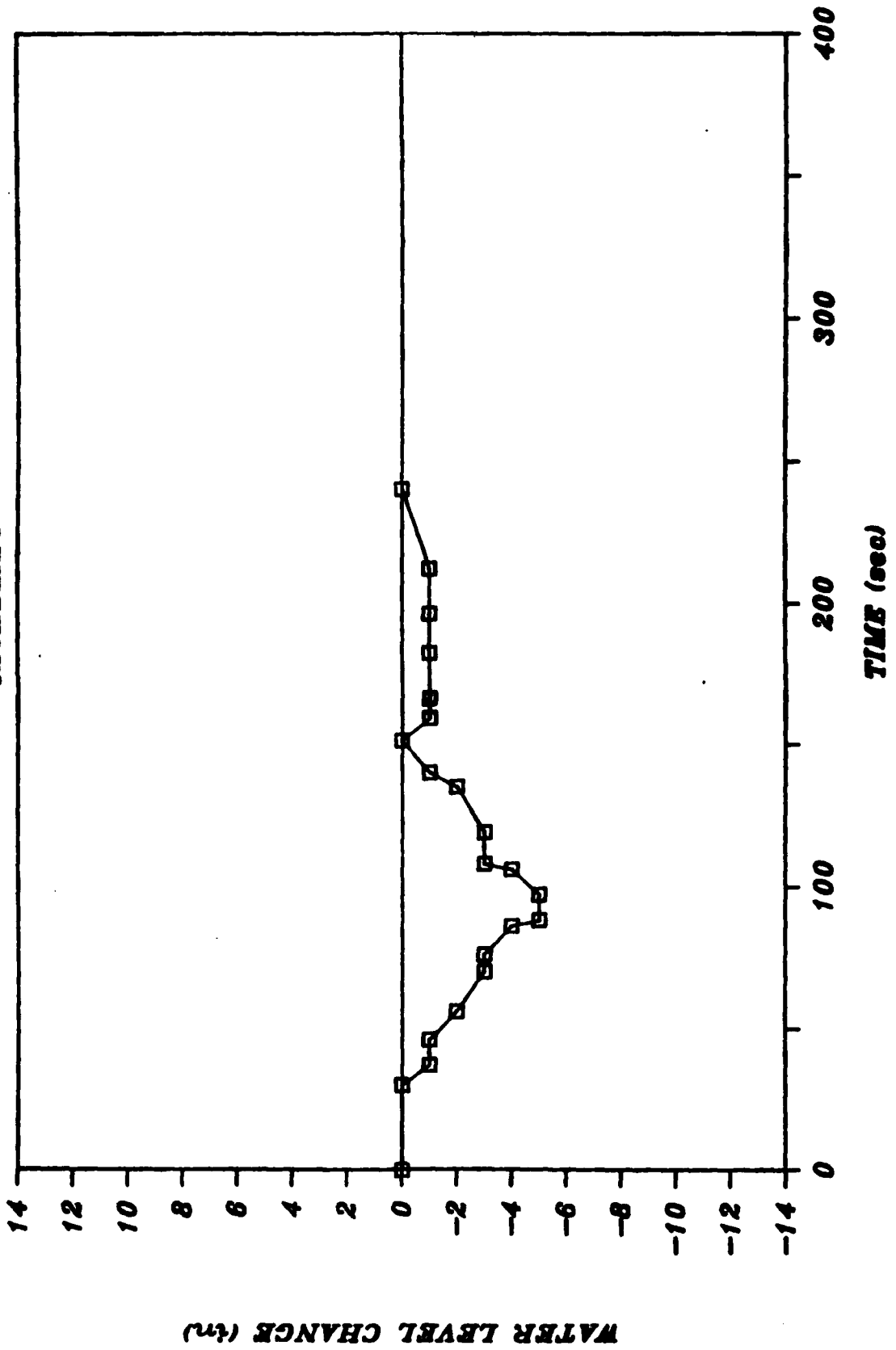
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK
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DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	212.0	25.0	-1.0
22	240.0	26.0	0.0

WEST CELL DOCK (red)

RICHELIEU



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85
VESSEL NAME CONEAUDOC
DIRECTION UPBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 14
VESSEL SPEED in feet/sec. = 14.31
BOW ON TIME in sec = 104
STERN ON TIME in sec = 155
DISTANCE TO STAFF GAUGE from green side in feet = 40
BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	84.0	22.0	0.0
3	104.0	21.0	-1.0
4	114.0	20.0	-2.0
5	119.0	19.0	-3.0
6	124.0	18.0	-4.0
7	130.0	17.0	-5.0
8	133.0	16.0	-6.0
9	139.0	15.0	-7.0
10	147.0	15.0	-7.0
11	158.0	15.0	-7.0
12	159.0	17.0	-5.0
13	163.0	18.0	-4.0
14	167.0	19.0	-3.0
15	172.0	20.0	-2.0
16	174.0	21.0	-1.0
17	177.0	22.0	0.0
18	180.0	23.0	1.0
19	189.0	23.0	1.0
20	195.0	22.0	0.0

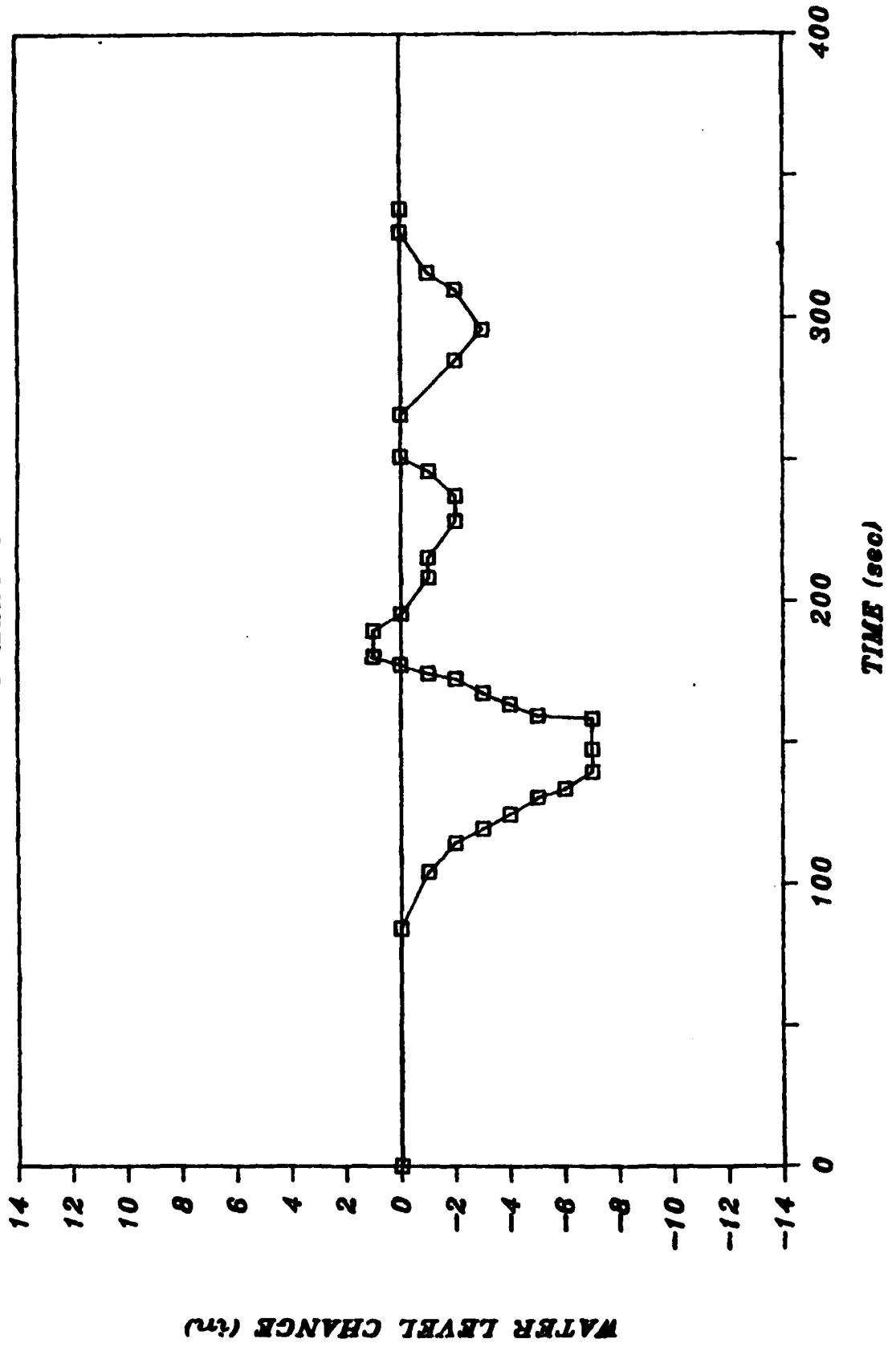
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	208.0	21.0	-1.0
22	215.0	21.0	-1.0
23	228.0	20.0	-2.0
24	237.0	20.0	-2.0
25	246.0	21.0	-1.0
26	251.0	22.0	0.0
27	266.0	22.0	0.0
28	285.0	20.0	-2.0
29	296.0	19.0	-3.0
30	310.0	20.0	-2.0
31	316.0	21.0	-1.0
32	330.0	22.0	0.0
33	338.0	22.0	0.0

WEST CELL DOCK (green)

COMBAUDOC



BF8

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DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85

VESSEL NAME COMEAUDOC

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 14

VESSEL SPEED in feet/sec. = 14.31

BOW ON TIME in sec = 104

STERN ON TIME in sec = 155

DISTANCE TO STAFF GAUGE from green side in feet = 1395

BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	90.0	26.0	0.0
3	95.0	25.0	-1.0
4	104.0	24.0	-2.0
5	108.0	23.0	-3.0
6	114.0	22.0	-4.0
7	126.0	21.0	-5.0
8	133.0	21.0	-5.0
9	138.0	20.0	-6.0
10	144.0	20.0	-6.0
11	150.0	21.0	-5.0
12	153.0	22.0	-4.0
13	156.0	23.0	-3.0
14	167.0	24.0	-2.0
15	173.0	25.0	-1.0
16	211.0	25.0	-1.0
17	213.0	26.0	0.0
18	226.0	26.0	0.0
19	236.0	25.0	-1.0
20	265.0	25.0	-1.0

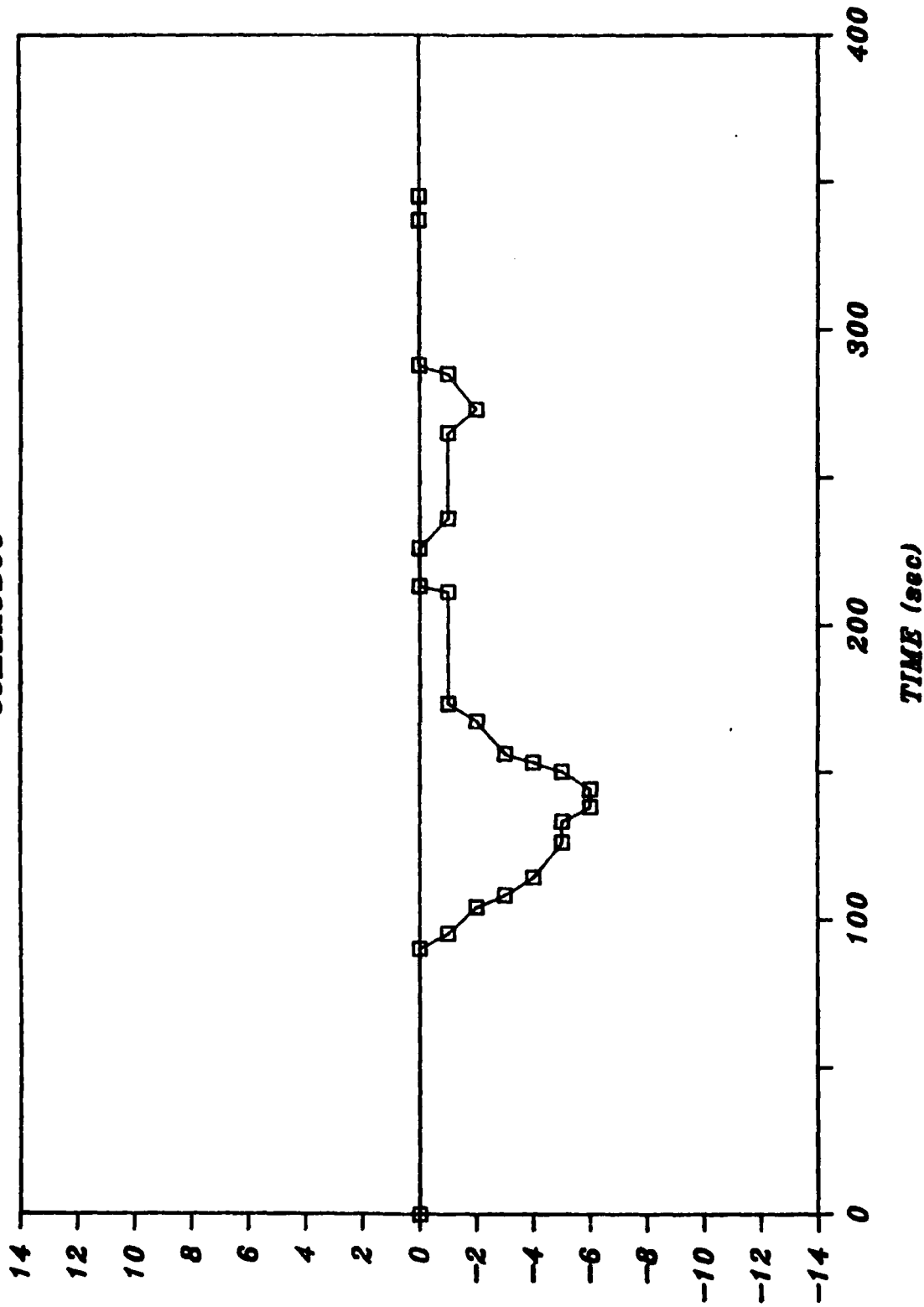
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	273.0	24.0	-2.0
22	285.0	25.0	-1.0
23	288.0	26.0	0.0
24	337.0	26.0	0.0
25	345.0	26.0	0.0

WEST CELL DOCK (red)

COMBAUDOC



BF11

DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85
VESSEL NAME PAUL H. CARNAHAN
DIRECTION UPBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 16.5
VESSEL SPEED in feet/sec. = 13.77
BOW ON TIME in sec = 74
STERN ON TIME in sec = 127
DISTANCE TO STAFF GAUGE from green side in feet = 40
BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	31.0	23.0	0.0
3	47.0	22.0	-1.0
4	57.0	22.0	-1.0
5	77.0	22.0	-1.0
6	89.0	21.0	-2.0
7	92.0	20.0	-3.0
8	96.0	19.0	-4.0
9	98.0	18.0	-5.0
10	101.0	17.0	-6.0
11	103.0	16.0	-7.0
12	108.0	15.0	-8.0
13	117.0	14.0	-9.0
14	123.0	14.0	-9.0
15	127.0	16.0	-7.0
16	135.0	18.0	-5.0
17	139.0	19.0	-4.0
18	146.0	21.0	-2.0
19	147.0	22.0	-1.0
20	149.0	23.0	0.0

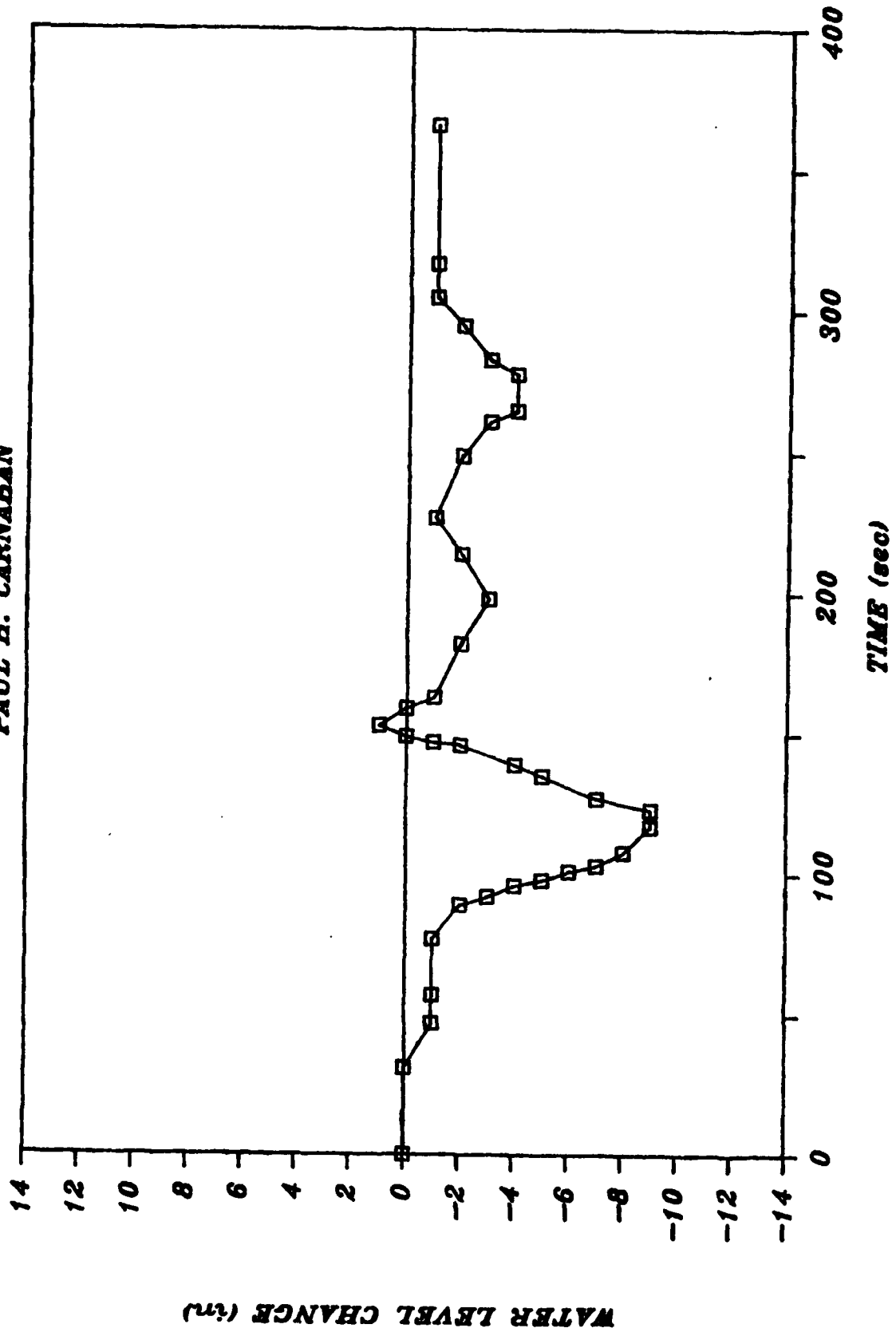
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	153.0	24.0	1.0
22	159.0	23.0	0.0
23	163.0	22.0	-1.0
24	182.0	21.0	-2.0
25	198.0	20.0	-3.0
26	214.0	21.0	-2.0
27	227.0	22.0	-1.0
28	249.0	21.0	-2.0
29	261.0	20.0	-3.0
30	265.0	19.0	-4.0
31	278.0	19.0	-4.0
32	283.0	20.0	-3.0
33	295.0	21.0	-2.0
34	305.0	22.0	-1.0
35	317.0	22.0	-1.0
36	366.0	22.0	-1.0

WEST CELL DOCK (green)

PAUL H. CARNABAN



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DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85
VESSEL NAME PAUL H. CARNAHAN
DIRECTION UPBOUND
VESSEL LENGTH in feet = 730
VESSEL BEAM in feet = 75
VESSEL DRAFT in feet = 16.5
VESSEL SPEED in feet/sec. = 13.77
BOW ON TIME in sec = 74
STERN ON TIME in sec = 127
DISTANCE TO STAFF GAUGE from green side in feet = 1395
BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	31.0	26.0	0.0
3	57.0	26.0	0.0
4	68.0	25.0	-1.0
5	74.0	24.0	-2.0
6	82.0	23.0	-3.0
7	88.0	22.0	-4.0
8	98.0	22.0	-4.0
9	102.0	21.0	-5.0
10	104.0	20.0	-6.0
11	121.0	20.0	-6.0
12	123.0	21.0	-5.0
13	124.0	22.0	-4.0
14	127.0	23.0	-3.0
15	133.0	23.0	-3.0
16	143.0	24.0	-2.0
17	149.0	25.0	-1.0
18	165.0	26.0	0.0
19	211.0	26.0	0.0
20	225.0	25.0	-1.0

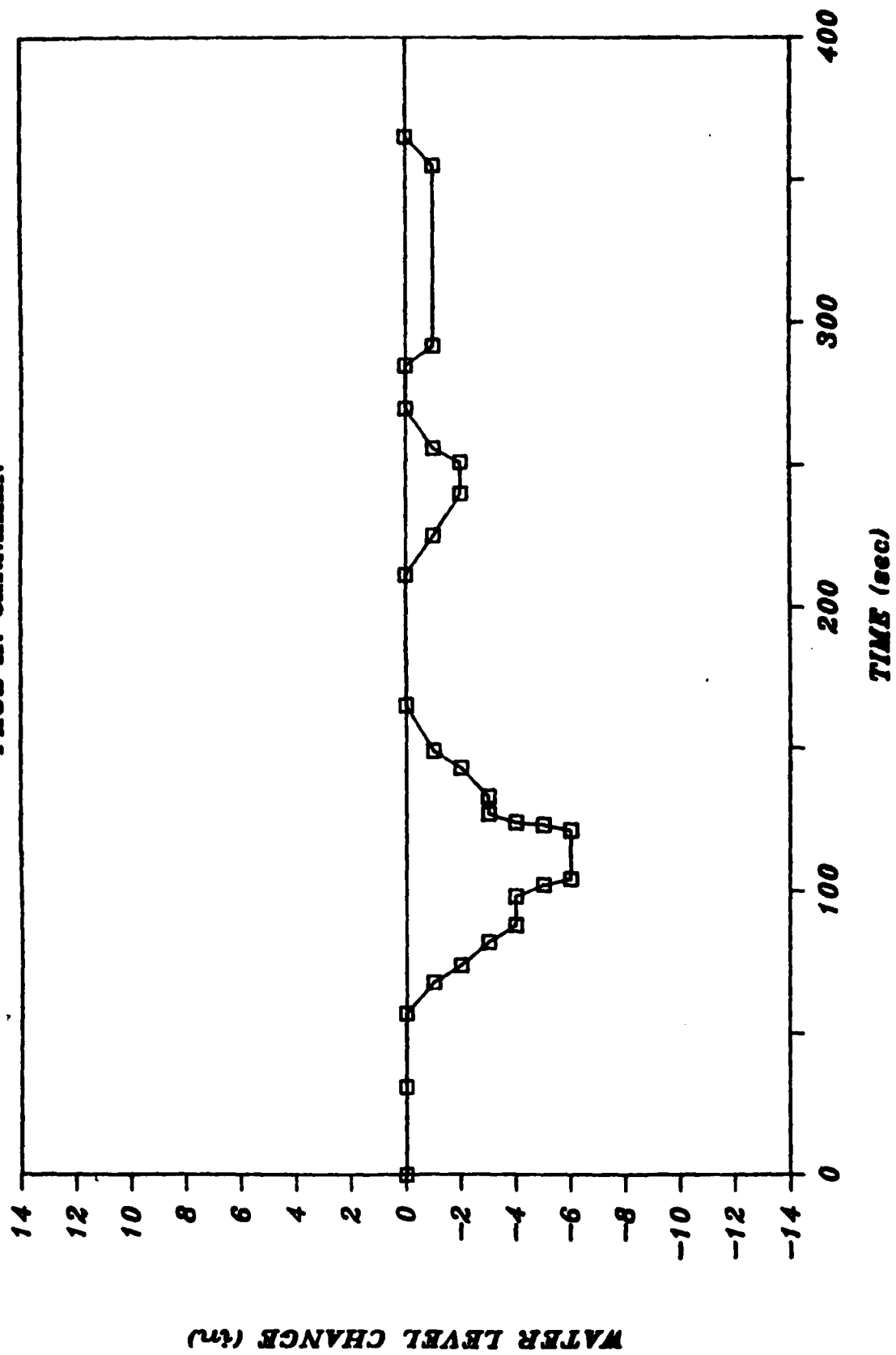
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	240.0	24.0	-2.0
22	251.0	24.0	-2.0
23	256.0	25.0	-1.0
24	270.0	26.0	0.0
25	285.0	26.0	0.0
26	292.0	25.0	-1.0
27	355.0	25.0	-1.0
28	365.0	26.0	0.0

WEST CELL DOCK (red)

PAUL H. CARNAHAN



 DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85

VESSEL NAME ERNEST R. BREECH

DIRECTION UPBOUND

VESSEL LENGTH in feet = 642

VESSEL BEAM in feet = 67

VESSEL DRAFT in feet = 11?

