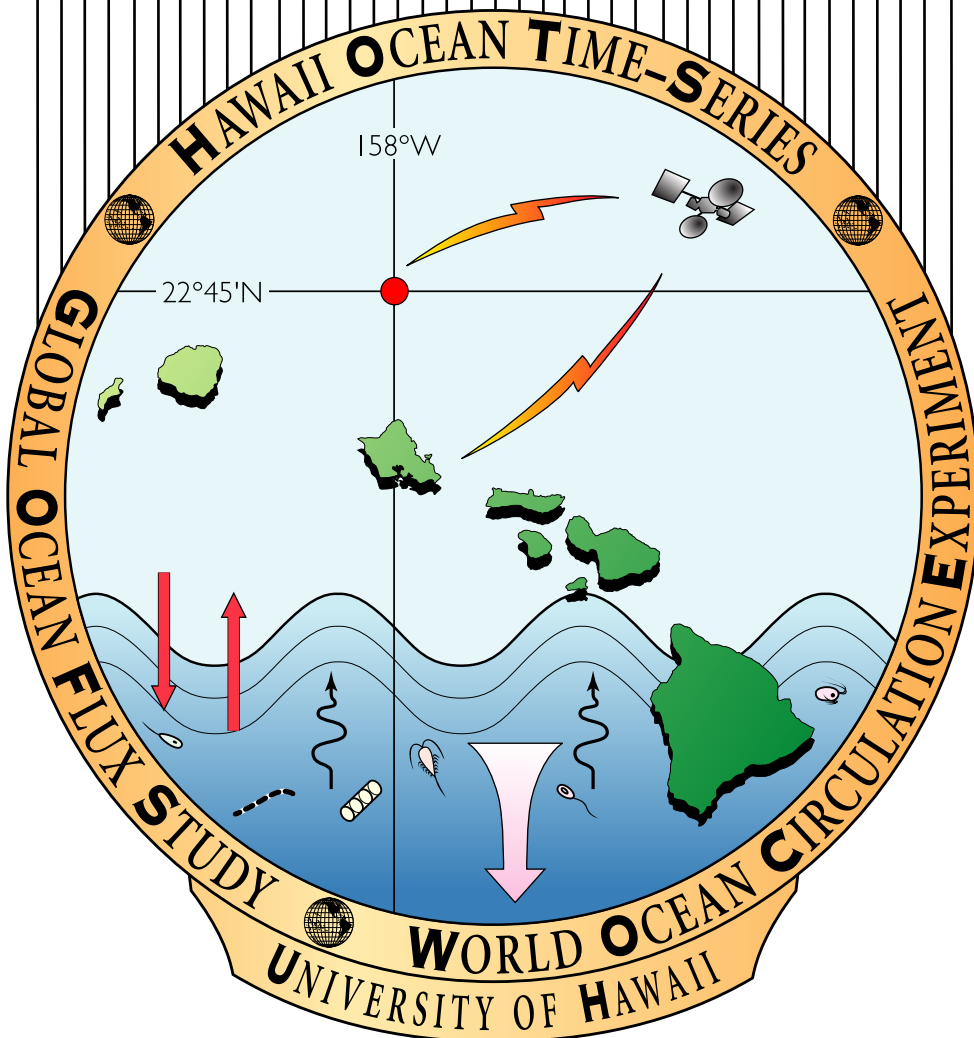


Hawaii Ocean Time-series Program

HOT 300



Hawaii Ocean Time-Series

HOT-300

KAHE Station Data Sheet

Station # 1
 Cast # 1
 Operator(s): KB, CF, CW

Date: 2-24-18 (HST)
 Time: 2:30 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	Nuts	LLN/LLP	Chl <i>a</i>	DK	WM
1	1000	1	6.7							
2	800									X
3	750	2,3,4	8.0							
4	700								X	
5	580							5a,b		
6	500	5	9.4							
7	350	6	11.8			7				
8	250	7	15.0			8				
9	175							9		
10	150	8	20.5			10	10	10		
11	125							11		
12	100	9,10,11	22.5			12	12	12A-B		
13	DCM									X
14	75							14		
15	45	12	24.1	15	1	15	15	15		
16	25	13	24.5	16	2			16A-B		
17	15								X	
18	15								X	
19	15								X	
20	15								X	
21	15								X	
22	5	14	24.9	22	3,4,5	22	22	22		
23	5									X
24	5	QC	24.8							

Notes: Fluorescence feature at 580 m on down cast. Not seen on upcast, but sampled for chl

Hawaii Ocean Time-Series

HOT-300

KAHE Station Data Sheet

Station # 1

Date: 2-24-18 (HST)

Cast # 1

Time: 2:30 (HST)

Operator(s): KB, CF, CW

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	Nuts	LLN/LLP	Chl <i>a</i>	DK	WM
1	1000	1	6.7							
2	800									X
3	750	2,3,4	8.0							
4	700								X	
5	580							5a,b		
6	500	5	9.4							
7	350	6	11.8			7				
8	250	7	15.0			8				
9	175							9		
10	150	8	20.5			10	10	10		
11	125							11		
12	100	9,10,11	22.5			12	12	12A-B		
13	DCM									X
14	75							14		
15	45	12	24.1	15	1	15	15	15		
16	25	13	24.5	16	2			16A-B		
17	15								X	
18	15								X	
19	15								X	
20	15								X	
21	15								X	
22	5	14	24.9	22	3,4,5	22	22	22		
23	5									X
24	5	QC	24.8							

Notes:

Hawaii Ocean Time-series

HOT-300 Primary Production Data Sheet

Station # 2
 Cast # 1
 Operator(s): KB, CF, CW

Date: 2/25/18 (HST)
 Time: 0145 (HST)

Rosette Position	Desired Depth	Light Bottle	Chl <i>a</i>	FCM	SFS		
1	1000						
2	Sal min						
3	175		3A-B	3A-B	X		
4	150		4A-B	4A-B	X		
5	125	3-1	5	5	X		
6	125	3-2	6	6	X		
7	125	3-3	7	7	X		
8	100	4-1	8	8	X		
9	100	4-2	9	9	X		
10	100	4-3	10	10	X		
11	75	5-1	11	11	X		
12	75	5-2	12	12	X		
13	75	5-3	13	13	X		
14	45	6-1	14	14	X		
15	45	6-2	15	15	X		
16	45	6-3	16	16	X		
17	25	7-1	17	17	X		
18	25	7-2	18	18	X		
19	25	7-3	19	19	X		
20	5	8-1	20	20	X		
21	5	8-2	21	21	X		
22	5	8-3	22	22	X		
23							
24							

Notes:

Bottle #5 Flowed before opening vent. Chl bottles with samples 21 and 22 found unfiltered on 2/26/18. Discarded at that point.

Hawaii Ocean Time-series

HOT-300 Primary Production Data Sheet

Station # 2
 Cast # 1
 Operator(s): KB, CF, CW

Date: 2/25/18 (HST)
 Time: 0150 (HST)

Rosette Position	Desired Depth	Light Bottle	Chl <i>a</i>	FCM	SFS		
1	1000						
2	Sal min						
3	175		3A-B	3A-B	X		
4	150		4A-B	4A-B	X		
5	125	3-1	5	5	X		
6	125	3-2	6	6	X		
7	125	3-3	7	7	X		
8	100	4-1	8	8	X		
9	100	4-2	9	9	X		
10	100	4-3	10	10	X		
11	75	5-1	11	11	X		
12	75	5-2	12	12	X		
13	75	5-3	13	13	X		
14	45	6-1	14	14	X		
15	45	6-2	15	15	X		
16	45	6-3	16	16	X		
17	25	7-1	17	17	X		
18	25	7-2	18	18	X		
19	25	7-3	19	19	X		
20	5	8-1	20	20	X		
21	5	8-2	21	21	X		
22	5	8-3	22	22	X		
23							
24							

Notes:

BOTTLE # 5 FLOWED BEFORE OPENING VENT

Hawaii Ocean Time-series

HOT-300

WOCE Deep Data Sheet

Station # 2
 Cast # 2
 Operator(s): TC,DS,CS,EG

Date: 2/25/2018 (HST)
 Time: 0600 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	DOC	Nutrient	Refrig. Si	
1	4800	15	3.5				1	1	
2	4600	16	3.6				2	2	
3	4500	17,18,19	4.0	3A-B	1,2,3	3ABC	3A-B	3A-B	
4	4400	20	3.7				4	4	
5	4200	21	3.7				5	5	
6	4000	22	3.8				6	6	
7	3800	23,24,25	4.1			7ABC	7A-B	7A-B	
8	3600	26	3.8				8	8	
9	3400	27	3.9				9	9	
10	3200	28	3.8				10	10	
11	3000	29,30,31	4.5	11	4	11ABC	11	11 ^{a,b}	
12	2800	32	4.0				12	12	
13	2600	33	4.2				13	13	
14	2400	34	4.4				14	14	
15	2200	35	4.5				15	15	
16	2000	36	4.8	16	5	16ABC	16A-B	16A-B	
17	1800	37,38,39	5.3				17	17	
18	1600	150	5.1				18	18	
19	1400	41	5.4				19	19	
20	1200	42	5.7				20	20	
21	1000	43	6.2				21	21	
22	750	44	7.0				22	22	
23	500	45	8.9				23	23	
24	5	46	22.9				24		

Notes:

† Have a, b samples for Ref. Si Sample 11

Hawaii Ocean Time-series

HOT-300

WOCE Deep Data Sheet

Station # 2

Date: 2/25/2018 (HST)

Cast # 2

Time: 0600 (HST)

Operator(s): TC,DS,CS,EG

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	DOC	Nutrient	Refrig. Si	WM
1	4800	15	3.5				1	1	
2	4600	16	3.6				2	2	
3	4500	17,18,19	4.0	3A-B	1,2,3	3ABC	3A-B	3A-B	
4	4400	20	3.7				4	4	
5	4200	21	3.7				5	5	
6	4000	22	3.8				6	6	
7	3800	23,24,25	4.1			7ABC	7A-B	7A-B	
8	3600	26	3.8				8	8	
9	3400	27	3.9				9	9	
10	3200	28	3.8				10	10	
11	3000	29,30,31	4.5	11	4	11ABC	11	11	
12	2800	32	4.0				12	12	
13	2600	33	4.2				13	13	
14	2400	34	4.4				14	14	
15	2200	35	4.5				15	15	
16	2000	36	4.8	16	5	16ABC	16A-B	16A-B	
17	1800	37,38,39	5.3				17	17	
18	1600	150	5.1				18	18	
19	1400	41	5.4				19	19	
20	1200	42	5.7				20	20	
21	1000	43	6.2				21	21	
22	750	44	7.0				22	22	
23	500	45	8.9				23	23	
24	5	46	22.9				24		

Notes:

Hawaii Ocean Time-series

HOT-300

PO Shallow Data Sheet

Station # 2
 Cast # 3
 Operator(s): DS,TC,CS,EG,ES

Date: 2/25/18 (HST)
 Time: 1130 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	DOC	Nutrient	Refrig. Si	Replicat Depths
1	1020	47,48,49	6.7	1	1	1	1A-B	1A-B	1020
2	955	50	6.3				2	2	
3	896	51	6.4				3	3	
4	837	52	6.6				4	4	
5	790	53	6.7				5	5	
6	743	54,55,56	7.0	6	2	6	6	6	750
7	704	57	7.2				7	7	
8	664	58	7.1				8	8	
9	600	59	7.4	6	3	6	9	9	
10	555	60	8.0				10	10	
11	528	61	8.5				11A-B	11A-B	525/50
12	477	62,63,64	8.7	12	4	12	12	12	
13	414	65	9.9				13	13	
14	351	66	10.9	13A-B	5,6	14	14		
15	311	67	12.5				15		
16	271	68	13.5				16		
17	231	69	14.9	17	7	17	17		350
18	225	70,71,72	17.3				18		
19	176	73	17.9				19		225
20	150	74	20.4				20A-B		
21	134	75	21.2				21		150
22	98	76	22.0				22		
23	52	77	22.6				23		
24	6	78	22.9				24		

Notes:

Hawaii Ocean Time-series

HOT-300

PO Shallow Data Sheet

Station # 2

Date: 2-25-18 (HST)

Cast # 3

Time: 1130 (HST)

Operator(s): DS, EG, TC, CS, ES

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/Alk	pH	DOC	Nutrient	Refrig. Si	Replicat Depths
1	1020	47,48,49	6.7	1	1	1	1A-B	1A-B	1020
2	955	50	6.3				2	2	
3	896	51	6.4				3	3	
4	837	52	6.6				4	4	
5	790	53	6.7				5	5	
6	743	54,55,56	7.0	6	2	6	6	6	750
7	704	57	7.2				7	7	
8	664	58	7.1				8	8	
9	600	59	7.4	6.9	3	6.9	9	9	
10	555	60	8.0				10	10	
11	528	61	8.5				11A-B	11A-B	525/50
12	477	62,63,64	8.7	12	4	12	12	12	
13	414	65	9.9				13	13	
14	351	66	10.9	13A-B	5,6	14	14		
15	311	67	12.5				15		
16	271	68	13.5				16		
17	231	69	14.9	17	7	17	17		350
18	225	70,71,72	17.3				18		
19	176	73	17.9				19		225
20	150	74	20.4				20A-B		
21	134	75	21.2				21		150
22	98	76	22.0				22		
23	52	77	22.6				23		
24	6	78	22.9				24		

Notes:

Hawaii Ocean Time-series

HOT- 300

PC/PN Data Sheet

Station # 2 Date: 2/25/2018 (HST)
 Cast # 4 Time: 1420 (HST)
 Operator(s): KB,CW,TB,RT Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	DNA	temp	
1	1000						
2	Sal min						
3	350	1	10	3			
4	350	2	10	4			
5	250	3	10	5			
6	200	4	10	6			
7	175	5A,B	6,2.7	7			
8	150	6	10	8			
9	125	7,8	4,4	9A-B			
10	100	9	4	10			
11	75	10	4	11			
12	75				X		
13	45	11	4	13			
14	45				X		
15	25	12	4,4	15		22.7	
16	25	13		16	X	12.2	
17	5	14	4	17		23.0	
18	5				X		
19							
20							
21							
22							
23							
24							

Notes: Niskin 15 mistrip (cold water). Sampled 25 m from Niskin 16.
 Carboy #5 (300-2-4-7) filtered slow. Red stuff on filter. Sample split on two filters (A,B 6 and 2.7 L). Some sample given to Angel flowcytobot, and Avery for plankton analysis. ~ 500 ml saved refrigerated.

Hawaii Ocean Time-series

HOT- 300

PC/PN Data Sheet

Station # 2 Date: 2/25/2018 (HST)
 Cast # 4 Time: 1420 (HST)
 Operator(s): KB,CW,TB,RT Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	DNA	bolide temp
1	1000					
2	Sal min					
3	350	1	10	3		
4	350	2	10	4		
5	250	3	10	5		
6	200	4	10	6		
7	175	5	10	7		
8	150	6	10	8		
9	125	7,8	4,4	9A-B		
10	100	9	4	10		
11	75	10	4	11		
12	75				X	
13	45	11	4	13		
14	45				X	22.7
15	25	12,13	3.62,4	15A-B		12.2
16	25	13		16	X	23.0
17	5	14	4	17		
18	5				X	
19						
20						
21						
22						
23						
24						

Notes:

Hawaii Ocean Time-series

HOT- 300

Particulate Phosphorus Data Sheet

Station # 2 Date: 2/25/18 (HST)
 Cast # 5 Time: 17:13 (HST)
 Operator(s): KB, CF, TB, RT Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	SF-S			
1	1000							
2	Sal min							
3	350	1	10	3				
4	350	2	10	4				
5	250	3	10	5				
6	200	4	10	6				
7	175	5	10	7				
8	150	6	10	8				
9	125	7,8	4,4	9A-B				
10	100	9	4	10				
11	75	10	4	11				
12	45	11	3.825	12				
13	25	12,13	4,4	13A-B				
14	25				14A,B			
15	5	14	4	15				
16	5				16A,B			
17								
18								
19								
20								
21								
22								
23								
24								

Notes: bottle #11 (300-2-5-12) had ~ 175 ml left in it

Hawaii Ocean Time-series

HOT- 300

Particulate Phosphorus Data Sheet

Station # 2 Date: 2/25/18 (HST)
 Cast # 5 Time: 1713 (HST)
 Operator(s): KB, CF, TB, RT Pre-screen mesh size: 202 um
 Blank #'s B1 B2 B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	SF-S			
1	1000							
2	Sal min							
3	350	1	10	3				
4	350	2	10	4				
5	250	3	10	5				
6	200	4	10	6				
7	175	5,12	10	7				
8	150	6	10	8				
9	125	7,8	4,4	9A-B				
10	100	9	4	10				
11	75	10	4	11				
12	45	11	4	12				
13	25	12,13	4,4	13A-B				
14	25				14A,B			
15	5	14	4	15				
16	5				16A,B			
17								
18								
19								
20								
21								
22								
23								
24								

Notes:

Hawaii Ocean Time-series
HOT-300
BEACH Shallow Data Sheet (1/2)

Station # 2
 Cast # 6
 Operator(s): KB, CF, TB, RT

Date: 2/25/18 (HST)
 Time: 20:15 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/ALK	Quay DIC	Keeling DIC	SF-S	pH	DOC
1	1000	79	7.0						
2	O ₂ min	80	7.6						
3	Sal min	81	9.6						
4	200	82	19.1	4				1	4
5	175	83	20.4						5
6	165	84	20.8						
7	150	85	21.6	7				2	7
8	130								
9	125	86	22.1						9
10	115	87	22.4						
11	110								
12	100	88,89,90	22.7	12				3	12
13	90								
14	85	91	22.8						
15	75	92	22.8	15				4	15
16	60								16
17	45	93	23.0	17				5	17
18	35								18
19	25	94	23.0	19				6	19
20	25								
21	15				20		20A-B		
22	5	95	23.0	22A-B					21
23	5							7,8	22
24	5				23	23A-B			
							24A-B		

Notes: Keeling 23A 21:58, 23B 22:00 200 ul HgCl₂

Hawaii Ocean Time-series
HOT-300
 BEACH Shallow Data Sheet (2/2)

Station # 2
 Cast # 6
 Operator(s): KB, TB, CF, RT

Date: 2/25/18 (HST)
 Time: 20:15 (HST)

Rosette Position	Desired Depth	Nutrient	LLN	LLP				
1	1000							
2	O ₂ min							
3	Sal min							
4	200	4						
5	175	5	5	5				
6	165		6					
7	150	7	7A-B	7				
8	130		8					
9	125	9A-B	9	9				
10	115		10	10				
11	110		11					
12	100	12	12A-B	12				
13	90		13					
14	85		14	14				
15	75	15	15	15				
16	60	16	16	16				
17	45	17A-B	17	17				
18	35	18	18					
19	25	19	19	19				
20	25							
21	15	21	21					
22	5	22	22A-B	22				
23	5							
24	5							

Notes:

Hawaii Ocean Time-series

HOT-300

BEACH Shallow Data Sheet (1/2)

Station # 2
 Cast # 6
 Operator(s): KB, CF, TB, RT

Date: 2/25/18 (HST)
 Time: 20:25 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DIC/ALK	Quay DIC	Keeling DIC	SF-S	pH	DOC
1	1000	79	7.0						
2	O ₂ min	80	7.6						
3	Sal min	81	9.6						
4	200	82	19.1	4				1	4
5	175	83	20.4						5
6	165	84	20.8						
7	150	85	21.6	7				2	7
8	130								
9	125	86	22.1						9
10	115	87	22.4						
11	110								
12	100	88,89,90	22.7	12				3	12
13	90								
14	85	91	22.8						
15	75	92	22.8	15				4	15
16	60								16
17	45	93	23.0	17				5	17
18	35								18
19	25	94	23.0	19				6	19
20	25				20		20A-B		
21	15								21
22	5	95	23.0	22A-B				7,8	22
23	5				23	23A-B			
24	5						24A-B		

Notes: Keeling

23A = 21:58 HST
 23B = 22:00 HST

Hawaii Ocean Time-series

HOT-300

BEACH Shallow Data Sheet (2/2)

Station # 2
 Cast # 6
 Operator(s): KB, TB, CF, RT

Date: 2/25/18 (HST)
 Time: 20:25 (HST)

Rosette Position	Desired Depth	Nutrient	LLN	LLP				
1	1000							
2	O ₂ min							
3	Sal min							
4	200	4						
5	175	5	5	5				
6	165		6					
7	150	7	7A-B	7				
8	130		8					
9	125	9A-B	9	9				
10	115		10	10				
11	110		11					
12	100	12	12A-B	12				
13	90		13					
14	85		14	14				
15	75	15	15	15				
16	60	16	16	16				
17	45	17A-B	17	17				
18	35	18	18					
19	25	19	19	19				
20	25							
21	15	21	21					
22	5	22	22A-B	22				
23	5							
24	5							

Notes:

Hawaii Ocean Time-series

HOT-300 PUR Data Sheet

Station # 2
 Cast # 7
 Operator(s): KB, TB, CF, RT

Date: 2/25/18 (HST)
 Time: 2305 (HST)

Rosette Position	Desired Depth	Carboy #	Total Volume	PUR	SF-S	DNA		
1	1000							
2	Sal Min							
3	175	1	10	3				
4	175					X		
5	150	2	10	5				
6	150					X		
7	125	7,8	4,4	7A-B				
8	125					X		
9	100	9	3	9				
10	100					X		
11	75	10	4	11				
12	45	11,12	4,4	12A-B				
13	25	3	10	13				
14	25				14A,B			
15	5	4	10	15				
16	5				16A,B			
17								
18								
19								
20								
21								
22								
23								
24								

Notes: bottle #9 (300-2-7-9) leaked. Filter changed – 3 L filtered

Hawaii Ocean Time-series

HOT-300

PUR Data Sheet

Station # 2
 Cast # 7
 Operator(s): KB, TB, CF, RT

Date: 2/25/18 (HST)
 Time: 2305 (HST)

Rosette Position	Desired Depth	Carboy #	Total Volume	PUR	SF-S	DNA		
1	1000							
2	Sal Min							
3	175	1	10	3				
4	175					X		
5	150	2	10	5				
6	150					X		
7	125	7,8	4,4	7A-B				
8	125					X		
9	100	9	4	9				
10	100					X		
11	75	10	4	11				
12	45	11,12	4,4	12A-B				
13	25	3	10	13				
14	25				14A,B			
15	5	4	10	15				
16	5				16A,B			
17								
18								
19								
20								
21								
22								
23								
24								

Notes:

Hawaii Ocean Time-series

HOT- 300

Gas Array Experiment Data Sheet

Station # 2
 Cast # 8
 Operator(s): KB, TB, CF, RT

Date: 2/26/18 (HST)
 Time: 0203 (HST)

Rosette Position	Desired Depth	15N2	SF-S	Salts			
1	1020			X			
2	Sal min			X			
3	25		3A,B				
4	5		4A,B				
5	5			X			
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Notes: No array deployed due to weather conditions

Hawaii Ocean Time-series

HOT- 300

Gas Array Experiment Data Sheet

Station # 2
 Cast # 8
 Operator(s): KB, TB, CF, RT

Date: 2/26/18 (HST)
 Time: 0203 (HST)

Rosette Position	Desired Depth	15N2	SF-S	Salts			
1	1020			X			
2	Sal min			X			
3	25		3A,B				
4	5		4A,B				
5	5			X			
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Notes: No array deployed due to weather conditions

Hawaii Ocean Time-series

HOT- 300

OPEN Data Sheet

Station # 2

Date: 2/26/18 (HST)

Cast # 9

Time: 0500 (HST)

Operator(s): EG,CS,DS,TC,ES

Rosette Position	Desired Depth	DNA	SFS Gas	MC	Salts		
1	1020				X		
2	Sal min				X		
3	275	X					
4	250	X					
5	225	X					
6	200	X					
7	175			X			
8	150			X			
9	125			X			
10	100			X			
11	75			X			
12	45			X			
13	25			X			
14	25		X				
15	5		X		X		
16	5			X			
17							
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT- 300

OPEN Data Sheet

Station # 2

Date: 2/25/18 (HST)

Cast # 9

Time: 0500 (HST)

Operator(s): EG,CS,DS,TC,ES

Rosette Position	Desired Depth	DNA	SFS Gas	MC	Salts		
* 1	1020				X		
* 2	Sal min				X		
3	275	X					
4	250	X					
5	225	X					
6	200	X					
7	175			X			
8	150			X			
9	125			X			
10	100			X			
11	75			X			
12	45			X			
13	25			X			
14	25		X				
15	5		X		X		
* 16	5			X			
17							
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT- 300

