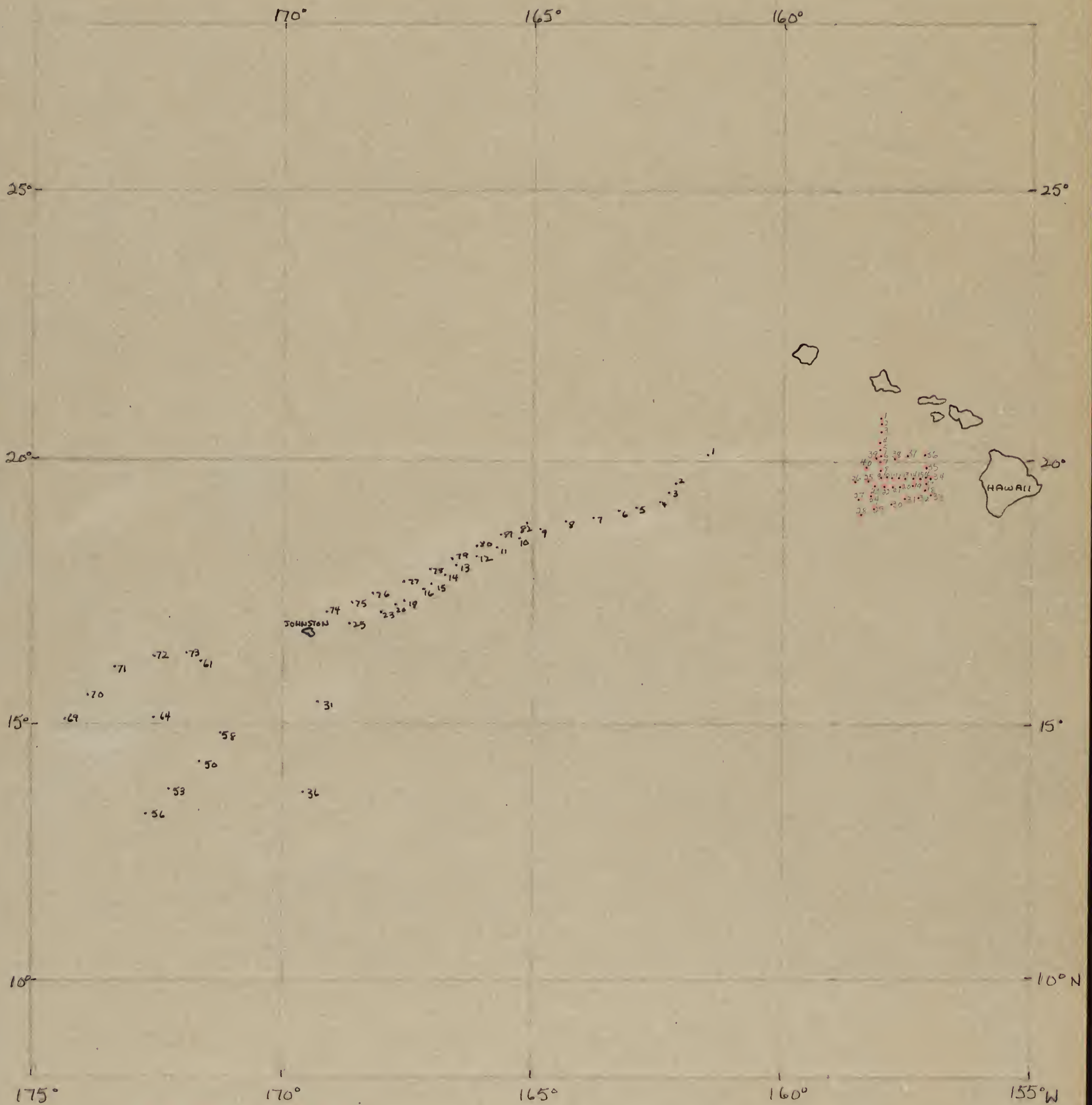


SMITHSONIAN CRUISE #87 - APRIL BT STATIONS
 4-3-64 to 4-15-64



GILBERT CR #72
 THIS SECTION
 4-14-64 to 4-17-64

SMITHSONIAN CRUISE #87 - APRIL DATA

BT STATIONS
 1-40

SMITHSONIAN CRUISE #87 - APRIL
4-3-64 to 4-15-64

SURFACE
SALINITY ‰



GILBERT CR. #72
THIS SECTION
4-14-64 to 4-17-64

SURFACE
SALINITY ‰

SMITHSONIAN CRUISE #87 - APRIL
4-3-64 to 4-15-64

CORRECTED SURFACE
TEMP. °C.