VESSEL SPEED in feet/sec. = 12.35

BOW ON TIME in sec = 114

STERN ON TIME in sec = 166

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	24.0	22.0	0.0
3	46.0	22.0	0.0
4	57.0	23.0	1.0
5	67.0	23.0	1.0
6	87.0	22.0	0.0
7	101.0	21.0	-1.0
8	110.0	21.0	-1.0
9	118.0	20.0	-2.0
10	126.0	19.0	-3.0
11	140.0	18.0	-4.0
12	151.0	18.0	-4.0
13	157.0	19.0	-3.0
14	170.0	20.0	-2.0
15	175.0	21.0	-1.0
16	187.0	21.0	-1.0
17	197.0	21.0	-1.0
18	214.0	21.0	-1.0
19	230.0	22.0	0.0
20	241.0	22.0	0.0

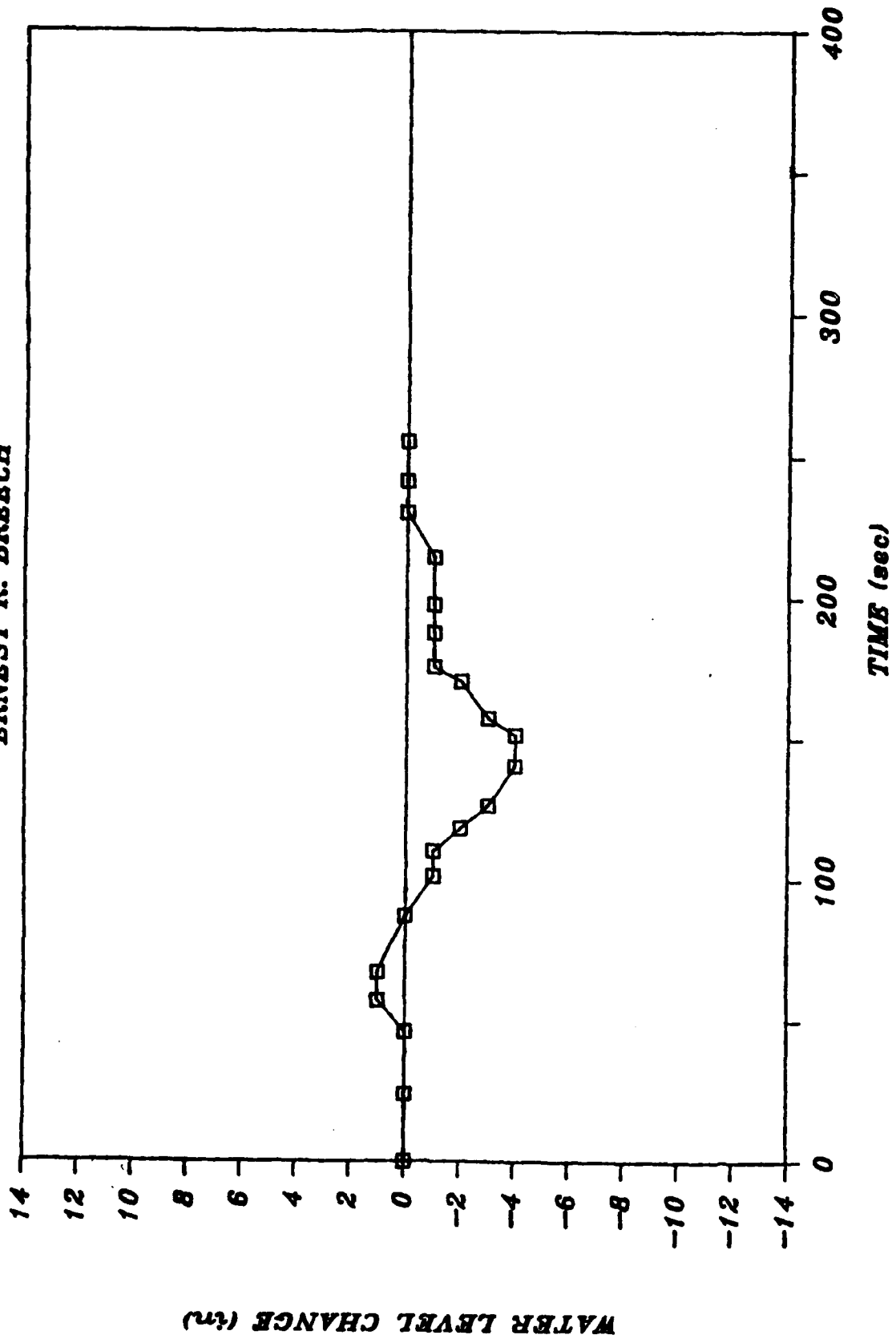
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DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK
.....

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	255.0	22.0	0.0

WEST CELL DOCK (green)

ERNEST R. BRBECH



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 5/24/85

VESSEL NAME ERNEST R. BREECH

DIRECTION UPBOUND

VESSEL LENGTH in feet = 642

VESSEL BEAM in feet = 67

VESSEL DRAFT in feet = 11?

VESSEL SPEED in feet/sec. = 12.35

BOW ON TIME in sec = 114

STERN ON TIME in sec = 166

DISTANCE TO STAFF GAUGE from green side in feet = 1395

BACKGROUND READING in inches = 26

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	26.0	0.0
2	12.0	26.0	0.0
3	102.0	26.0	0.0
4	113.0	25.0	-1.0
5	116.0	25.0	-1.0
6	122.0	24.0	-2.0
7	128.0	23.0	-3.0
8	135.0	23.0	-3.0
9	140.0	22.0	-4.0
10	148.0	22.0	-4.0
11	159.0	23.0	-3.0
12	165.0	23.0	-3.0
13	174.0	24.0	-2.0
14	180.0	24.0	-2.0
15	182.0	25.0	-1.0
16	188.0	25.0	-1.0
17	196.0	25.0	-1.0
18	206.0	26.0	0.0
19	215.0	25.0	-1.0
20	249.0	25.0	-1.0

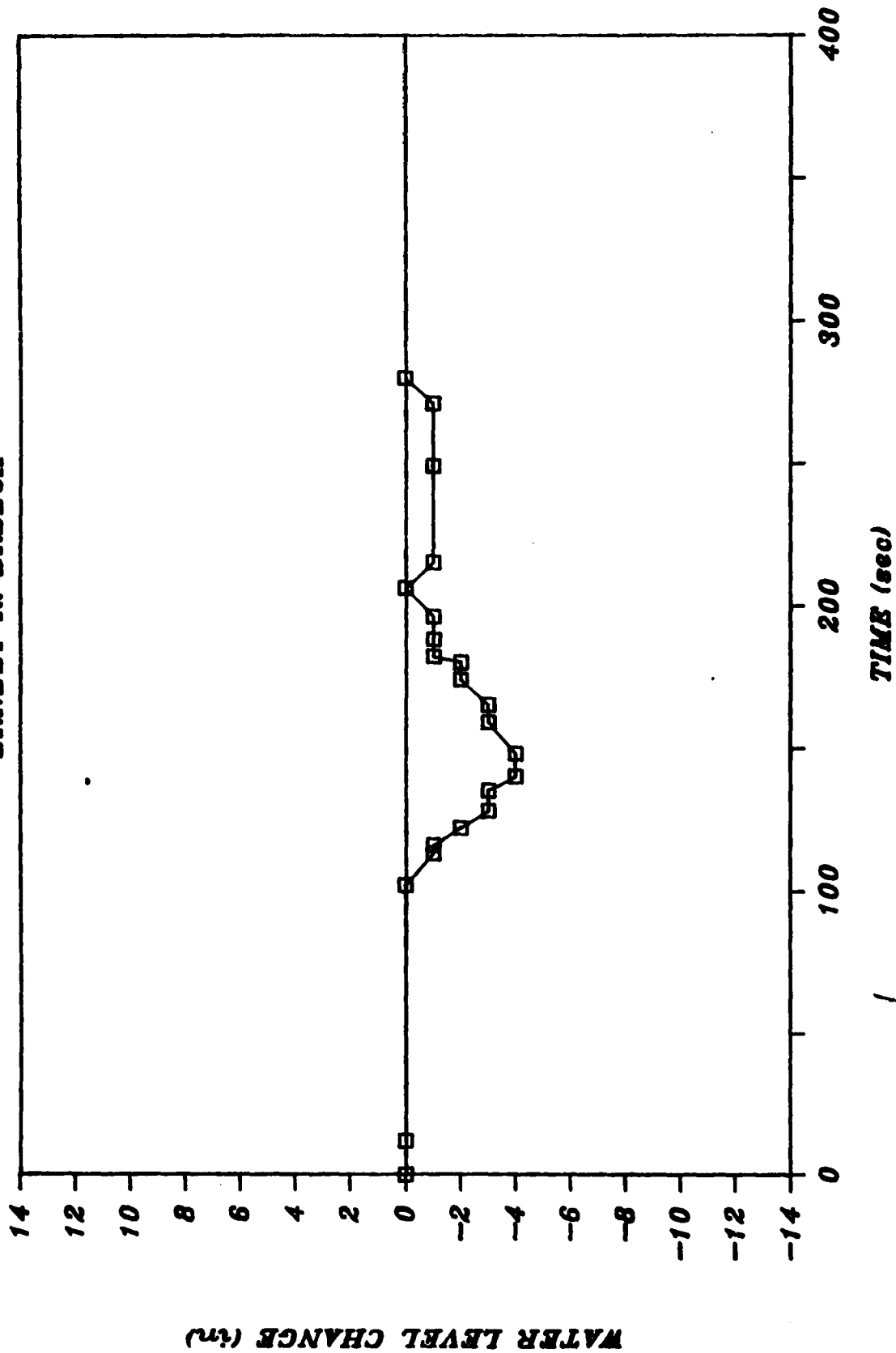
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	271.0	25.0	-1.0
22	280.0	26.0	0.0

WEST CELL DOCK (red)

ERNEST R. BRBACH



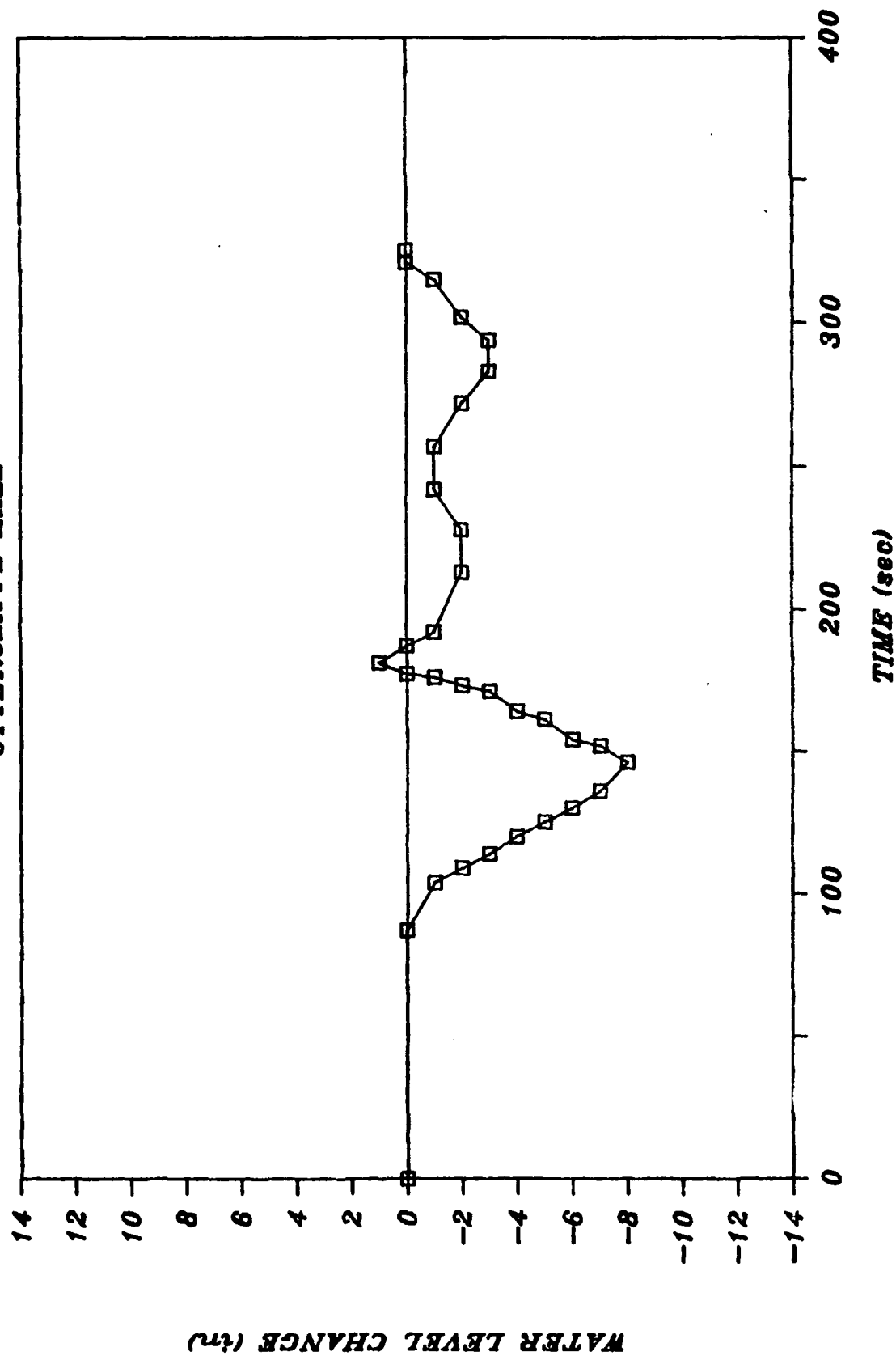
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	192.0	22.0	-1.0
22	213.0	21.0	-2.0
23	228.0	21.0	-2.0
24	242.0	22.0	-1.0
25	257.0	22.0	-1.0
26	272.0	21.0	-2.0
27	283.0	20.0	-3.0
28	294.0	20.0	-3.0
29	302.0	21.0	-2.0
30	315.0	22.0	-1.0
31	321.0	23.0	0.0
32	325.0	23.0	0.0

WEST CELL DOCK (green)

OTTERCLIFFE HALL

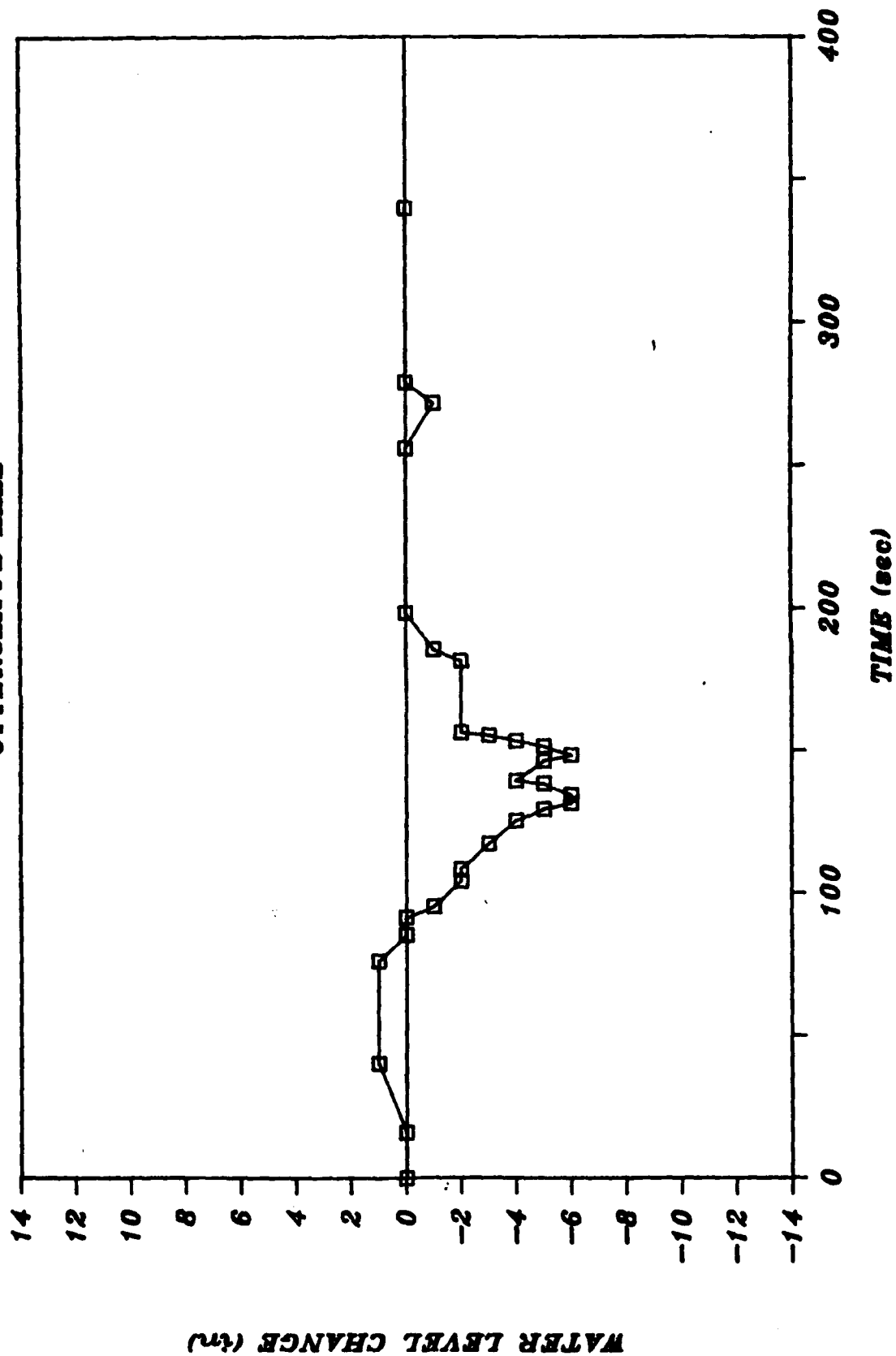


DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	155.0	23.0	-3.0
22	156.0	24.0	-2.0
23	181.0	24.0	-2.0
24	185.0	25.0	-1.0
25	198.0	26.0	0.0
26	256.0	26.0	0.0
27	272.0	25.0	-1.0
28	279.0	26.0	0.0
29	340.0	26.0	0.0