Particulate Silica Data Sheet

Station # 2 Date: 2/26/18 (HST)
 Cast # 10 Time: 0800 (HST)
 Operator(s): EG,TC,DS,CS,ES Pre-screen mesh size: none
 Blank # B1, B2, B3

Rosette Position	Desired Depth	Carboy #	Total Volume	Sample #	SF-S	Salts	KW-B
1	1000					X	
2	Sal min					X	
3	175	7	4	3			
4	150	8	4	4			
5	125						
6	125	9,10	4,4	6A-B			
7	100	11	4	7			
8	75	12	4	8			
9	45	13	4	9			
10	45						X
11	25	14,15	4,4	11A-B			
12	25				12a,b		
13	25						X
14	5	16	4	14			
15	5				15a,b	X	
16	5						X
17							
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT- 300

OPEN Data Sheet

Station # 2
 Cast # 11
 Operator(s): DS,EG,CS,TC,ES

Date: 2/26/18 (HST)
 Time: 1115 (HST)

Rosette Position	Desired Depth	Salts	SF-S Gas	SF-S			
1	1000	X					
2	Sal Min	X					
3	DCM			X			
4	75			X			
5	25			X			
6	25		X				
7	5	X	X				
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT- 300

OPEN Data Sheet

Station # 2

Date: _____ (HST)

Cast # 11

Time: _____ (HST)

Operator(s): _____

Rosette Position	Desired Depth	Salts	SF-S Gas	SF-S			
1	1000	X					
2	Sal Min	X					
3	DCM			X			
4	75			X			
5	25			X			
6	25		X				
7	5	X	X				
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

Notes:

Hawaii Ocean Time-series

HOT- 300

ATP Data Sheet

Station # 2 Date: 2/26/18 (HST)
 Cast # 12 Time: 1400 (HST)
 Operator(s): KBCF.CS.TB.RU.CW Pre-screen mesh size: 202um
 Blank #'s 28, 29, 30

Rosette Position	Desired Depth	ATP Tube #'s	Volume Filtered	Carboy #	SF-S	DNA	
1	1020						
2	770						
3	500					X	
4	Sal min					X	
5	400						
6	350	1 - 3	3x2	1		X	
7	300						
8	250	4 - 6	3x2	2			
9	150	7 - 9	3x1	7			
10	125	10 - 12	3x1	8			
11	100	13 - 15	3x1	9			
12	75	16 - 18	3x1	10			
13	45	19 - 21	3x1	11			
14	25	22 - 24	3x1	12			
15	25				15A,B		
16	5	25 - 27	3x1	13			
17	5				17A,B		
18							
19							
20							
21							
22							
23							
24							

Notes: 30015 leaked a little, 30018 800 ml

Hawaii Ocean Time-series

HOT- 300

ATP Data Sheet

Station # 2 Date: 2/26/18 (HST)
 Cast # 12 Time: 1400 (HST)
 Operator(s): KB.CF.CS.TB.RU Pre-screen mesh size: 202um
 Blank #'s 28, 29, 30

Rosette Position	Desired Depth	ATP Tube #'s	Volume Filtered	Carboy #	SF-S	DNA	
1	1020						
2	770					X	
3	500					X	
4	Sal min						
5	400					X	
6	350	1 - 3	3x2	1			
7	300					X	
8	250	4 - 6	3x2	2			
9	150	7 - 9	3x1	7			
10	125	10 - 12	3x1	8			
11	100	13 - 15	3x1	9			
12	75	16 - 18	3x1	10			
13	45	19 - 21	3x1	11			
14	25	22 - 24	3x1	12			
15	25				15A,B		
16	5	25 - 27	3x1	13			
17	5				17A,B		
18							
19							
20							
21							
22							
23							
24							

000 - CW
 Evc CF (05)

Notes:

300 15 - leaked a little
 300 18 800 ml

Hawaii Ocean Time-series

HOT-300

OPEN CAST Data Sheet

Station # 2

Date: 2/26/18 (HST)

Cast # 13

Time: 1652 (HST)

Operator(s): KB,TB,CF,CW

Rosette Position	Desired Depth	SW	SF-S	Temp	AK		
1	1000				X		
2	1000				X		
3	1000				X		
4	1000				X		
5	1000				X		
6	1000				X		
7	800	7					
8	600	8					
9	Sal Min						
10	400	10					
11	350	11					
12	300	12					
13	250	13					
14	175	14					
15	150	15					
16	125	16					
17	100	17					
18	75	18					
19	45	19					
20	25	20					
21	25		21A,B				
22	5	22					
23	5		23A,B				
24							

Notes:

Hawaii Ocean Time-series

HOT-300

OPEN CAST Data Sheet

Station # 2
 Cast # 13
 Operator(s): KB,TB,CF,CW

Date: 2/26/18 (HST)
 Time: 1652 (HST)

Rosette Position	Desired Depth	SW	SF-S	Temp	AK		
1	1000				X		
2	1000				X		
3	1000				X		
4	1000				X		
5	1000				X		
6	1000				X		
7	800	7					
8	600	8					
9	Sal Min						
10	400	10					
11	350	11					
12	300	12					
13	250	13					
14	175	14					
15	150	15					
16	125	16					
17	100	17					
18	75	18					
19	45	19					
20	25	20					
21	25		21A,B				
22	5	22					
23	5		23A,B				
24							

Notes:

Hawaii Ocean Time-series

HOT-300

HPLC & Chl *a.* Bottle Data Sheet

Station # 2
 Cast # 14
 Operator(s): KB, TB, CF, RT

Date: 2/26/18 (HST)
 Time: 2000 (HST)

Rosette Position	Desired Depth	Carboy #	Total Volume	HPLC	Chl <i>a.</i>	DNA		
1	1000							
2	Sal min							
3	175	1	10	3	3			
4	150	2	10	4	4			
5	135	7	4	5	5A-B			
6	125	8,9	4,4	6A-B	6			
7	115	10	4	7	7			
8	100	11	4	8	8			
9	85	12	4	9	9			
10	75	13	4	10	10			
11	60	14	4	11	11A-B			
12	45	15,16	4,4	12A-B	12			
13	25	3	10	13	13			
14	5	4	10	14	14			
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								

Notes

Hawaii Ocean Time-series

HOT-300

WOCE Deep 2 Data Sheet

Station # 2
 Cast # 15
 Operator(s): KB, TB, CF, RT

Date: 2/26/18 (HST)
 Time: 2255 (HST)

Rosette Position	Desired Depth	Oxygen	Sample Temp.	DNA	WM			
1	4800	96						
2	4800				X			
3	4000	97						
4	4000			X				
5	3000	98						
6	3000			X				
7	2000	99						
8	2000			X				
9	1000			X				
10	O2 min	100-105						
11	O2 min				X			
12	Sal min	106						
13	DCM				X			
14	O2 max	107-112						
15	5	113						
16	5				X			
17								
18								
19								
20								
21								
22								
23								
24								

Notes: cast aborted on captain's orders at ~ 525 m at 2335 due to rough sea conditions.

Hawaii Ocean Time-series

HOT- 300

STATION 52 Data Sheet

Station # 52
 Cast # 1
 Operator(s): DS,EG,TC,ES,CS

Date: 2/27/18 (HST)
 Time: 0900 (HST)

Rosette Position	Desired Depth	DIC/TA	pH	KW-B	SF-S	SW	QL	WM
1	DCM				X			
2	DCM							X
3	45			X				
4	25			X				
5	25				X			
6	25						X	
7	25					X		
8	25					X		
9	25					X		
10	25					X		
11	25					X		
12	25					X		
13	5			X				
14	5	9A,B	1,2,3					
15	5							X
16	5							X
17	5							X
18								
19								

Notes:

Hawaii Ocean Time-series HOT-300 In Situ Primary Production Data Sheet

Operators: BW,TC,DS,CS,EG

Date in: 2/25/2018 Time in: 0436 (HST)

Date out: 2/25/18 Time out: 1950 (all done) (HST)

Incubation Depth	✓
175	✓
150	✓
125	✓
100	✓
75	✓
45	✓
25	✓
5	✓

Insertion Depth	Owner
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Position in: 22° 44.97 ' N 158° 02.15
 Position out: 22° 46.465 ' N 158° 08.095

Average weather condition during incubation:

Average sea state during incubation:

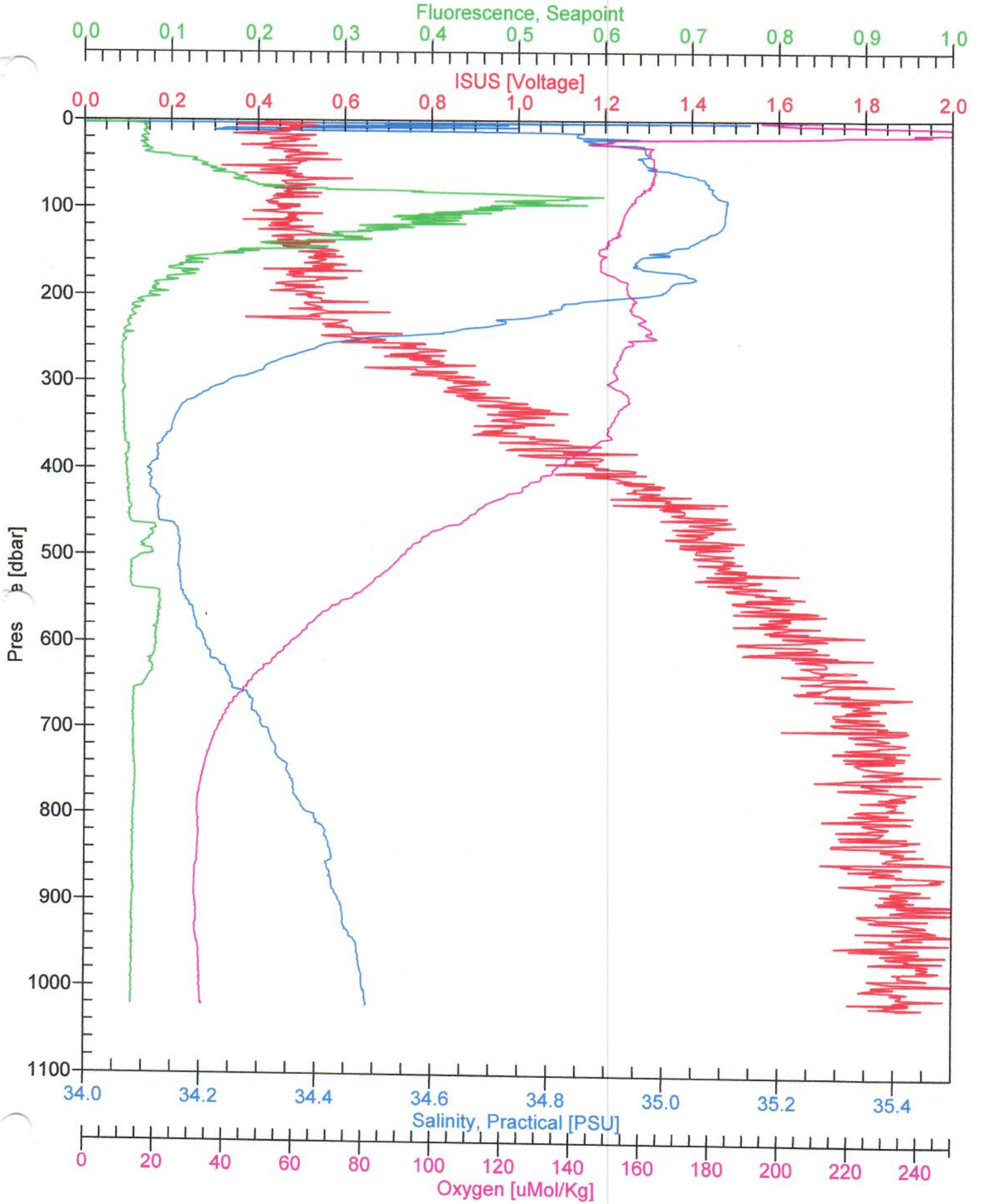
Notes: 7-1 leaked –lost ~ 200 ml (guess)