GILBERT CR. #72
THIS SECTION:
4-14-64 to 4-17-64

CORRECTED SURF.
TEMP. °C.

SMITHSONIAN CRUISE #87 - APRIL
4-3-64 to 4-15-64

20° ISOTHERM
DEPTH IN METERS

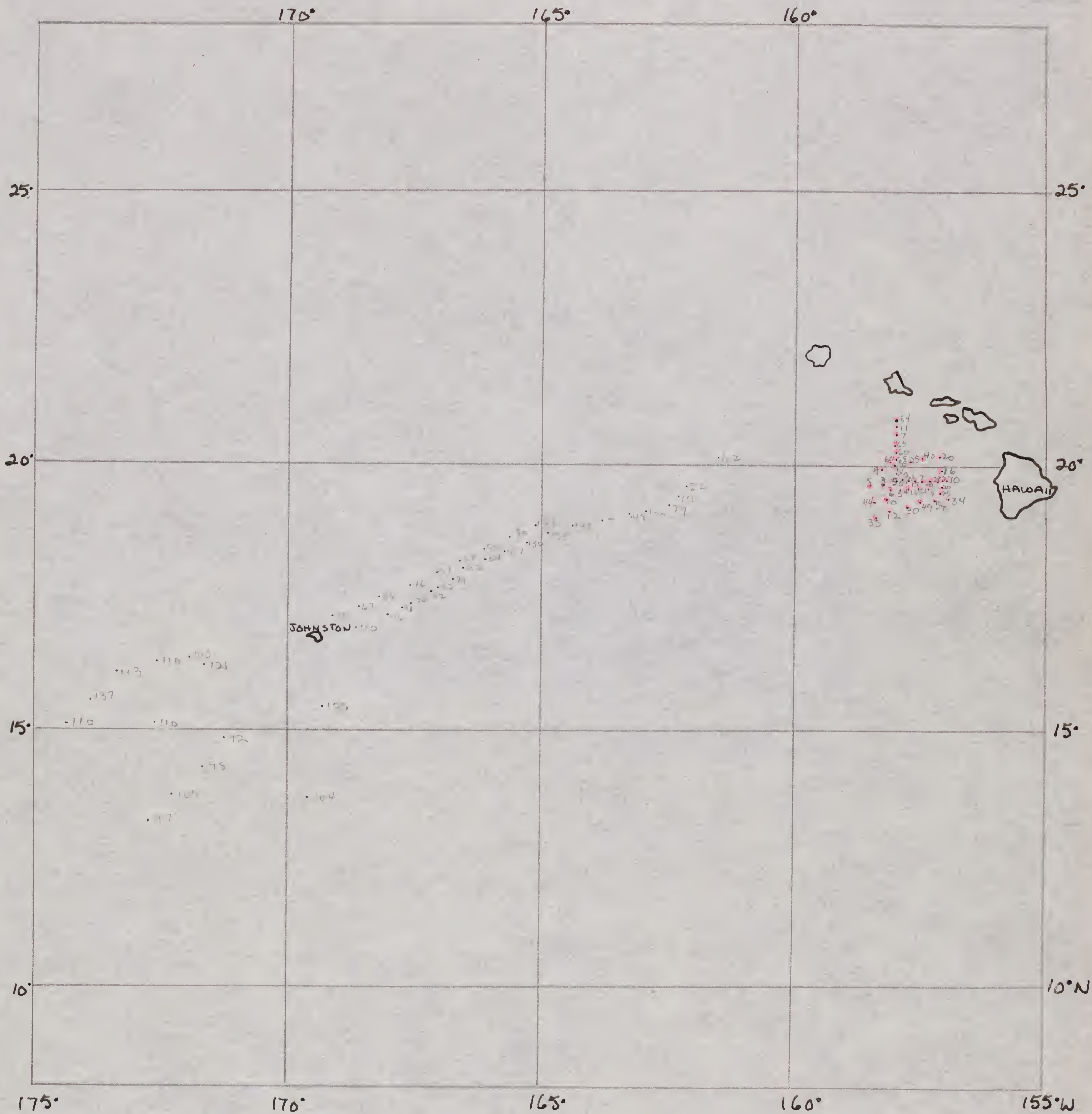


GILBERT CR #72
THIS SECTION