**WEST CELL DOCK (red)
OTTERCLIFFE HALL**



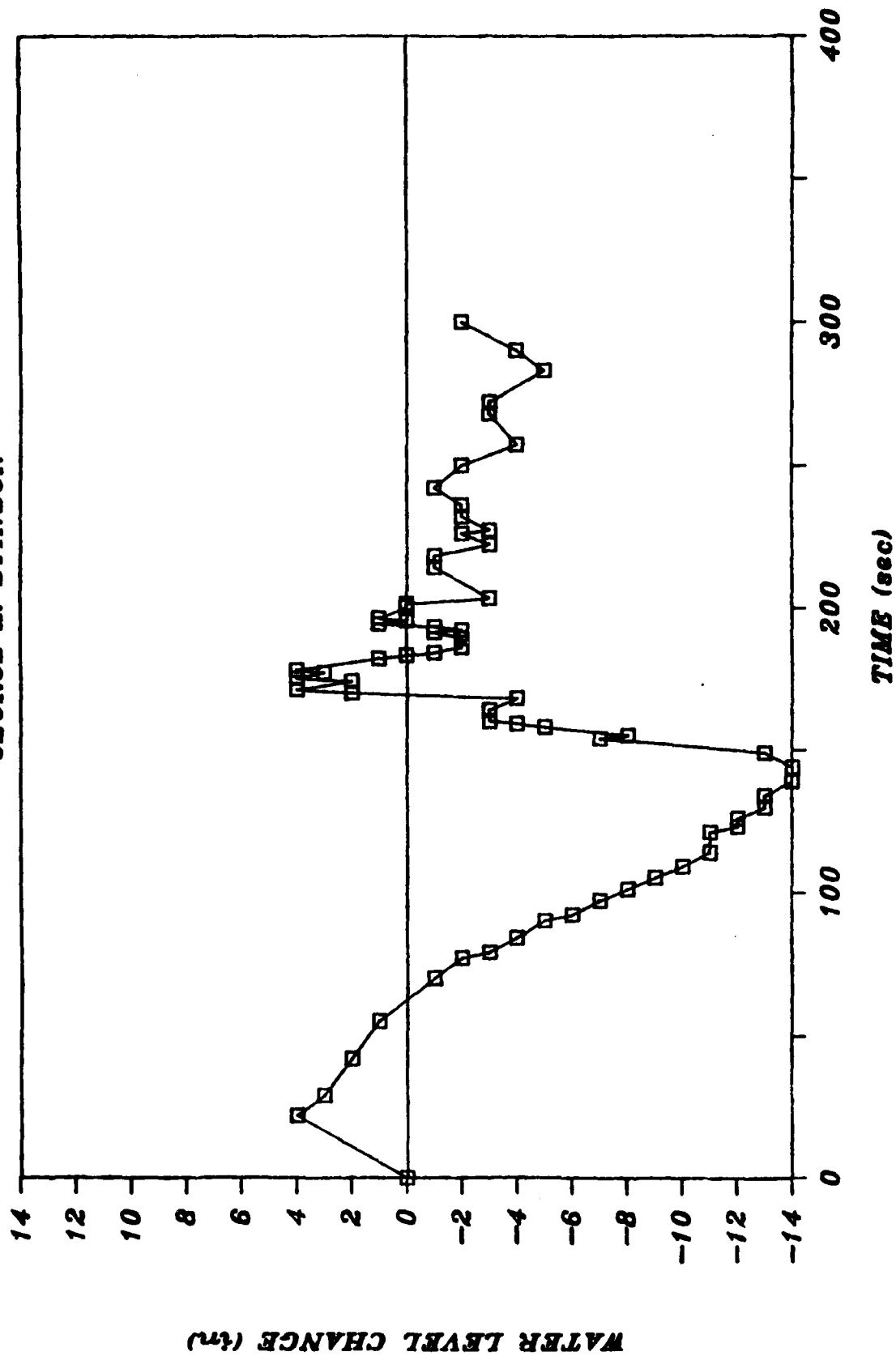
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	144.0	7.0	-14.0
22	149.0	8.0	-13.0
23	154.0	14.0	-7.0
24	155.0	13.0	-8.0
25	158.0	16.0	-5.0
26	159.0	17.0	-4.0
27	168.0	17.0	-4.0
28	170.0	23.0	2.0
29	171.0	25.0	4.0
30	174.0	23.0	2.0
31	175.0	25.0	4.0
32	177.0	24.0	3.0
33	178.0	25.0	4.0
34	182.0	22.0	1.0
35	183.0	21.0	0.0
36	184.0	20.0	-1.0
37	186.0	19.0	-2.0
38	189.0	19.0	-2.0
39	191.0	20.0	-1.0
40	192.0	19.0	-2.0
41	193.0	20.0	-1.0
42	194.0	24.0	3.0
43	195.0	21.0	0.0
44	196.0	22.0	1.0
45	200.0	21.0	0.0
46	201.0	21.0	0.0
47	202.0	18.0	-3.0
48	214.0	20.0	-1.0
49	218.0	20.0	-1.0
50	222.0	18.0	-3.0
51	226.0	19.0	-2.0
52	227.0	18.0	-3.0
53	232.0	19.0	-2.0
54	236.0	19.0	-2.0
55	242.0	20.0	-1.0
56	250.0	19.0	-2.0
57	257.0	17.0	-4.0
58	268.0	18.0	-3.0
59	272.0	18.0	-3.0
60	275.0	18.0	-3.0
61	283.0	16.0	-5.0
62	290.0	17.0	-4.0
63	300.0	19.0	-2.0

WEST CELL DOCK (green)

GEORGE A. STINSON



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DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/4/85
VESSEL NAME GEORGE A. STINSON
DIRECTION UPBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 19
VESSEL SPEED in feet/sec. = 12.82
BOW ON TIME in sec = 70
STERN ON TIME in sec = 148
DISTANCE TO STAFF GAUGE from green side in feet = 1395
BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	17.0	23.0	0.0
3	47.0	23.0	0.0
4	60.0	22.0	-1.0
5	64.0	21.0	-2.0
6	70.0	20.0	-3.0
7	72.0	19.0	-4.0
8	76.0	18.0	-5.0
9	78.0	17.0	-6.0
10	80.0	16.0	-7.0
11	82.0	15.0	-8.0
12	84.0	14.0	-9.0
13	87.0	13.0	-10.0
14	90.0	12.0	-11.0
15	93.0	11.0	-12.0
16	95.0	11.0	-12.0
17	113.0	10.0	-13.0
18	129.0	10.0	-13.0
19	135.0	9.0	-14.0
20	137.0	8.0	-15.0

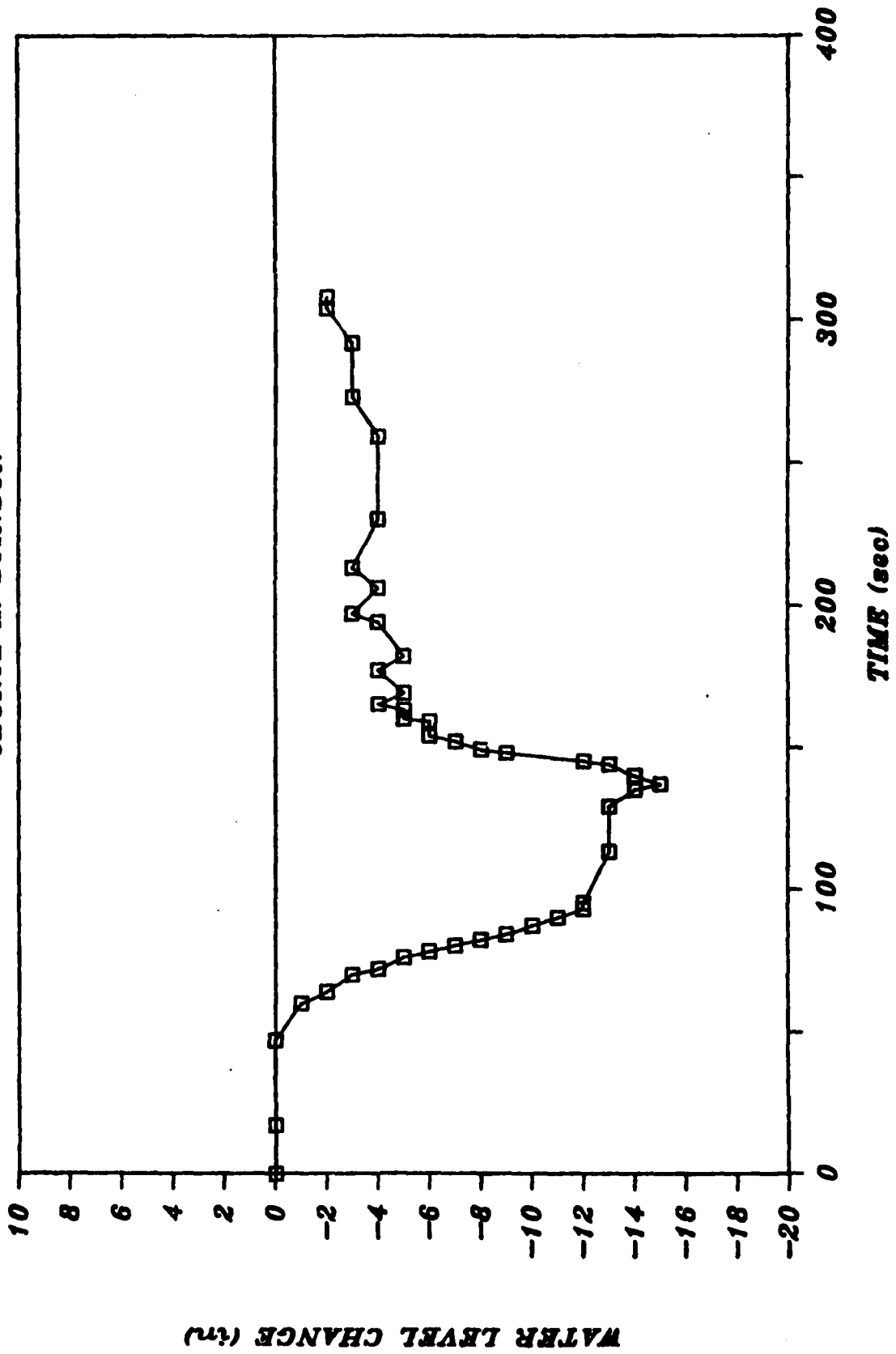
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	140.0	9.0	-14.0
22	144.0	10.0	-13.0
23	145.0	11.0	-12.0
24	148.0	14.0	-9.0
25	149.0	15.0	-8.0
26	152.0	16.0	-7.0
27	154.0	17.0	-6.0
28	159.0	17.0	-6.0
29	160.0	18.0	-5.0
30	163.0	18.0	-5.0
31	165.0	19.0	-4.0
32	169.0	18.0	-5.0
33	177.0	19.0	-4.0
34	182.0	18.0	-5.0
35	194.0	19.0	-4.0
36	197.0	20.0	-3.0
37	206.0	19.0	-4.0
38	213.0	20.0	-3.0
39	230.0	19.0	-4.0
40	259.0	19.0	-4.0
41	273.0	20.0	-3.0
42	292.0	20.0	-3.0
43	304.0	21.0	-2.0
44	308.0	21.0	-2.0

WEST CELL DOCK (red)

GEORGE A. STINSON



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/4/85

VESSEL NAME CANADIAN OLYMPIC

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 20

VESSEL SPEED in feet/sec. = 13.04

BOW ON TIME in sec = 105

STERN ON TIME in sec = 161

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	32.0	24.0	1.0
3	46.0	24.0	1.0
4	62.0	23.0	0.0
5	75.0	22.0	-1.0
6	83.0	21.0	-2.0
7	95.0	20.0	-3.0
8	101.0	20.0	-3.0
9	109.0	19.0	-4.0
10	112.0	18.0	-5.0
11	118.0	17.0	-6.0
12	125.0	16.0	-7.0
13	129.0	15.0	-8.0
14	132.0	14.0	-9.0
15	136.0	14.0	-9.0
16	137.0	13.0	-10.0
17	140.0	12.0	-11.0
18	143.0	12.0	-11.0
19	144.0	11.0	-12.0
20	150.0	10.0	-13.0

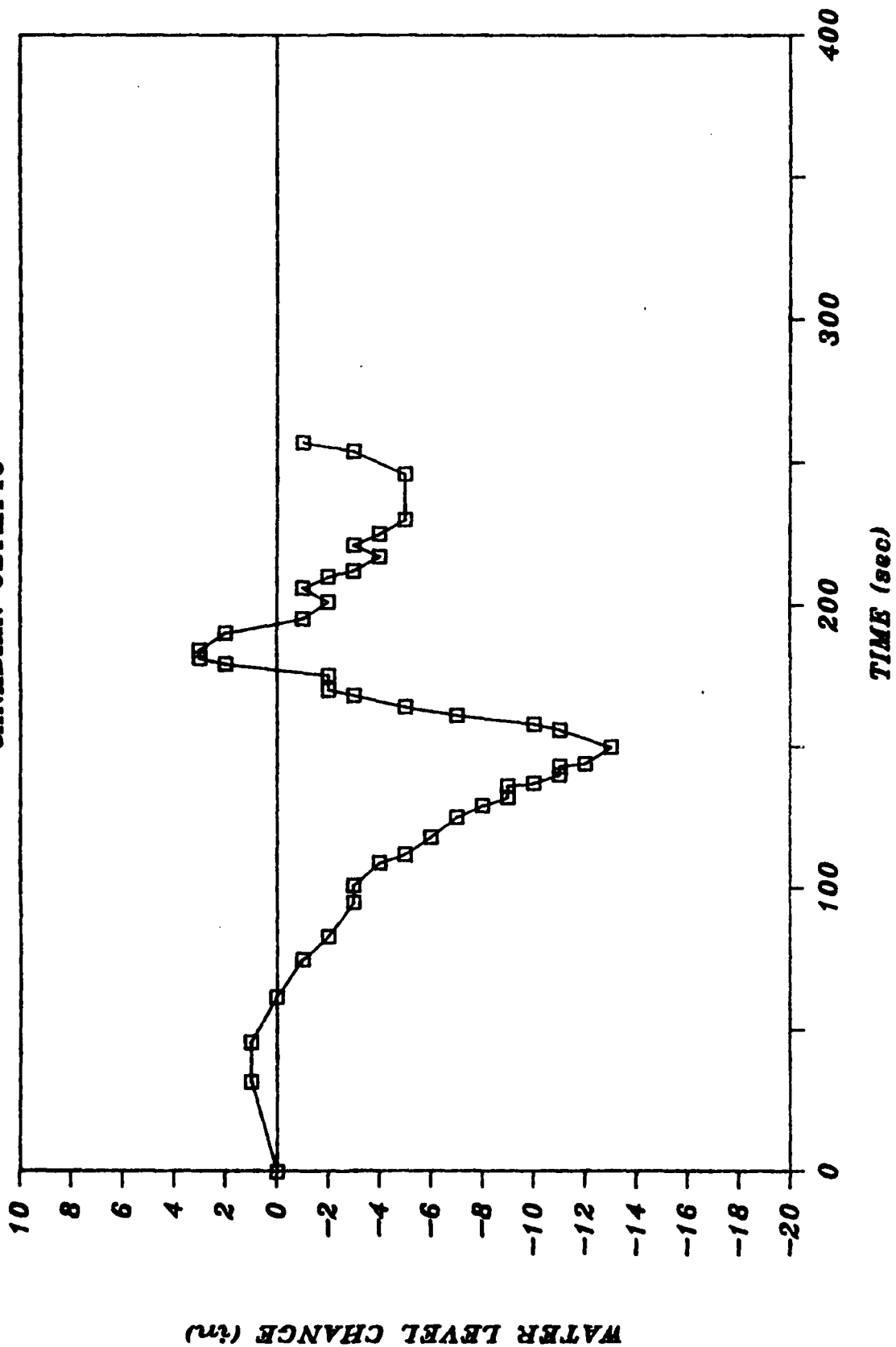
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	156.0	12.0	-11.0
22	158.0	13.0	-10.0
23	161.0	16.0	-7.0
24	164.0	18.0	-5.0
25	168.0	20.0	-3.0
26	170.0	21.0	-2.0
27	175.0	21.0	-2.0
28	179.0	25.0	2.0
29	181.0	26.0	3.0
30	184.0	26.0	3.0
31	190.0	25.0	2.0
32	195.0	22.0	-1.0
33	201.0	21.0	-2.0
34	206.0	22.0	-1.0
35	210.0	21.0	-2.0
36	212.0	20.0	-3.0
37	217.0	19.0	-4.0
38	221.0	20.0	-3.0
39	225.0	19.0	-4.0
40	230.0	18.0	-5.0
41	246.0	18.0	-5.0
42	254.0	20.0	-3.0
43	257.0	22.0	-1.0

WEST CELL DOCK (green)

CANADIAN OLYMPIC



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/4/85

VESSEL NAME CANADIAN OLYMPIC

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 20

VESSEL SPEED in feet/sec. = 13.04

BOW ON TIME in sec = 105

STERN ON TIME in sec = 161

DISTANCE TO STAFF GAUGE from green side in feet = 1395

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	45.0	23.0	0.0
3	60.0	22.0	-1.0
4	77.0	22.0	-1.0
5	81.0	21.0	-2.0
6	92.0	21.0	-2.0
7	109.0	18.0	-5.0
8	110.0	17.0	-6.0
9	112.0	16.0	-7.0
10	114.0	15.0	-8.0
11	122.0	14.0	-9.0
12	133.0	15.0	-8.0
13	138.0	16.0	-7.0
14	150.0	15.0	-8.0
15	152.0	14.0	-9.0
16	155.0	13.0	-10.0
17	160.0	14.0	-9.0
18	162.0	15.0	-8.0
19	164.0	16.0	-7.0
20	171.0	18.0	-5.0

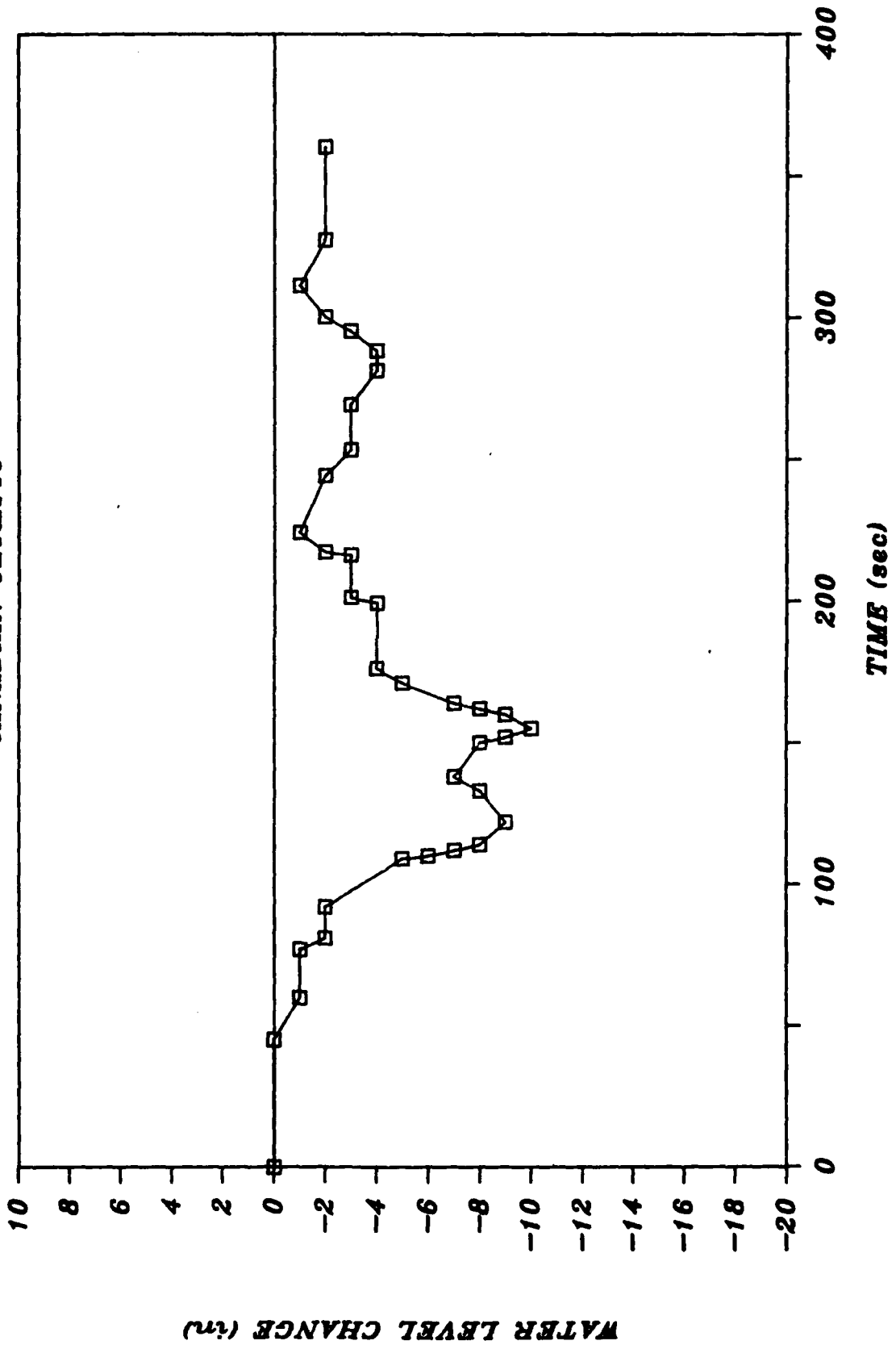
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	176.0	19.0	-4.0
22	199.0	19.0	-4.0
23	201.0	20.0	-3.0
24	216.0	20.0	-3.0
25	217.0	21.0	-2.0
26	224.0	22.0	-1.0
27	244.0	21.0	-2.0
28	253.0	20.0	-3.0
29	269.0	20.0	-3.0
30	281.0	19.0	-4.0
31	288.0	19.0	-4.0
32	295.0	20.0	-3.0
33	300.0	21.0	-2.0
34	311.0	22.0	-1.0
35	327.0	21.0	-2.0
36	360.0	21.0	-2.0

WEST CELL DOCK (red)

CANADIAN OLYMPIC



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/4/85

VESSEL NAME ELMGLEN

DIRECTION UPBOUND

VESSEL LENGTH in feet = 604

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 14

VESSEL SPEED in feet/sec. = 14.9?

BOW ON TIME in sec = 74

STERN ON TIME in sec = 123

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	40.0	23.0	0.0
3	50.0	22.0	-1.0
4	62.0	21.0	-2.0
5	73.0	20.0	-3.0
6	79.0	19.0	-4.0
7	83.0	18.0	-5.0
8	87.0	18.0	-5.0
9	89.0	17.0	-6.0
10	96.0	19.0	-4.0
11	102.0	15.0	-8.0
12	105.0	14.0	-9.0
13	107.0	14.0	-9.0
14	112.0	13.0	-10.0
15	115.0	13.0	-10.0
16	121.0	14.0	-9.0
17	124.0	15.0	-8.0
18	126.0	17.0	-6.0
19	130.0	19.0	-4.0
20	131.0	20.0	-3.0

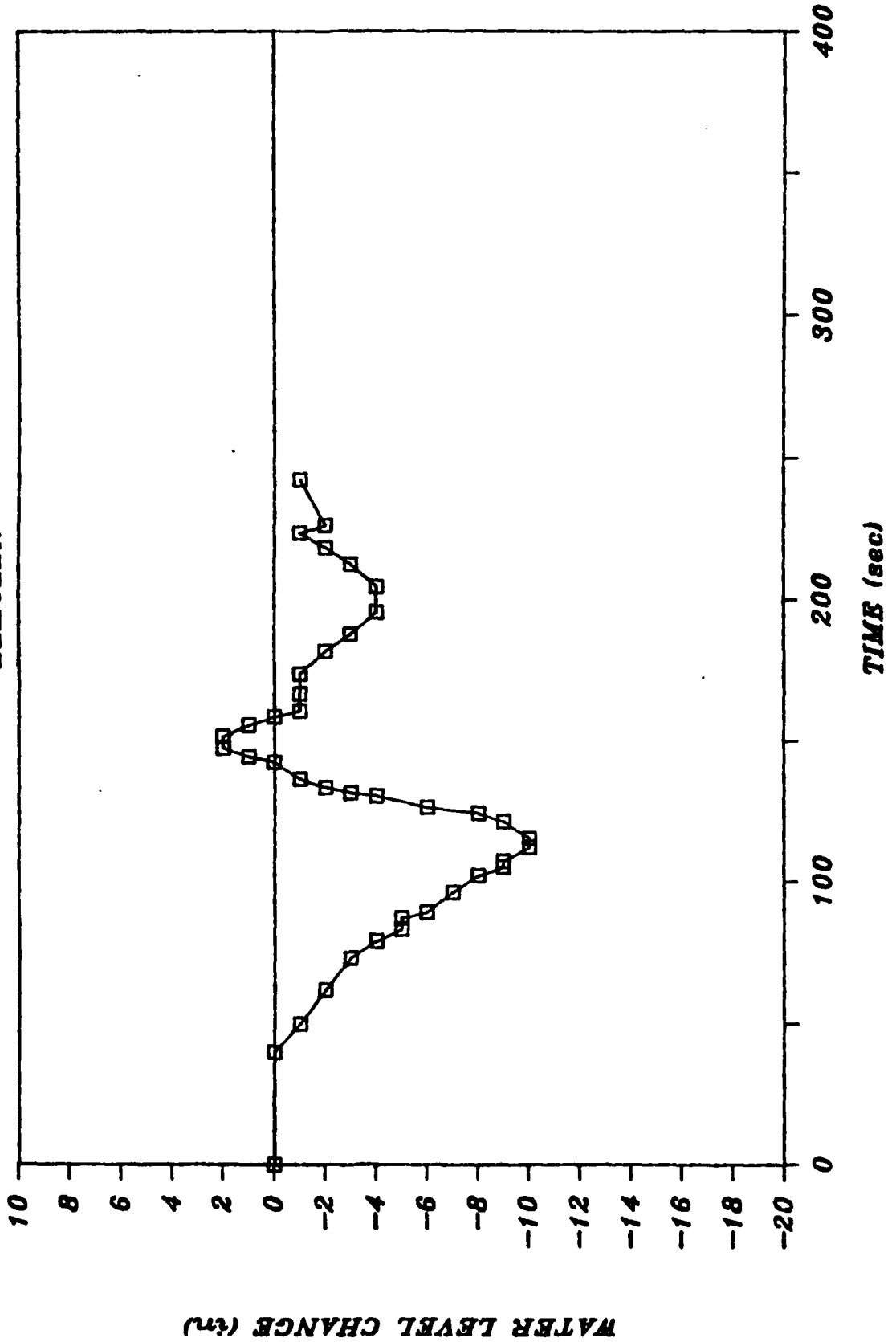
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	133.0	21.0	-2.0
22	136.0	22.0	-1.0
23	142.0	23.0	0.0
24	144.0	24.0	1.0
25	147.0	25.0	2.0
26	151.0	25.0	2.0
27	155.0	24.0	1.0
28	158.0	23.0	0.0
29	160.0	22.0	-1.0
30	166.0	22.0	-1.0
31	173.0	22.0	-1.0
32	181.0	21.0	-2.0
33	187.0	20.0	-3.0
34	195.0	19.0	-4.0
35	204.0	19.0	-4.0
36	212.0	20.0	-3.0
37	218.0	21.0	-2.0
38	223.0	22.0	-1.0
39	226.0	21.0	-2.0
40	242.0	22.0	-1.0

WEST CELL DOCK (green)

ELMGLN



BF44

DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/4/85

VESSEL NAME ELMGLEN

DIRECTION UPBOUND

VESSEL LENGTH in feet = 604

VESSEL BEAM in feet = 60

VESSEL DRAFT in feet = 14

VESSEL SPEED in feet/sec. = 14.9 ?