Begin Inoculation 0330

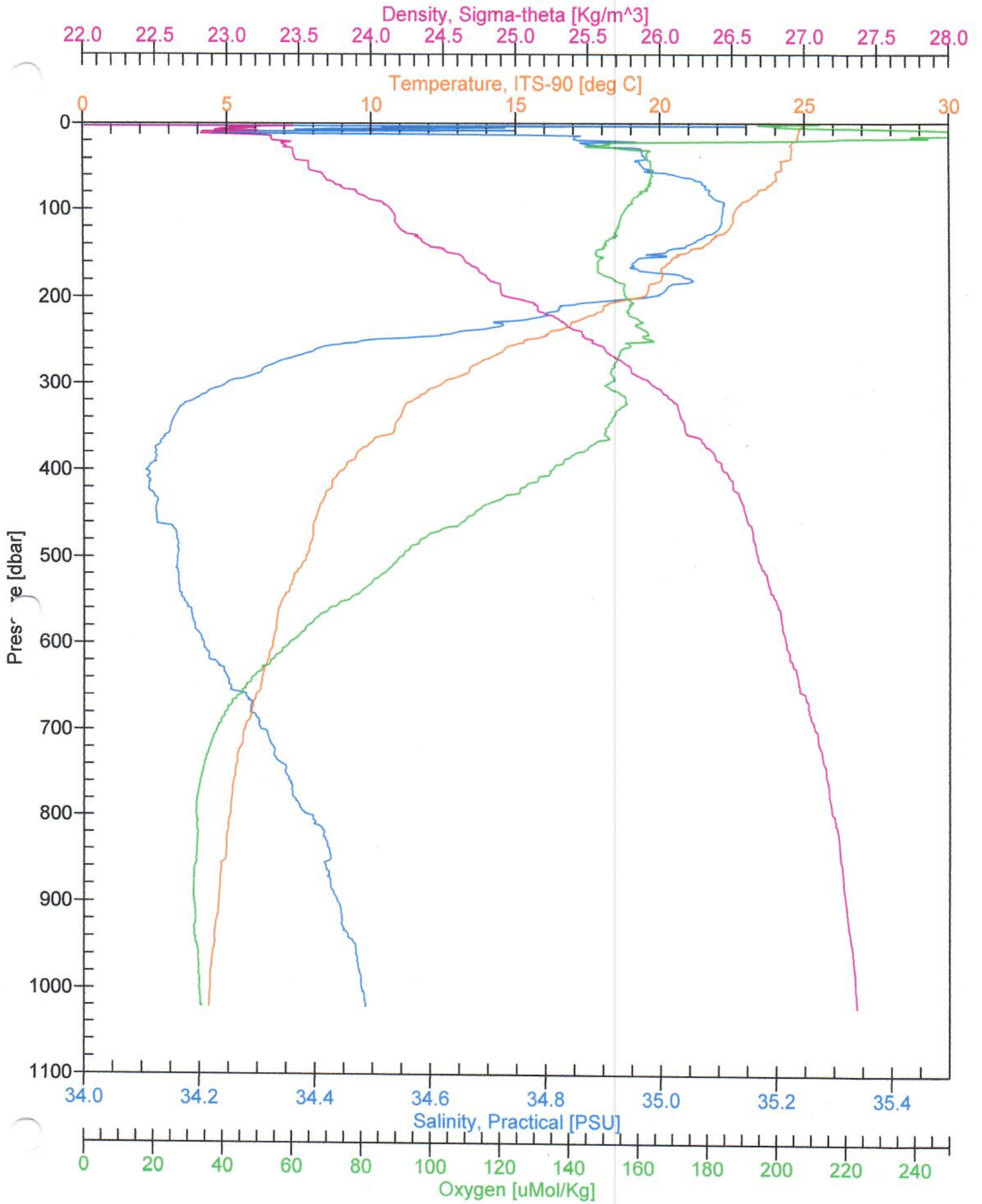
End Inoculation _____

Filtration time 1950-2020

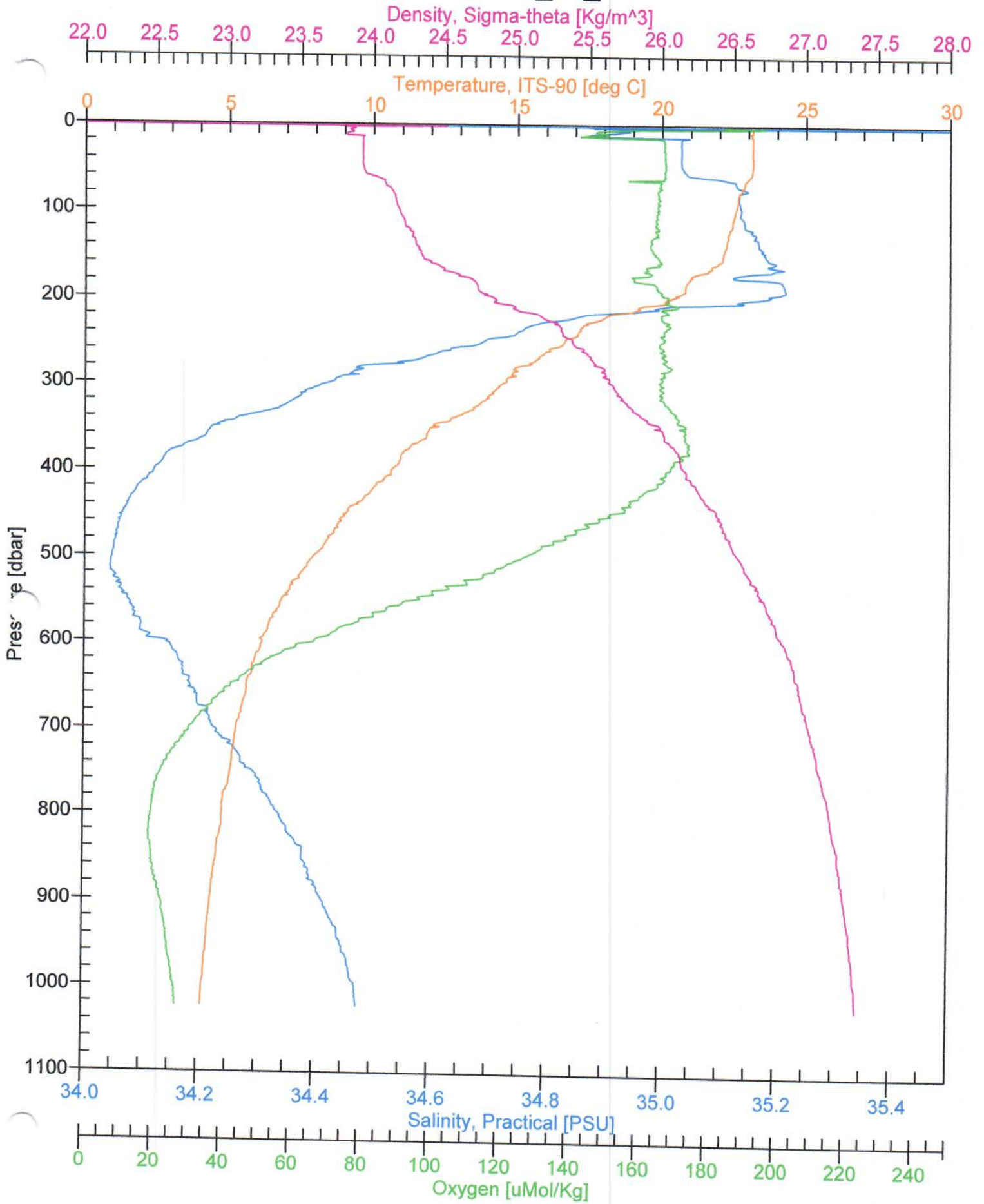
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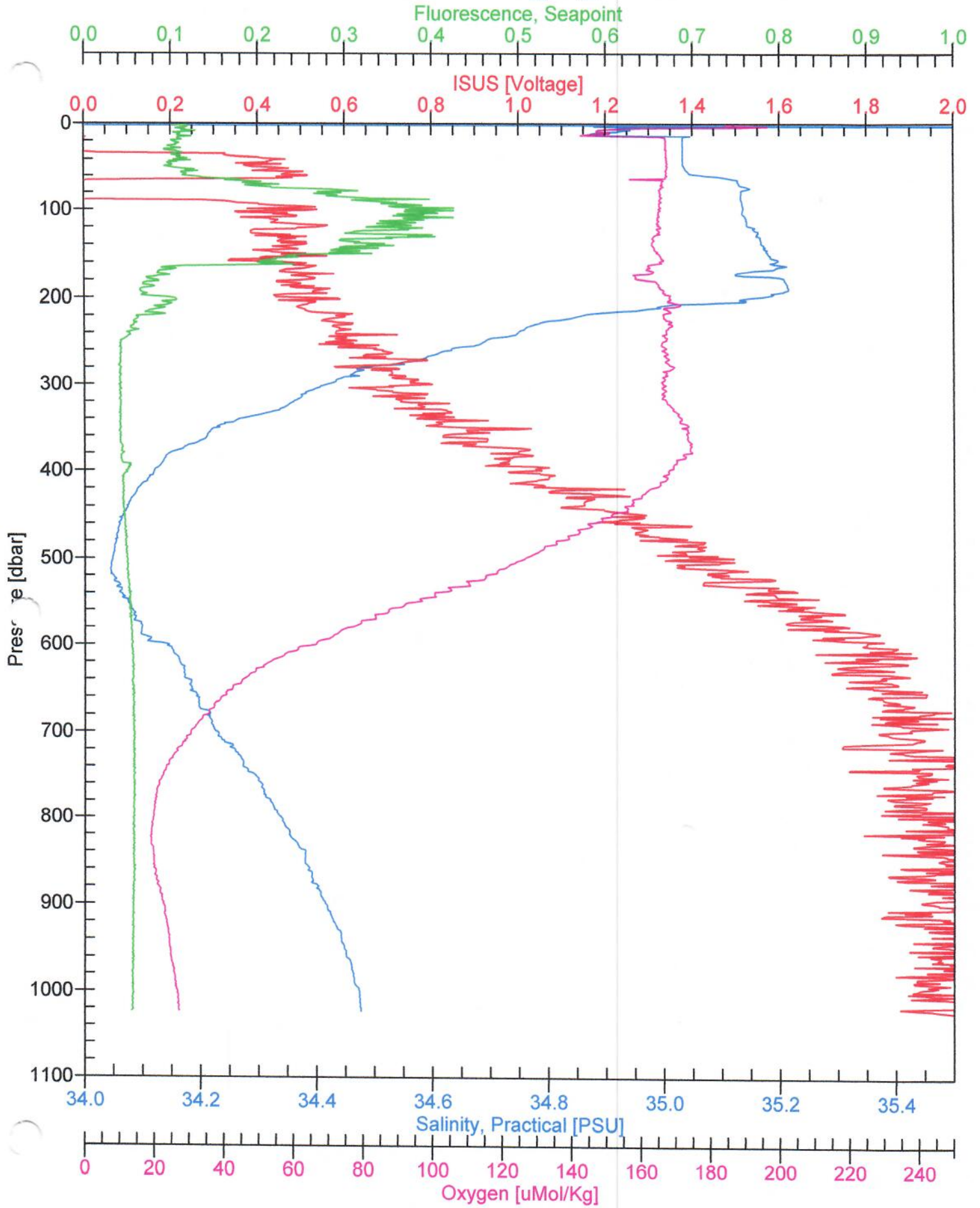
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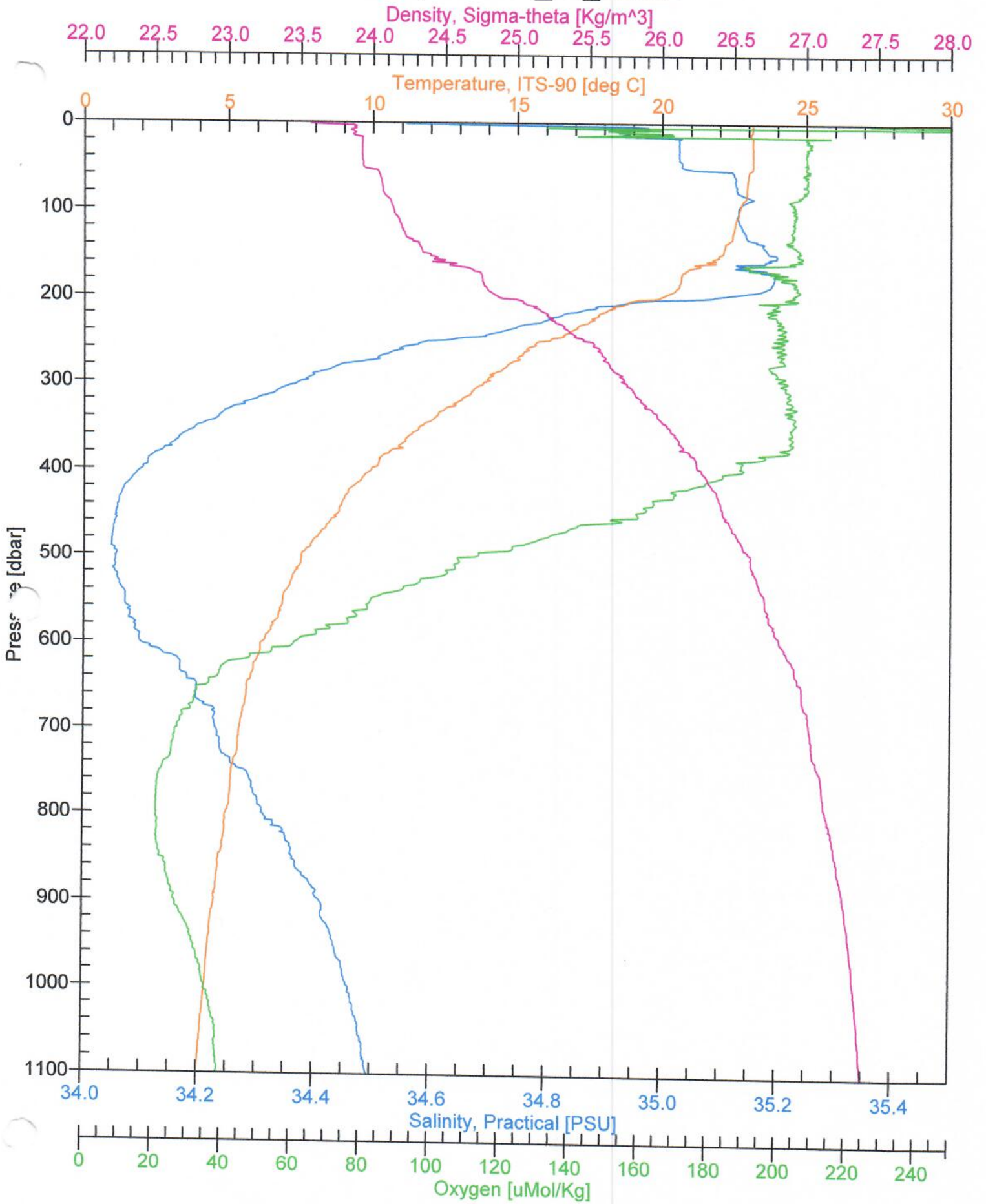
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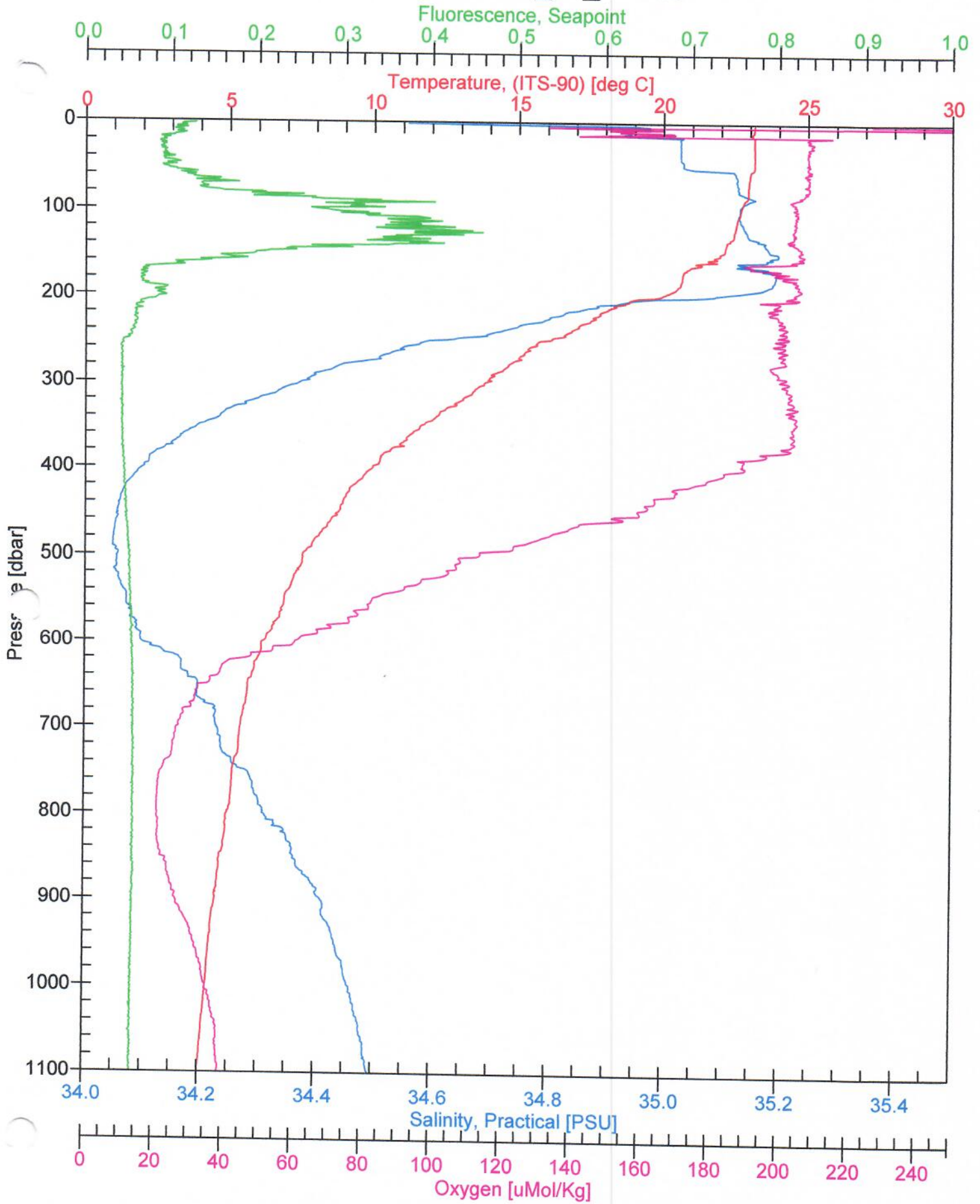
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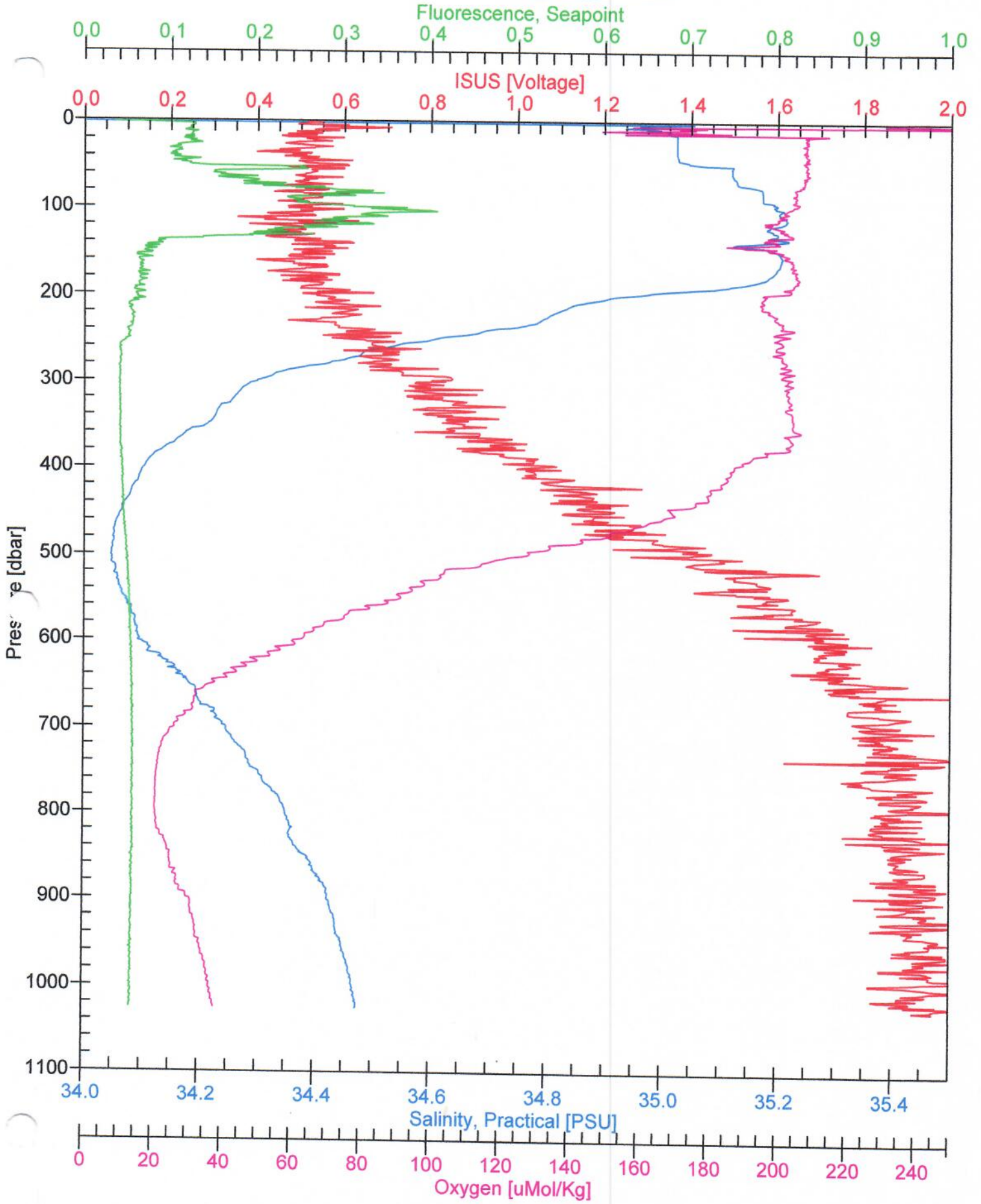
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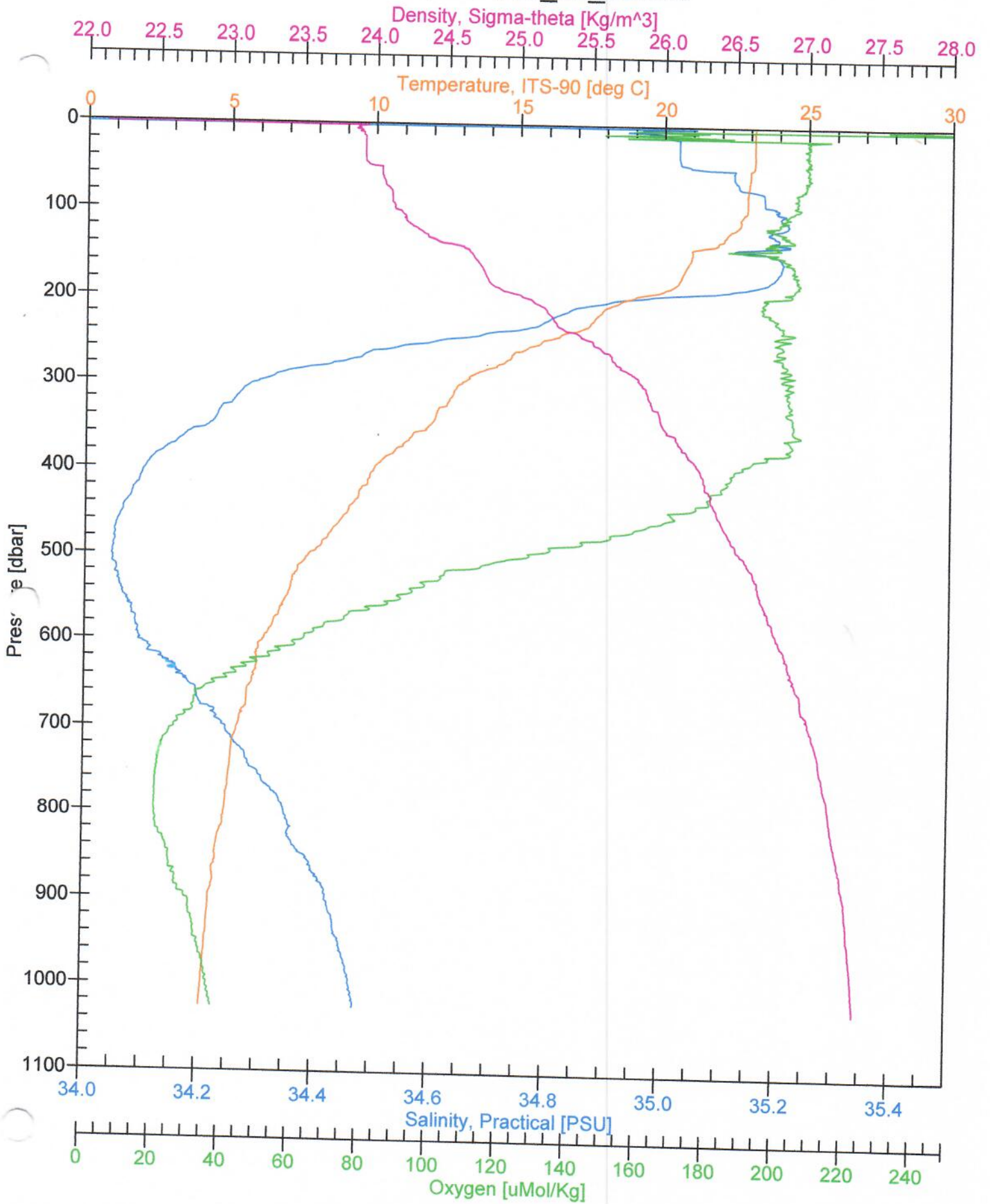
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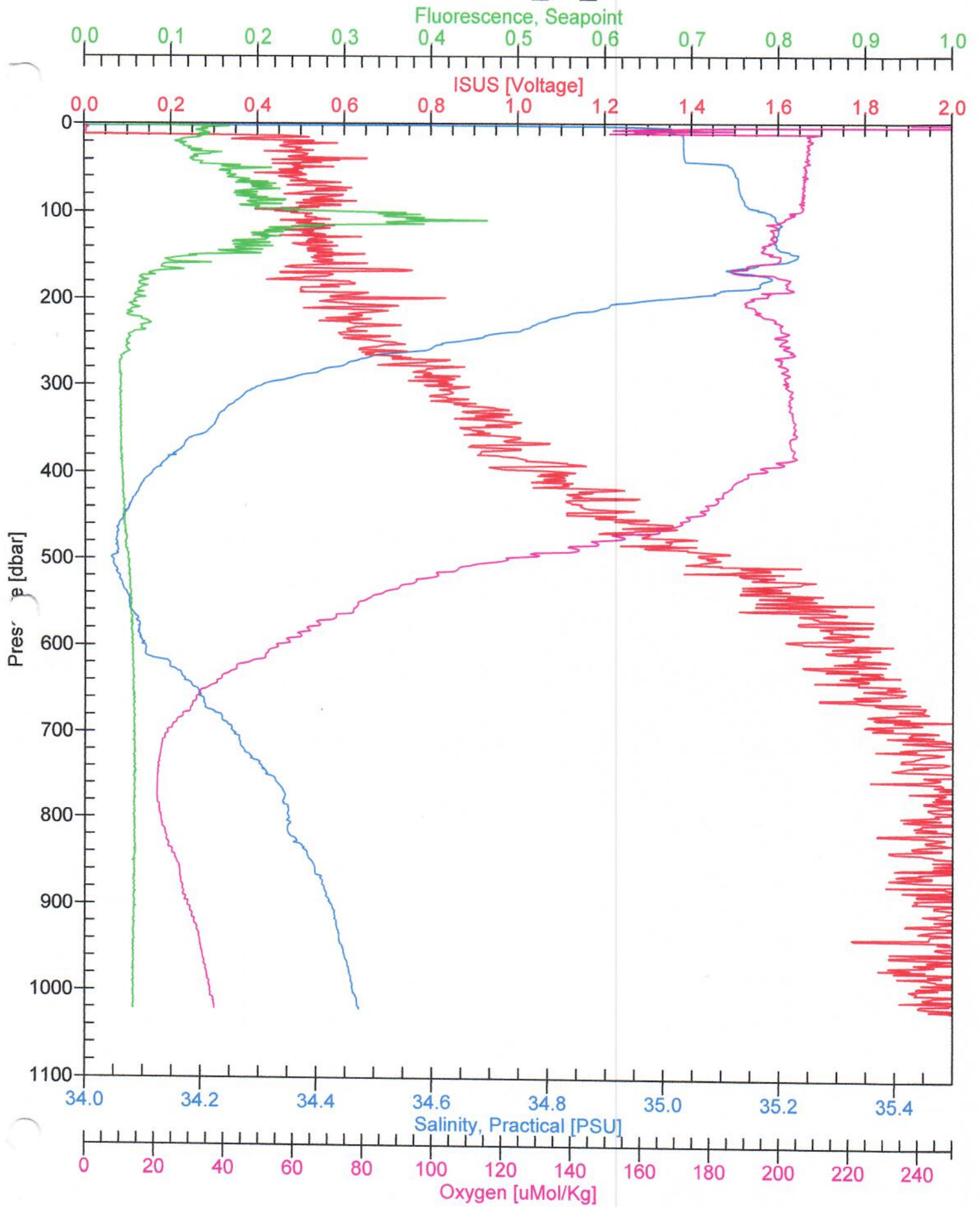
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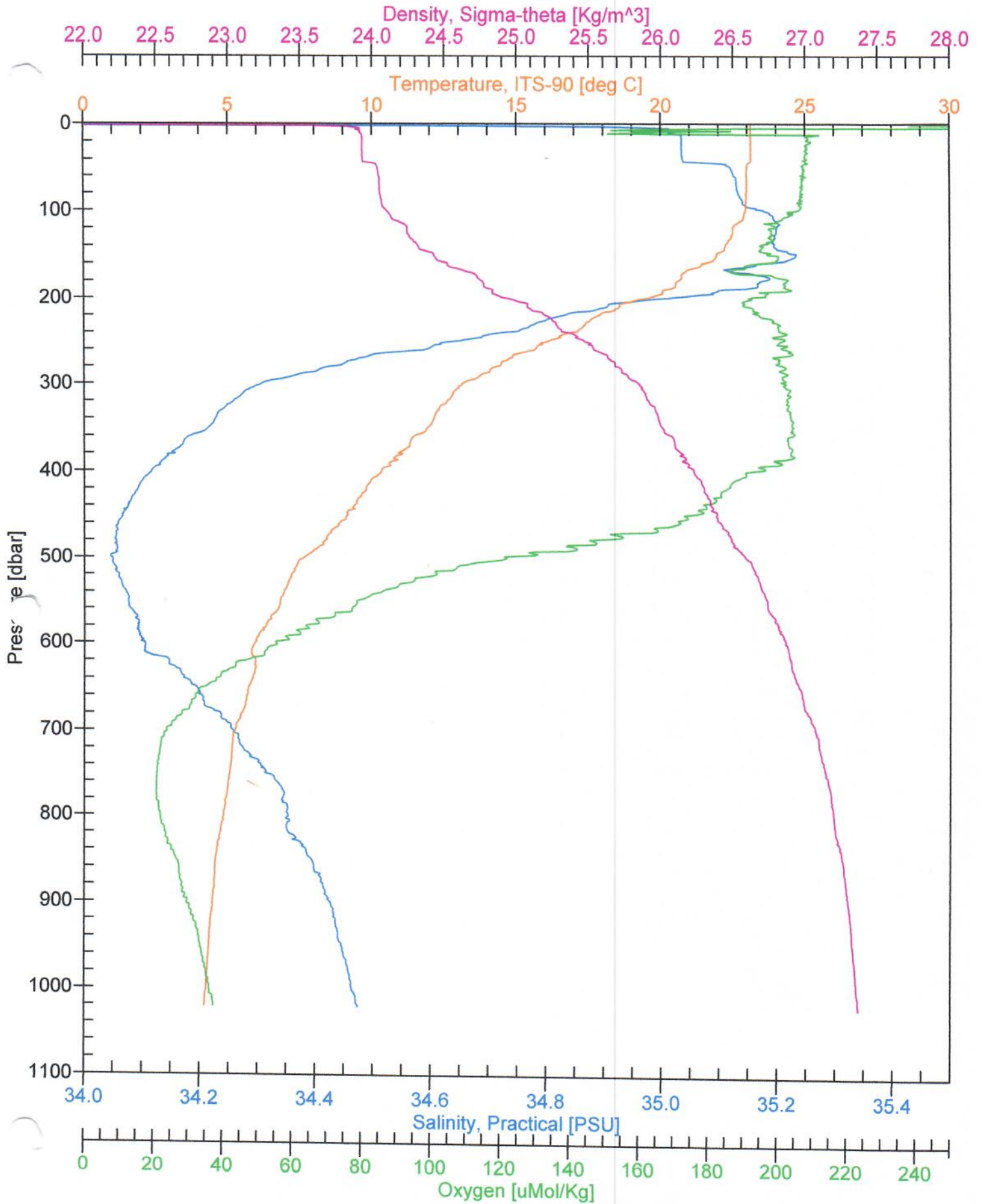