4-14-64 to 4-17-64

20°
ISOTHERM

SMITHSONIAN CRUISE #87 - APRIL
4-3-64 to 4-15-64

DEPTH OF THE
MIXED LAYER - METERS

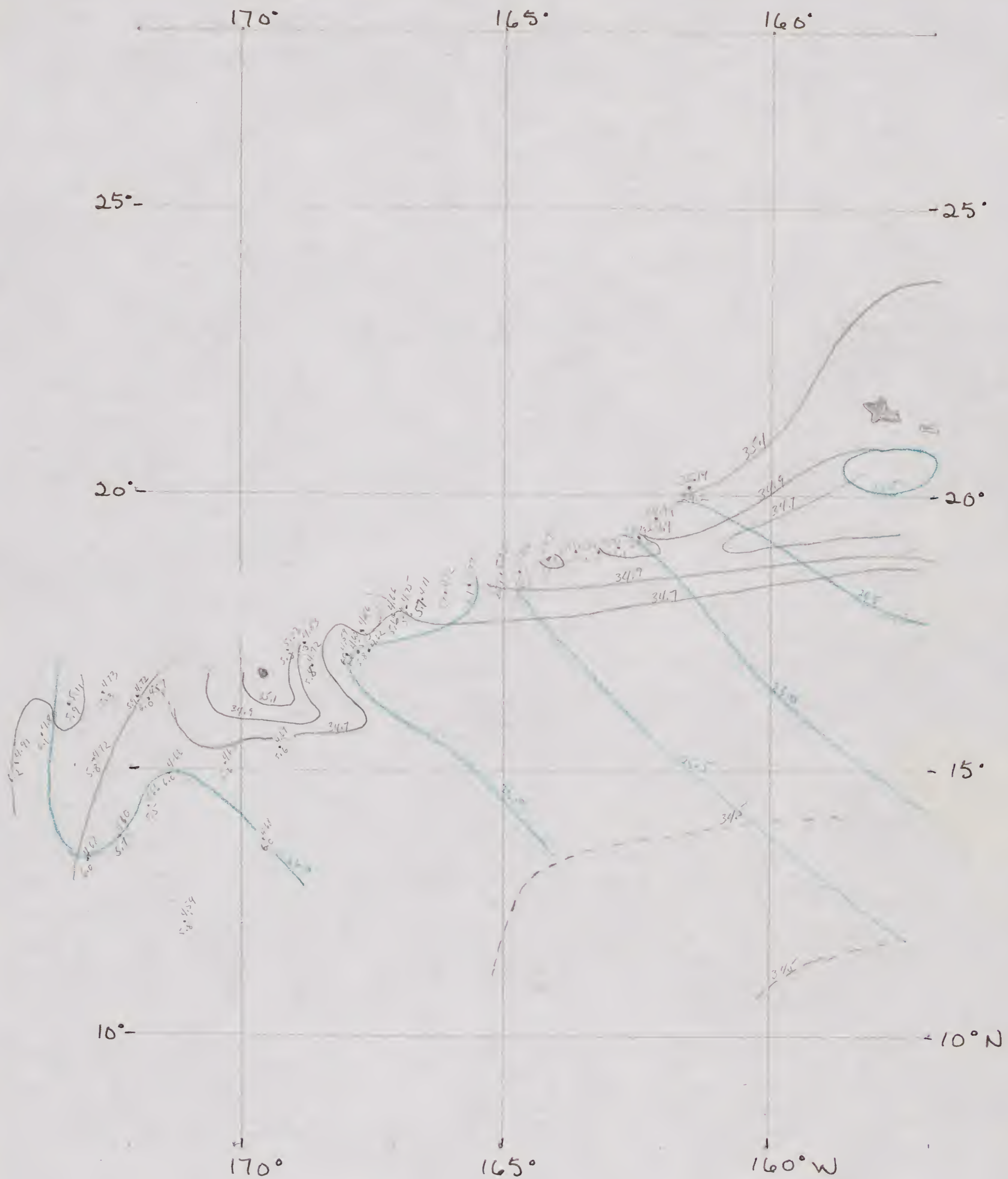


GILBERT CR. #72
THIS SECTION:
4-14-64 to 4-17-64

D.M.L.