BOW ON TIME in sec = 74

STERN ON TIME in sec = 123

DISTANCE TO STAFF GAUGE from green side in feet = 1395

BACKGROUND READING in inches = 22

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	22.0	0.0
2	31.0	22.0	0.0
3	47.0	21.0	-1.0
4	61.0	21.0	-1.0
5	68.0	20.0	-2.0
6	77.0	19.0	-3.0
7	80.0	18.0	-4.0
8	84.0	17.0	-5.0
9	89.0	16.0	-6.0
10	95.0	17.0	-5.0
11	103.0	18.0	-4.0
12	110.0	18.0	-4.0
13	116.0	17.0	-5.0
14	126.0	18.0	-4.0
15	131.0	19.0	-3.0
16	138.0	20.0	-2.0
17	155.0	20.0	-2.0
18	162.0	21.0	-1.0
19	167.0	21.0	-1.0
20	171.0	20.0	-2.0

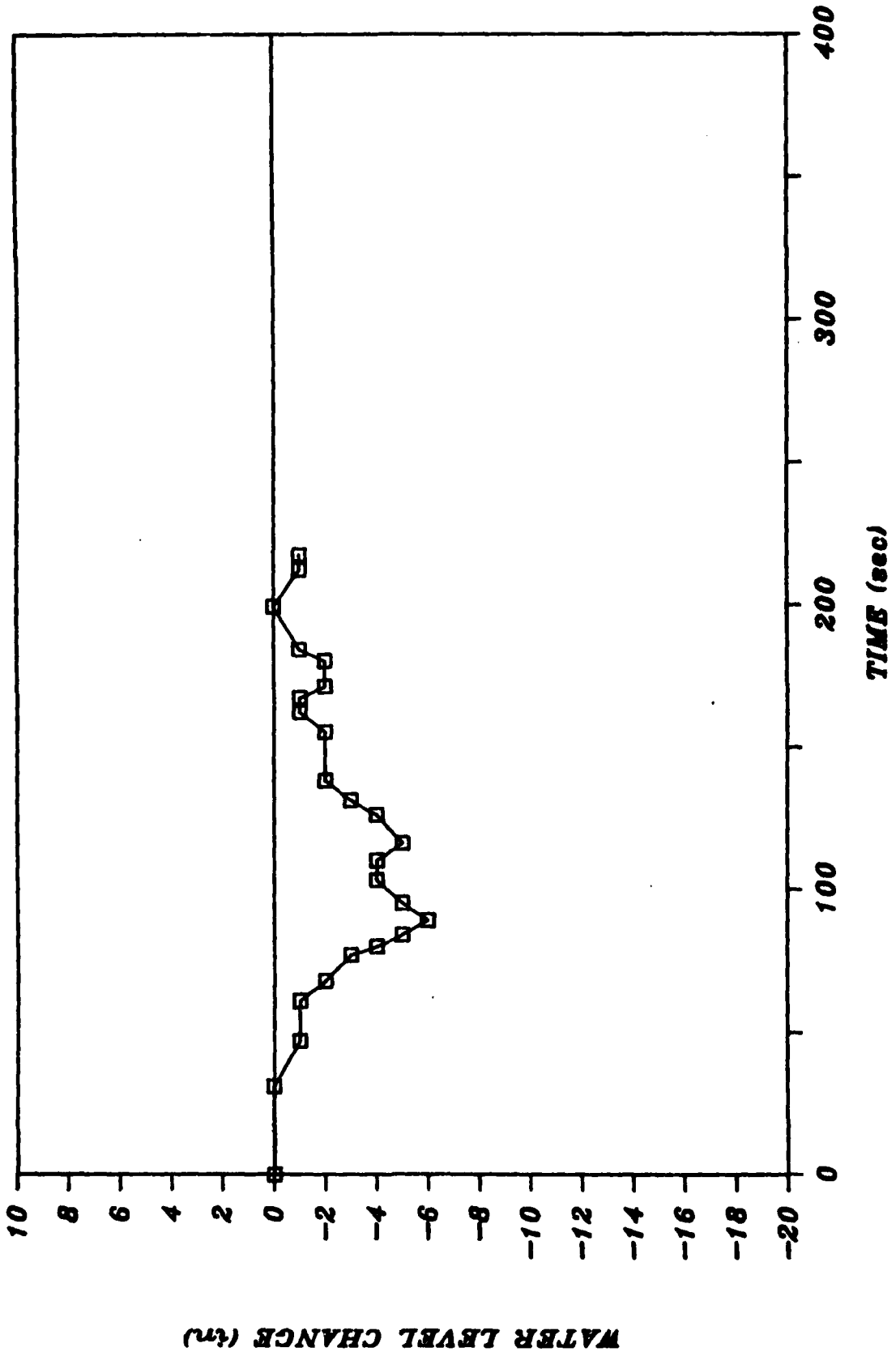
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	180.0	20.0	-2.0
22	184.0	21.0	-1.0
23	199.0	22.0	0.0
24	212.0	21.0	-1.0

WEST CELL DOCK (red)

BLMGLN



BF47

 DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/4/85

VESSEL NAME LEWIS WILSON FOY

DIRECTION UPBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 21

VESSEL SPEED in feet/sec. = 9.17

BOW ON TIME in sec = 103

STERN ON TIME in sec = 212

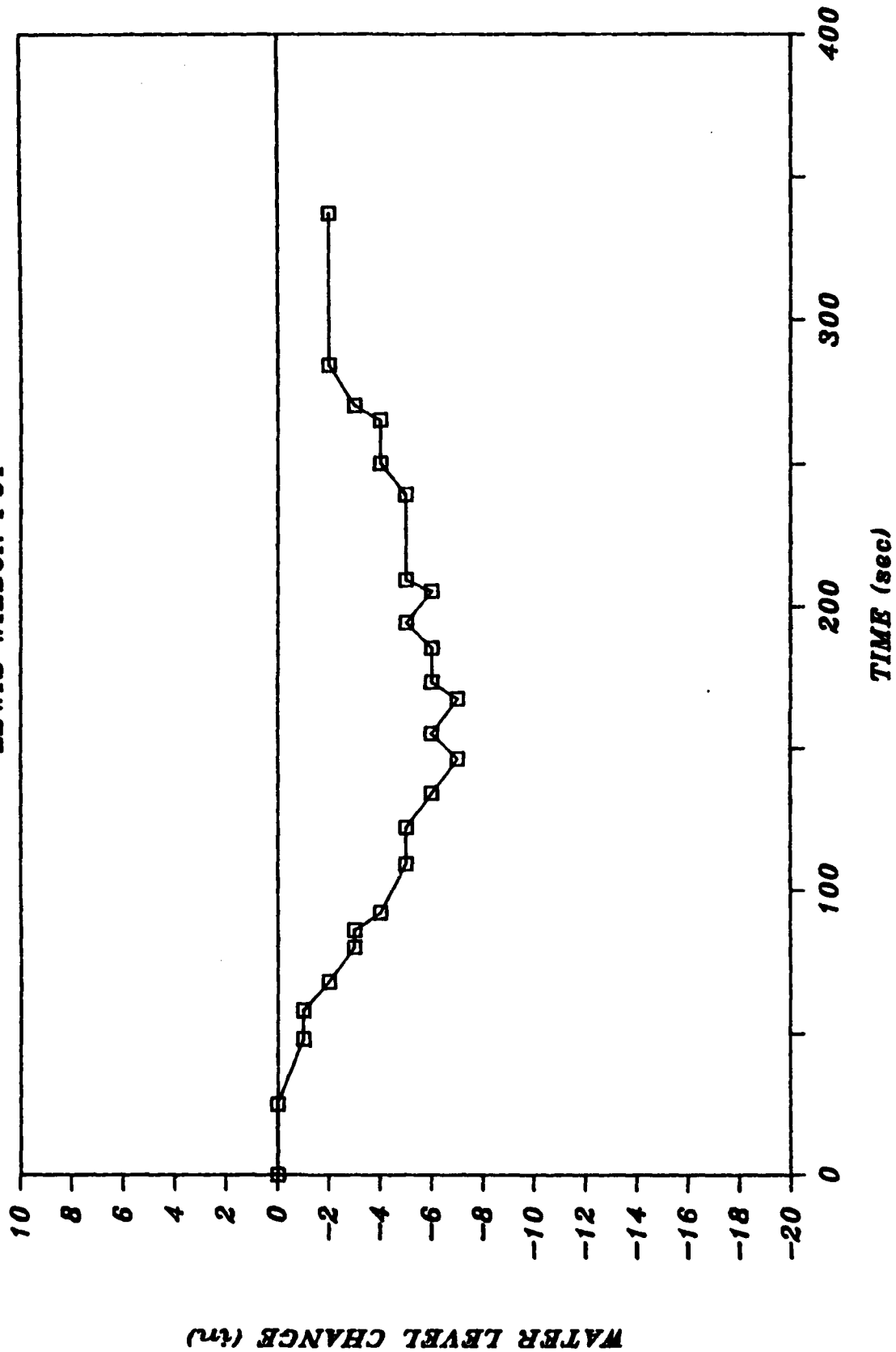
DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	25.0	23.0	0.0
3	48.0	22.0	-1.0
4	58.0	22.0	-1.0
5	68.0	21.0	-2.0
6	80.0	20.0	-3.0
7	86.0	20.0	-3.0
8	92.0	19.0	-4.0
9	109.0	18.0	-5.0
10	122.0	18.0	-5.0
11	134.0	17.0	-6.0
12	146.0	16.0	-7.0
13	155.0	17.0	-6.0
14	167.0	16.0	-7.0
15	173.0	17.0	-6.0
16	185.0	17.0	-6.0
17	194.0	18.0	-5.0
18	205.0	17.0	-6.0
19	209.0	18.0	-5.0
20	239.0	18.0	-5.0

WEST CELL DOCK (green)

LEWIS WILSON FOY



BF50

DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/4/85
VESSEL NAME LEWIS WILSON FOY
DIRECTION UPBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 21
VESSEL SPEED in feet/sec. = 9.17
BOW ON TIME in sec = 103
STERN ON TIME in sec = 212
DISTANCE TO STAFF GAUGE from green side in feet = 1395
BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	18.0	23.0	0.0
3	31.0	22.0	-1.0
4	62.0	22.0	-1.0
5	77.0	21.0	-2.0
6	95.0	20.0	-3.0
7	101.0	19.0	-4.0
8	106.0	18.0	-5.0
9	111.0	18.0	-5.0
10	118.0	17.0	-6.0
11	122.0	16.0	-7.0
12	138.0	16.0	-7.0
13	145.0	15.0	-8.0
14	164.0	15.0	-8.0
15	174.0	14.0	-9.0
16	197.0	14.0	-9.0
17	208.0	16.0	-7.0
18	212.0	17.0	-6.0
19	223.0	19.0	-4.0
20	232.0	19.0	-4.0

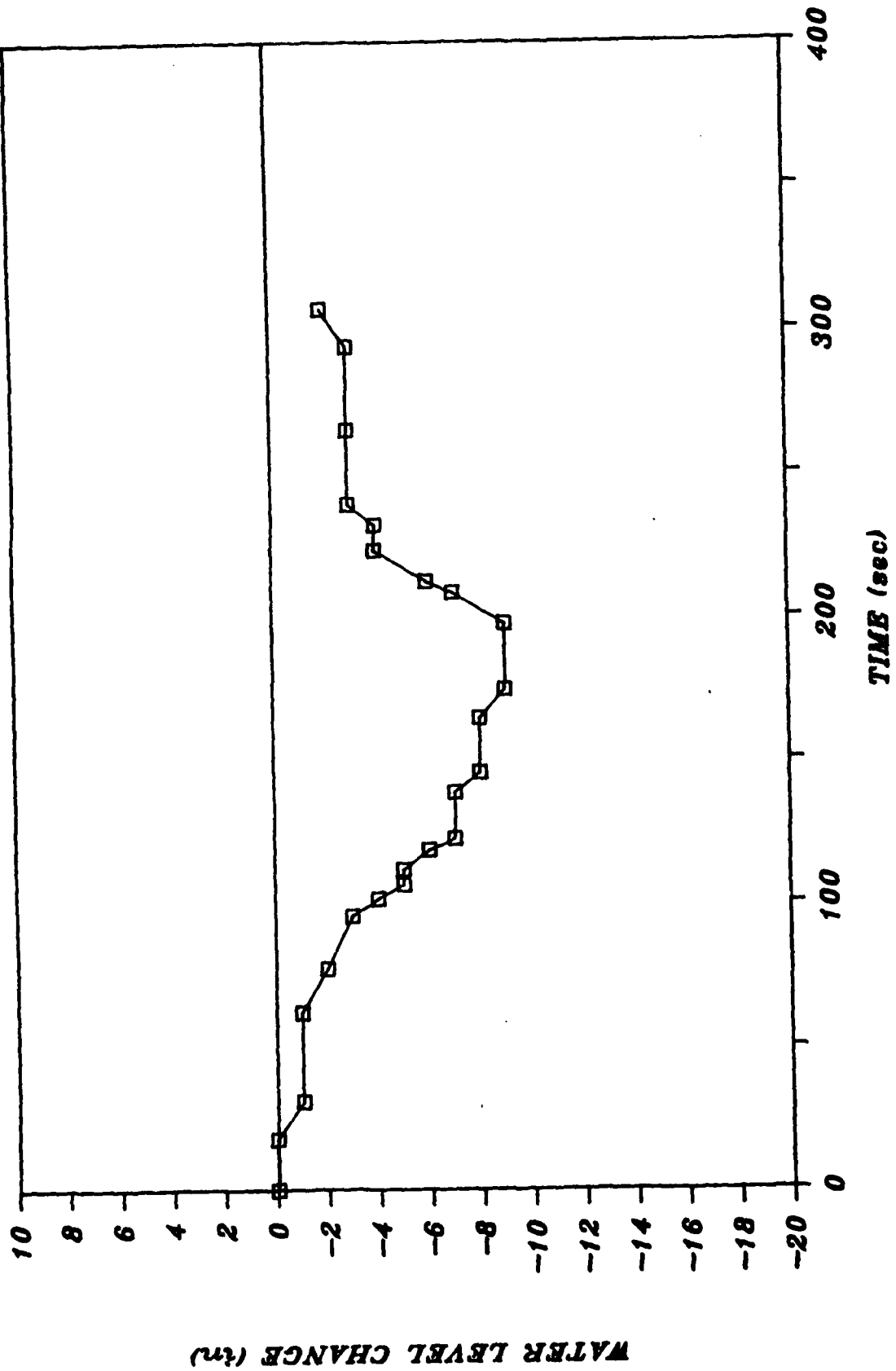
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	239.0	20.0	-3.0
22	265.0	20.0	-3.0
23	294.0	20.0	-3.0
24	307.0	21.0	-2.0

WEST CELL DOCK (red)

LEWIS WILSON FOY



BF53

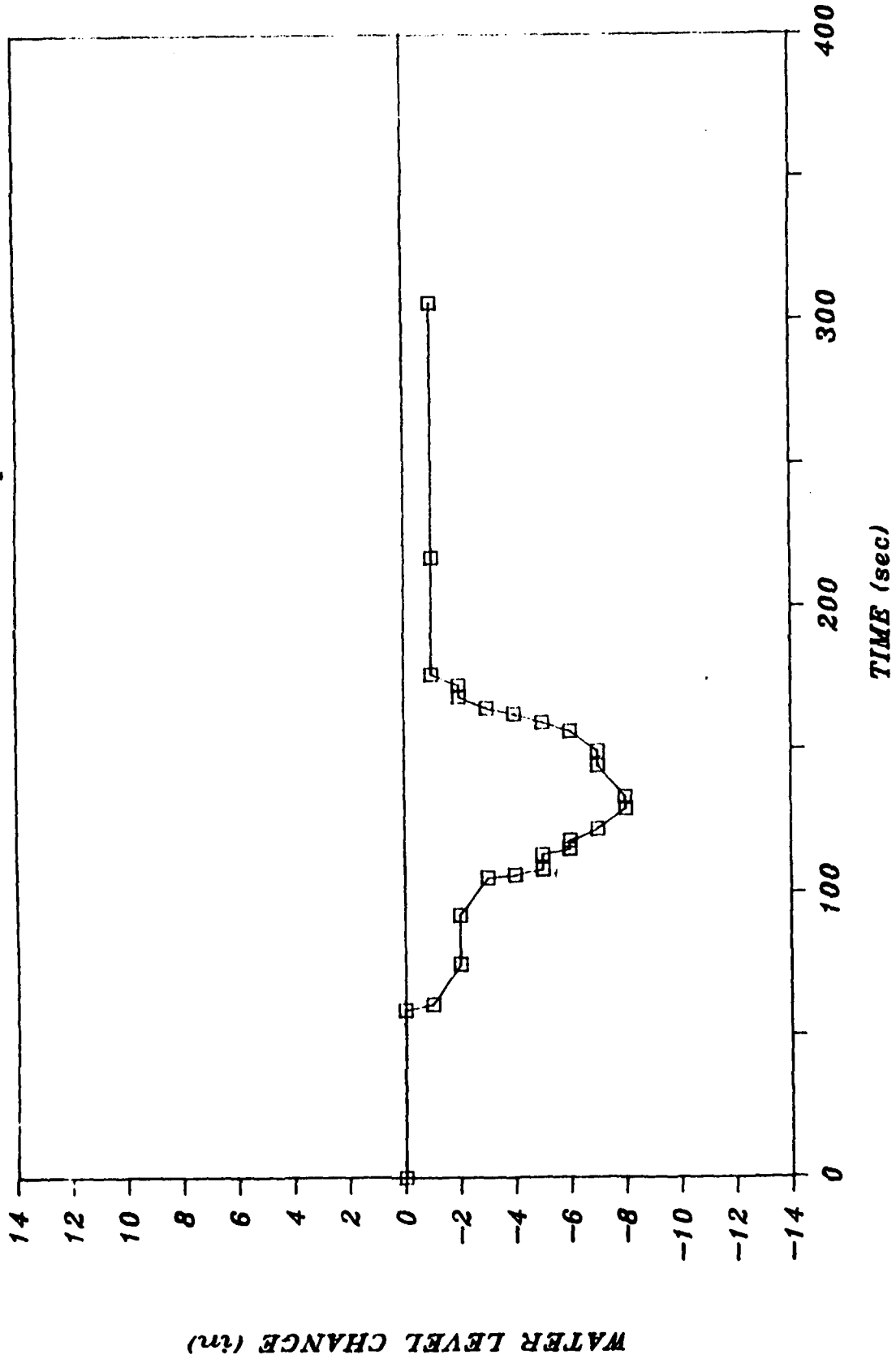
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	168.0	21.0	-2.0
22	172.0	21.0	-2.0
23	176.0	22.0	-1.0
24	217.0	22.0	-1.0
25	306.0	22.0	-1.0

WEST CELL DOCK (green)

COLUMBIA STAR (wp)



 DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/26/85
 VESSEL NAME LEWIS WILSON FOY
 DIRECTION UPBOUND
 VESSEL LENGTH in feet = 1000
 VESSEL BEAM in feet = 105
 VESSEL DRAFT in feet = 19.5
 VESSEL SPEED in feet/sec. = 8.77
 BOW ON TIME in sec = 80
 STERN ON TIME in sec = 194
 DISTANCE TO STAFF GAUGE from green side in feet = 40
 BACKGROUND READING in inches = 25

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	25.0	0.0
2	15.0	25.0	0.0
3	31.0	24.0	-1.0
4	43.0	23.0	-2.0
5	51.0	22.0	-3.0
6	66.0	21.0	-4.0
7	73.0	20.0	-5.0
8	91.0	20.0	-5.0
9	99.0	19.0	-6.0
10	106.0	19.0	-6.0
11	116.0	18.0	-7.0
12	123.0	18.0	-7.0
13	132.0	18.0	-7.0
14	154.0	18.0	-7.0
15	168.0	19.0	-6.0
16	182.0	20.0	-5.0
17	192.0	20.0	-5.0
18	201.0	21.0	-4.0
19	226.0	21.0	-4.0
20	257.0	21.0	-4.0