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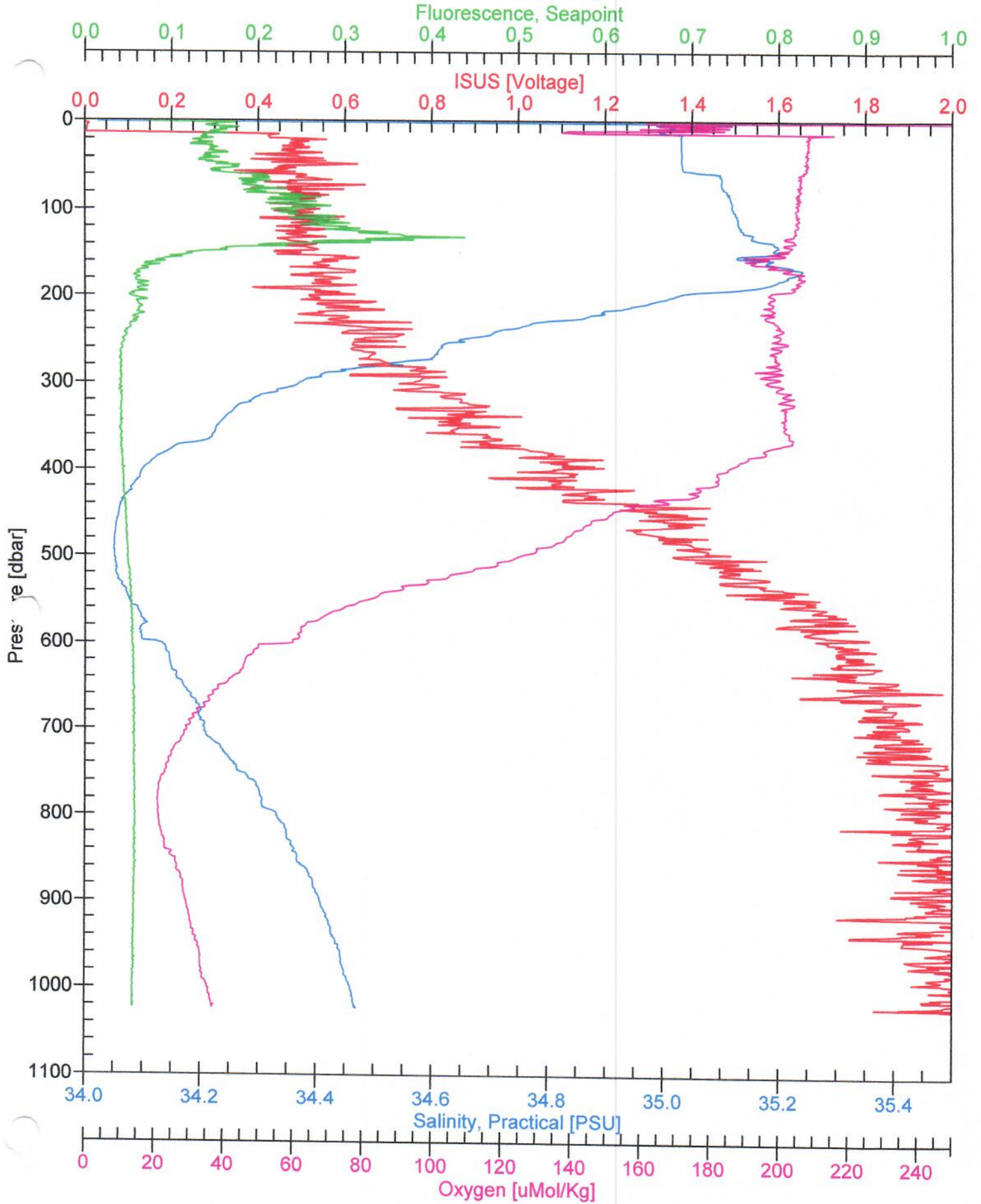
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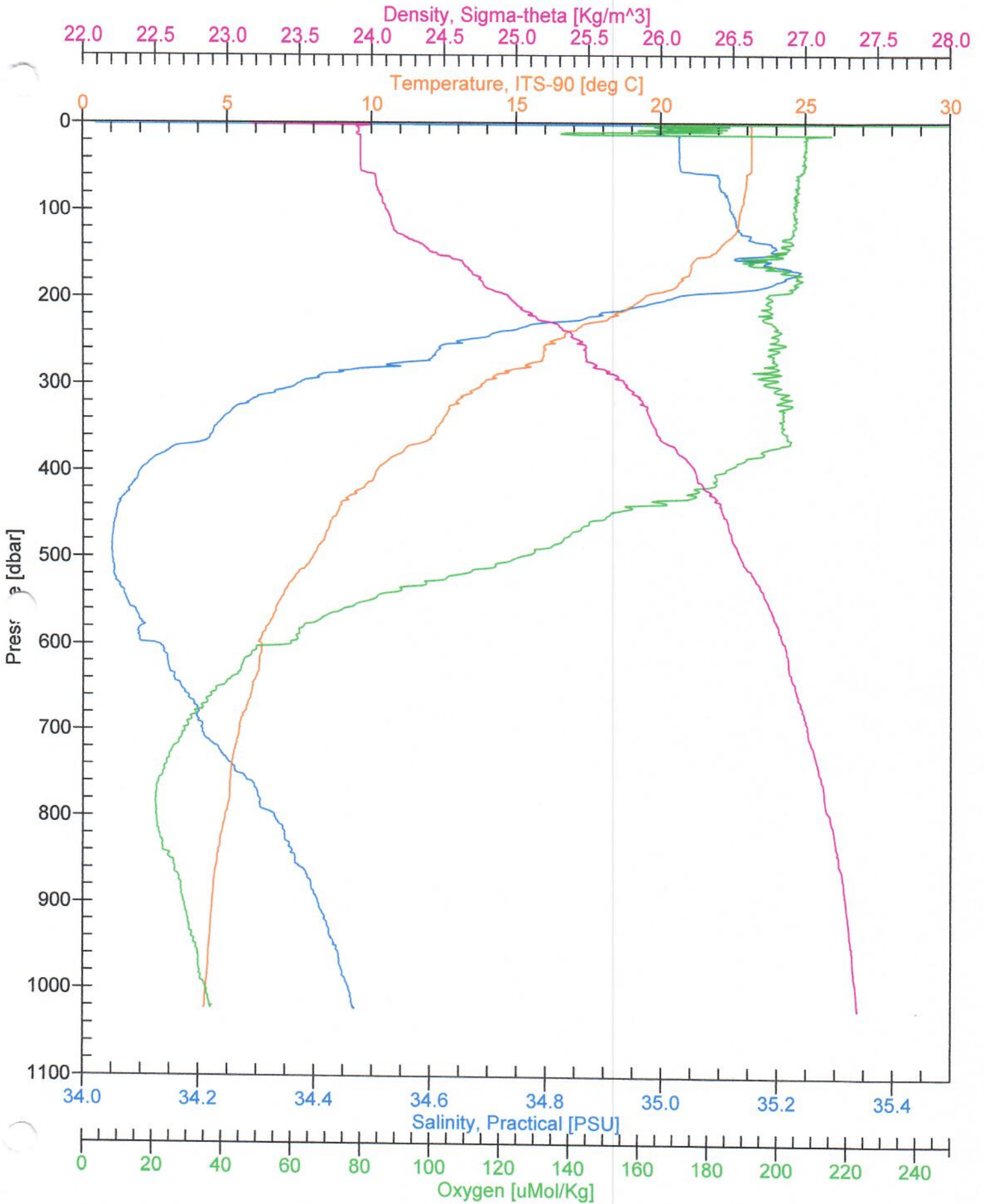
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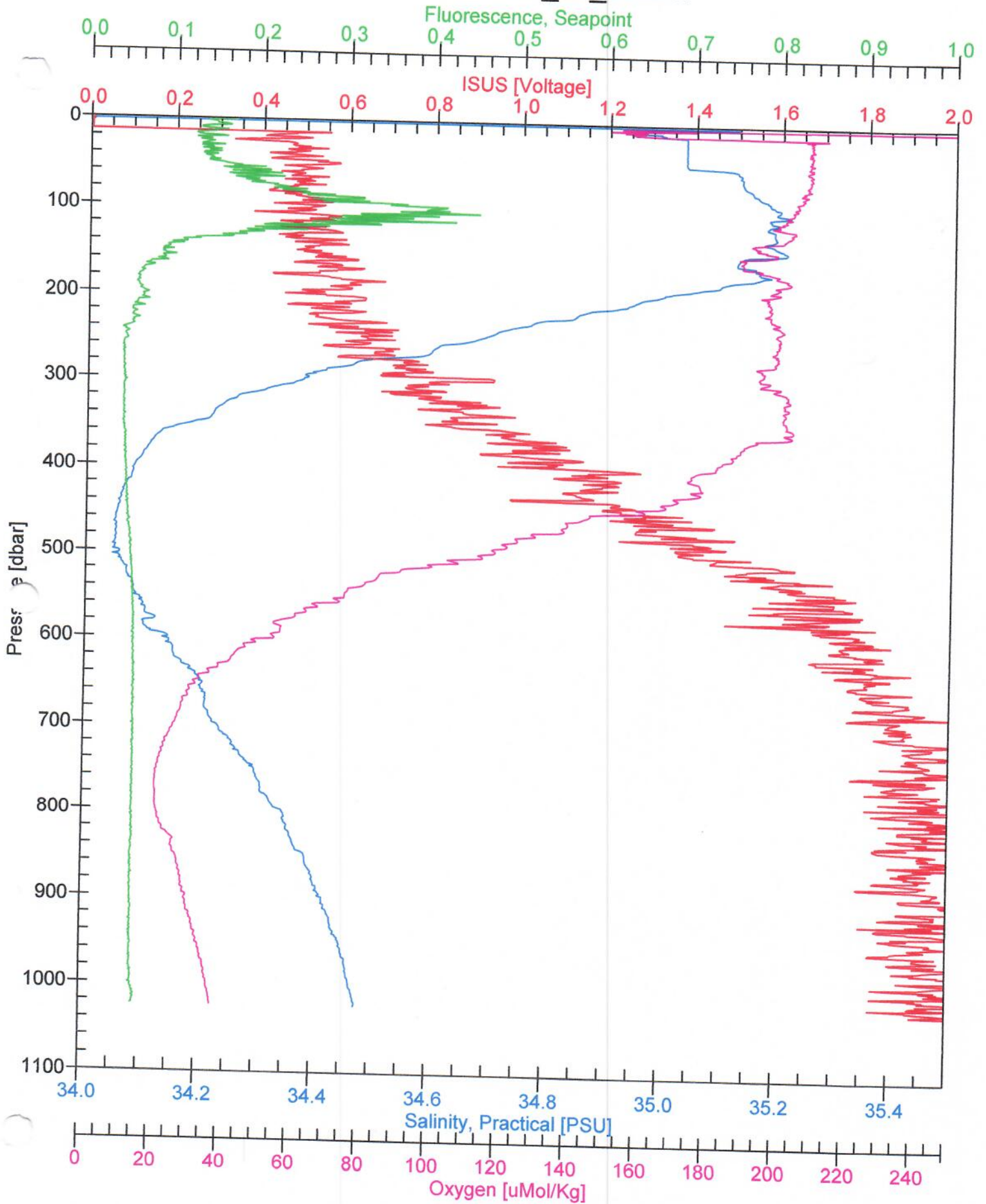
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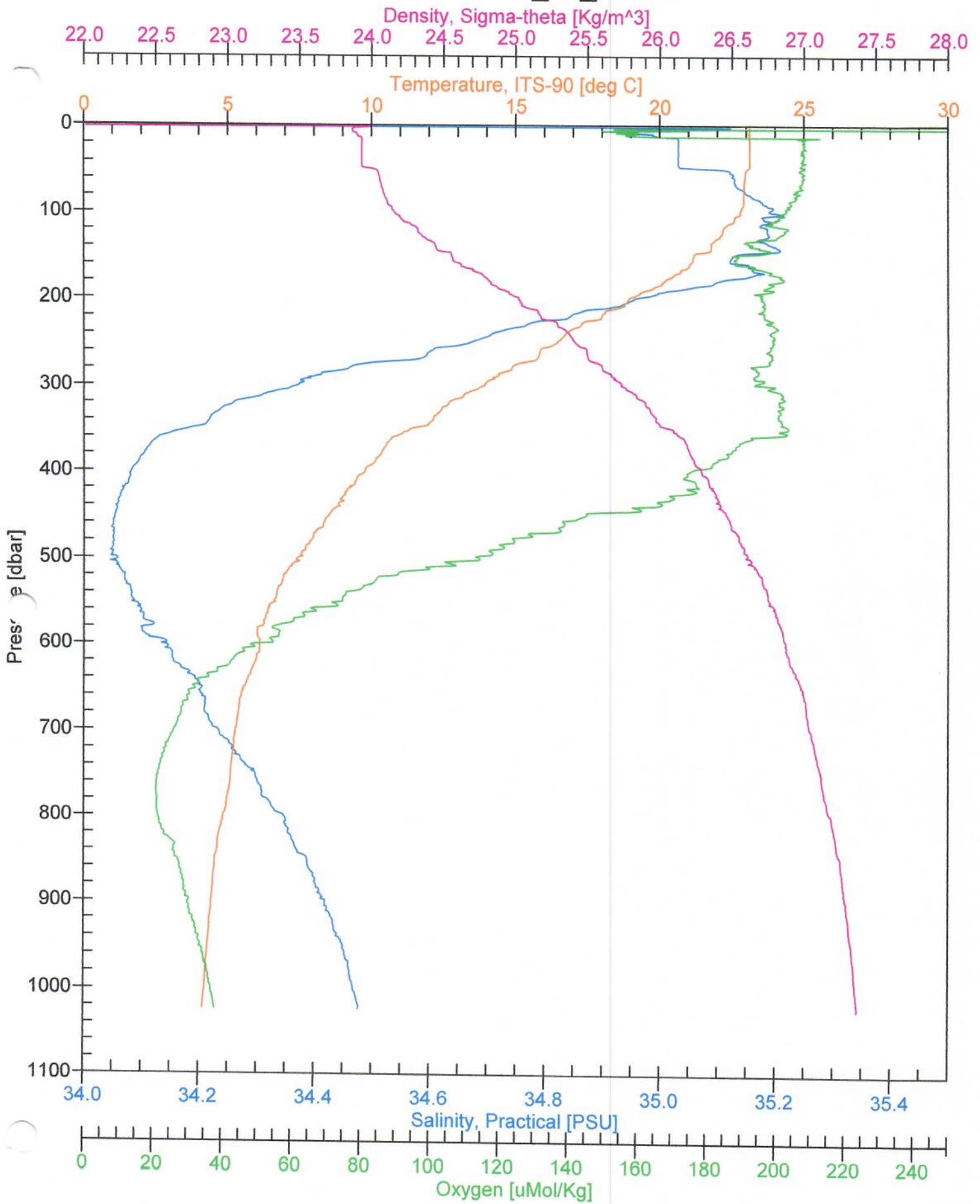
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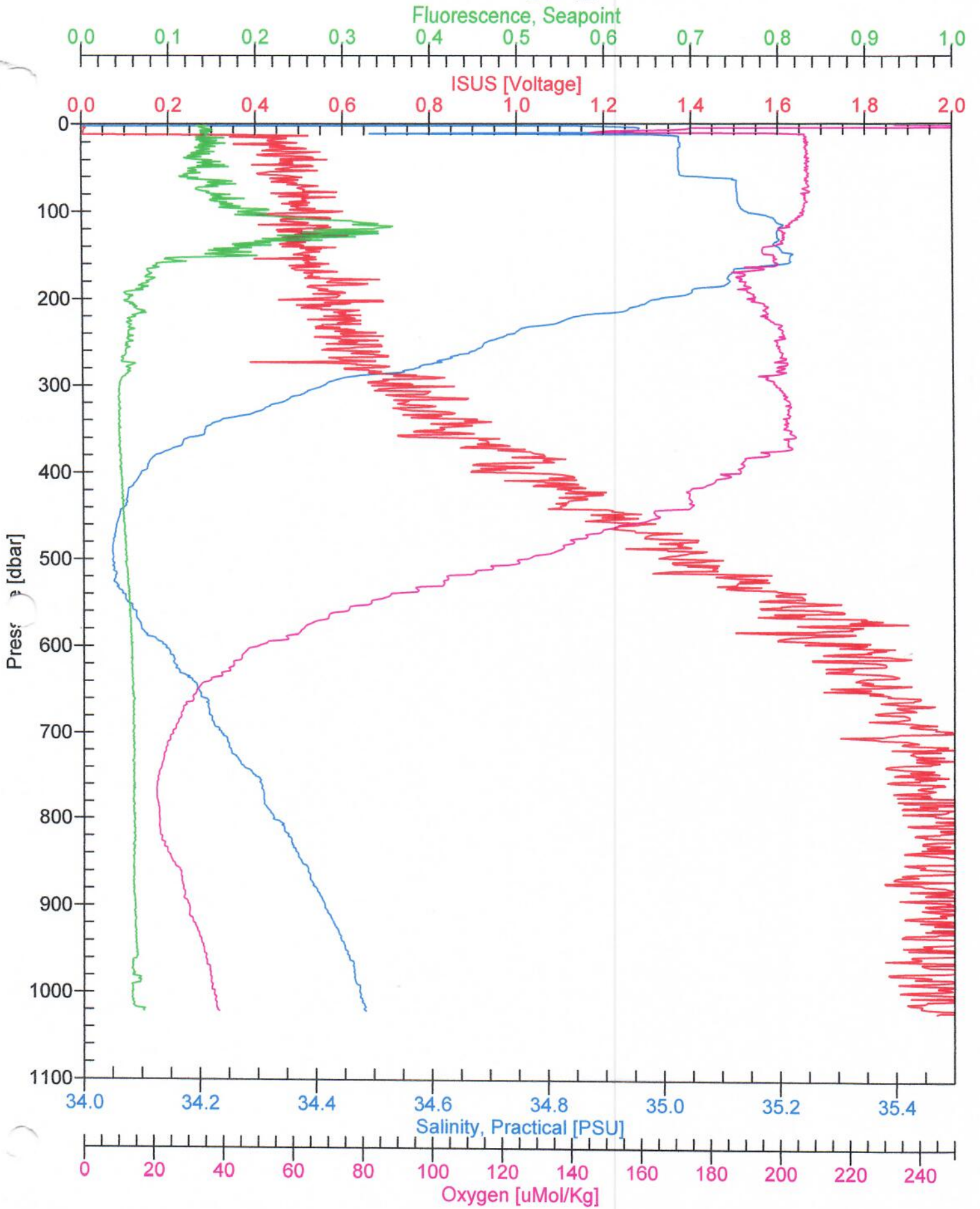
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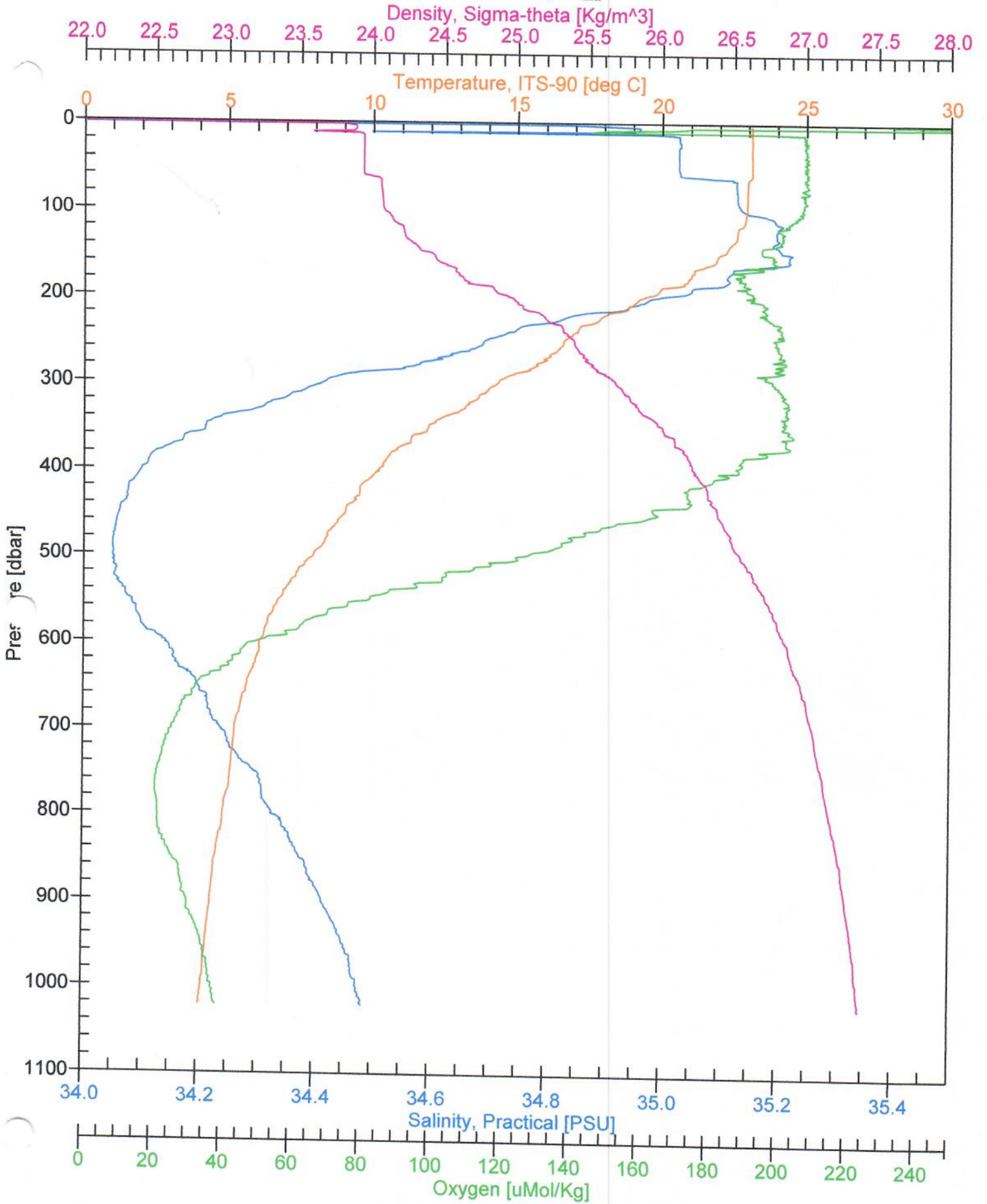
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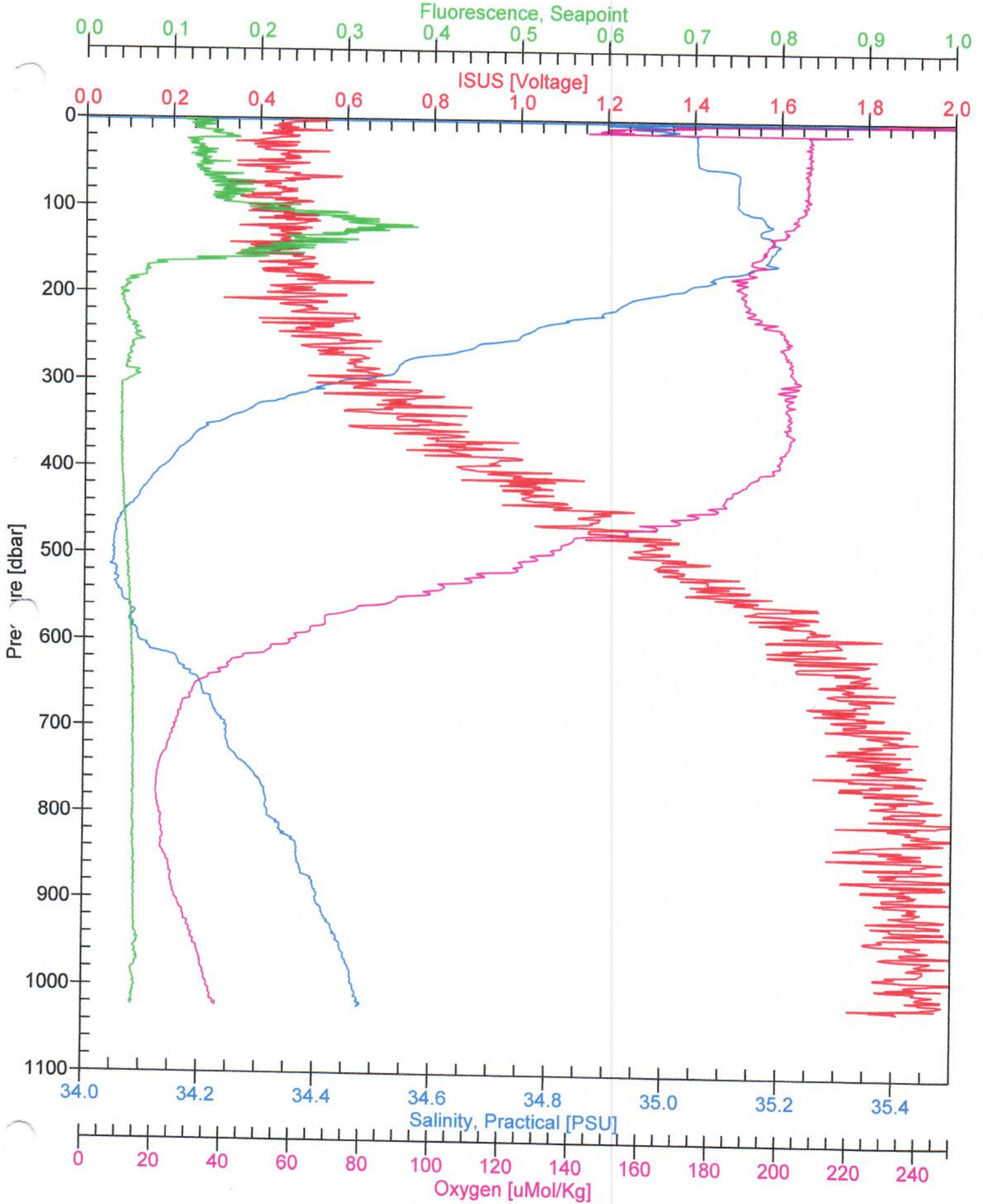
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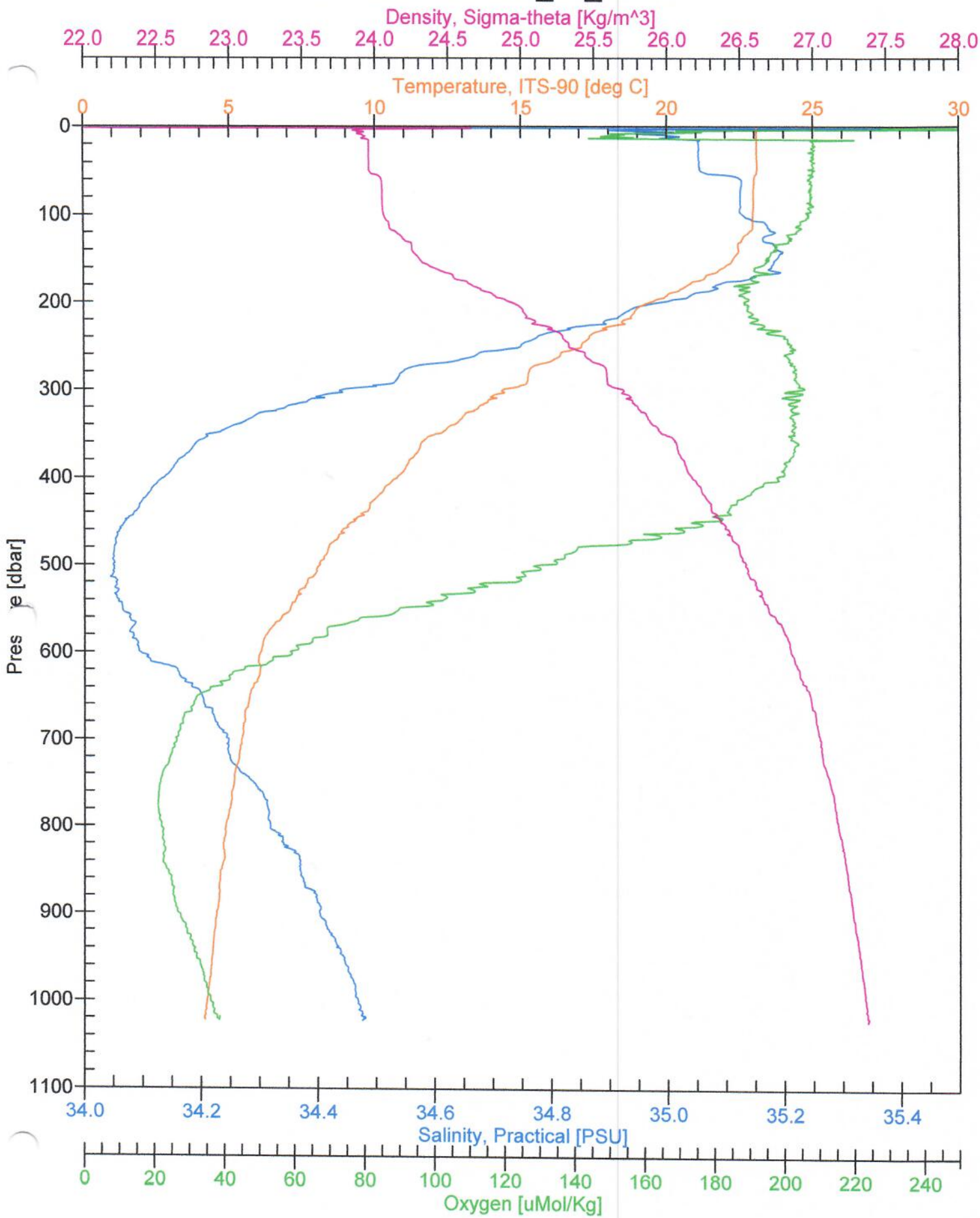