SMITHSONIAN CRUISE #87 - APR.
APR. 3, '64 to APR. 15, '64

BUCKET TEMP. °C.
BUCKET SALINITY ‰



‰ —
T°C - - -

SMITHSONIAN #87 - APRIL

4-3-64 to 4-5-64

BT SECTION

1-22

17 1/2 N. LAT.

170°

165°

160°

ST-SURF. TEMP. °C

SS--SURFACE SALINITY

0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300

DEPTH IN METERS

DML--DEPTH OF THE MIXED LAYER

10 X 10 TO THE CENTIMETER 46 1512
MADE IN U.S.A.
KEUFFEL & ESSER CO.



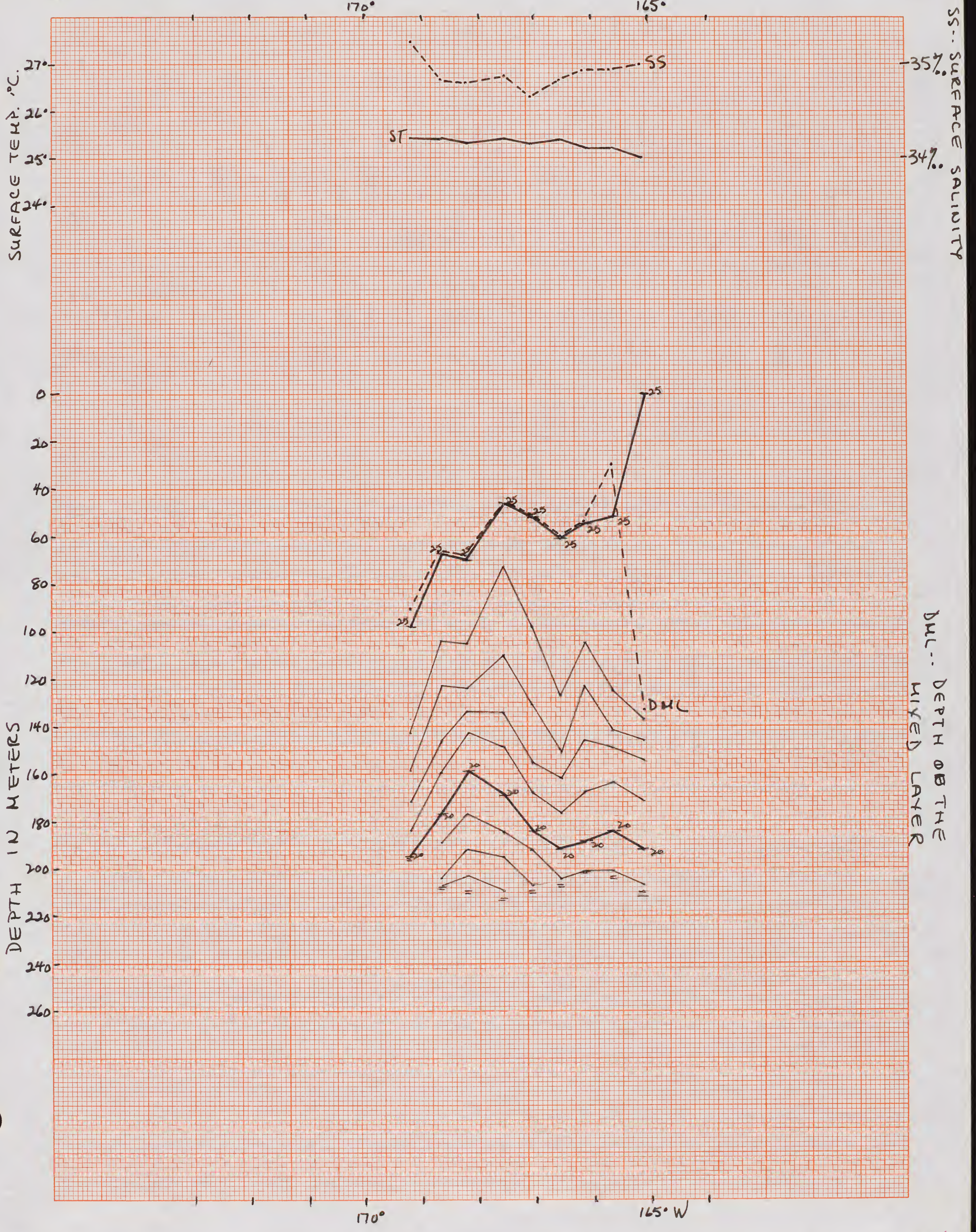
BT

SMITHSONIAN CR. - APRIL '87 BT SECTION (74-82)
4-14-64 to 4-15-64

17 1/2° N. LAT. (AVERAGE)

EUGENE DIETZGEN CO.
MADE IN U. S. A.