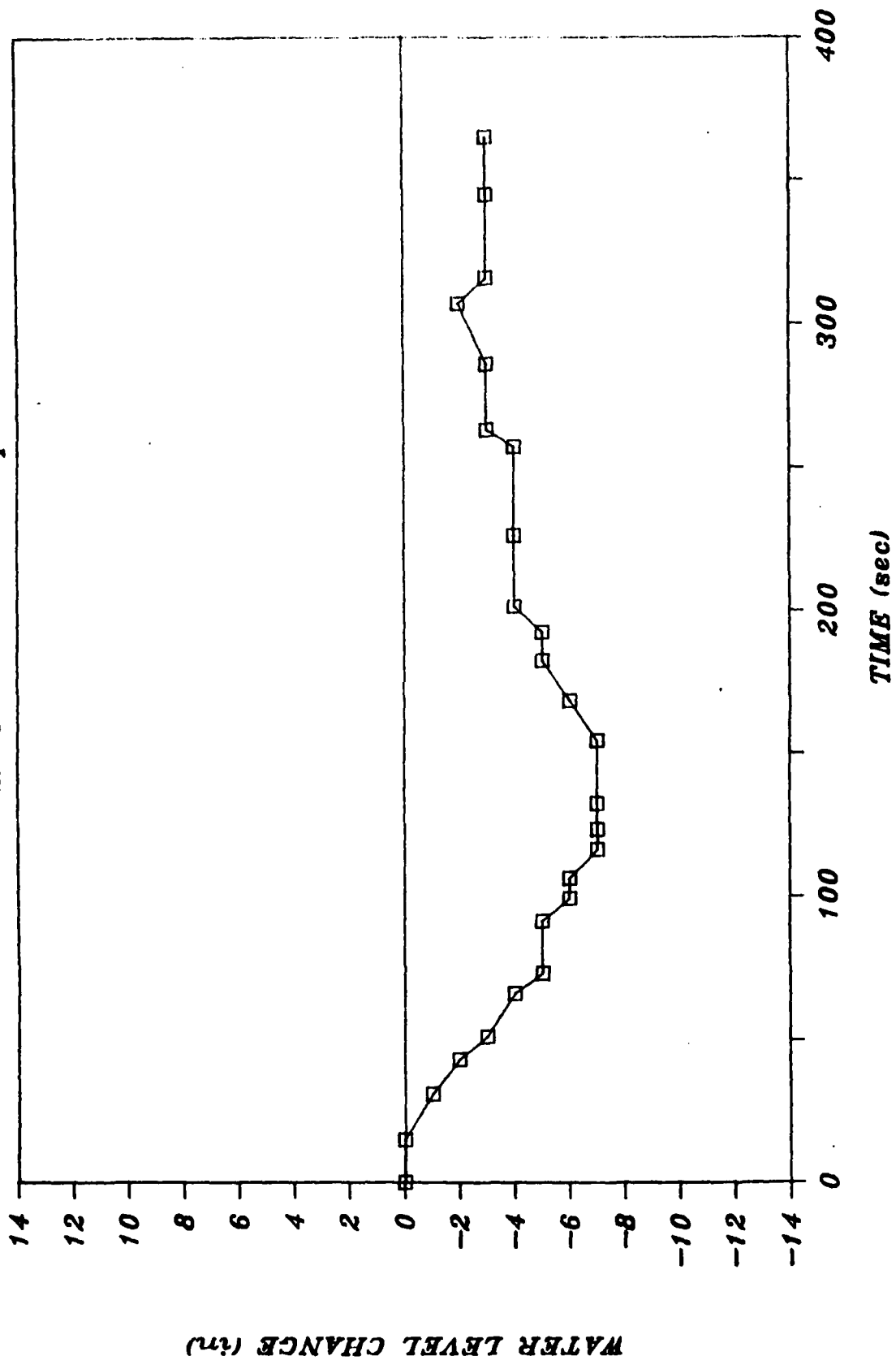
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	263.0	22.0	-3.0
22	286.0	22.0	-3.0
23	307.0	23.0	-2.0
24	316.0	22.0	-3.0
25	345.0	22.0	-3.0
26	365.0	22.0	-3.0

WEST CELL DOCK (green)

LEWIS WILSON FOY (wsp)



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/28/85

VESSEL NAME PATERSON

DIRECTION UPBOUND

VESSEL LENGTH in feet = 575

VESSEL BEAM in feet = 59

VESSEL DRAFT in feet = 16.5

VESSEL SPEED in feet/sec. = 10.09

BOW ON TIME in sec = 42

STERN ON TIME in sec = 99

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 19.5

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.5	0.0
2	10.0	20.0	0.5
3	21.0	20.0	0.5
4	27.0	20.0	0.5
5	46.0	18.0	-1.5
6	50.0	17.0	-2.5
7	55.0	16.0	-3.5
8	61.0	15.0	-4.5
9	65.0	14.0	-5.5
10	69.0	13.0	-6.5
11	76.0	12.0	-7.5
12	79.0	11.5	-8.0
13	80.0	11.0	-8.5
14	84.0	10.5	-9.0
15	87.0	10.0	-9.5
16	91.0	10.0	-9.5
17	103.0	12.0	-7.5
18	109.0	14.0	-5.5
19	113.0	15.0	-4.5
20	119.0	18.0	-1.5

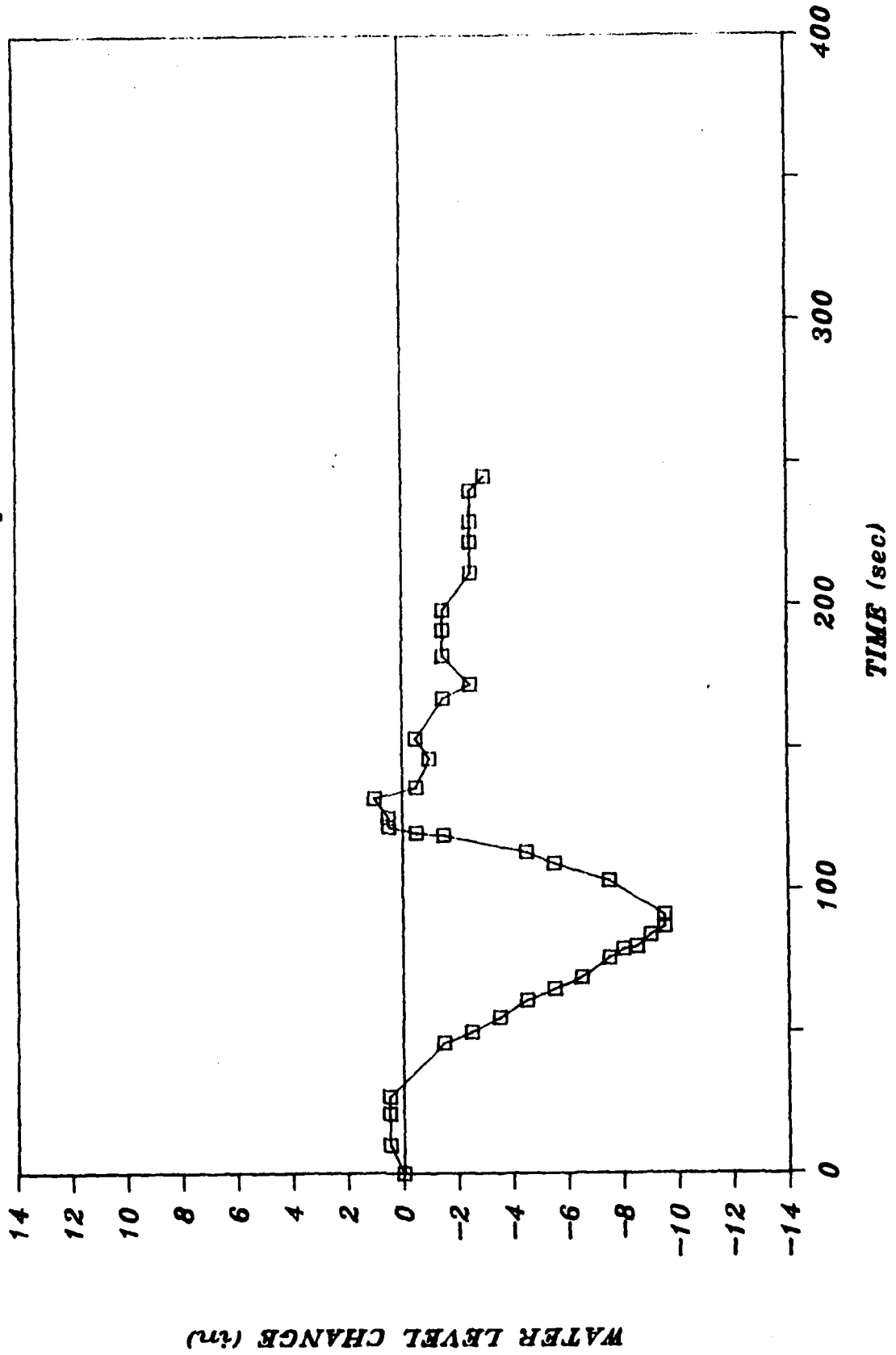
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	120.0	19.0	-0.5
22	122.0	20.0	0.5
23	125.0	20.0	0.5
24	132.0	20.5	1.0
25	136.0	19.0	-0.5
26	146.0	18.5	-1.0
27	153.0	19.0	-0.5
28	167.0	18.0	-1.5
29	172.0	17.0	-2.5
30	182.0	18.0	-1.5
31	191.0	18.0	-1.5
32	198.0	18.0	-1.5
33	211.0	17.0	-2.5
34	222.0	17.0	-2.5
35	229.0	17.0	-2.5
36	240.0	17.0	-2.5
37	245.0	16.5	-3.0

WEST CELL DOCK (green)

PATERSON (wp)



BF62

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NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/28/85

VESSEL NAME PATERSON

DIRECTION UPBOUND

VESSEL LENGTH in feet = 575

VESSEL BEAM in feet = 59

VESSEL DRAFT in feet = 16.5

VESSEL SPEED in feet/sec. = 10.09

BOW ON TIME in sec = 42

STERN ON TIME in sec = 99

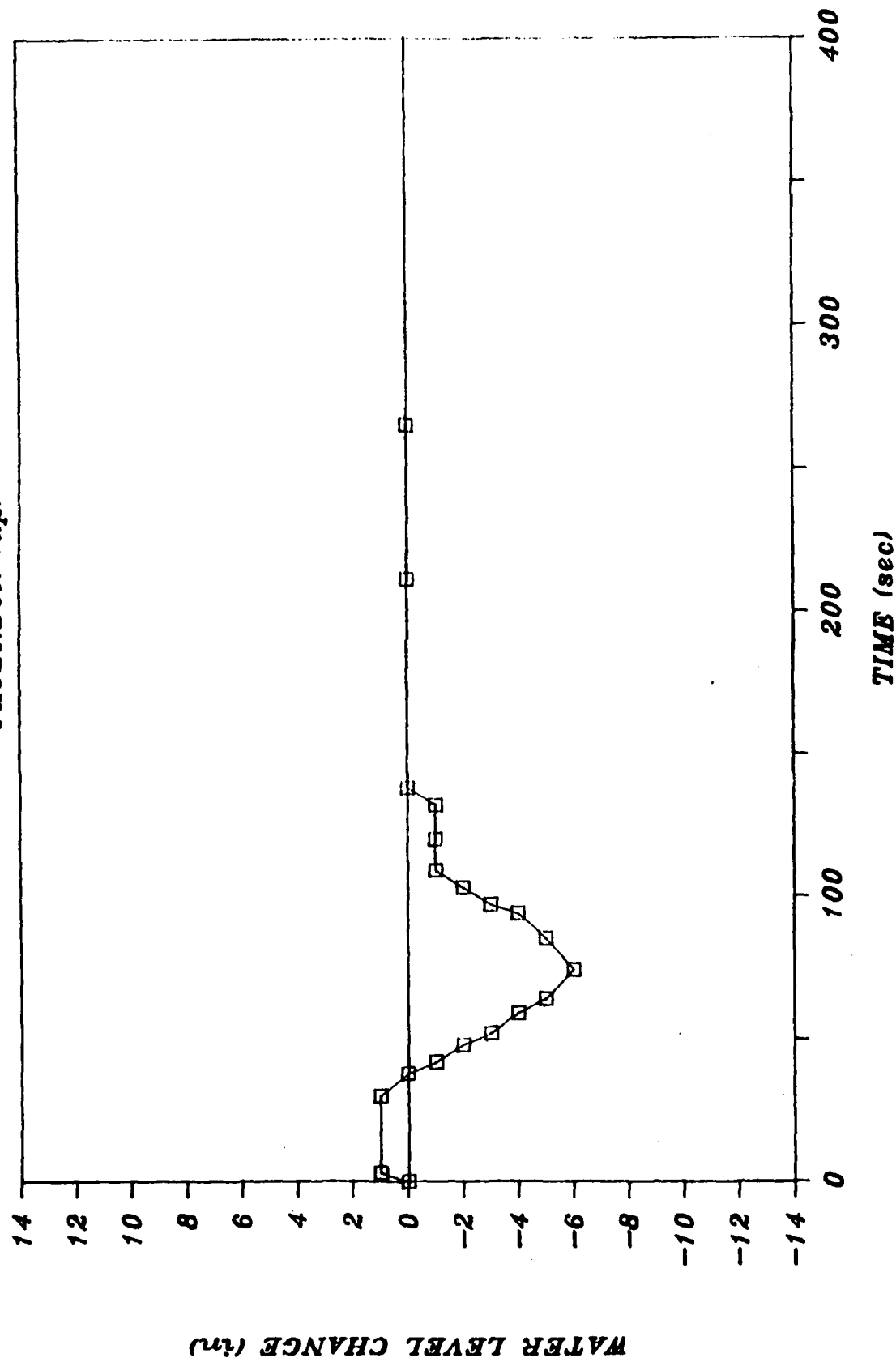
DISTANCE TO STAFF GAUGE from green side in feet = 1395

BACKGROUND READING in inches = 23

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	23.0	0.0
2	3.0	24.0	1.0
3	30.0	24.0	1.0
4	38.0	23.0	0.0
5	42.0	22.0	-1.0
6	48.0	21.0	-2.0
7	52.0	20.0	-3.0
8	59.0	19.0	-4.0
9	64.0	18.0	-5.0
10	74.0	17.0	-6.0
11	85.0	18.0	-5.0
12	94.0	19.0	-4.0
13	97.0	20.0	-3.0
14	103.0	21.0	-2.0
15	109.0	22.0	-1.0
16	120.0	22.0	-1.0
17	132.0	22.0	-1.0
18	138.0	23.0	0.0
19	211.0	23.0	0.0
20	265.0	23.0	0.0

WEST CELL DOCK (red)

PATERSON (wp)



 DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/28/85

VESSEL NAME GEORGE A. STINSON

DIRECTION UPBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 18.5

VESSEL SPEED in feet/sec. = 11.76

BOW ON TIME in sec = 53

STERN ON TIME in sec = 138

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	11.0	20.5	1.5
3	22.0	19.5	0.5
4	32.0	18.0	-1.0
5	41.0	16.5	-2.5
6	58.0	13.0	-6.0
7	61.0	12.0	-7.0
8	66.0	11.5	-7.5
9	69.0	11.0	-8.0
10	75.0	11.0	-8.0
11	77.0	10.5	-8.5
12	81.0	10.0	-9.0
13	100.0	10.0	-9.0
14	106.0	11.0	-8.0
15	114.0	12.0	-7.0
16	116.0	13.0	-6.0
17	118.0	24.0	5.0
18	123.0	15.0	-4.0
19	126.0	17.0	-2.0
20	133.0	17.0	-2.0

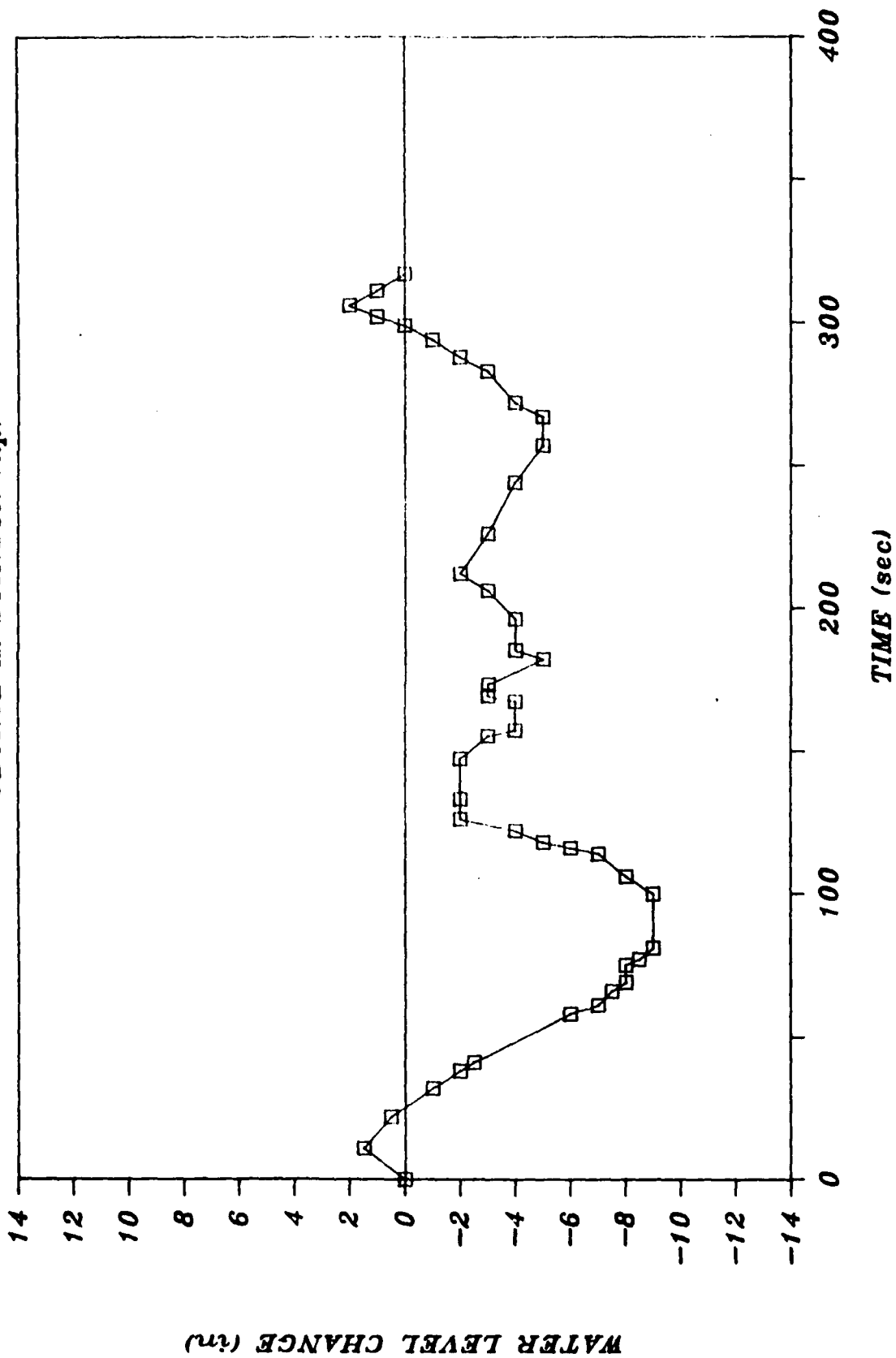
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	147.0	17.0	-2.0
22	155.0	16.0	-3.0
23	157.0	15.0	-4.0
24	167.0	15.0	-4.0
25	169.0	16.0	-3.0
26	173.0	16.0	-3.0
27	182.0	14.0	-5.0
28	185.0	15.0	-4.0
29	196.0	15.0	-4.0
30	206.0	16.0	-3.0
31	212.0	17.0	-2.0
32	226.0	16.0	-3.0
33	244.0	15.0	-4.0
34	257.0	14.0	-5.0
35	267.0	14.0	-5.0
36	272.0	15.0	-4.0
37	283.0	16.0	-3.0
38	288.0	17.0	-2.0
39	294.0	18.0	-1.0
40	299.0	19.0	0.0
41	302.0	20.0	1.0
42	306.0	21.0	2.0
43	311.0	20.0	1.0
44	317.0	19.0	0.0

WEST CELL DOCK (green)

GEORGE A. STINSON (up)



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/28/85
VESSEL NAME GEORGE A. STINSON
DIRECTION UPBOUND
VESSEL LENGTH in feet = 1000
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 18.5
VESSEL SPEED in feet/sec. = 11.76
BOW ON TIME in sec = 53
STERN ON TIME in sec = 138
DISTANCE TO STAFF GAUGE from green side in feet = 1395
BACKGROUND READING in inches = 29

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	29.0	0.0
2	16.0	28.0	-1.0
3	33.0	27.0	-2.0
4	48.0	27.0	-2.0
5	52.0	26.0	-3.0
6	58.0	25.0	-4.0
7	59.0	24.0	-5.0
8	63.0	23.0	-6.0
9	64.0	22.0	-7.0
10	71.0	21.0	-8.0
11	76.0	20.0	-9.0
12	81.0	21.0	-8.0
13	90.0	21.0	-8.0
14	98.0	21.0	-8.0
15	107.0	20.0	-9.0
16	108.0	19.0	-10.0
17	109.0	18.0	-11.0
18	110.0	17.0	-12.0
19	119.0	17.0	-12.0
20	120.0	18.0	-11.0