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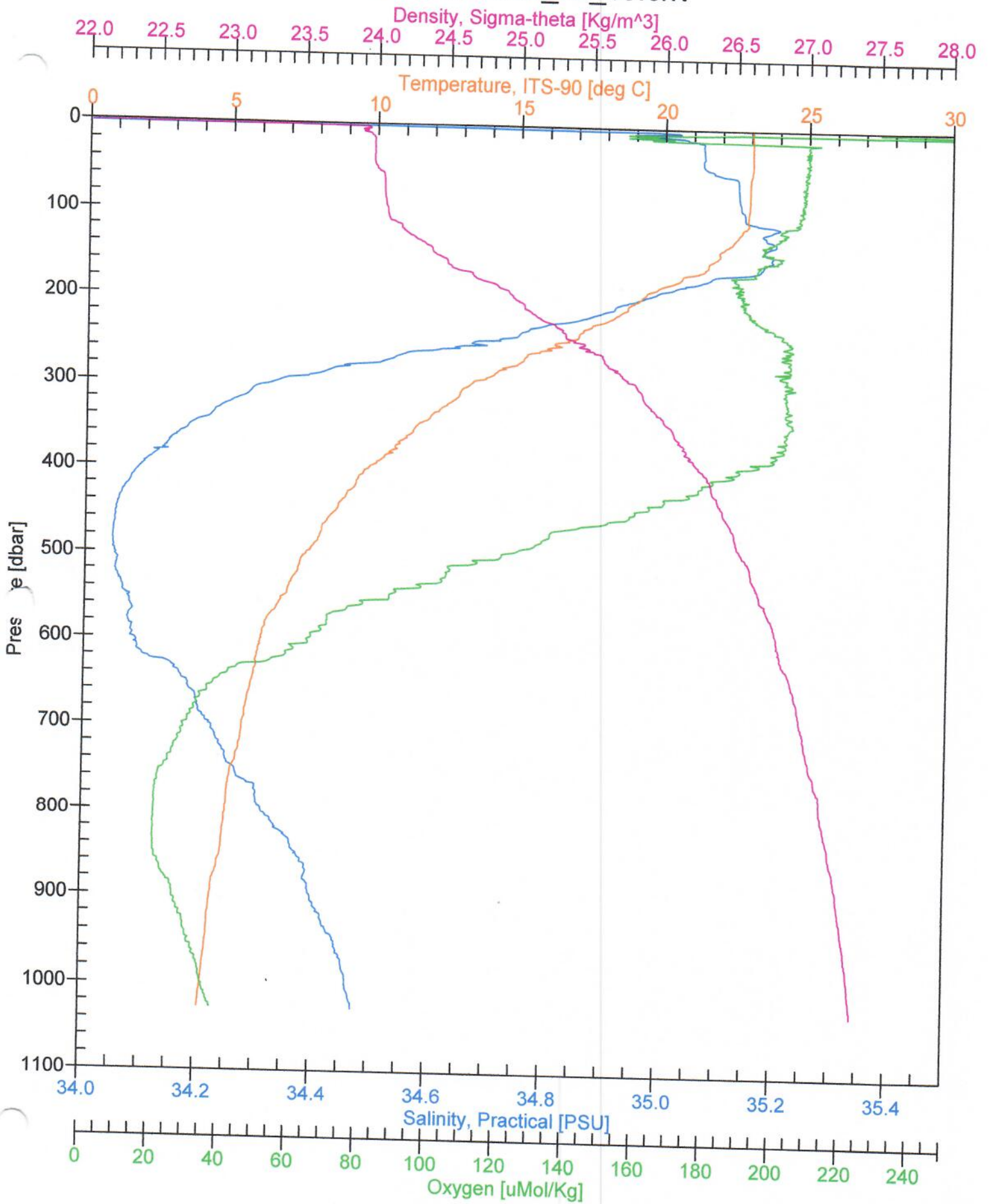
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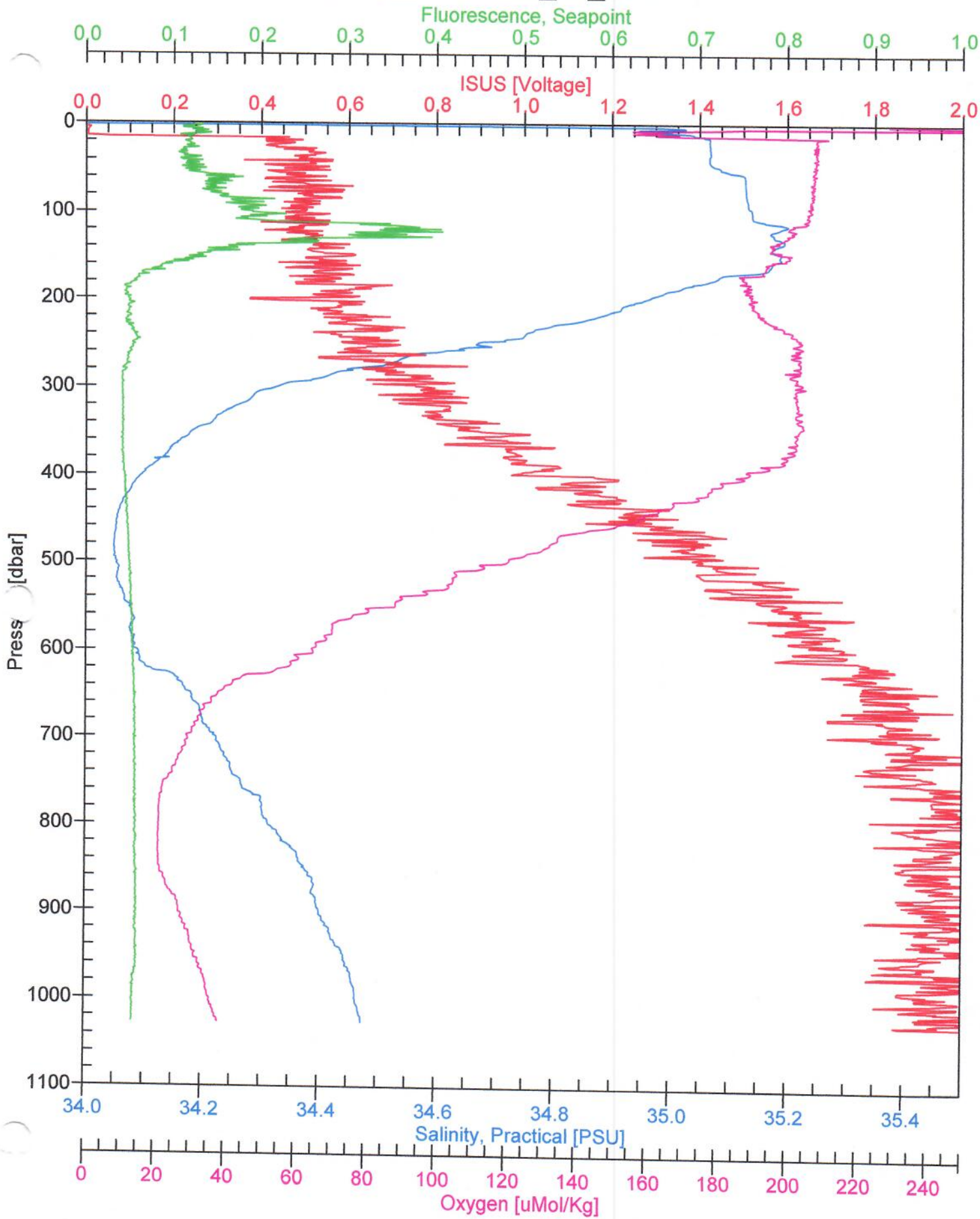
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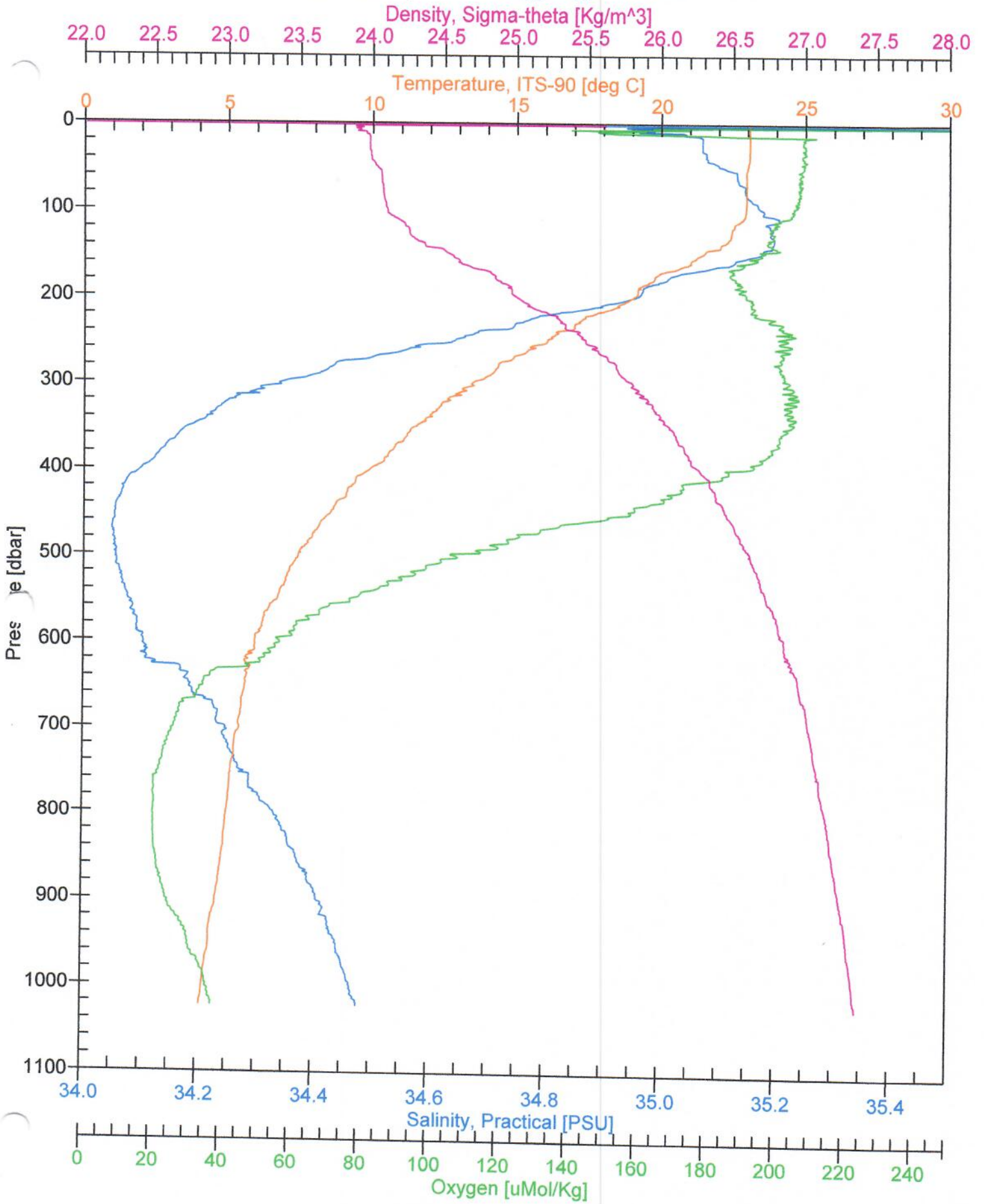
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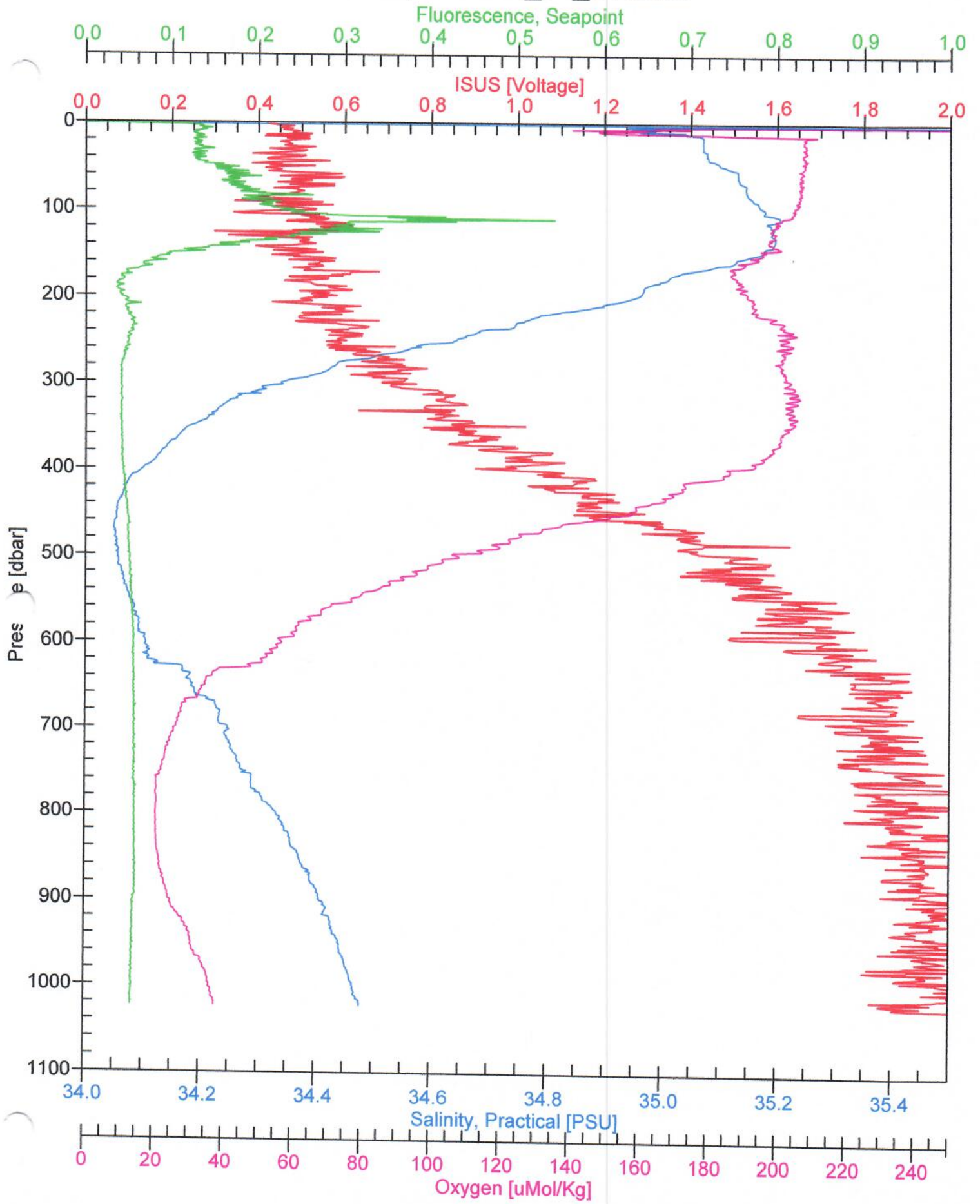
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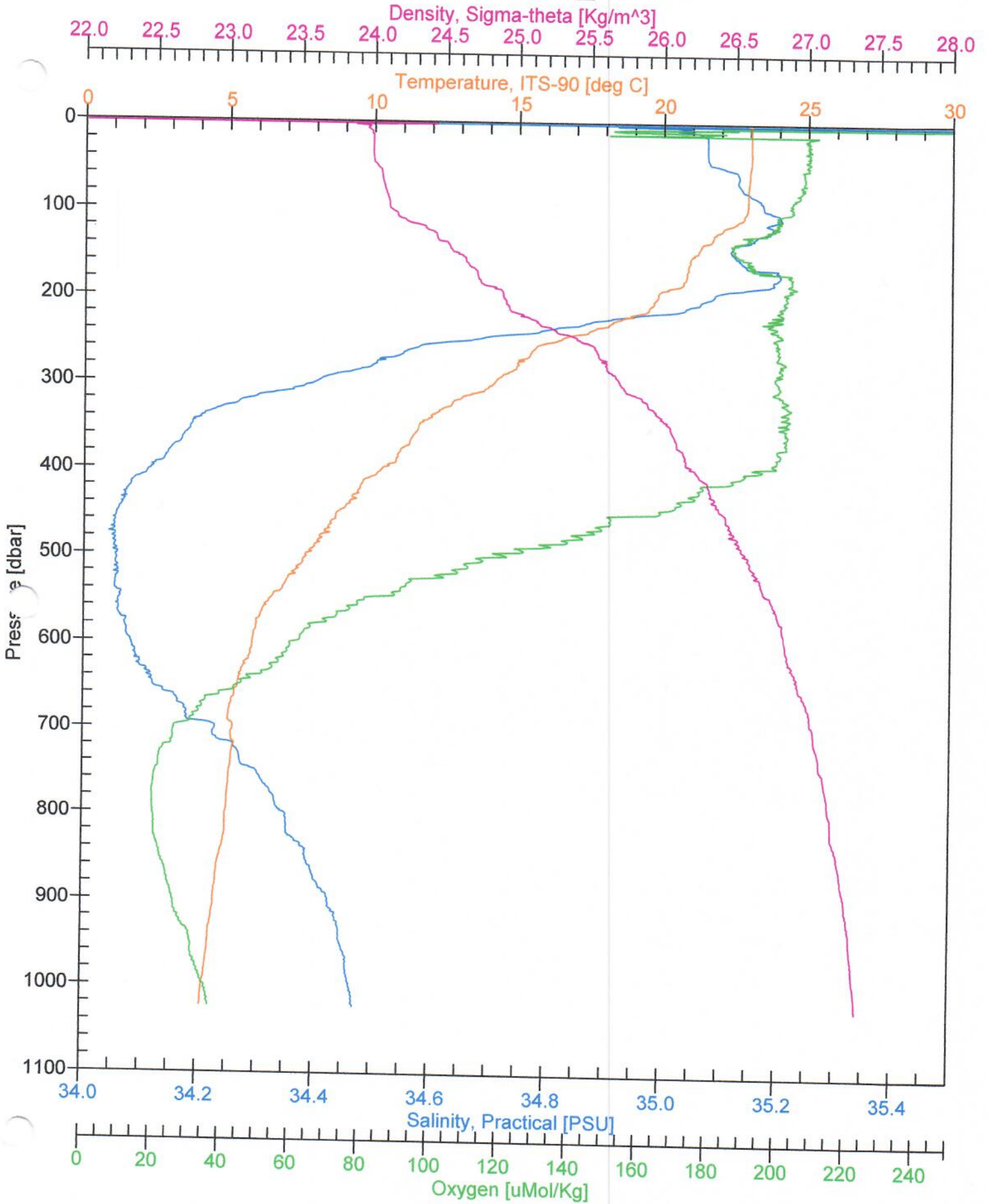
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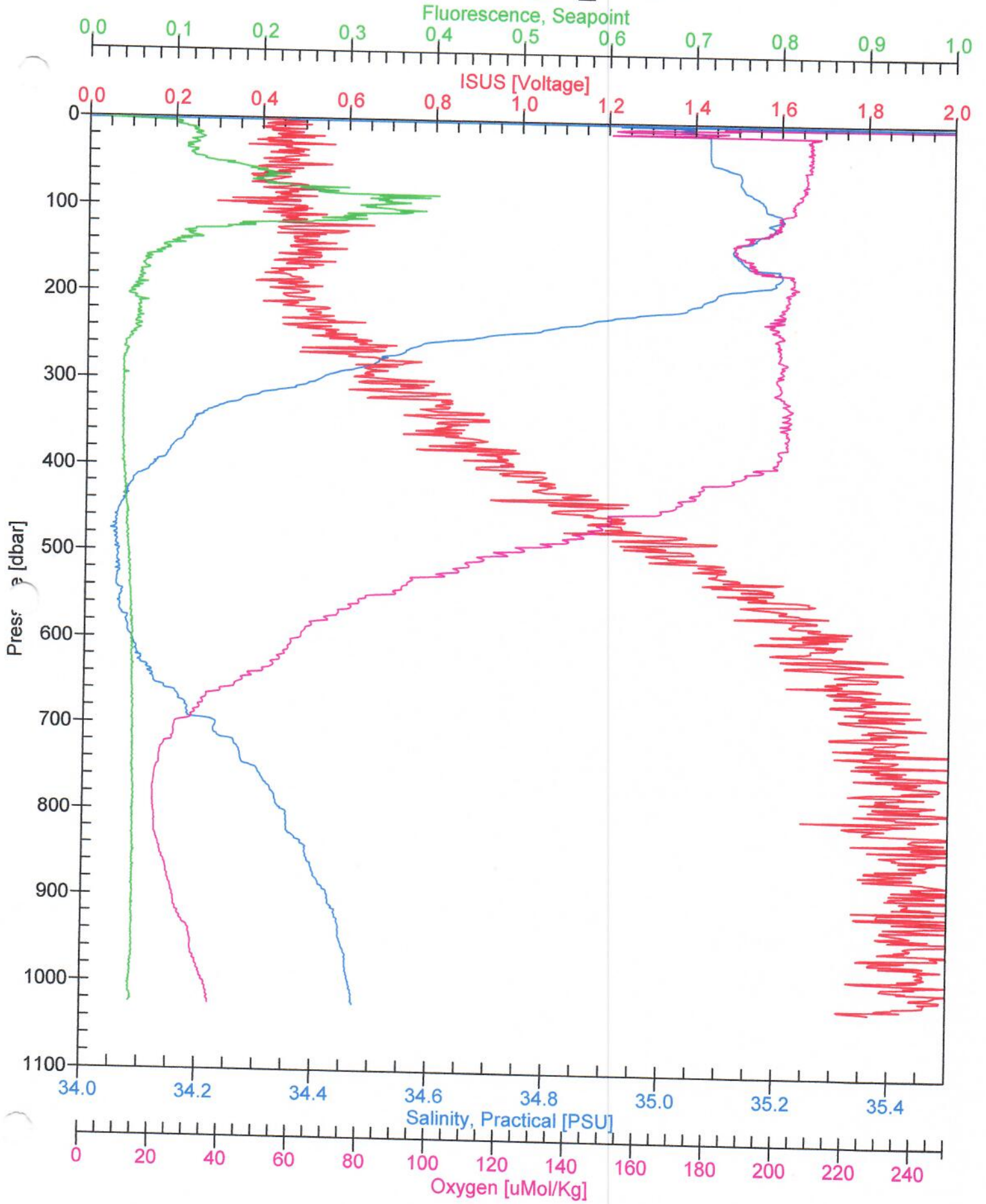
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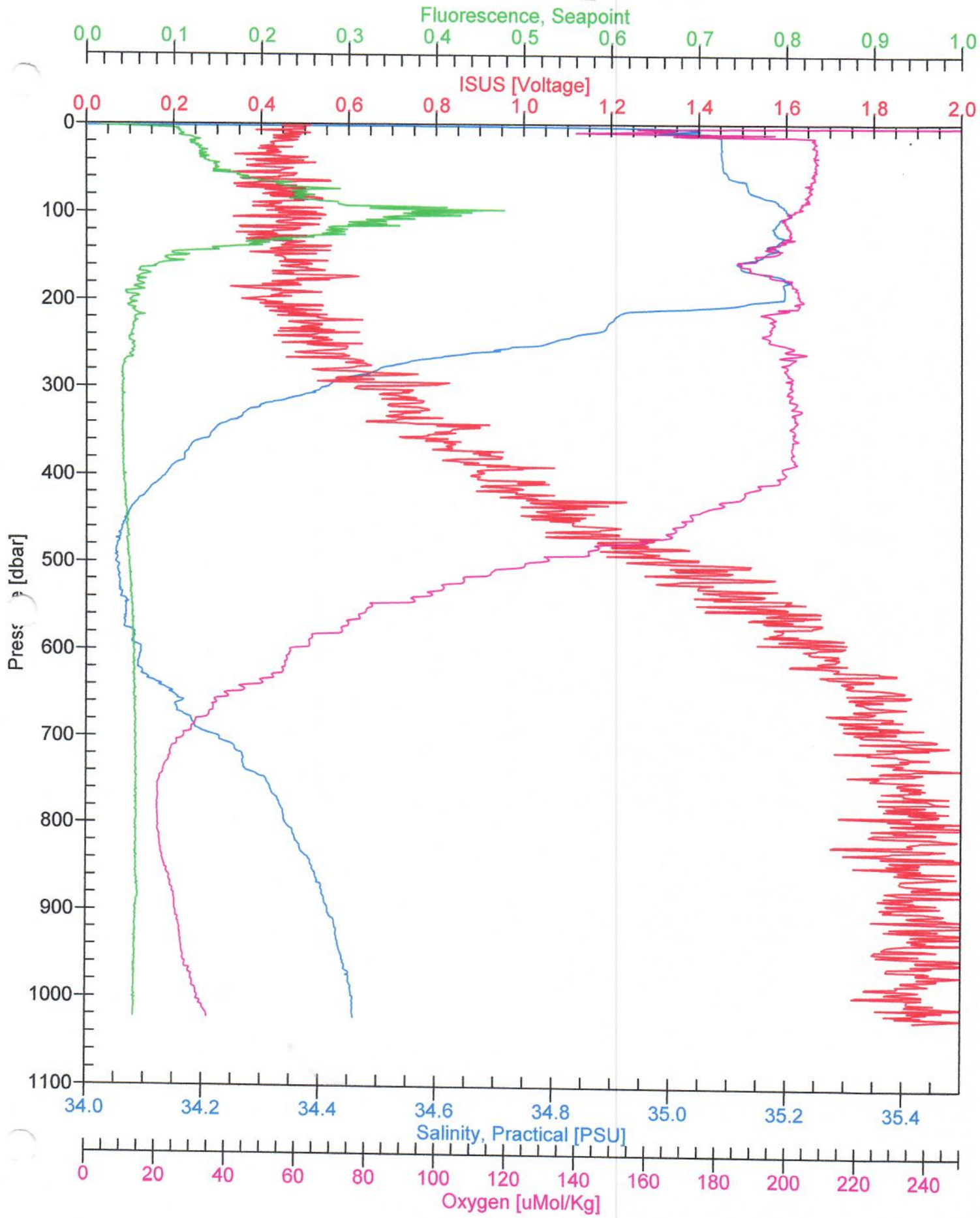
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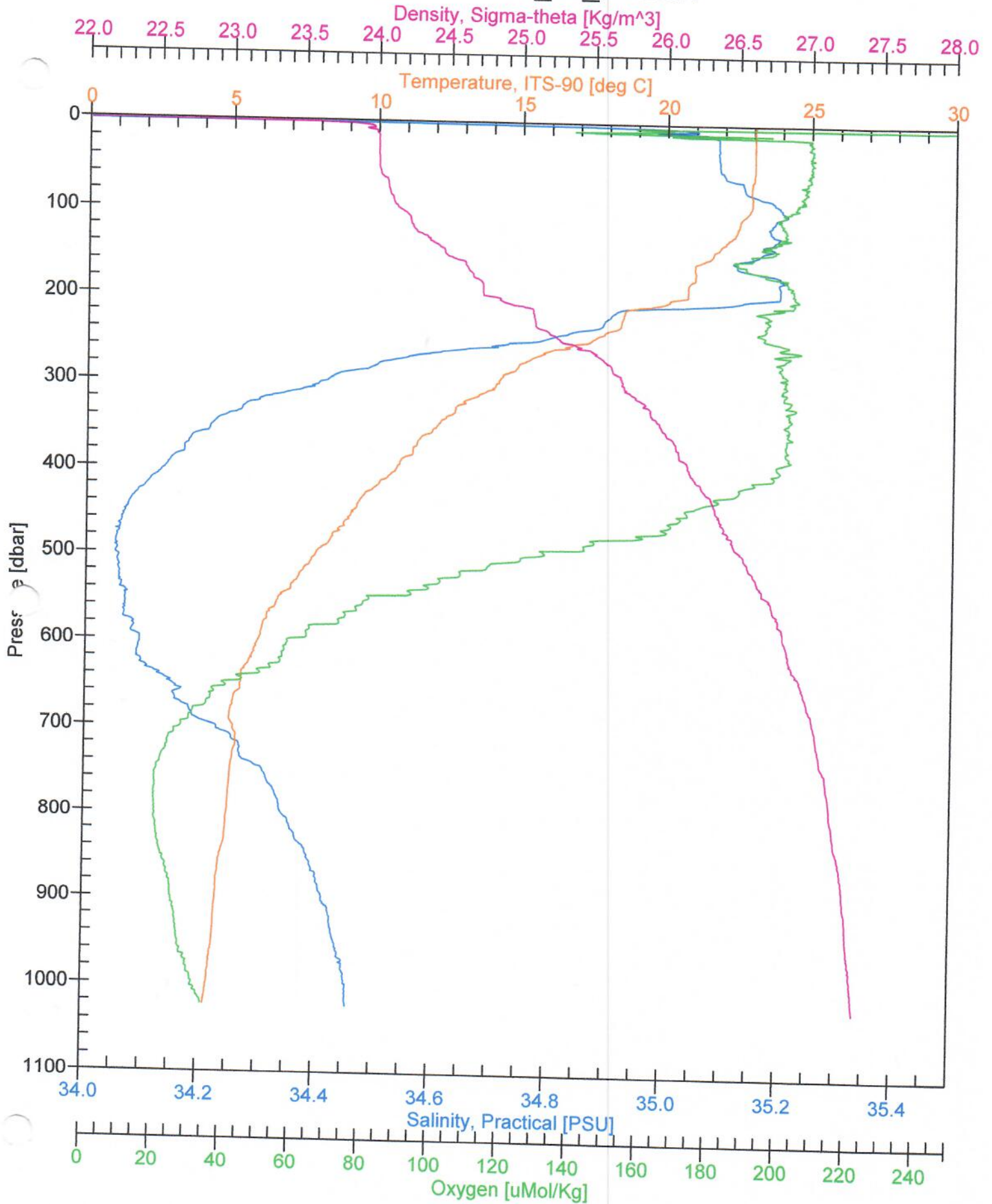