NO. 340R-M DIETZGEN GRAPH PAPER
MILLIMETER



DML - DEPTH OF THE
MIXED LAYER

SS - SURFACE SALINITY

COT

Sta #	BT slide #	Buck. Temp °C
56	27	26.0
58	28	26.0
61	29	26.0
64	30	25.8
69	31	26.2
70	32	26.1
71	33	25.9
72	34	25.8
73	35	25.9
74	36	25.3
75	37	25.3
76	38	25.4
77	39	25.5
78	40	25.0
79	41	25.4
80	42	25.2
81	43	25.1
82	44	25.0

sta #	BT slide #	Buck. Temp °C
1	1+2	24.2
2	3+4 (Duplicate)	24.9
3	5	25.1
4	6	25.0
5	7	25.1
6	8	25.0
7	9	25.0
8	10	25.0
9	11	25.5
10	12	25.4
11	13	26.1
12	14	25.9
13	15	25.7
14	16	25.6
15	17	25.6
16	18	25.3
18	19	25.8
20	20	26.0
23	21	26.0
25	22	25.8
31	23	25.6
36	24	26.0
50	25	25.5
53	26	25.6

Open in the morning 10/04

original Data in $^{\circ}\text{C}$.

ST BT 4

BT PH 432A

$^{\circ}\text{F}$

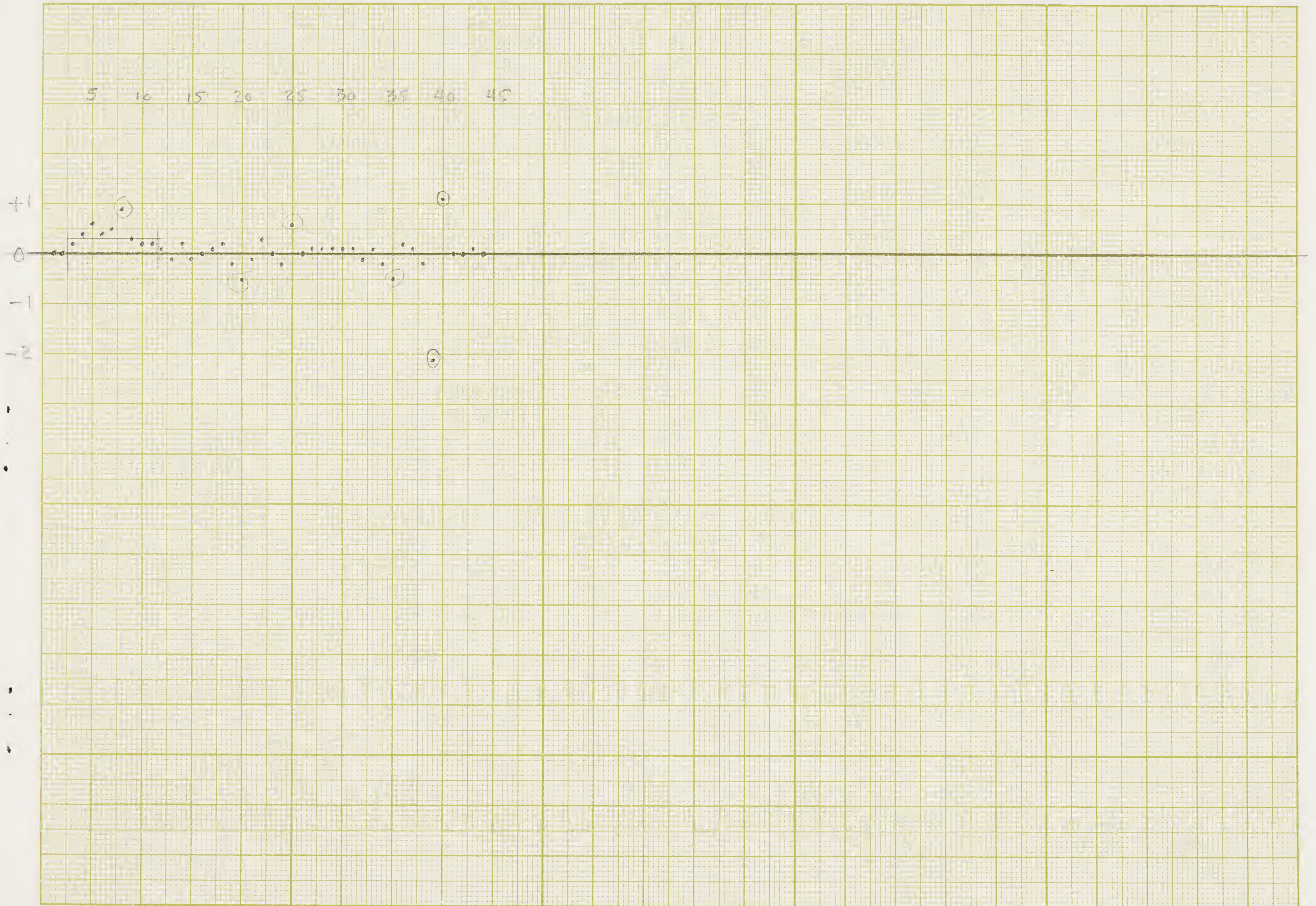
$^{\circ}\text{C}$

STA. No.	Slide No.	$^{\circ}\text{F}$		Diff. BT-Bkt.	Correct.	Corr. Temp.	$^{\circ}\text{C}$		Diff.	Corr. Temp.
		Surf. BT	Temp. Bkt				Surf. BT	Temp. Bkt		
1	1	75.6	75.6	0	0	75.6	24.2	24.2	0	24.2
	2	.6	.6	0		.6	.2	.2	0	.2
2	3	77.1	76.9	.2	+0.3	76.8	25.1	.9	.2	24.9
	4	.3	.9	.4		77.0	.2	.9	.3	25.0
3	5	.8	77.2	.6		.5	.4	25.1	.3	.2
4	6	.4	.0	.4		.1	.2	.0	.2	.1
5	7	.7	.2	.5		.4	.4	.1	.3	.2
6	8	.9	.0	.9 *		.5	.5	.0	.5	.2