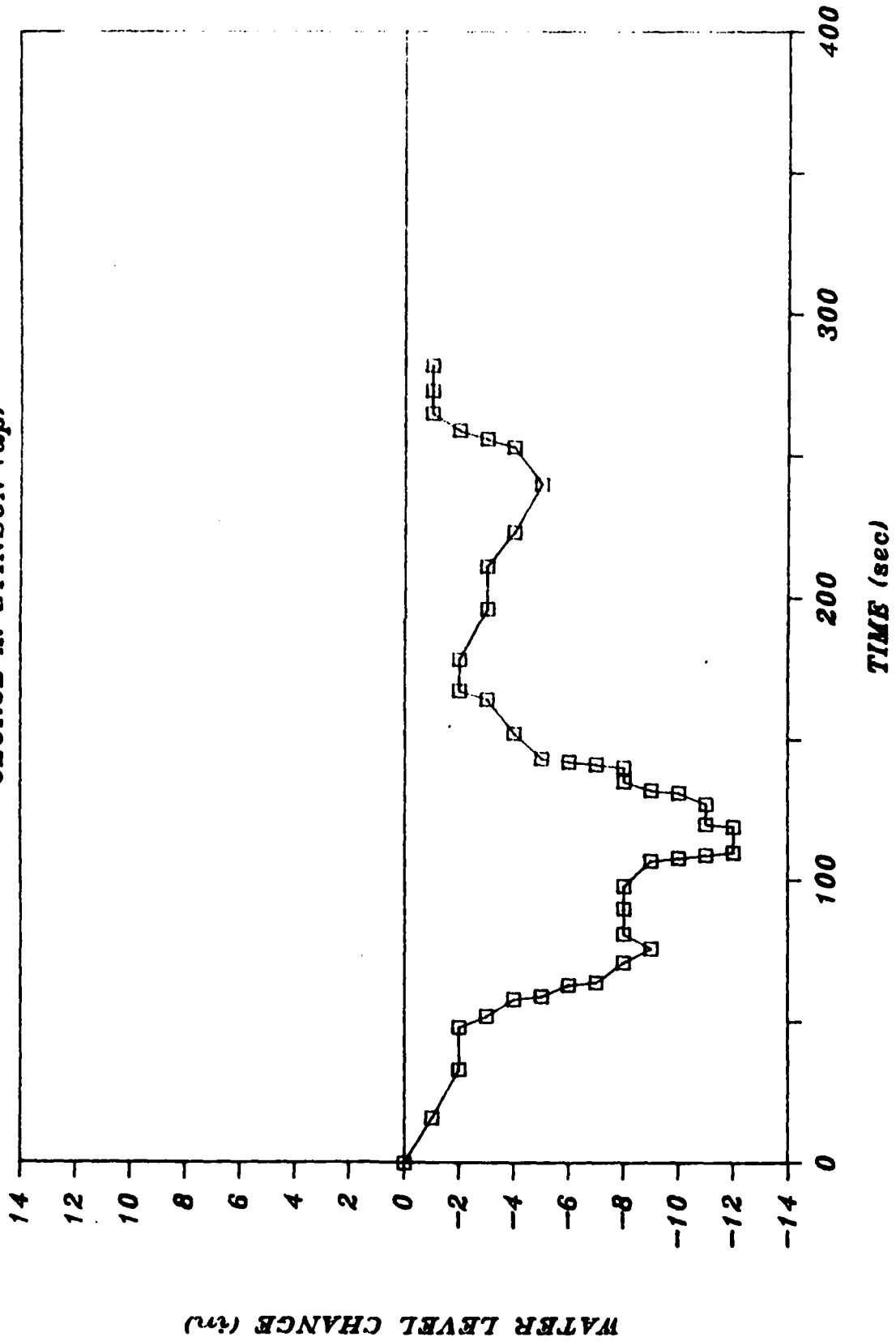
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	127.0	18.0	-11.0
22	131.0	19.0	-10.0
23	132.0	20.0	-9.0
24	135.0	21.0	-8.0
25	140.0	21.0	-8.0
26	141.0	22.0	-7.0
27	142.0	23.0	-6.0
28	143.0	24.0	-5.0
29	152.0	25.0	-4.0
30	164.0	26.0	-3.0
31	167.0	27.0	-2.0
32	178.0	27.0	-2.0
33	196.0	26.0	-3.0
34	211.0	26.0	-3.0
35	223.0	25.0	-4.0
36	240.0	24.0	-5.0
37	253.0	25.0	-4.0
38	256.0	26.0	-3.0
39	259.0	27.0	-2.0
40	265.0	28.0	-1.0
41	273.0	28.0	-1.0
42	282.0	28.0	-1.0

WEST CELL DOCK (red)

GEORGE A. STINSON (up)



DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK

DATE OF OBSERVATION 6/28/85

VESSEL NAME NANTICOKE

DIRECTION UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 18

VESSEL SPEED in feet/sec. = 14.31

BOW ON TIME in sec = 36

STERN ON TIME in sec = 87

DISTANCE TO STAFF GAUGE from green side in feet = 40

BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	13.0	20.5	1.5
3	24.0	19.5	0.5
4	30.0	19.0	0.0
5	40.0	18.0	-1.0
6	45.0	17.0	-2.0
7	50.0	16.0	-3.0
8	53.0	15.5	-3.5
9	56.0	15.0	-4.0
10	59.0	14.0	-5.0
11	62.0	13.0	-6.0
12	66.0	12.0	-7.0
13	68.0	11.0	-8.0
14	76.0	9.0	-10.0
15	78.0	9.0	-10.0
16	81.0	8.0	-11.0
17	91.0	7.0	-12.0
18	96.0	8.0	-11.0
19	97.0	9.0	-10.0
20	98.0	10.0	-9.0

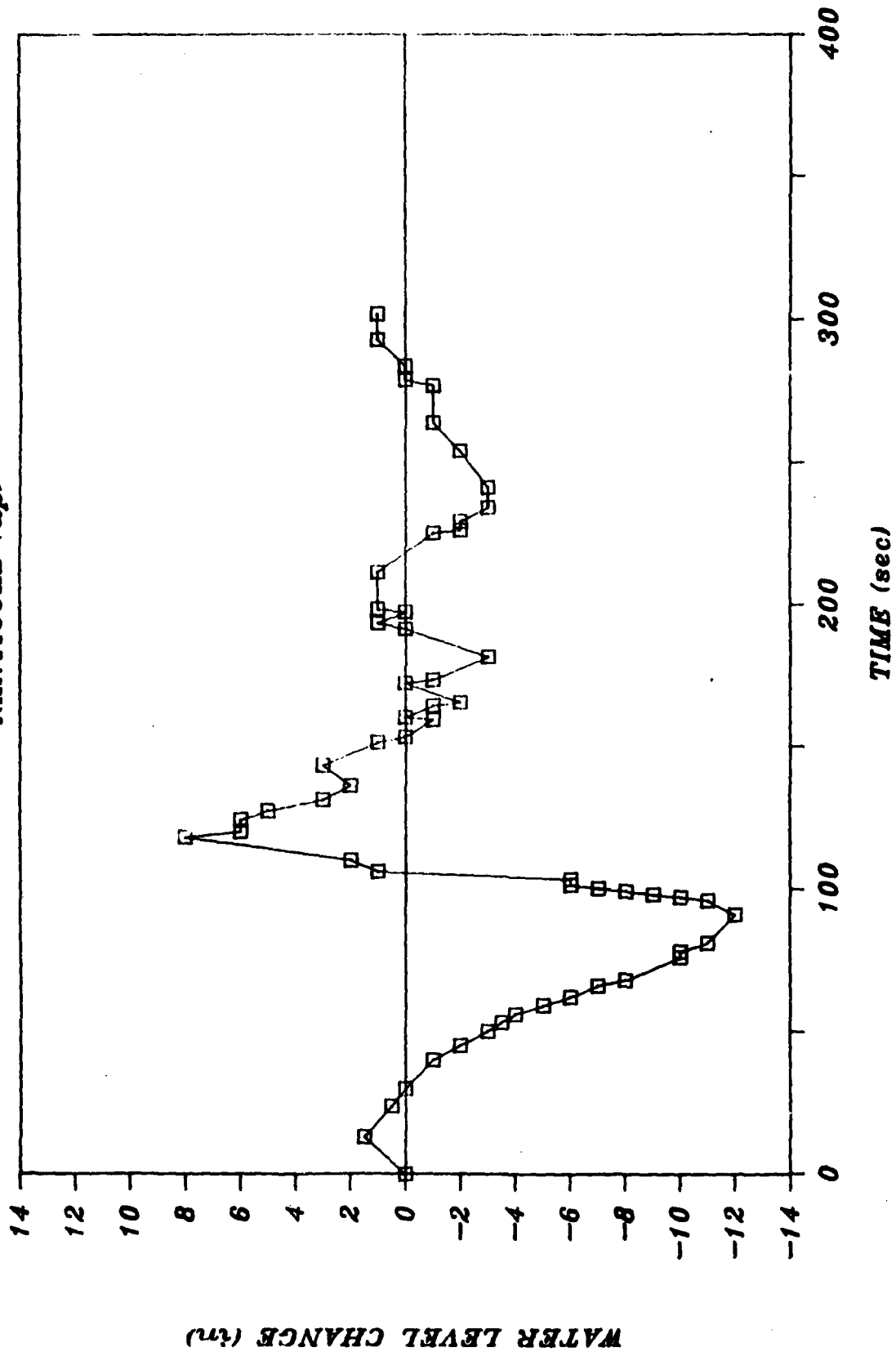
DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	99.0	11.0	-8.0
22	100.0	12.0	-7.0
23	101.0	13.0	-6.0
24	103.0	13.0	-6.0
25	106.0	20.0	1.0
26	110.0	21.0	2.0
27	118.0	27.0	8.0
28	120.0	25.0	6.0
29	124.0	25.0	6.0
30	127.0	24.0	5.0
31	131.0	22.0	3.0
32	136.0	21.0	2.0
33	143.0	22.0	3.0
34	151.0	20.0	1.0
35	153.0	19.0	0.0
36	159.0	18.0	-1.0
37	160.0	19.0	0.0
38	164.0	18.0	-1.0
39	165.0	17.0	-2.0
40	172.0	19.0	0.0
41	173.0	18.0	-1.0
42	181.0	16.0	-3.0
43	191.0	19.0	0.0
44	193.0	20.0	1.0
45	197.0	19.0	0.0
46	198.0	20.0	1.0
47	211.0	20.0	1.0
48	225.0	18.0	-1.0
49	226.0	17.0	-2.0
50	241.0	16.0	-3.0
51	254.0	17.0	-2.0
52	264.0	18.0	-1.0
53	277.0	18.0	-1.0
54	279.0	19.0	0.0
55	284.0	19.0	0.0
56	293.0	20.0	1.0
57	302.0	20.0	1.0

WEST CELL DOCK (green)

NANTICOKE (up)



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DRAWDOWN DATA

NAME OF SECTION WEST CELL DOCK
#####

DATE OF OBSERVATION 6/28/85

VESSEL NAME

DIRECTION NANTICOKE/UPBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 18

VESSEL SPEED in feet/sec. = 14.31

BOW ON TIME in sec = 36

STERN ON TIME in sec = 87

DISTANCE TO STAFF GAUGE from green side in feet = 1395

BACKGROUND READING in inches = 30

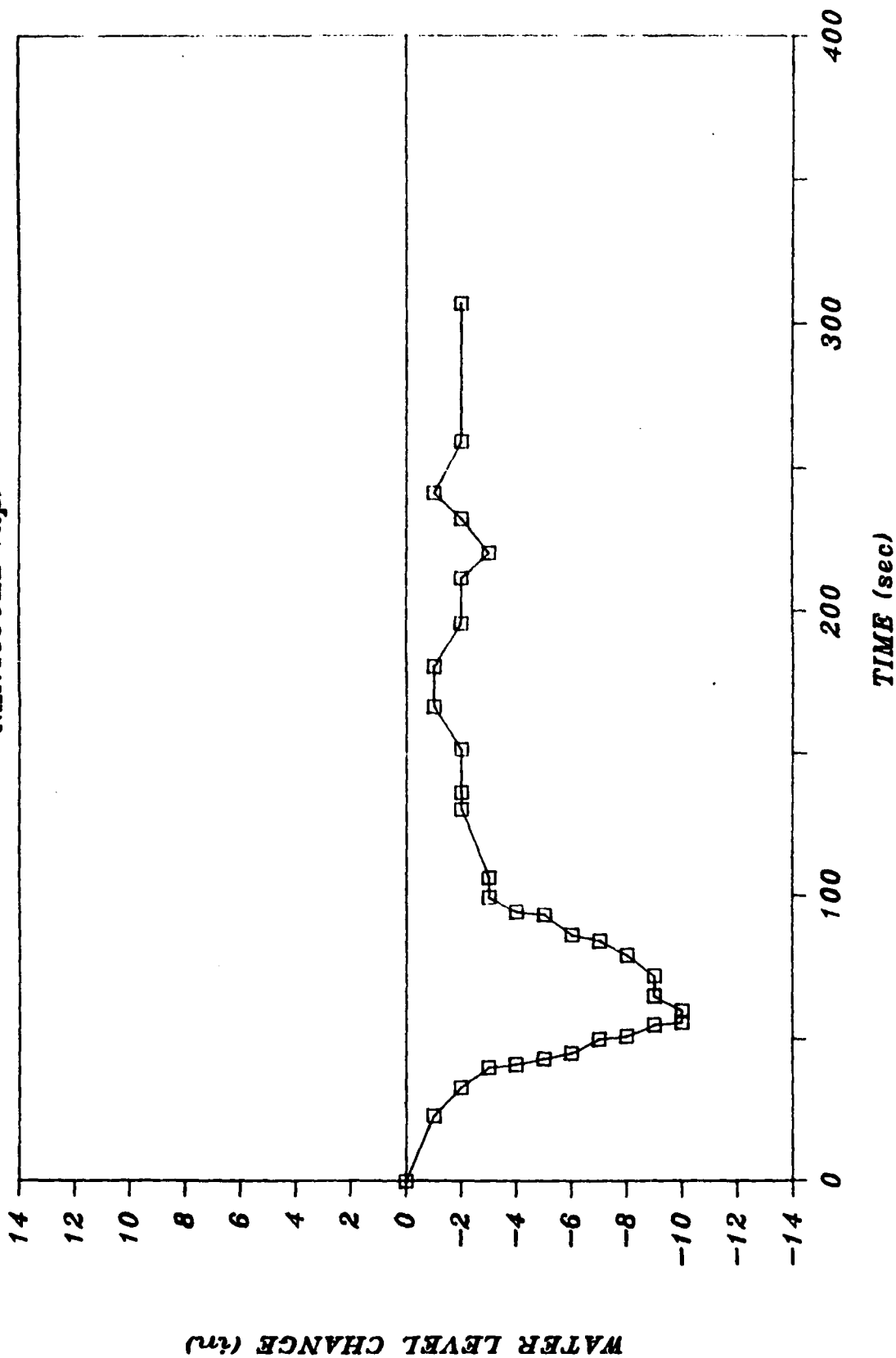
DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	30.0	0.0
2	23.0	29.0	-1.0
3	33.0	28.0	-2.0
4	40.0	27.0	-3.0
5	41.0	26.0	-4.0
6	43.0	25.0	-5.0
7	45.0	24.0	-6.0
8	50.0	23.0	-7.0
9	51.0	22.0	-8.0
10	55.0	21.0	-9.0
11	56.0	20.0	-10.0
12	60.0	20.0	-10.0
13	65.0	21.0	-9.0
14	72.0	21.0	-9.0
15	79.0	22.0	-8.0
16	84.0	23.0	-7.0
17	86.0	24.0	-6.0
18	93.0	25.0	-5.0
19	94.0	26.0	-4.0
20	99.0	27.0	-3.0

DRAWDOWN DATA (continued)

NAME OF SECTION WEST CELL DOCK

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	106.0	27.0	-3.0
22	130.0	28.0	-2.0
23	136.0	28.0	-2.0
24	151.0	28.0	-2.0
25	166.0	29.0	-1.0
26	180.0	29.0	-1.0
27	195.0	29.0	-1.0
28	211.0	28.0	-2.0
29	220.0	27.0	-3.0
30	232.0	28.0	-2.0
31	241.0	29.0	-1.0
32	259.0	28.0	-2.0
33	307.0	28.0	-2.0

WEST CELL DOCK (red) NANTICOKE (wp)



MOON ISLAND

DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 5/15/85
VESSEL NAME EDGAR B. SPEAR
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 1004
VESSEL BEAM in feet = 105
VESSEL DRAFT in feet = 27
VESSEL SPEED in feet/sec. = 10.87
BOW ON TIME in sec = 85
STERN ON TIME in sec = 177
DISTANCE TO STAFF GAUGE from green side in feet = 1660
BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	5.0	19.0	0.0
3	11.0	20.0	1.0
4	18.0	21.0	2.0
5	32.0	21.0	2.0
6	39.0	22.0	3.0
7	47.0	21.0	2.0
8	52.0	20.0	1.0
9	70.0	20.0	1.0
10	85.0	21.0	2.0
11	90.0	19.0	0.0
12	95.0	19.0	0.0
13	101.0	18.0	-1.0
14	107.0	18.0	-1.0
15	109.0	17.0	-2.0
16	112.0	16.0	-3.0
17	116.0	16.0	-3.0
18	120.0	14.0	-5.0
19	129.0	12.0	-7.0
20	130.0	11.0	-8.0

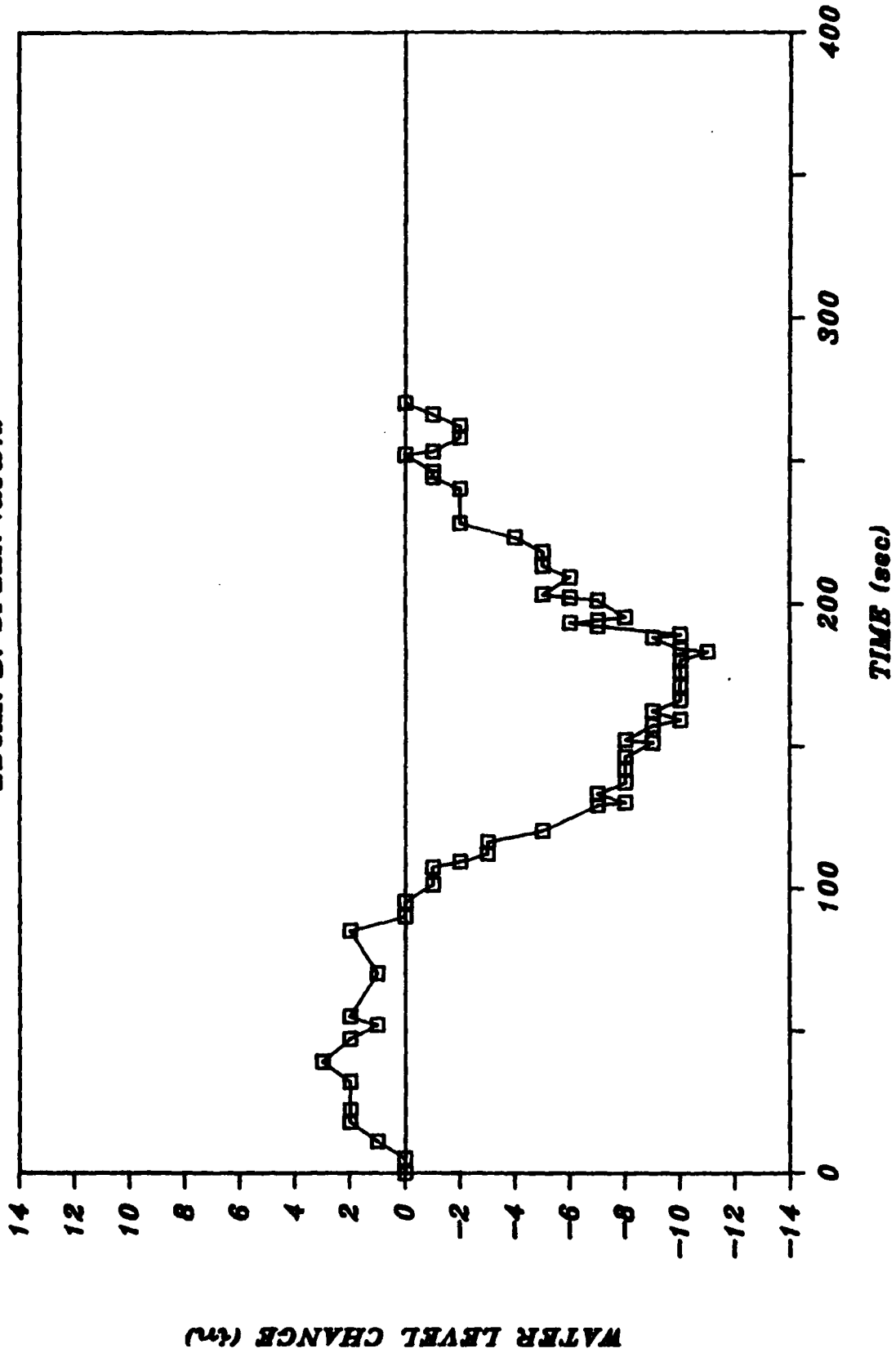
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	133.0	12.0	-7.0
22	137.0	11.0	-8.0
23	148.0	11.0	-8.0
24	151.0	10.0	-9.0
25	152.0	11.0	-8.0
26	157.0	10.0	-9.0
27	159.0	9.0	-10.0
28	162.0	10.0	-9.0
29	166.0	9.0	-10.0
30	183.0	8.0	-11.0
31	184.0	9.0	-10.0
32	188.0	10.0	-9.0
33	189.0	9.0	-10.0
34	192.0	12.0	-7.0
35	193.0	13.0	-6.0
36	194.0	12.0	-7.0
37	195.0	11.0	-8.0
38	201.0	12.0	-7.0
39	202.0	13.0	-6.0
40	203.0	14.0	-5.0
41	218.0	14.0	-5.0
42	223.0	15.0	-4.0
43	228.0	17.0	-2.0
44	240.0	17.0	-2.0
45	246.0	18.0	-1.0
46	252.0	18.0	-1.0
47	253.0	19.0	0.0
48	258.0	18.0	-1.0
49	262.0	17.0	-2.0
50	266.0	18.0	-1.0
51	270.0	19.0	0.0

MOON ISLAND

EDGAR B. SPEAR (down)



DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 5/15/85

VESSEL NAME AMERICAN MARINER

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 728

VESSEL BEAM in feet = 78

VESSEL DRAFT in feet = 28

VESSEL SPEED in feet/sec. = 11.2

BOW ON TIME in sec = 85

STERN ON TIME in sec = 150

DISTANCE TO STAFF GAUGE from green side in feet = 1660

BACKGROUND READING in inches = 18

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	18.0	0.0
2	36.0	18.0	0.0
3	38.0	19.0	1.0
4	60.0	19.0	1.0
5	70.0	18.0	0.0
6	75.0	18.0	0.0
7	90.0	17.0	-1.0
8	98.0	16.0	-2.0
9	107.0	15.0	-3.0
10	116.0	14.0	-4.0
11	116.0	18.0	0.0
12	119.0	13.0	-5.0
13	124.0	13.0	-5.0
14	125.0	17.0	-1.0
15	129.0	12.0	-6.0
16	130.0	18.0	0.0
17	132.0	11.0	-7.0
18	137.0	11.0	-7.0
19	139.0	10.0	-8.0
20	141.0	10.0	-8.0