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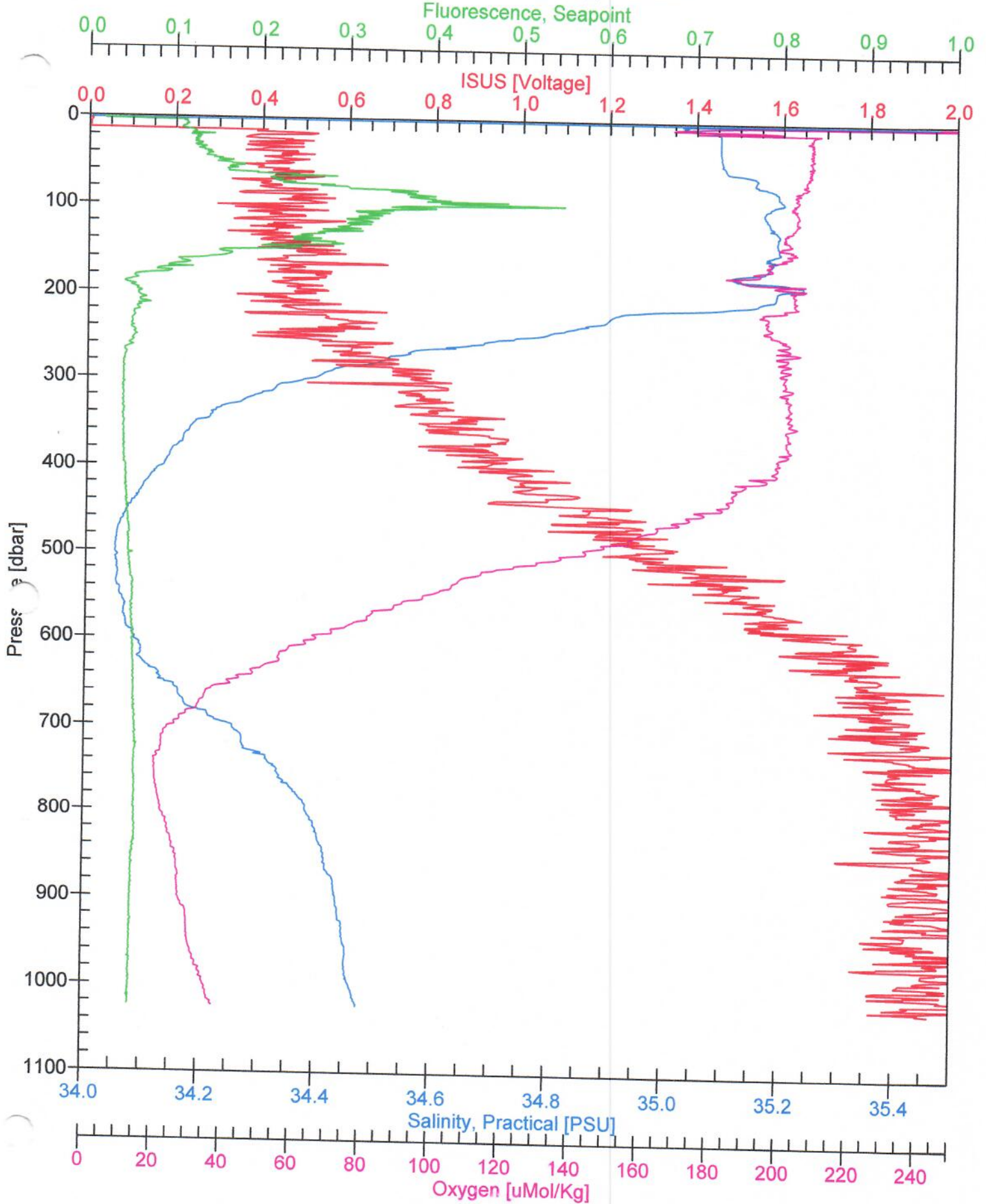
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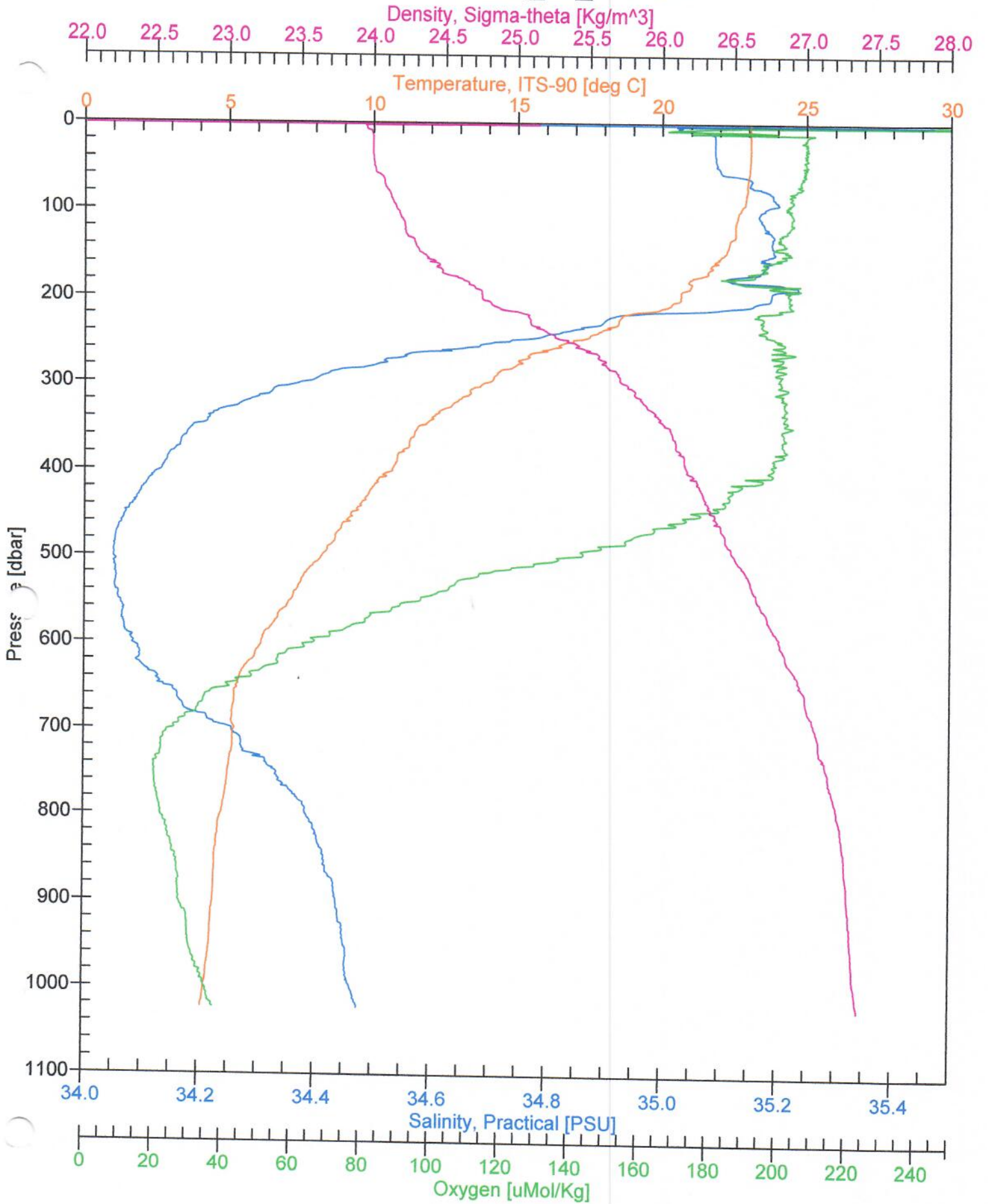
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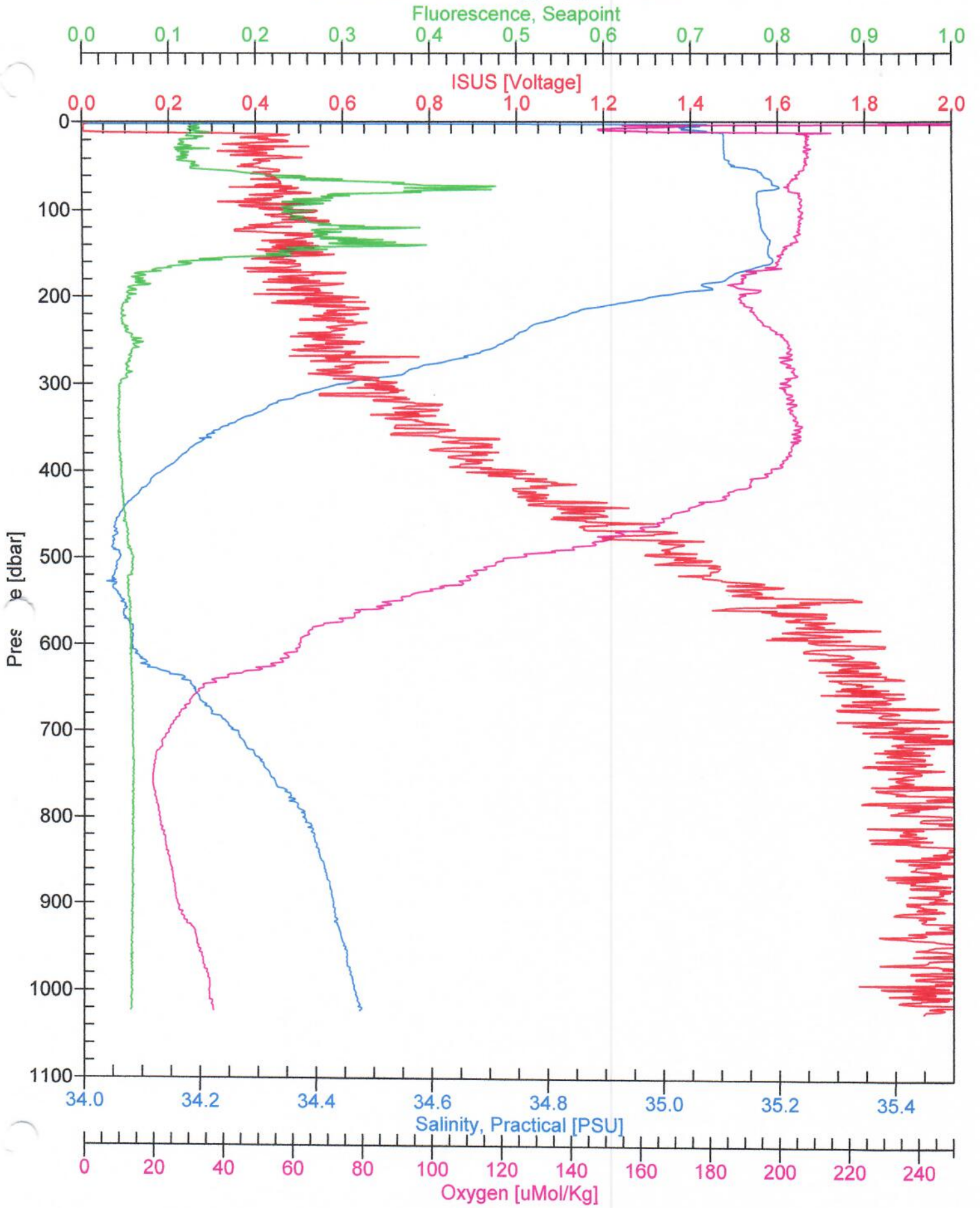
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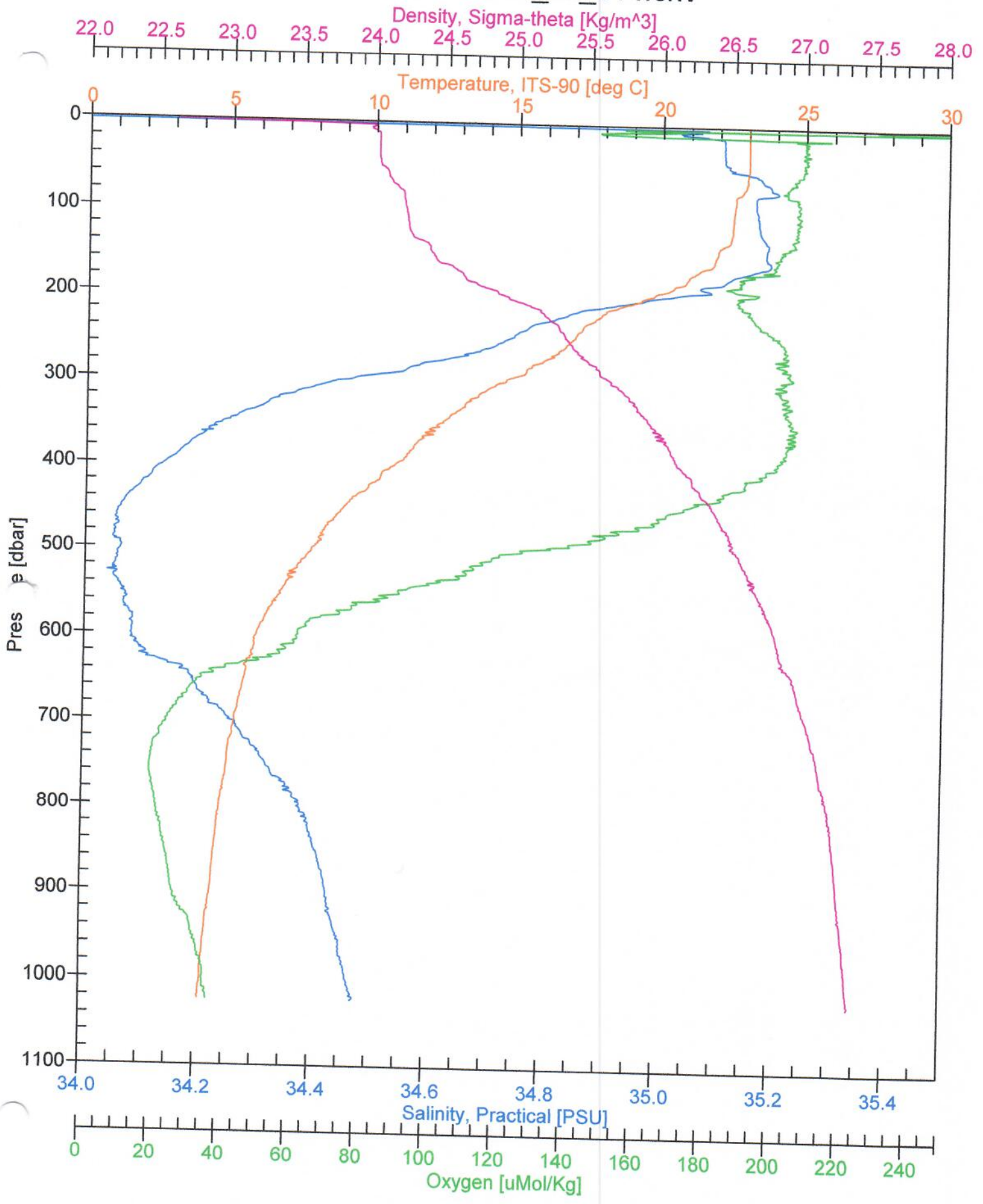
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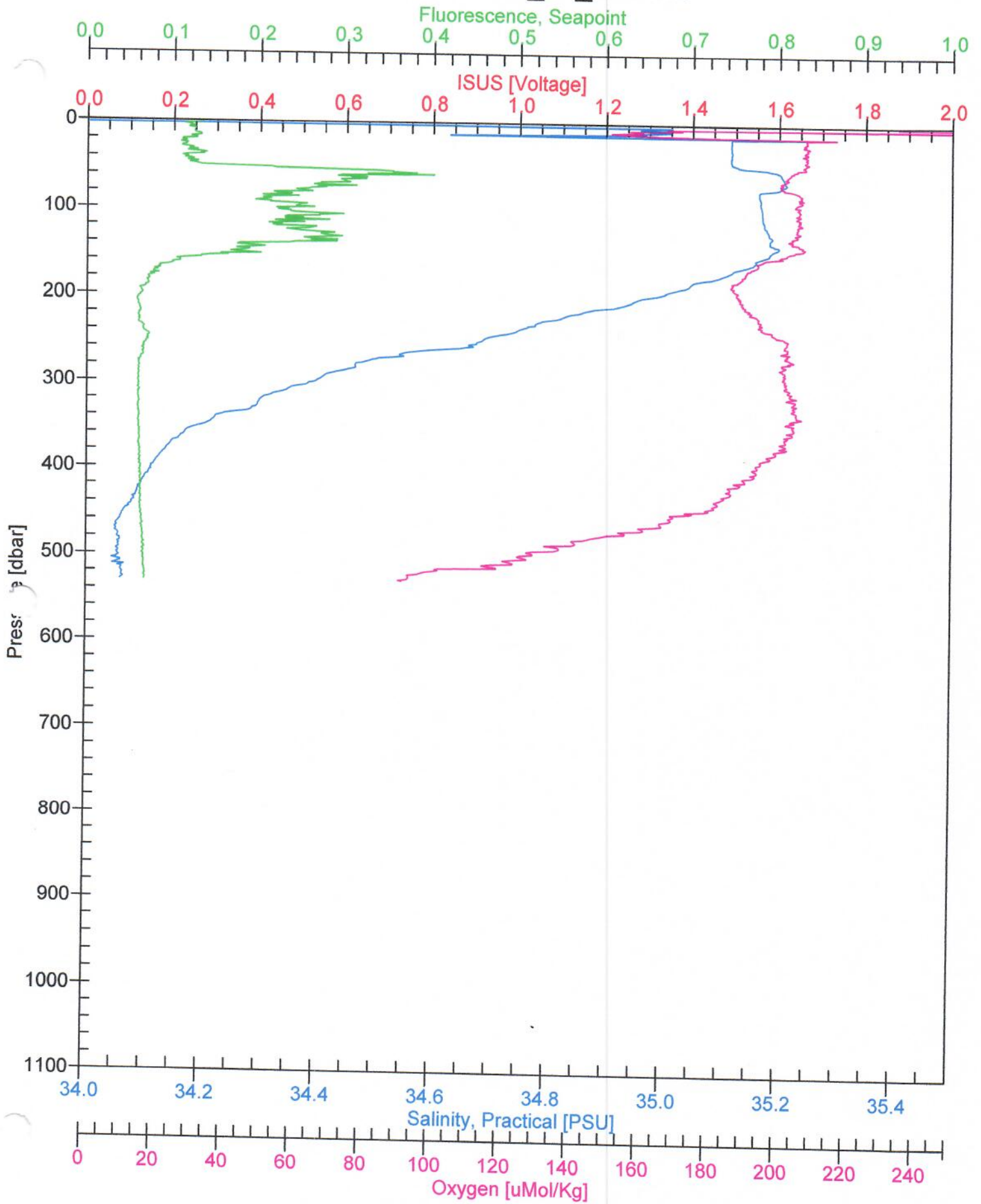
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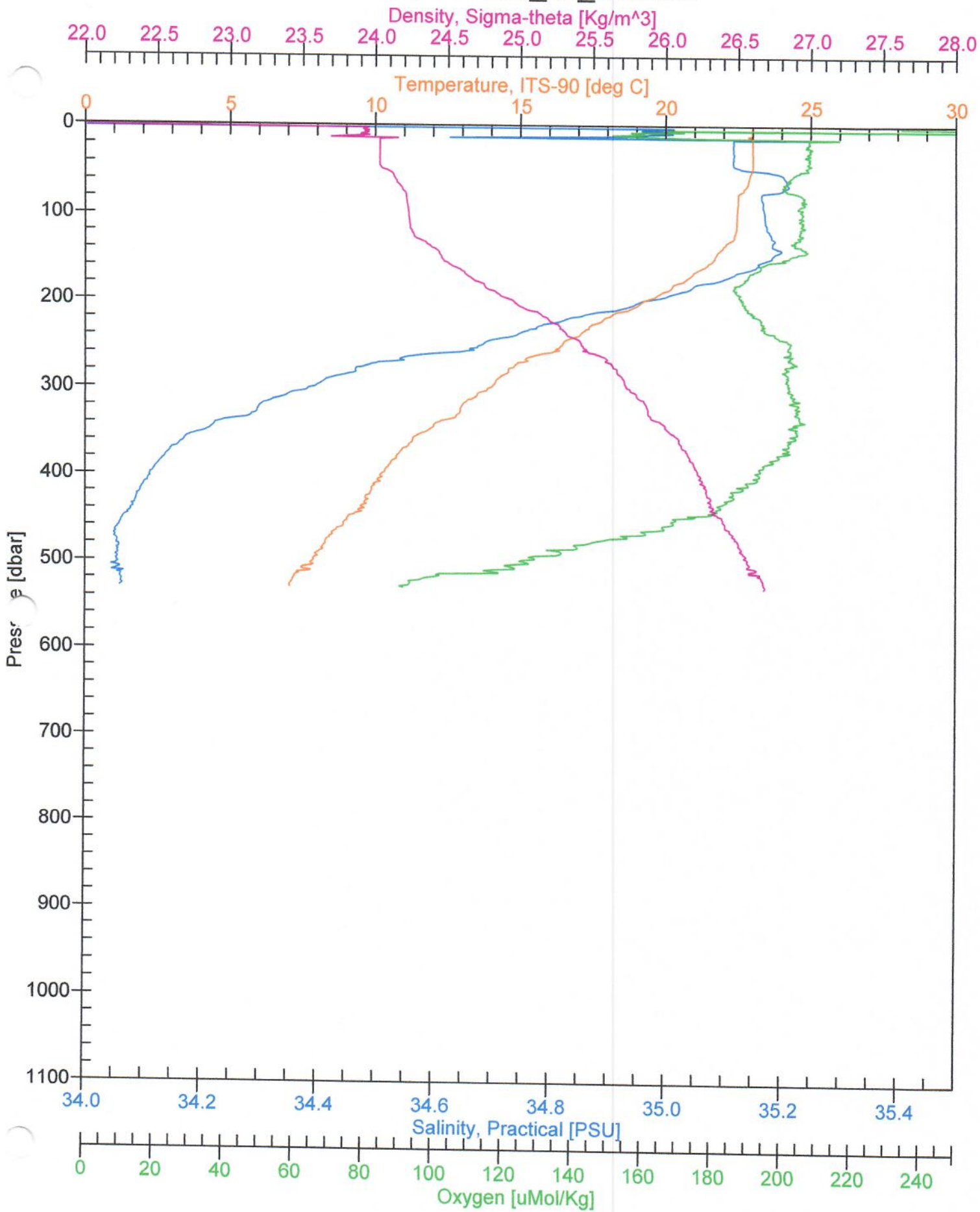
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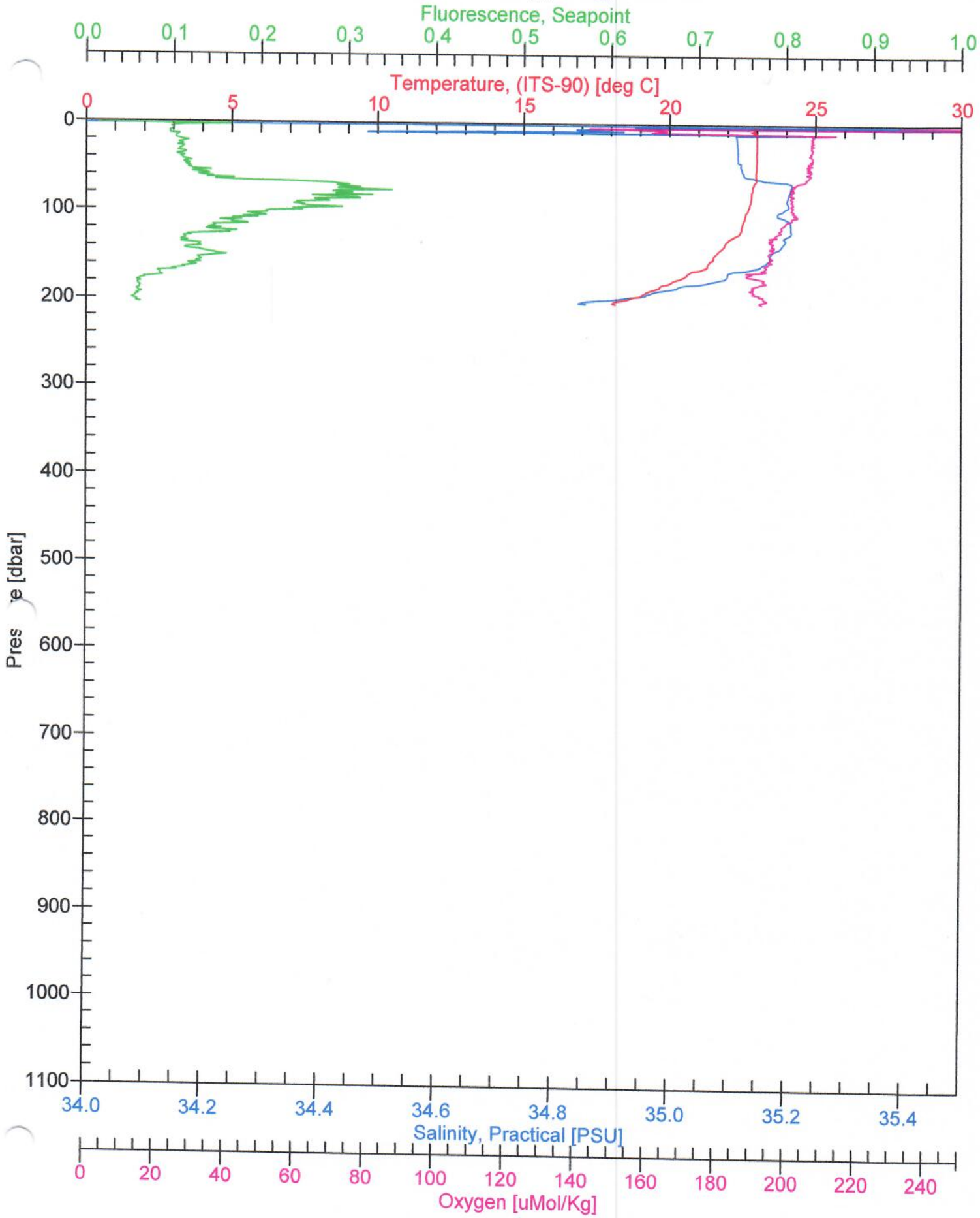
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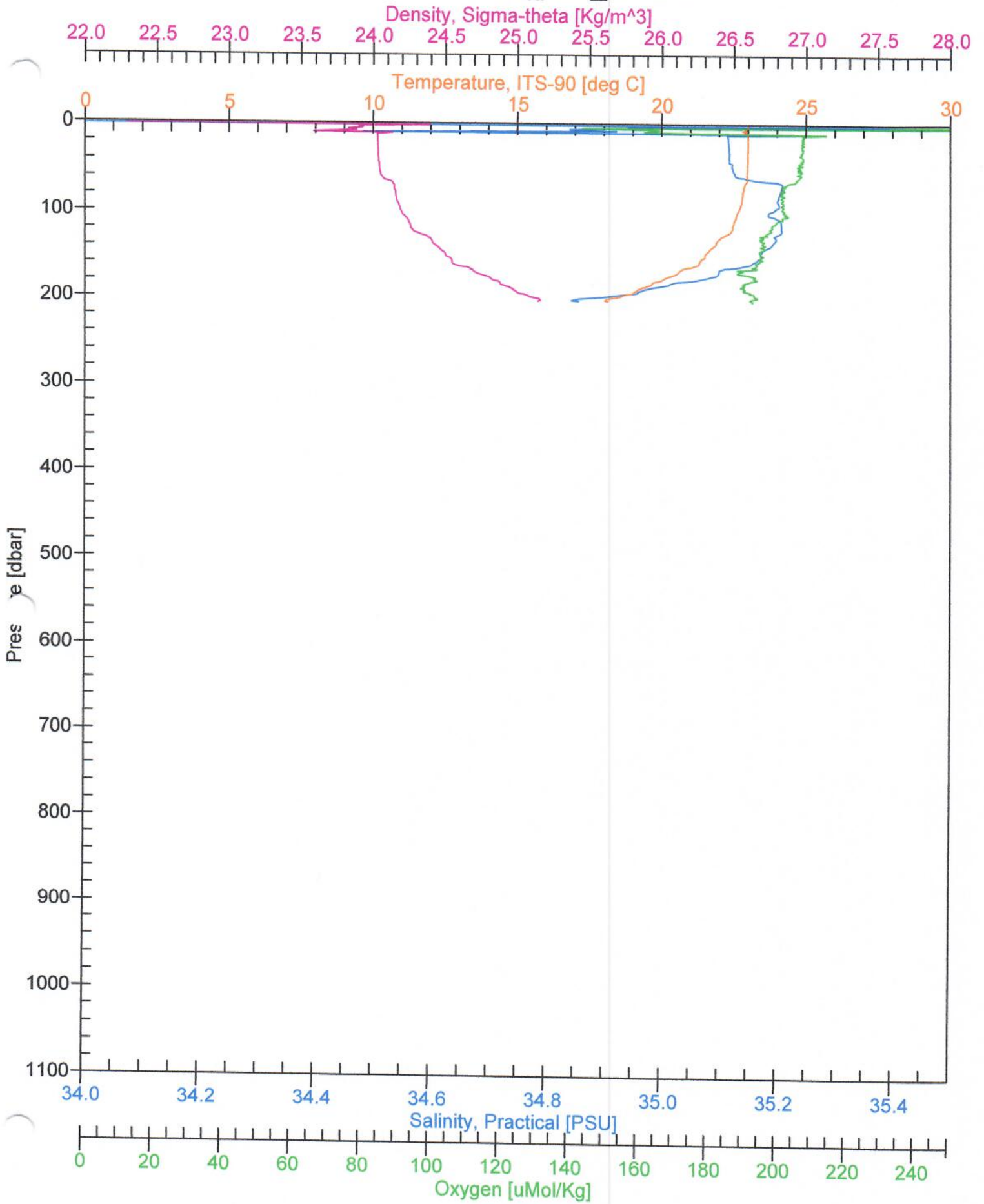
W-1000, hot-300_s2_c15.cnv