7	9	.3	.0	.3		.0	.2	.0	.2	.0
8	10	.2	.0	.2		76.9	.1	.0	.1	24.9
9	11	78.1	.9	.2		77.8	.6	.5	.1	25.4
10	12	77.9	.8	.1	0	Same	.5	.4	.1	Same
11	13	78.9	79.0	-.1		as	26.1	26.1	0	as
12	14	.9	78.7	.2		Surf	.1	25.9	.2	Surf.
13	15	.2	.3	-.1		BT	25.7	.7	0	BT
14	16	.1	.1	0		↓	.6	.6	0	↓
15	17	.2	.1	.1		78.5	.7	.6	.1	25.8
16	18	77.8	77.6	.2		.7	.4	.3	-.1	
18	19	78.3	78.5	-.2		.7	.7	.8	-.1	
20	20	.3	.8	-.5 *		.7	.7	26.0	-.3	25.8
23	1	.7	.8	-.1		.9	.9	.0	-.1	
25	2	.8	.5	.3		Same	26.0	25.8	.2	Same
31	3	.1	.1	0		as	25.6	.6	0	as
36	4	.8	79.0	-.2		Surf.	26.0	26.0	0	Surf.
50	25	.5	77.9	.6		BT	25.8	25.5	.3	BT
53	6	.1	78.1	0		↓	.6	.6	0	Temp.
56	7	.9	.8	.1		26.1	26.1	26.0	.1	
58	8	.9	.8	.1		.1	.1	.0	.1	
61	9	.9	.8	.1		.1	.1	.0	.1	
64	30	.6	.5	.1		25.9	25.9	25.8	.1	
69	1	79.3	79.2	.1		26.3	26.3	26.2	.1	
70	2	78.9	.0	-.1		.1	.1	.1	0	
71	3	.8	78.7	.1		.0	.0	25.9	.1	
72	4	.3	.5	-.2		25.7	25.7	.8	-.1	
73	35	.2	.7	-.5 *		78.4	.7	.9	-.2	25.8
74	6	77.8	77.6	.2		.4	.4	.3	.1	
75	7	.7	.6	.1		.4	.4	.3	.1	
76	8	.6	.8	-.2		.3	.3	.4	-.1	
77	9	75.8	.9	-2.1 *		77.8	24.3	.5	-1.2	25.4
78	40	78.1	.0	1.1 *		77.6	25.6	.0	.6	25.3
79	1	77.8	.8	0		.4	.4	.4	0	
80	2	.4	.4	0		.2	.2	.2	0	
81	3	.3	.2	.1		.2	.2	.1	.1	
82	44	.0	.0	0		.0	.0	.0	0	

* These values "interpolated."