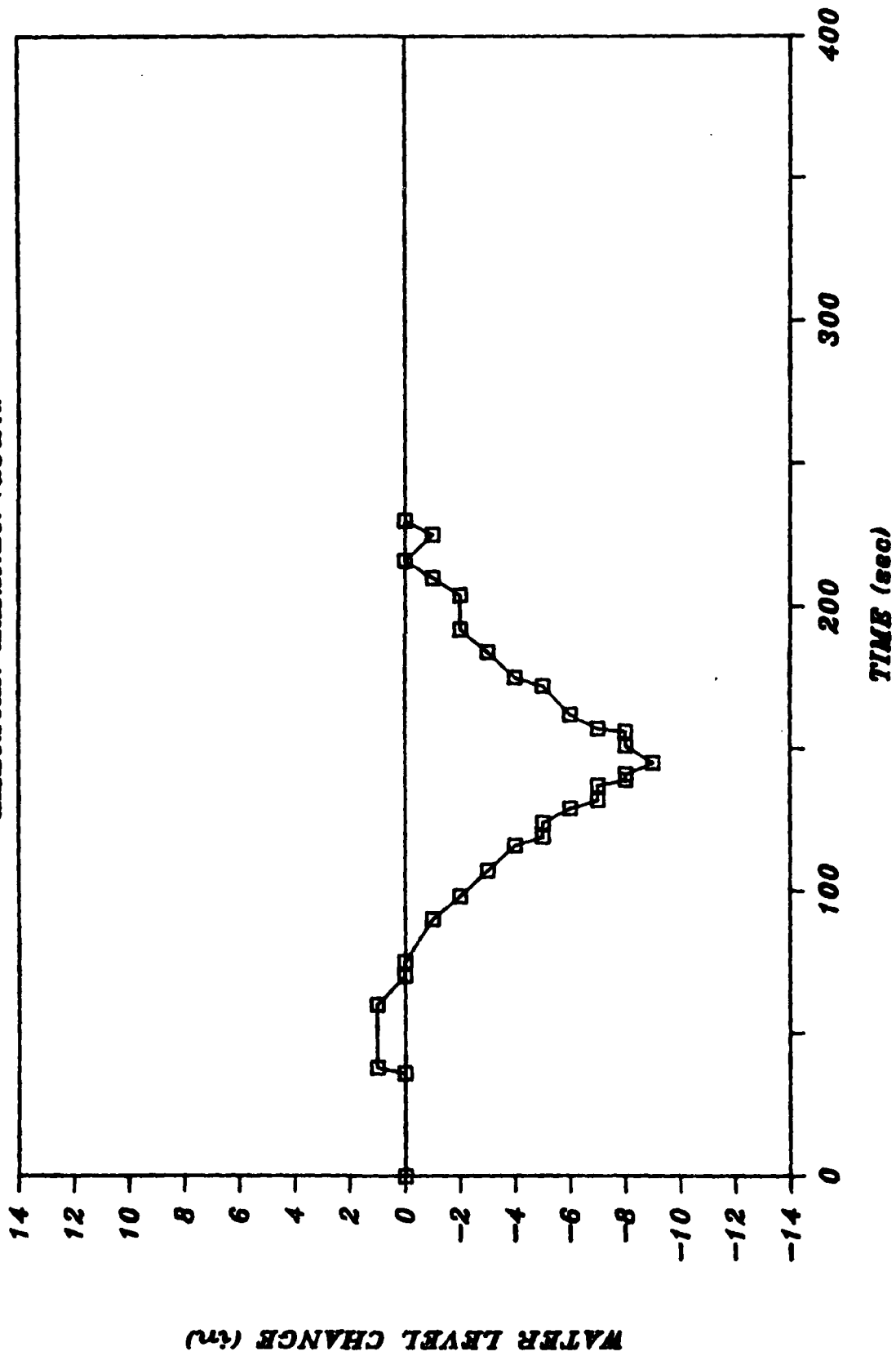
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	145.0	9.0	-9.0
22	151.0	10.0	-8.0
23	156.0	10.0	-8.0
24	157.0	11.0	-7.0
25	162.0	12.0	-6.0
26	170.0	13.0	-5.0
27	175.0	14.0	-4.0
28	184.0	15.0	-3.0
29	192.0	16.0	-2.0
30	204.0	16.0	-2.0
31	210.0	17.0	-1.0

MOON ISLAND

AMERICAN MARINER (down)



 DRAWDOWN DATA

NAME OF SECTION HOON ISLAND

DATE OF OBSERVATION 5/15/85
 VESSEL NAME RICHELEU
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 26
 VESSEL SPEED in feet/sec. = 11.97
 BOW ON TIME in sec = 75
 STERN ON TIME in sec = 136
 DISTANCE TO STAFF GAUGE from green side in feet = 1660
 BACKGROUND READING in inches = 18

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	18.0	0.0
2	9.0	18.0	0.0
3	31.0	19.0	1.0
4	35.0	19.0	1.0
5	41.0	20.0	2.0
6	52.0	20.0	2.0
7	66.0	19.0	1.0
8	81.0	18.0	0.0
9	86.0	17.0	-1.0
10	90.0	16.0	-2.0
11	99.0	15.0	-3.0
12	101.0	15.0	-3.0
13	106.0	14.0	-4.0
14	113.0	13.0	-5.0
15	118.0	12.0	-6.0
16	126.0	12.0	-6.0
17	129.0	11.0	-7.0
18	136.0	10.0	-8.0
19	141.0	10.0	-8.0
20	147.0	11.0	-7.0

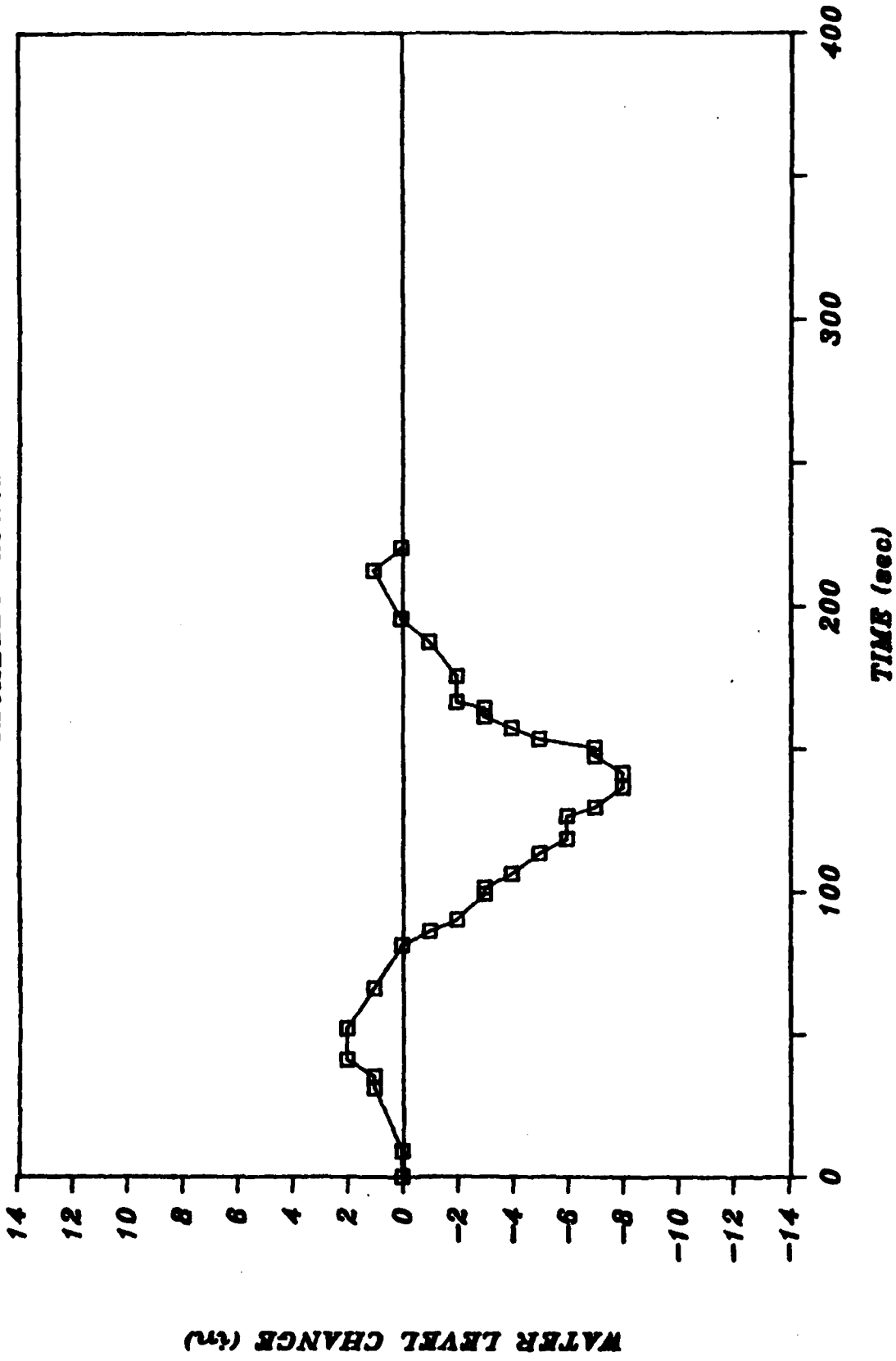
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	150.0	11.0	-7.0
22	153.0	13.0	-5.0
23	157.0	14.0	-4.0
24	161.0	15.0	-3.0
25	164.0	15.0	-3.0
26	166.0	16.0	-2.0
27	175.0	16.0	-2.0
28	187.0	17.0	-1.0
29	195.0	18.0	0.0
30	212.0	19.0	1.0
31	220.0	18.0	0.0

MOON ISLAND

RICHELEU (down)



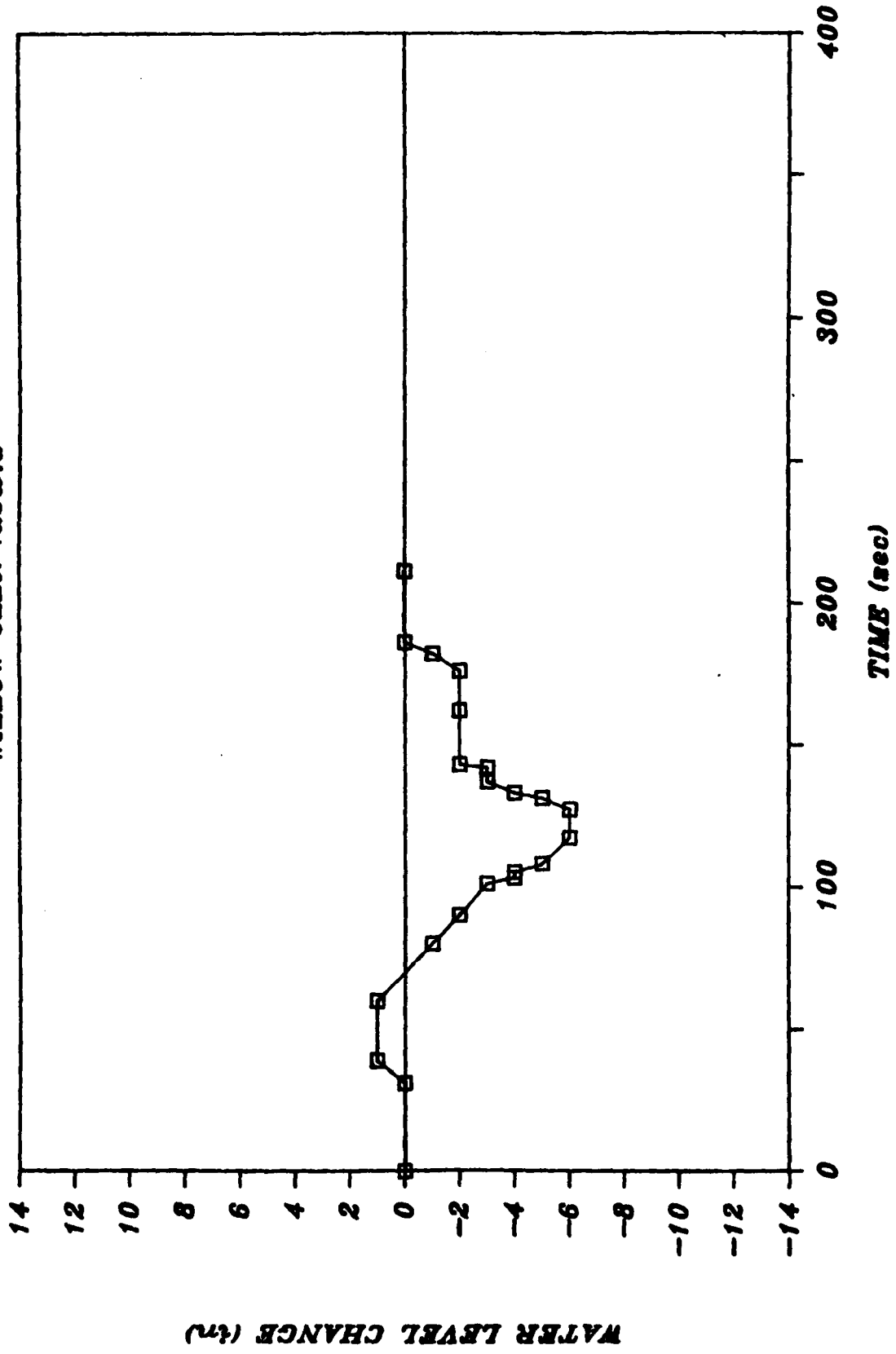
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	186.0	19.0	0.0
22	211.0	19.0	0.0

MOON ISLAND

WILLOW GLEN (down)



DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 5/16/85

VESSEL NAME BLACK BAY

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 730

VESSEL BEAM in feet = 75

VESSEL DRAFT in feet = 25.5

VESSEL SPEED in feet/sec. = 12.6

BOW ON TIME in sec = 63

STERN ON TIME in sec = 121

DISTANCE TO STAFF GAUGE from green side in feet = 1660

BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	10.0	20.0	1.0
3	20.0	20.0	1.0
4	24.0	21.0	2.0
5	39.0	21.0	2.0
6	42.0	22.0	3.0
7	47.0	22.0	3.0
8	63.0	21.0	2.0
9	72.0	20.0	1.0
10	77.0	20.0	1.0
11	80.0	19.0	0.0
12	84.0	18.0	-1.0
13	88.0	17.0	-2.0
14	91.0	16.0	-3.0
15	97.0	15.0	-4.0
16	101.0	15.0	-4.0
17	105.0	14.0	-5.0
18	108.0	14.0	-5.0
19	110.0	13.0	-6.0
20	113.0	13.0	-6.0

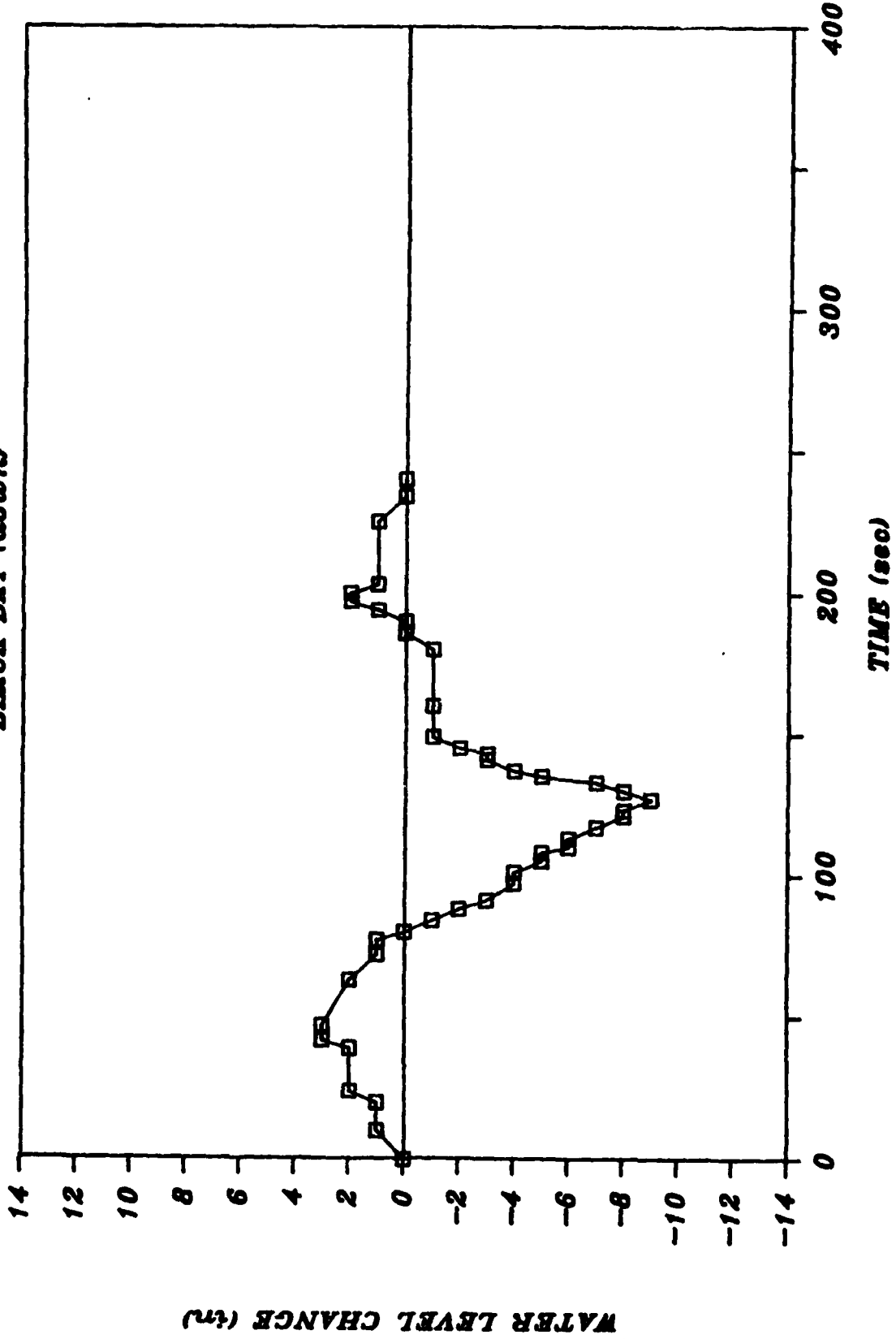
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	117.0	12.0	-7.0
22	121.0	11.0	-8.0
23	123.0	11.0	-8.0
24	127.0	10.0	-9.0
25	130.0	11.0	-8.0
26	133.0	12.0	-7.0
27	135.0	14.0	-5.0
28	137.0	15.0	-4.0
29	141.0	16.0	-3.0
30	143.0	16.0	-3.0
31	145.0	17.0	-2.0
32	149.0	18.0	-1.0
33	160.0	18.0	-1.0
34	180.0	18.0	-1.0
35	186.0	19.0	0.0
36	190.0	19.0	0.0
37	194.0	20.0	1.0
38	197.0	21.0	2.0
39	200.0	21.0	2.0
40	203.0	20.0	1.0
41	225.0	20.0	1.0
42	234.0	19.0	0.0
43	240.0	19.0	0.0

MOON ISLAND

BLACK BAY (down)



 DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 5/16/85

VESSEL NAME BELLE RIVER

DIRECTION DOWNBOUND

VESSEL LENGTH in feet = 1000

VESSEL BEAM in feet = 105

VESSEL DRAFT in feet = 26.5

VESSEL SPEED in feet/sec. = 10.64

BOW ON TIME in sec = 78

STERN ON TIME in sec = 172

DISTANCE TO STAFF GAUGE from green side in feet = 1660

BACKGROUND READING in inches = 20

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	20.0	0.0
2	5.0	20.0	0.0
3	31.0	21.0	1.0
4	38.0	22.0	2.0
5	54.0	22.0	2.0
6	61.0	21.0	1.0
7	78.0	21.0	1.0
8	85.0	20.0	0.0
9	94.0	19.0	-1.0
10	99.0	19.0	-1.0
11	102.0	18.0	-2.0
12	104.0	17.0	-3.0
13	108.0	17.0	-3.0
14	110.0	16.0	-4.0
15	115.0	15.0	-5.0
16	119.0	15.0	-5.0
17	121.0	14.0	-6.0
18	124.0	14.0	-6.0
19	125.0	13.0	-7.0
20	135.0	13.0	-7.0

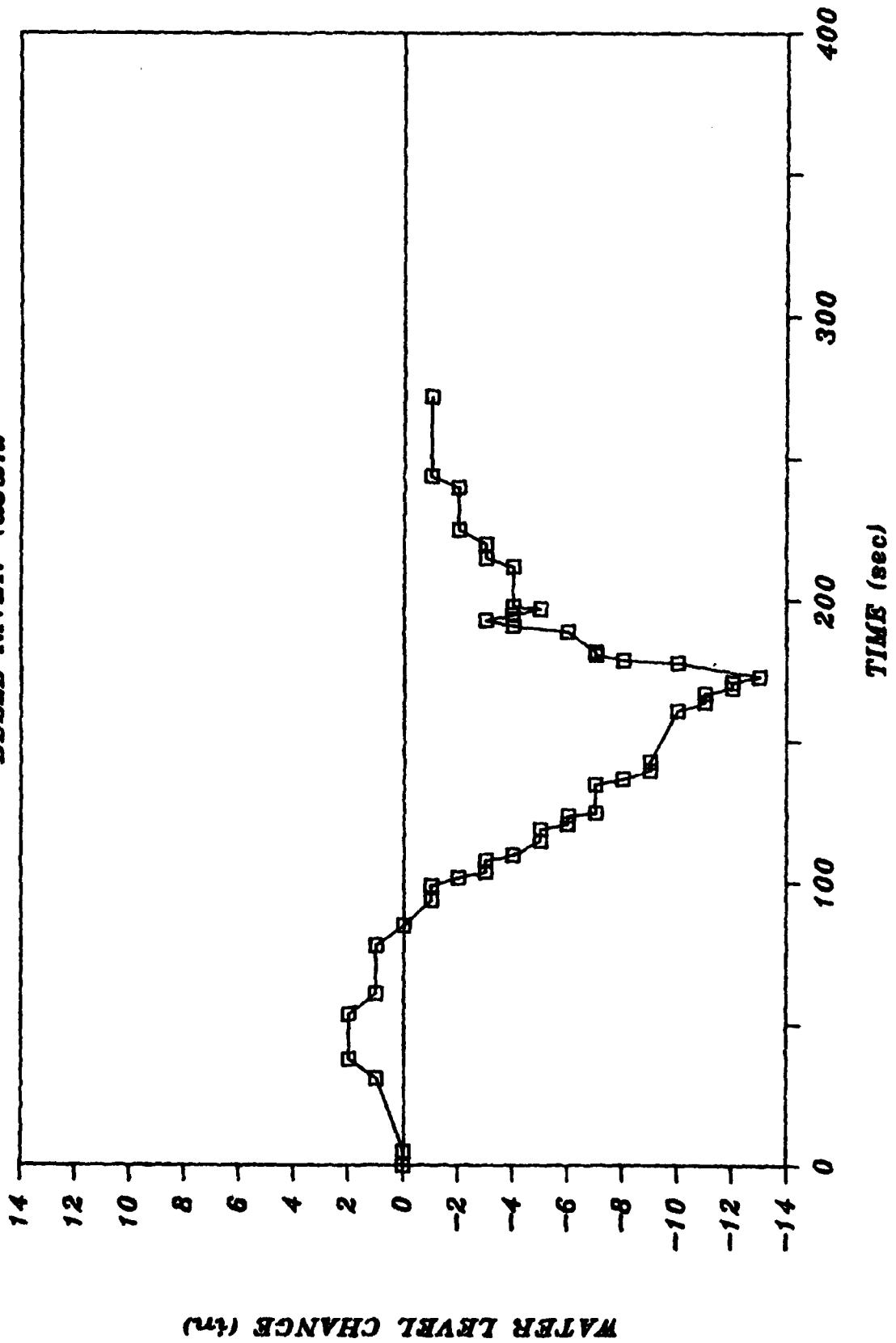
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	137.0	12.0	-8.0
22	140.0	11.0	-9.0
23	143.0	11.0	-9.0
24	161.0	10.0	-10.0
25	164.0	9.0	-11.0
26	167.0	9.0	-11.0
27	169.0	8.0	-12.0
28	171.0	8.0	-12.0
29	173.0	7.0	-13.0
30	178.0	10.0	-10.0
31	179.0	12.0	-8.0
32	180.0	13.0	-7.0
33	182.0	13.0	-7.0
34	189.0	14.0	-6.0
35	191.0	16.0	-4.0
36	193.0	17.0	-3.0
37	195.0	16.0	-4.0
38	197.0	15.0	-5.0
39	198.0	16.0	-4.0
40	212.0	16.0	-4.0
41	215.0	17.0	-3.0
42	220.0	17.0	-3.0
43	225.0	18.0	-2.0
44	240.0	18.0	-2.0
45	244.0	19.0	-1.0