G-1000, hot-300_s52_c1.cnv



W-1000, hot-300_s52_c1.cnv



Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G 1000 GPS	12L	25.1	SN/KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: 30 m

S-min: 400 m

* Much soak
 time between
 10-40 m for
 pump issue

Station: 1	Cast: 1
Latitude start: 21° 20.6536 end: 21° 20.6701' N	Longitude start: 158° 16.3861' end: 158° 16.3312'
Depth of water: 1499 meters	Date (GMT): 02 / 25 / 2018
Pressure on Deck	Time:
Begin: -0.28 End: -0.23	Start Log: 00:15 In Water: 00:24 Out of Water: 01:56
Max cast pressure: 1021 dbar	

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	00:11:40	01:12:00	1020	1020	
2		19:00	799	800	02 min
3		21:00	748	750	
4		23:00	700	700	
5		26:50	579	500	
6		29:40	500	500	
7		33:50	398	350	
8		37:55	252	250	
9		40:45	175	175	
10		42:20	150	150	
11		43:50	125	125	
12		45:30	99	100	
13		46:40	90	80	DCM
14		48:20	74	75	
15		50:10	47	45	
16		51:40	25	25	
17		52:50	16	15	
18		53:00	17	15	
19		53:10	16	15	
20		53:20	16	15	
21		53:30	17	15	
22		55:00	7	5	
23		55:10	7	5	
24		55:20	7	5	

Hawaii Ocean Time Series			Station #: 1	Cast #: 1	Box #: 2
Salinity Sample Log Sheet			Cruise #: HOT-300	Sampler: KM/CV	
Niskin #	Depth	Serial #	Comments		
1	1000	25			
2	800	26			
3	780	27			
4	700	28			
5	580	29			
6	500	30			
7	350	31			
8	250	32			
9	175	33			
10	150	34			
11	125	35			
12	100	36			
13	90	37	DCM		
14	75	38			
15	45	39			
16	25	40			
17	15	41			
18	15	42	Empty		
19	15	43	Empty		
20	15	44			
21	15	45			
22	5	46			
23	5	47			
24	5	48			

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
GPS	12L	23.7	KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: 60 dbar
 SMin: 510
 DCM: 110

Station: 2	Cast: 1
Latitude start: 22° 45.232'	Longitude start: 158° 02.2549'
Latitude end: 22° 44.9827'	Longitude end: 158° 02.2797'
Depth of water: 4430 meters	Date (GMT): 21 25 18
Pressure on Deck	Time:
Begin: -0.30	Start Log: 11:40
End: -0.15	In Water: 11:50
Max cast pressure: 1022 dbar	Out of Water: 12:56

Trip/ Niskin	Time	Confirm	Pressure	Target Depth	Comments
	stopped	tripped			
1	12:19:30	12:19:50	1020	1020	
2		32:50	509	510	S-min
3		41:30	175	175	
4		43:10	152	150	
5		44:40	125	125	
6		44:50	125	125	
7		45:00	126	125	
8		46:30	101	100	
9		46:40	100	100	
10		46:50	98	100	
11		48:10	76	75	
12		48:20	75	75	
13		48:30	75	75	
14		50:20	44	45	
15		50:30	44	45	
16		50:40	44	45	
17		52:05	23	25	
18		10	23	25	
19		15	22	25	
20		54:05	4	5	
21		:10	4	5	
22		:15	4	5	
23					
24					

Hawaii Ocean Time Series			Station #: 2	Cast #: 1	Box #: 2
Salinity Sample Log Sheet			Cruise #: HOT- 300	Sampler: KM/SN/JS	
Niskin #	Depth	Serial #	Comments		
1	1020	49			
2	510	50			
3	175	51			
4	150	52			
5	125	53			
6	125	54			
7	125	55			
8	100	56			
9	100	57			
10	100	58			
11	75	59			
12	75	60			
13	75	61			
14	45	62			
15	45	63			
16	45	64			
17	25	65			
18	25	66			
19	25	67			
20	5	68			
21	5	69			
22	5	70			
23		71			
24		72			

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G5000 GPS	12L	23.1	SN/JS

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: 50
S-min: 500

Station: 2	Cast: 2
Latitude start: 22° 45.0062 end: 22° 45.0025	Longitude start: 158° 00.0110 end: 158° 00.0275
Depth of water: 4754 meters	Date (GMT): 02/25/2018
Pressure on Deck	Time:
Begin: -0.28 End: -0.30	Start Log: 15:45 In Water: 15:52 Out of Water: 20:05
Max cast pressure: 4805 dbar	

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1		17:47:30	4805	4800	8 m off bottom
2		57:00	4599	4600	
3		18:00:30	4502	4500	
4		04:20	4402	4400	
5		10:00	4198	4200	
6		15:40	4000	4000	
7		21:55	3800	3800	
8		27:35	3600	3600	
9		32:45	3400	3400	
10		37:55	3196	3200	
11		43:40	✓	3000	
12		50:35	2802	2800	
13		56:00	2601	2600	
14		19:01:30	2399	2400	
15		06:45	2200	2200	
16		12:08	2001	2000	
17		16:50	1800	1800	
18		21:40	1599	1600	
19		26:45	1399	1400	
20		31:50	1201	1200	
21		36:50	1001	1000	
22		42:40	750	750	
23		48:20	498	500	
24		20:04:00	4	5	

Hawaii Ocean Time Series			Station #: 2	Cast #: 2	Box #: 4
Salinity Sample Log Sheet			Cruise #: HOT- 300	Sampler: SN, K&I, JS	
Niskin #	Depth	Serial #	Comments		
1	4800	73			
2	4600	74			
3	4500	75			
4	4400	76			
5	4200	77			
6	4000	78			
7	3800	79			
8	3600	80			
9	3400	81			
10	3200	82			
11	3000	83			
12	2800	84			
13	2600	85			
14	2400	86			
15	2200	87			
16	2000	88			
17	1800	89			
18	1600	90			
19	1400	91			
20	1200	92			
21	1000	93			
22	750	94			
23	500	95			
24	5	96			

Hawaii Ocean Time Series			Station #: 2	Cast #: 2	Box #: 5
Salinity Sample Log Sheet			Cruise #: HOT- 300	Sampler: KM, X, SN	
Niskin #	Depth	Serial #	Comments		
1	4800	97			
2	4600	98			
3	4500	99			
4	4400	100			
5	4200	101			
6	4000	102	O S O L I D		
7	3800	103			
8	3600	104			
9	3400	105			
10	3200	106			
11	3000	107			
12	2800	108			
13	2600	109			
14	2400	110			
15	2200	111			
16	2000	112			
17	1800	113			
18	1600	114			
19	1400	115			
20	1200	116			
21	1000	117			
22	750	118			
23	500	119			
24	5	120			

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000	12L	23.2	SN/JS

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: ~45 m
S min: 500 m

Station: 2	Cast: 3
Latitude start: 22° 45.0027	Longitude start: 158 00.0275
end:	end:
Depth of water: meters	Date (GMT): 02 / 25 / 2018
Pressure on Deck	Time:
Begin: -0.35	Start Log: 21:33
End: -0.38	In Water: 21:37
Max cast pressure: 1020 dbar	Out of Water: 22:59

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1		22:14:00	1021	1020	
2		22:17:00	955	955	
3		22:19:00	895	896	
4		22:21:00	838	837	
5		22:23:00	789	790	
6		22:25:00	744	743	
7		22:27:00	704	704	
8		22:29:00	662	664	
9		22:31:00	597	600	
10		22:35:00	554	555	
11		22:34:00	527	528	
12		22:36:00	476	477	
13		22:38:00	413	414	
14		22:40:00	352	351	
15		22:42:00	311	311	
16		22:44:00	269	271	
17		22:45:00	231	231	
18		22:46:00	224	225	
19		22:49:00	176	176	
20		22:50:00	150	150	
21		22:51:00	134	134	
22		22:53:00	97	98	
23		22:56:00	53	52	
24		55:58:00	5	6	

Station: <u>2</u>	Cast: <u>3</u>
Latitude: <u>22° 45.0027</u>	Longitude: <u>158° 00.0245</u>
Date: <u>02/25/2017</u>	Time (GMT): <u>21:37</u>
Operator: <u>SN/SS</u>	

$\delta\theta$	$\sigma\theta$	Depth
700	20.76	_____
650	21.28	_____
600	21.80	_____
550	22.33	_____
500	22.85	_____
450	23.37	_____
400	23.90	<u>5</u>
350	24.42	<u>135</u>
300	24.95	<u>195</u>
250	25.47	<u>248</u>
200	26.00	<u>350</u>
180	26.21	<u>385</u>
160	26.42	<u>461</u>
140	26.63	<u>522</u>
130	26.73	<u>563</u>
120	26.84	<u>605</u>
110	26.94	<u>651</u>
100	27.05	<u>701</u>
90	27.16	<u>780</u>
80	27.26	<u>866</u>
70	27.37	_____

S _{max}	<u>160</u>
S _{min}	<u>500</u>
S _{max}	_____
S _{min}	_____

O _{max}	<u>175</u>
O _{min}	<u>205</u>
O _{max}	<u>300</u>
O _{min}	<u>760</u>
O _{max}	<u>1020</u>

F _{max}	<u>120</u>
F _{min}	_____
F _{max}	_____
F _{min}	_____
F _{max}	_____

Bottle	Depth
1	<u>1020</u>
2	<u>955</u>
3	<u>896</u>
4	<u>837</u>
5	<u>790</u>
6	<u>743</u>
7	<u>704</u>
8	<u>664</u>
9	<u>600</u>
10	<u>555</u>
11	<u>528</u>
12	<u>477</u>
13	<u>414</u>
14	<u>351</u>
15	<u>311</u>
16	<u>271</u>
17	<u>231</u>
18	<u>225</u>
19	<u>176</u>
20	<u>150</u>
21	<u>134</u>
22	<u>98</u>
23	<u>52</u>
24	<u>6</u>

Hawaii Ocean Time Series		Station #: 2	Cast #: 3	Box #: 6
Salinity Sample Log Sheet		Cruise #: HOT-300		Sampler: JS, MS, S, W
Niskin #	Depth	Serial #	Comments	
1	1020	121		
2	955	122		
3	898	123		
4	837	124		
5	790	125		
6	743	126		
7	704	127		
8	664	128		
9	600	129		
10	555	130		
11	528	131		
12	477	132		
13	414	133		
14	351	134		
15	311	135		
16	271	136		
17	231	137		
18	225	138		
19	176	139		
20	150	140		
21	134	141		
22	98	142		
23	52	143		
24	6	144		

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000 GRS	12 L	23.19	SN/KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 SUS
 PO Fluorometer

DCM: 110 m

MLD: 45 m

S-min: 500 m

Station: 2	Cast: 4
Latitude start: 22° 44' 43"	Longitude start: 157° 59' 37.47"
Latitude end: 22° 44' 7.48"	Longitude end: 157° 59' 38.20"
Depth of water: 47/6 meters	Date (GMT): 02 12 6 12018
Pressure on Deck	Time:
Begin: -0.38	Start Log: 00:14
End: -0.24	In Water: 00:19
Max cast pressure: 1072 dbar	Out of Water: 01:29