ST BT 4

BT PH 432 A



C. 87

APRIL AT-SEA LOCALITY DATA

BT. PH. F32A

Date	Time	Station #	Station Type	Latitude	Longitude
03	0845	1	BT	20-07.5N	161-30W
03	1500	2	BT	19-36	162-10
03	1800	3	BT	19-27	162-18
03	2000	4	BT	19-14	162-29
03	2300	5	BT	19-10	162-58
04	0200	6	BT	19-05	163-18
04	0500	7	BT	18-58	163-47
04	0805	8	BT	18-52	164-22
04	1100	9	BT	18-42	164-50
04	1400	10	BT	18-31	165-15
04	1700	11	BT	18-22	165-43
04	2000	12	BT	18-11.5	166-10
04	2300	13	BT	18-01.5	166-30.5
05	0200	14	BT	17-49.5	166-45
05	0505	15	BT	17-40	167-03
05	0730	16	BT	17-34	167-14
05	0930	17	Plk.	17-25	167-27
05	1025	18	BT	17-23	167-33
05	1130	19	Plk.	17-19	167-39
05	1300	20	BT	17-17	167-45
05	1330	21	Plk.	17-15	167-50
05	1535	22	Plk.	17-12.5	167-55
05	1600	23	BT	17-10	168-01
05	1735	24	Plk.	17-03	168-22
05	1930	25	BT	16-56	168-41
05	2130	26	Plk.	16-51	168-57
05	2330	27	Plk.	16-39	169-25
06	0130	28	Plk.	16-26	169-27
06	0330	29	Plk.	16-05	169-23
06	0530	30	Plk.	15-44	169-19.5
06	0725	31	BT	15-24	169-18
06	0935	32	Plk.	15-12	169-12
06	1130	33	Plk.	14-54	169-05
06	1335	34	Plk.	14-32	168-58
06	1735	35	Plk.	13-59	169-18
06	1925	36	BT	13-41	169-34
06	2130	37	Plk.	13-25	169-50
06	2330	38	Plk.	13-09	170-05
07	0130	39	Plk.	12-51	170-22
07	0330	40	Plk.	12-24	170-37
07	0530	41	Plk.	12-18	170-54
07	0730	42	Plk.	12-04	171-08

APRIL AT-SEA LOCALITY DATA CONTINUED

2

Date	Time	Station #	Station Type	Latitude	Longitude
08	1735	43	Plk.	15-07	170-07
08	1920	44	Plk.	15-06	170-23
08	2130	45	Plk.	15-06	170-41
08	2330	46	Plk.	14-54	170-51
09	0130	47	Plk.	14-44	171-07
09	0330	48	Plk.	14-32	171-19
09	0530	49	Plk.	14-23	171-30
09	0735	50	BT	14-15	171-39
09	0935	51	Plk.	14-07	171-48
09	1130	52	Plk.	13-58	172-02
09	1330	53	BT	13-46	172-16
09	1530	54	Plk.	13-35	172-29
09	1745	55	Plk.	13-24	172-38
09	1925	56	BT	13-17	172-45
09	2135	57	Plk.	13-21	173-05
10	1810	58	BT	14-51	171-15
11	0935	59	Plk.	16-19	170-58
11	1130	60	Plk.	16-33	171-20
11	1330	61	BT	16-13	171-40
11	1530	62	Plk.	15-52	171-58
11	1730	63	Plk.	15-31	172-17
11	1935	64	BT	15-10	172-37
11	2130	65	Plk.	14-59	172-56
11	2330	66	Plk.	14-42	173-20
12	0130	67	Plk.	14-30	173-38
12	0330	68	Plk.	14-43	173-59
12	0705	69	BT	15-06	174-23
12	1305	70	BT	15-32	173-55
12	1906	71	BT	16-03	173-23
13	0800	72	BT	16-19	172-34
13	1305	73	BT	16-20	171-56
14	0705	74	BT	17-07	169-12
14	1000	75	BT	17-18	168-39
14	1310	76	BT	17-29	168-13
14	1615	77	BT	17-44	167-36
14	1913	78	BT	17-58	167-05
14	2207	79	BT	18-10	166-36
15	0100	80	BT	18-24	166-10
15	0400	81	BT	18-35	165-41
15	0705	82	BT	18-50	165-08

Mr. Seckel;

Only those stations marked BT refer to the slides that you received. The positions are the best we can do with the miserable data given us by the ship. Dr. Doty has the original catalogue in case problems arise concerning station number, date or time.