MOON ISLAND

BELLE RIVER (down)



BG18

 DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 5/17/85
 VESSEL NAME CANADIAN PIONEER
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 730
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 25.6
 VESSEL SPEED in feet/sec. = 12.8
 BOW ON TIME in sec = 77
 STERN ON TIME in sec = 134
 DISTANCE TO STAFF GAUGE from green side in feet = 1660
 . BACKGROUND READING in inches = 17

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	17.0	0.0
2	45.0	17.0	0.0
3	61.0	18.0	1.0
4	63.0	19.0	2.0
5	66.0	20.0	3.0
6	79.0	19.0	2.0
7	105.0	13.0	-4.0
8	106.0	12.0	-5.0
9	109.0	11.0	-6.0
10	113.0	10.0	-7.0
11	114.0	9.0	-8.0
12	119.0	8.0	-9.0
13	122.0	8.0	-9.0
14	123.0	7.0	-10.0
15	128.0	7.0	-10.0
16	131.0	6.0	-11.0
17	136.0	6.0	-11.0
18	137.0	5.0	-12.0
19	144.0	5.0	-12.0
20	146.0	4.0	-13.0

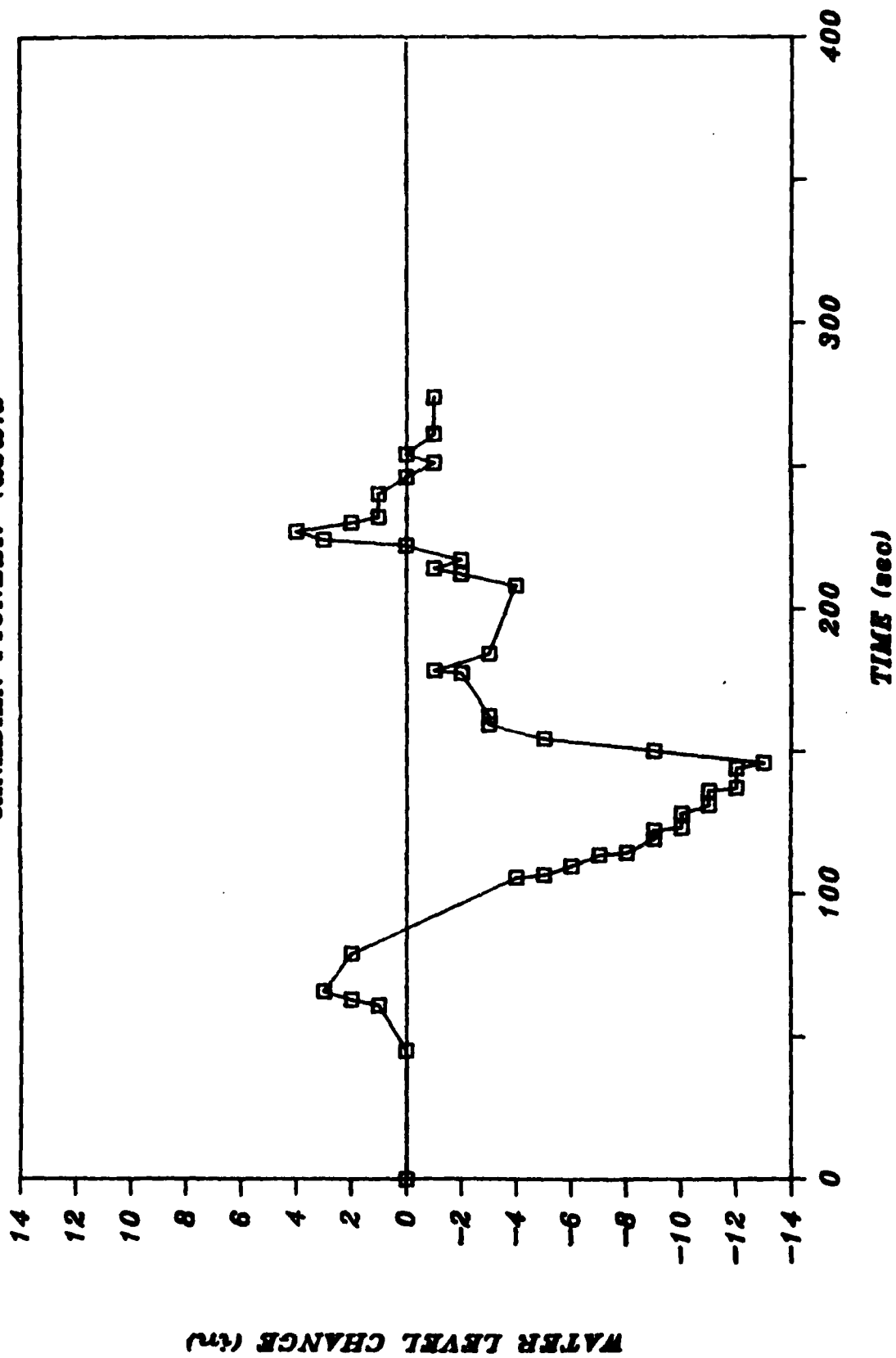
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	150.0	8.0	-9.0
22	154.0	12.0	-5.0
23	159.0	14.0	-3.0
24	162.0	14.0	-3.0
25	177.0	15.0	-2.0
26	178.0	16.0	-1.0
27	184.0	14.0	-3.0
28	208.0	13.0	-4.0
29	212.0	15.0	-2.0
30	214.0	16.0	-1.0
31	217.0	15.0	-2.0
32	222.0	17.0	0.0
33	224.0	20.0	3.0
34	227.0	21.0	4.0
35	230.0	19.0	2.0
36	232.0	18.0	1.0
37	240.0	18.0	1.0
38	246.0	17.0	0.0
39	251.0	16.0	-1.0
40	254.0	17.0	0.0
41	261.0	16.0	-1.0
42	274.0	16.0	-1.0

MOON ISLAND

CANADIAN PIONEER (down)



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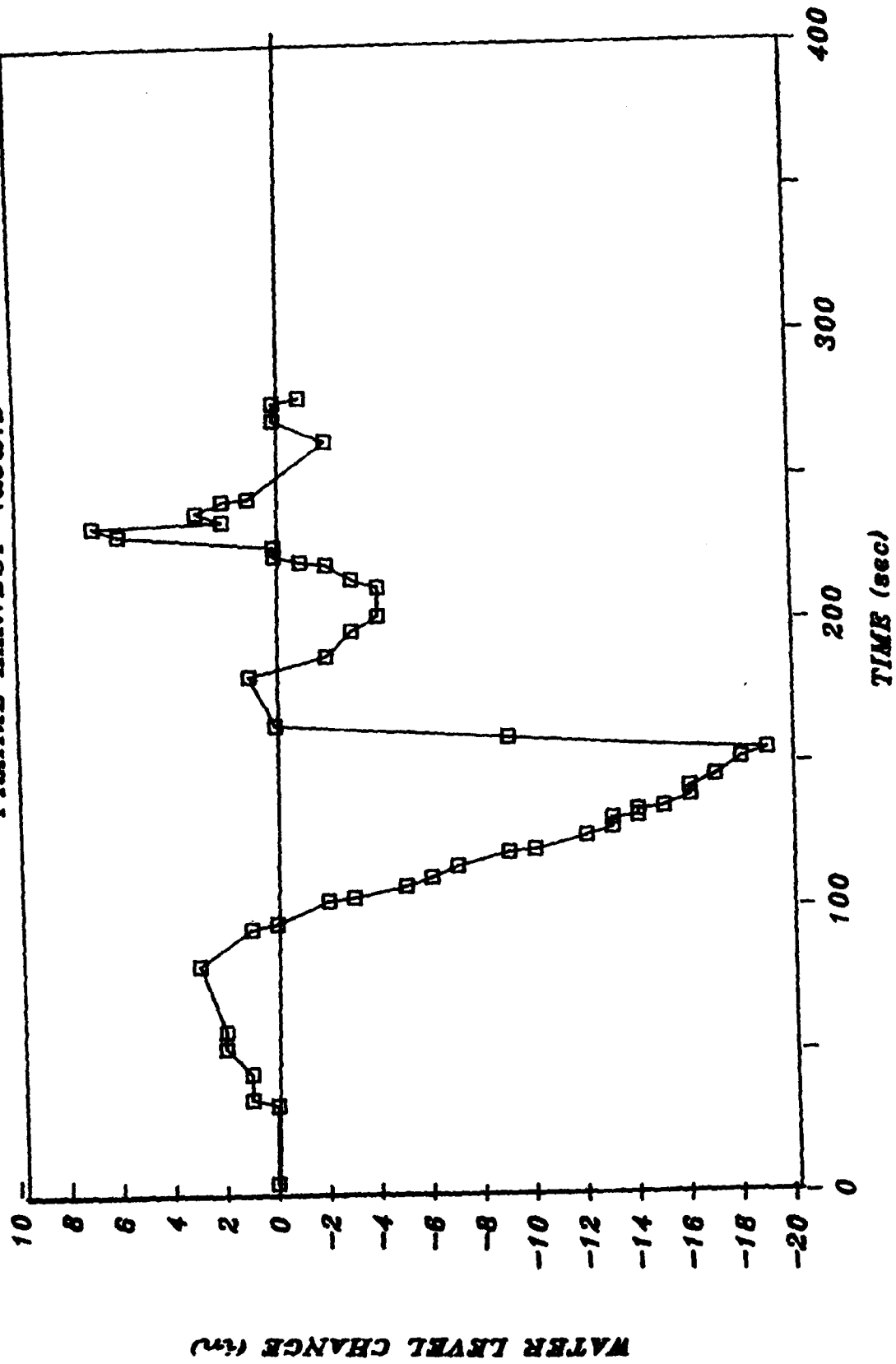
DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 5/17/85
 VESSEL NAME PRAIRIE HARVEST
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 736.5
 VESSEL BEAM in feet = 75
 VESSEL DRAFT in feet = 26
 VESSEL SPEED in feet/sec. = 13.15
 BOW ON TIME in sec = 77
 STERN ON TIME in sec = 133
 DISTANCE TO STAFF GAUGE from green side in feet = 1660
 BACKGROUND READING in inches = 19

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	19.0	0.0
2	28.0	19.0	0.0
3	30.0	20.0	1.0
4	39.0	20.0	1.0
5	48.0	21.0	2.0
6	77.0	22.0	3.0
7	90.0	20.0	1.0
8	92.0	19.0	0.0
9	100.0	17.0	-2.0
10	101.0	16.0	-3.0
11	105.0	14.0	-5.0
12	108.0	13.0	-6.0
13	112.0	12.0	-7.0
14	117.0	10.0	-9.0
15	118.0	9.0	-10.0
16	123.0	7.0	-12.0
17	126.0	6.0	-13.0
18	129.0	6.0	-13.0
19	130.0	5.0	-14.0
20	132.0	5.0	-14.0

MOON ISLAND PRAIRIE HARVEST (down)



 DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 5/18/85
 VESSEL NAME PHILIP R. CLARKE
 DIRECTION DOWNBOUND
 VESSEL LENGTH in feet = 767
 VESSEL BEAM in feet = 70
 VESSEL DRAFT in feet = 27
 VESSEL SPEED in feet/sec. = 13.22
 BOW ON TIME in sec = 87
 STERN ON TIME in sec = 145
 DISTANCE TO STAFF GAUGE from green side in feet = 1660
 BACKGROUND READING in inches = 18

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	18.0	0.0
2	37.0	18.0	0.0
3	46.0	19.0	1.0
4	54.0	19.0	1.0
5	56.0	20.0	2.0
6	67.0	20.0	2.0
7	76.0	21.0	3.0
8	91.0	20.0	2.0
9	95.0	19.0	1.0
10	105.0	17.0	-1.0
11	111.0	16.0	-2.0
12	112.0	15.0	-3.0
13	115.0	14.0	-4.0
14	120.0	13.0	-5.0
15	123.0	12.0	-6.0
16	127.0	11.0	-7.0
17	133.0	10.0	-8.0
18	136.0	10.0	-8.0
19	140.0	9.0	-9.0
20	146.0	9.0	-9.0

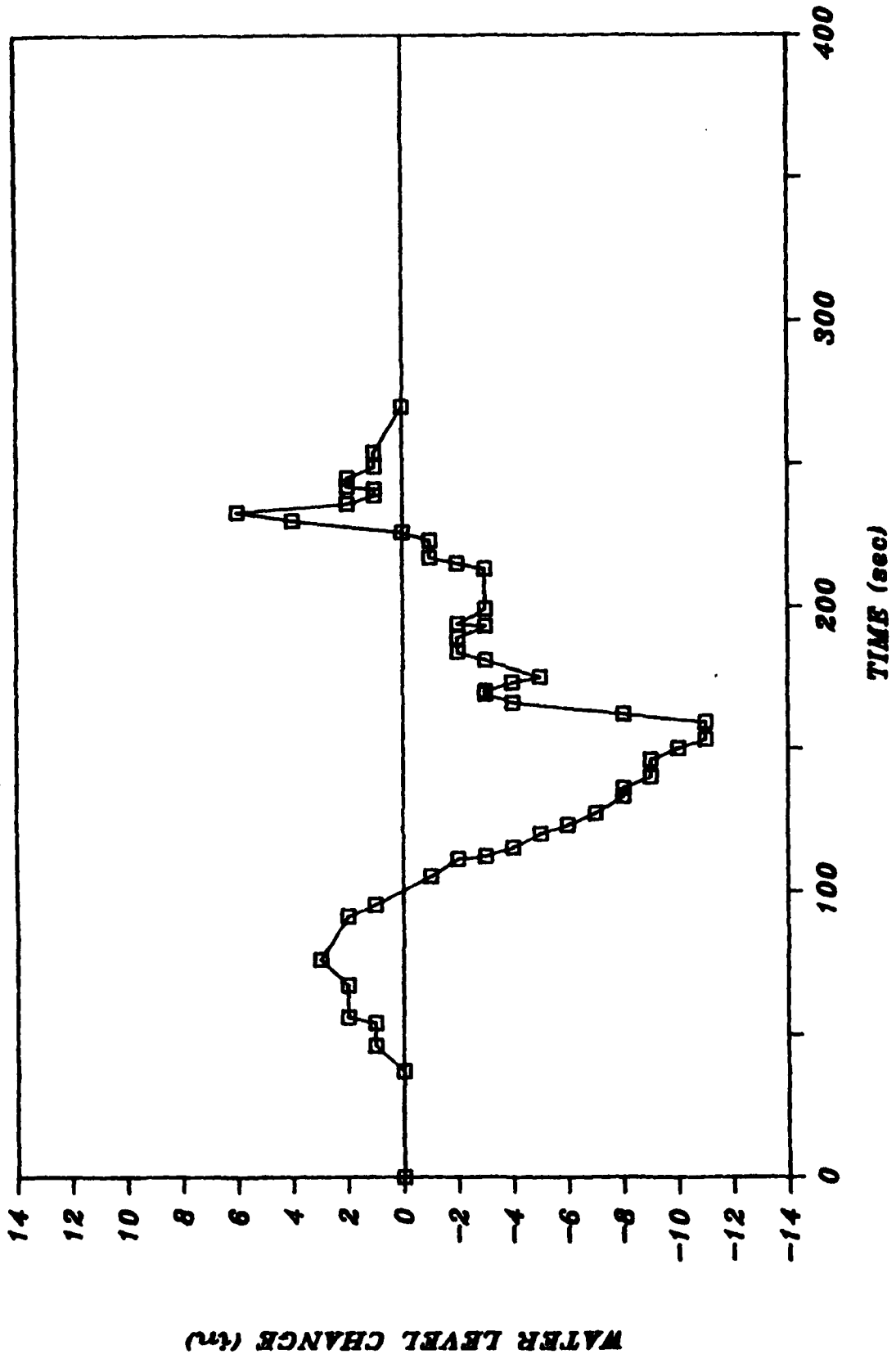
DRAWDOWN DATA (continued)

NAME OF SECTION MOON ISLAND

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
21	150.0	8.0	-10.0
22	153.0	7.0	-11.0
23	159.0	7.0	-11.0
24	162.0	10.0	-8.0
25	166.0	14.0	-4.0
26	169.0	15.0	-3.0
27	170.0	15.0	-3.0
28	173.0	14.0	-4.0
29	175.0	13.0	-5.0
30	181.0	15.0	-3.0
31	184.0	16.0	-2.0
32	189.0	16.0	-2.0
33	193.0	15.0	-3.0
34	194.0	16.0	-2.0
35	199.0	15.0	-3.0
36	213.0	15.0	-3.0
37	215.0	16.0	-2.0
38	217.0	17.0	-1.0
39	223.0	17.0	-1.0
40	226.0	18.0	0.0
41	230.0	22.0	4.0
42	233.0	24.0	6.0
43	236.0	20.0	2.0
44	239.0	19.0	1.0
45	241.0	19.0	1.0
46	242.0	20.0	2.0
47	245.0	20.0	2.0
48	249.0	19.0	1.0
49	254.0	19.0	1.0
50	270.0	18.0	0.0

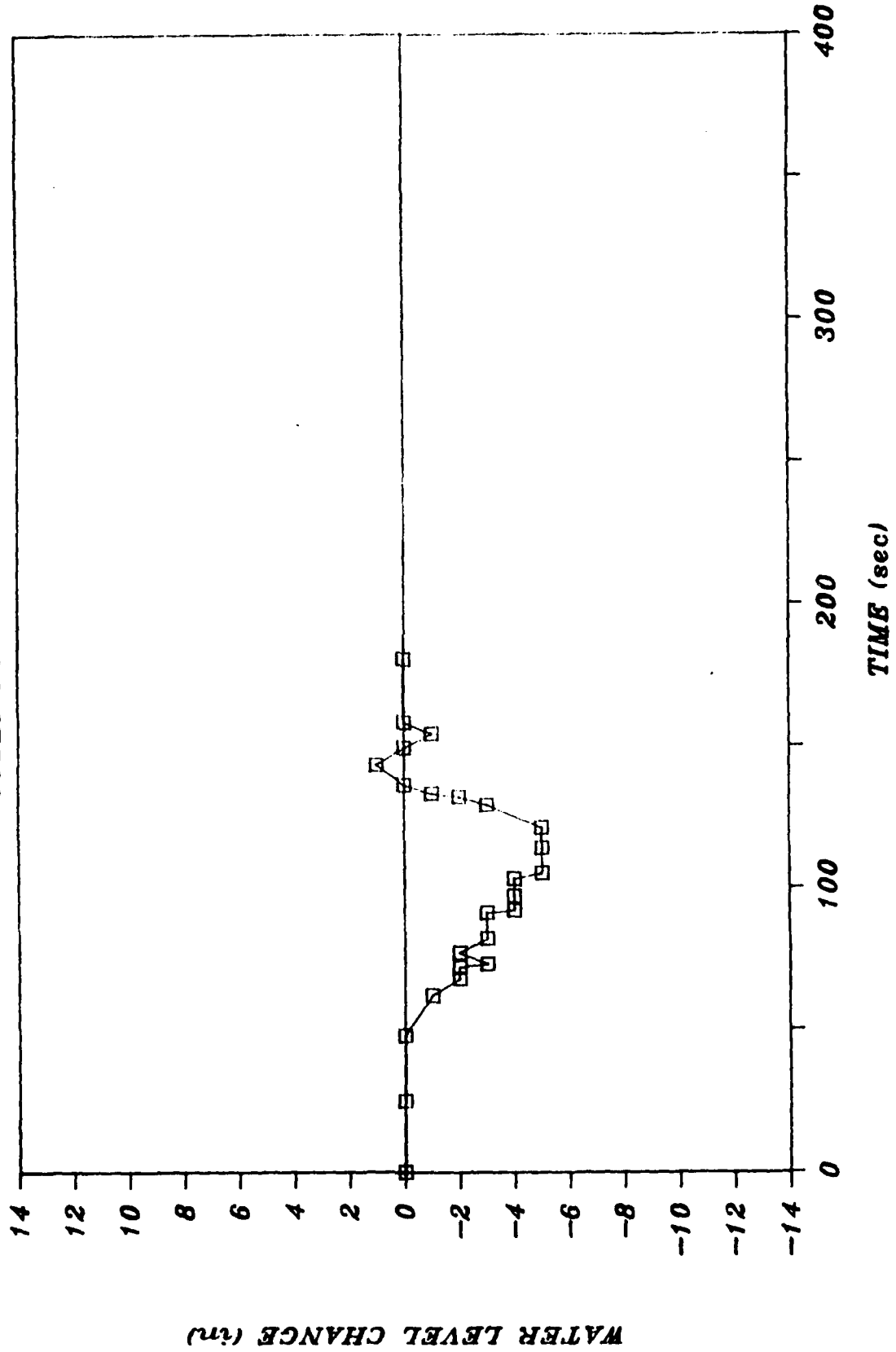
MOON ISLAND (red)

PHILLIP R. CLARKE (down)



MOON ISLAND (green)

JOSEPH L. BLOCK (down)



DRAWDOWN DATA

NAME OF SECTION MOON ISLAND

DATE OF OBSERVATION 6/27/85
VESSEL NAME JOSEPH L. BLOCK
DIRECTION DOWNBOUND
VESSEL LENGTH in feet = 728
VESSEL BEAM in feet = 78
VESSEL DRAFT in feet = 28
VESSEL SPEED in feet/sec. = 10.4
BOW ON TIME in sec = 56
STERN ON TIME in sec = 126
DISTANCE TO STAFF GAUGE from green side in feet = 1660
BACKGROUND READING in inches = 25

DATA POINT	TIME(sec)	GAUGE READING(in)	CHANGE FROM BG(in)
1	0.0	25.0	0.0
2	59.0	25.0	0.0
3	67.0	24.0	-1.0
4	76.0	23.0	-2.0
5	82.0	22.0	-3.0
6	88.0	21.0	-4.0
7	95.0	20.0	-5.0
8	104.0	19.0	-6.0
9	115.0	19.0	-6.0
10	125.0	19.0	-6.0
11	132.0	20.0	-5.0
12	138.0	21.0	-4.0
13	143.0	22.0	-3.0
14	150.0	22.0	-3.0
15	153.0	23.0	-2.0
16	159.0	24.0	-1.0
17	166.0	24.0	-1.0
18	174.0	25.0	0.0
19	191.0	25.0	0.0
20	301.0	25.0	0.0

MOON ISLAND (red)

JOSEPH L. BLOCK (down)