Chuck

87

BT PH432A

April
Processed

1	0845	3	IV	1964	20° 08'	161° 30'	35.189	24.2	1	+10 time
2	1500	3	IV	1964	19° 36'	162° 10'	34.935	24.9	3	
3	1800				19° 27'	162° 18'	34.930	25.1	5	
4	2000				19° 14'	162° 29'	34.885	25.0	6	+11 time
5	2300				19° 10'	162° 58'	34.745	25.1	7	
6	0200	4	IV	1964	19° 05'	163° 18'	34.934	25.0	8	
7	0500				18° 58'	163° 47'	34.972	25.0	9	
8	0805				18° 52'	164° 22'	34.886	25.0	10	
9	1100				18° 42'	164° 50'	35.064	25.5	11	
10	1400				18° 31'	165° 15'	35.032	25.4	12	
11	1700				18° 22'	165° 43'	34.776	26.1	13	
12	2000				18° 12'	166° 10'	34.723	25.9	14	
13	2300				18° 02'	166° 30'	34.706	25.7	15	
14	0200	5	IV	1964	17° 50'	166° 45'	34.750	25.6	16	
15	0505				17° 40'	167° 03'	34.662	25.6	17	
16	0730				17° 34'	167° 45'	34.862	25.3	18	
18	1025				17° 23'	167° 33'	34.620	25.8	19	

Smithsonian cruises hydrographic data

Cruise number	Station number	Time and date				Lat.	N-S	Long.	E-W	Depth in m	Salinity o/oo	Water temp °C	BT station number		
		LZT	day	month	year										
87	20	1300	5	IV	1964	17° 17'	N	167° 45'	W	1	34.637	26.0	20	+ 11 time	
	23	1600				17° 10'		168° 01'						34.590	26.0
	25	1930				16° 56'		168° 41'			34.720	25.8	22		
	31	0700	6	IV	1964	15° 24'		169° 18'				34.694	25.6	23	
	36	1940				13° 41'		169° 34'				34.678	26.0	24	
	42	0730	7	IV	1964	12° 04'		171° 08'				34.592	25.8	--	
	44	1920	8	IV	1964	15° 06'		170° 23'				34.677	25.6		
	50	0735	9	IV	1964	14° 15'		171° 39'				34.658	25.5	25	
	53	1330				13° 46'		172° 16'				34.602	25.7	26	
	56	1925				13° 17'		172° 45'				34.678	26.0	27	
	58	1810	10	IV	1964	14° 51'		171° 15'				34.661	26.0	28	
	61	1330	11	IV	1964	16° 13'		171° 40'				34.572	26.0	29	
	64	1935				15° 10'		172° 37'				34.717	25.8	30	
	69	0705	12	IV	1964	15° 06'		174° 23'				34.906	26.2	31	
	70	1305				15° 32'		173° 55'				34.801	26.1	32	
	71	1906				16° 03'		173° 23'				35.110	25.9	33	
	72	0800	13	IV	1964	16° 19'		172° 34'				34.729	25.8	34	
	73	1305	13	IV	1964	16° 20'		171° 56'				34.715	25.9	35	
	74	0705	14	IV	1964	17° 07'		169° 12'				35.234	25.3	36	
	75	1000				17° 18'		168° 39'				34.834	25.3	37	
	76	1310				17° 29'		168° 13'				34.798	25.4	38	
	77	1615				17° 44'		167° 36'				34.866	25.5	39	
	78	1913				17° 58'		167° 05'				34.653	25.0	40	
79	2207				18° 10'		166° 36'				34.827	25.4	41		
80	0100	15	IV	1964	18° 24'		166° 10'				34.866	25.3	42		
81	0400				18° 35'		165° 41'				34.937	25.1	43		
82	0705				18° 50'		165° 08'				34.988	25.0	44		