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	00:49:10	00:49:30	1019	1020	
2		01:02:20	501	500	S-min
3		06:50	348	350	
4		07:00	351	350	
5		10:40	249	250	
6		12:50	199	200	
7		14:30	172	175	
8		16:20	150	150	
9		18:00	125	125	
10		19:30	102	100	
11		21:40	77	75	
12		22:50	76	75	
13		24:00	43	45	
14		24:20	43	45	
15		26:10	24	25	Mistrip - water cold
16		26:20	25	25	
17		28:00	6	5	
18		28:10	6	5	
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 4	Box #: 7
Salinity Sample Log Sheet		Cruise #: HOT- 300		Sampler: ACK/CV/HR
Niskin #	Depth	Serial #	Comments	
1	1000	145		
2		(158)	S-min / Some on screw up	
3	350	146	Note the S/N	
4	350	147		
5	250	148		
6	200	149		
7	175	150	Empty bottle	
8	150	151		
9	125	152		
10	100	153		
11	75	154		
12				
13	45	155		
14				
15	25	156		
16				
17	5	157		
18				
19				
20				
21				
22				
23				
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
GCOSAPS	12L	23.2	KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD : 60 dbar
 D-M : 135 dbar
 S-Min : 485 dbar

Station: 2	Cast: 5
Latitude start: 22° 45.8387'N	Longitude start: 158° 5.2844'
end: 22° 48.8352'N	end: 158 5.2908'
Depth of water: 4742 meters	Date (GMT): 02/26/18
Pressure on Deck	Time:
Begin: -0.32	Start Log: 03:13
End: -0.31	In Water: 03:24
Max cast pressure: 1021 dbar	Out of Water: 04:28

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	03:52:40	03:53:00	1019	1020	
2		04:05:00	485	485	S-min
3		08:40	351	350	
4		08:50	349	350	
5		12:00	249	250	
6		14:00	203	200	
7		15:40	173	175	
8		17:10	148	150	
9		18:50	125	125	
10		20:20	102	100	
11		21:50	76	75	
12		23:35	43	45	
13		25:20	25	25	
14		25:30	24	25	
15		26:00	7	5	
16		26:10	7	5	
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 5	Box #: 7-8
Salinity Sample Log Sheet		Cruise #: HOT-300		Sampler: CK/ACK/cv
Niskin #	Depth	Serial #	Comments	
1	1020	159		
2	485	160	S-min	
3	350	161		
4	350	162		
5	250	163		
6	200	164		
7	175	165		
8	150	166		
9	125	167		
10	100	168		
11	75	169		
12	45	170		
13	25	171		
14	25	—		
15	5	172		
16	5	—		
17				
18				
19				
20				
21				
22				
23				
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GPS	12L	23.2	KR/AK

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: 50 dbar
 DCM: 100 dbar
 S-Min: 500 dbar

Station: 2	Cast: 6
Latitude start: 22°45.7836'	Longitude start: 158°4.8193
Latitude end: 22°45.6999'	Longitude end: 158°4.8532
Depth of water: 4247 meters	Date (GMT): 2126118
Pressure on Deck	Time:
Begin: -0.31	Start Log: 06:14
End: -0.25	In Water: 06:26
Max cast pressure: 1020 dbar	Out of Water: 07:41

Trip/ Niskin	Time	Confirm	Pressure	Target Depth	Comments
	stopped	tripped			
1	06:56:40	06:57:00	1020	1020	
2		07:03:30	779	780	O ₂ min
3		11:00	499	500	S-Min
4		19:20	200	200	
5		20:40	175	175	
6		21:35	166	165	
7		23:00	150	150	
8		24:20	131	130	
9		25:10	124	125	
10		26:10	114	115	
11		27:00	109	110	
12		28:10	98	100	
13		29:20	91	90	
14		30:20	84	85	
15		31:30	76	75	
16		32:50	59	60	
17		34:10	45	45	
18		35:30	39	35	
19		36:30	25	25	
20		36:40	26	25	
21		37:50	15	15	
22		39:10	6	5	
23		39:20	5	5	
24		39:30	7	5	

Hawaii Ocean Time Series		Station #: 2	Cast #: 6	Box #: 8, 9
Salinity Sample Log Sheet		Cruise #: HOT-300	Sampler: KH/CV/KEK	
Niskin #	Depth	Serial #	Comments	
1	1020	173		
2	780	174	O ₂ Min	
3	500	175	S-MIN	
4	200	176		
5	175	177		
6	165	178		
7	150	179		
8	130	180		
9	125	181		
10	115	182		
11	110	183		
12	100	184		
13	90	185		
14	85	186		
15	75	187		
16	60	188		
17	45	189		
18	35	190		
19	25	191		
20	—	—		
21	15	192		
22	5	193		
23	5	194		
24	—	—		

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G10004B	12L	23.20	KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD 60
 DEM 120
 S-min 500

Station: 2	Cast: 7
Latitude start: 22° 45.648' N end: 22° 45.688' N	Longitude start: 158° 04.320' W end: 158° 04.2932' W
Depth of water: 4731 meters	Date (GMT): 212614
Pressure on Deck	Time:
Begin: -0.25	Start Log: 08:47
End: -0.21	In Water: 09:05
Max cast pressure: 1020 dbar	Out of Water: 10:12

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	09:36:30	09:36:50	1018	1020	
2		09:40	501	500	S-min
3		58:00	175	[175]	
4		58:10	175	[175]	
5		10:00:00	149	[150]	
6		00:10	149	[150]	
7		02:00	123	[125]	
8		02:10	125	[125]	
9		03:50	99	[100]	
10		04:00	99	[100]	
11		05:40	77	75	
12		07:25	45	45	
13		09:00	24	[25]	
14		09:10	25	[25]	
15		10:50	5	[5]	
16		11:00	4	[5]	
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 7	Box #: 9
Salinity Sample Log Sheet		Cruise #: HOT-300		Sampler: KR/AK/CV
Niskin #	Depth	Serial #	Comments	
1	1000	195		
2	500	196	5-min	
3	175	197		
4	175	—		
5	150	198		
6	150	—		
7	125	199		
8	125	—		
9	100	200		
10	100	—		
11	75	201		
12	45	202		
13	25	203		
14	25	—		
15	5	204		
16	5	—		
17				
18				
19				
20				
21				
22				
23				
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type G1000G/B	Bottle type 12L	SST 23.1	Operator KR/SN
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- Pinger
 - Altimeter
 - Transmissometer
 - BEACH Sea Tech Fluorometer
 - OTG Seapoint Fluorometer
 - ISUS
 - PO Fluorometer
 -
- MLD 60
DCM 120
S-min 500

Station: 2	Cast: 8
Latitude start: 22° 45.0272 end: 22° 45.1685	Longitude start: 158° 00.0677 end: 158° 00.0430
Depth of water: 4724 meters	Date (GMT): 2126118
Pressure on Deck	Time:
Begin: -0.28 End: -0.15	Start Log: 11:51 In Water: 12:03 Out of Water: 13:02
Max cast pressure: 1020 dbar	

Trip/ Niskin	Time	Confirm	Pressure	Target Depth	Comments
	stopped	tripped			
1	12:32:20	12:32:40	1019	1020	
2		45:40	501	500	S-min
3		58:30	25	25	
4		13:00:35	4	5	}
5		40	5	5	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 8	Box #: 9
Salinity Sample Log Sheet		Cruise #: HOT-300		Sampler: SN/BS/KM
Niskin #	Depth	Serial #	Comments	
1	1020	205		
2		206	5-min	
3	25	—		
4	5	—		
5	5	207		
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000 GPS	12 L	23.08	SN

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: 110 m
Smin: 475

Station: 2	Cast: 9
Latitude start: 22° 45.5310	Longitude start: 157° 53.9551
end:	end:
Depth of water: meters	Date (GMT): 02 12 6 12018
Pressure on Deck	Time:
Begin: -0.31	Start Log: 14:45
End: -0.22	In Water: 14:54
Max cast pressure: 1021 dbar	Out of Water: 16:04

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1		15:28:00	1021	1020	
2		38:45	475	475	S-min
3		43:20	275	275	
4		44:45	251	250	
5		46:20	225	225	
6		47:55	201	200	
7		49:20	174	175	
8		50:45	150	150	
9		52:10	125	125	
10		53:30	100	100	
11		54:55	76	75	
12		56:40	46	45	
13		58:05	25	25	
14		:10	25	25	
15		15:59:50	5	5	
16		16:01:00	5	5	
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 9	Box #: 9
Salinity Sample Log Sheet		Cruise #: HOT- 300		Sampler: KM, SN
Niskin #	Depth	Serial #	Comments	
1	1020	208		
2	475	209	S-miy	
3	_____	_____		
4	_____	_____		
5	_____	_____		
6	_____	_____		
7	_____	_____		
8	_____	_____		
9	_____	_____		
10	_____	_____		
11	_____	_____		
12	_____	_____		
13	_____	_____		
14	_____	_____		
15	5	210		
16				
17				
18				
19				
20				
21				
22				
23				
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000 GPS	12 L	23.09	SN

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

S-min: 475 db
MLD: 100 db

Station: 2	Cast: 10
Latitude start: 22° 46.7824 end:	Longitude start: 157° 59.7784 end:
Depth of water: meters	Date (GMT): 02 126 118
Pressure on Deck	Time:
Begin: -0.27 End: -0.20	Start Log: 17:56 In Water: 18:04 Out of Water: 19:12
Max cast pressure: 1018 dbar	

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
2		51:10	476	475	S-min
3		59:00	175	175	
4		19:00:40	150	150	
5		02:20	126	125	
6		25	115	125	
7		03:55	100	100	
8		05:20	73	75	
9		07:00	43	45	
10		07:05	44	45	
11		08:20	25	25	
12		1:25	26	25	
13		1:30	26	25	
14		10:40	5	5	
15		45	6	5	
16		50	5	5	
17	/	/	/	/	/
18	/	/	/	/	/
19	/	/	/	/	/
20	/	/	/	/	/
21	/	/	/	/	/
22					
23					
24					

Hawaii Ocean Time Series			Station #: 2	Cast #: 10	Box #: 9
Salinity Sample Log Sheet			Cruise #: HOT-300	Sampler: RM, SN	
Niskin #	Depth	Serial #	Comments		
1	1020	211			
2	475	212	S-nite		
3	_____	_____	_____		
4	_____	_____	_____		
5	_____	_____	_____		
6	_____	_____	_____		
7	_____	_____	_____		
8	_____	_____	_____		
9	_____	_____	_____		
10	_____	_____	_____		
11	_____	_____	_____		
12	_____	_____	_____		
13	_____	_____	_____		
14	_____	_____	_____		
15	5	213			
16	_____	_____	_____		
17	_____	_____	_____		
18	_____	_____	_____		
19	_____	_____	_____		
20	_____	_____	_____		
21	_____	_____	_____		
22	_____	_____	_____		
23	_____	_____	_____		
24	_____	_____	_____		
	_____	_____	_____		
	_____	_____	_____		
	_____	_____	_____		
	_____	_____	_____		
	_____	_____	_____		

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G10006PS	12L	23.12	SN/JS

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 SUS
 PO Fluorometer

DCM: ≈ 100 db
 S-min: ≈ 500 db
 MLD: ≈ 100 db

Station: 2	Cast: 11
Latitude start: 22° 49.9373 end: 22° 49.9591	Longitude start: 158° 01.9455 end: 158° 01.9455
Depth of water: 4694 meters	Date (GMT): 02/26/2018
Pressure on Deck	Time:
Begin: -0.23 End: -0.17	Start Log: 21:13 In Water: 21:20 Out of Water: 22:30
Max cast pressure: 1019 dbar	

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
* 1		21:59:00	1019	1020	
* 2		22:12:00	499	500	S-min
3		23:30	101	100	DCM
4		25:10	73	75	
5		27:45	23	25]
6		:50	25	25	
* 7		29:25	4	5	
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 11	Box #: 9
Salinity Sample Log Sheet		Cruise #: HOT-300	Sampler: SN, KM	
Niskin #	Depth	Serial #	Comments	
1	1020			
2	500		S-min	
3	_____	_____		
4	_____	_____		
5	_____	_____		
6	_____	_____		
7	5			
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000 GPS	12 L	23.10	SN/KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: 100 db
 DCM: 100
 S-min: 480

Station: 2	Cast: 12
Latitude start: 22° 49.6014' N end: 22° 49.6223' N	Longitude start: 158° 01.19' W end: 158° 1.1856' W
Depth of water: 4689 meters	Date (GMT): 02 / 26 / 18
Pressure on Deck	Time:
Begin: -0.32 End: -0.21	Start Log: 23:55 In Water: 23:59 Out of Water: 02 / 27 / 18
Max cast pressure: 1021 dbar	01:10

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1		00:28:20	1021	1020	
2		35:00	768	770	
3		42:05	500	500	
4		43:40	480	480	S-min
5		46:20	401	400	
6		48:30	350	350	
7		51:00	300	300	
8		53:30	249	250	
9		56:50	152	150	
10		59:10	128	125	
11		01:00:50	100	100	
12		02:20	75	75	
13		04:20	42	45	
14		05:40	24	[25]	
15		05:50	24	[25]	
16		07:30	6	[5]	
17		07:40	4	[5]	
18	/	/	/	/	/
19	/	/	/	/	/
20	/	/	/	/	/
21	/	/	/	/	/
22	/	/	/	/	/
23	/	/	/	/	/
24					

Hawaii Ocean Time Series			Station #: 2	Cast #: 12	Box #: 10
Salinity Sample Log Sheet			Cruise #: HOT-300	Sampler: AK, KR, C	
Niskin #	Depth	Serial #	Comments		
1	1020	217			
2	 	 			
3	 	 			
4	480	218	5-min.		
5	 	 			
6	350	219			
7	 	 			
8	250	220			
9	150	221			
10	125	222			
11	100	223			
12	75	224			
13	45	225			
14	25	226			
15	 	 			
16	5	227			
17	 	 			
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G/1000GPS	12L	23.25	KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 AISUS
 PO Fluorometer

MLD : 55m
 DCM : 95m
 S-Min : 500m

Station: 2	Cast: 13
Latitude start: 22° 49.6838' N	Longitude start: 158° 1.1636' W
Latitude end: 22° 49.6540' N	Longitude end: 158° 1.1746' W
Depth of water: 4689 meters	Date (GMT): 2127118
Pressure on Deck	Time:
Begin: -0.25	Start Log: 02:43
End: -0.16	In Water: 02:52
Max cast pressure: 1021 dbar	Out of Water: 03:57

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1	03:22:20	03:22:40	1019	1020	
2		22:50	1020	1020	
3		23:00	1020	1020	
4		23:10	1021	1020	
5		23:20	1019	1020	
6		23:30	1019	1020	
7		29:05	800	800	
8		33:40	599	600	
9		36:30	500	500	S-MIN
10		39:00	400	400	
11		40:35	399	350	
12		42:20	300	300	
13		43:40	249	250	
14		45:40	174	175	
15		46:40	151	150	
16		48:00	126	125	
17		49:20	98	100	
18		50:40	73	75	
19		52:15	45	45	
20		53:20	26	25	
21		53:30	26	25	
22		55:10	7	5	
23		55:20	7	5	
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 13	Box #: 10
Salinity Sample Log Sheet		Cruise #: HOT-300	Sampler: KR/CV/ACK	
Niskin #	Depth	Serial #	Comments	
①	1000	228		
2	1000	229		
3	1000	230		
4	1000	231		
5	1000	232		
6	1000	233		
7	_____	_____		
8	_____	_____		
⑨	500	234	S-Min	
10	_____	_____		
11	_____	_____		
12	_____	_____		
13	_____	_____		
14	_____	_____		
15	_____	_____		
16	_____	_____		
17	_____	_____		
18	_____	_____		
19	_____	_____		
20	25	_____		
21	25	_____		
⑫	5	235		
23	5	_____		
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G1000GPS	12L	23.1	KR

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

MLD: 140
 DEM: 70 & 140
 S-min: 525

Station: 2	Cast: 14
Latitude start: 22° 46.8513' N end: 22° 46.8100'	Longitude start: 157° 58.2697' end: 157° 58.2843'
Depth of water: 4693 meters	Date (GMT): 2127118
Pressure on Deck	Time:
Begin: -0.27	Start Log: 05:55
End: -0.20	In Water: 06:02
Max cast pressure: 1019 dbar	Out of Water: 17:54

Trip/ Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1		06:36:30	1017	1020	
2		06:48:30	525	525	S-min
3		08:10	175	175	
4		07:00:00	151	150	
5		01:10	136	135	
6		02:40	122	125	
7		03:50	115	115	
8		05:25	101	100	
9		06:50	83	85	
10		08:00	72	75	
11		09:20	62	60	
12		10:50	47	45	
13		12:40	24	25	
14		14:20	6	5	
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series		Station #: 2	Cast #: 14	Box #: 10, 11
Salinity Sample Log Sheet		Cruise #: HOT-300	Sampler: KR/CWACK	
Niskin #	Depth	Serial #	Comments	
1	1020	236		
2		237	S-MIN	
3	175	238		
4	150	239		
5	135	240		
6	125	241		
7	115	242		
8	100	243		
9	85	244		
10	75	245		
11	60	246		
12	45	247		
13	25	248		
14	5	249		
15				
16				
17				
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19				
20				
21				
22				
23				
24				

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
450004PS	12L	22.93	KR/ACK

- Pinger
- Altimeter
- Transmissometer
- BEACH Sea Tech Fluorometer
- OTG Seapoint Fluorometer
- ISUS
- PO Fluorometer
-

Cast Aborted @ 525m

Station: 2	Cast: 15
Latitude start: 22°45.0563 end: 22°45.0889'	Longitude start: 158°0.0916 end: 158°0.0870'
Depth of water: 4721 meters	Date (GMT): 2127116
Pressure on Deck	Time:
Begin: -0.26 End: -0.25	Start Log: 08:31 In Water: 08:54 Out of Water: 09:58
Max cast pressure: 526 dbar	

Trip/Niskin	Time stopped	Confirm tripped	Pressure	Target Depth	Comments
1					No bottles fired
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series			Station #: 2	Cast #: 15	Box #: X
Salinity Sample Log Sheet			Cruise #: HOT-300	Sampler:	N/A
Niskin #	Depth	Serial #	Comments		
1			Cast aborted		
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

HOT-300

Hawaii Ocean Time-Series CONSOLE LOG

Cast type	Bottle type	SST	Operator
G200 GPS	12L	22.91	SN

- Pinger
 Altimeter
 Transmissometer
 BEACH Sea Tech Fluorometer
 OTG Seapoint Fluorometer
 ISUS
 PO Fluorometer

5 T.
 DCM 22.84
 23.03

Station: 52	Cast: 1
Latitude start: 22° 41.6216	Longitude start: 157° 59.5367
Latitude end: 22° 41.6632	Longitude end: 157° 59.5331
Depth of water: 4720 meters	Date (GMT): 02/27/2018
Pressure on Deck	Time:
Begin: -0.22	Start Log: 18:54
End: -0.15	In Water: 18:56
Max cast pressure: 200 dbar	Out of Water: 21:10:56

Trip/ Niskin	Time	Confirm	Pressure	Target Depth	Comments
	stopped	tripped			
1		21:01:10	78	80] DCM
2		21:01:30	78	80	
3		21:04:00	46	45	
4		21:05:35	✓	25] No SALS
5			✓	25	
6			✓	25	
7			✓	25	
8			✓	25	
9			✓	25	
10			✓	25	
11			✓	25	
12			✓	25	
13		08:50	✓	5	
14			✓	5	
15			✓	5	
16			✓	5	
17			✓	5	
18					
19					
20					
21					
22					
23					
24					

Hawaii Ocean Time Series			Station #: 52	Cast #: 1
Salinity Sample Log Sheet			Cruise #: HOT-300	Sampler: —
Niskin #	Depth	Serial #	Comments	
1			NO	
2				
3				
4				
5				
6				
7				
8			SALS	
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
			/	

HOT - 300

KM-18-05

CTD Configuration:

CTD: 850

Deck Unit: 112060 (secondary)

Pressure: 1430

Carousel: 518

T₁: 1416 T₂: 2907C₁: 4687 C₂: 2959O₁: 43982 O₂: 1601 O₁ → 43262Pump₁: 968 pump₂: 494

Fluorometer: SCF 3831 (new)

Altimeter: 7769

Bucket Thermometer: 3622

Transmissometer: 1432DR

Cruise Participants:

Tara Clemente - Chief Sci. Dave Karl
 Dan Sudler (Research Tech) Lisa Mesrop
 Chris Sabine (scientist) (USC/scope) (scientist) (UG) - William Miller
 Eric Grabowski (Post Doc) (USC/scope) - Avery Tatters
 Jeffrey Snyder Blake Watkins
 Svetlana Natarov (OSU/scope) - Angelique White
 Eric Shimabuzuro
 Sara Ferron Smith
 Kelsey Maloney
 Andrew King
 Chris Winn (scientist, HPU)
 Kerin Bjoerzeman
 Tim Burrell
 Ryan Tabata
 Kellen Rosburg
 Caroline Funkey
 Carleigh Volbrecht (Grad student, P.O. Volunteer)
 Marian Carlson (scientist, Simons Foundation)
 Sarah Hu (PhD candidate)

.081 WIRE Clear conductor
36 Ω

Weight cast :

- dry weight : ≈ 1300 lb
- wet weight : ≈ 1280 lb

Weight (rossette) :

- dry : ≈ 1200 lb
- wet :

HOT-300

24 Feb. 2018

19:50 DEPART FROM Pier 35.
TRANSIT TO KAHE.

20:30 Safety briefing

20:45 Sci Mtg

20:55 Emergency & abandon ship drills

22:40 Arrive at KAHE.

22:49 Start weight cast. Descent to
500 m.

23:22 End weight cast.

23:50 Start NET TOW.

~~~~~ \* ~~~~~ \* ~~~~~ ! ~~~~~ \*

Feb 25, 2018

00:09 End net tow.

00:18 Start Station 1 Cast 1  
(G1000 GPS).

01:35 Large  $O_2$  walk off in primary  $O_2$  sensor  
suggests suspect primary sensor set trouble.  
Secondary looks okay.

01:58 End Station 1 Cast 1 - 24 marks OK.



HOT-300

25 Feb. 2018

02:01 Transit to Station ALOHA.

11:34 Arrive @ ALOHA

11:40 Begin Station 2 Cast 1 - G/000GPS.

11:55 Modulo error @ 69 dbar. Pumps remained on

12:29 Primary  $O_2$  sensor walk-off on upcast.  
Secondary data OK. Airbleed likely clogged again.

12:56 End Station 2 Cast 1.

14:30 Deploy PP array.  
22° 44.9833, 158° 02.211014:36 Primary  $O_2$  Sensor changed to 4326215:08 Hand-held net tow  
22° 44.9847, 158° 00.022015:42 End net tow.  
22° 45.0073, 158° 00.0128

15:52 start station 2 cast 2 G 5000 GPS.

17:05 at 2950<sup>(downcast)</sup> dbar, the primary oxygen sensor became noisy.





HOT-300

Feb 25, 2018

20:05 End Station 2 cast 2 65000 GPS.

20:20 START HAND NET TOW  
22°45.00 158°00.0221:33 Start station 2 cast 3 61000  
(PO shallow cast)

22:59 End Station 2 cast 3 61000.

23:10 Start NET TOW.  
22° 44.9733, 157° 59.937723:45 End Net tow.  
22° 44.7562, 157° 59.379323:57 Start Hyperpro.  
22° 44.7566, 157° 59.377423:59 Hyperpro. aborted. due to  
technical difficulties.26 Feb. 201800:10 Start station 2 cast 4  
61000 GPS.

01:32 End Station 2 Cast 4. 18 Marks OK.

01:35 Transit to pump tanks.



HOT-300

FEB 26, 2018

01:40 Bottle 15 water from S2C4 much colder than surrounding bottles. 15 & 16 were 25 dbar, but 15 was 12° (should be ~2000m), likely mistrip. Guessing bad latch or OTG radio interference.

02:14 Raining on Station.

02:51 Net Tow Begin  $22^{\circ} 45.8400' N$   $158^{\circ} 5.3677' W$

03:09 End Net Tow

03:13 Begin Station 2 Cast 5 - G1000GPS.

03:58 Some noise in 2ndary Salinity.

04:32 End Station 2 Cast 5. 16 Marks OK.

04:44 Transit to PP array.

05:01 Arrive PP array  
 $22^{\circ} 46.465' N$   $158^{\circ} 08.095' W$

05:47 End PP recovery. Transit back to ALOHA.

06:14 Begin Station 2 Cast 6. G1000GPS

06:20 COM port error. Restarted proc 1. COMs reestablished.

07:45 End Station 2 Cast 6. 24 Marks OK.



HOT-300

Feb 26, 2018

0753 Start of Net Tow (Hard Tow)  
 22° 45.707'N 158° 04.857'W

0817 Start Net Tow 22° 45.7058'W 158° 04.8422'W

08:34 End net tow #1

08:47 Begin Station 2 Cast 7. 61000 GPS

10:15 End Station 2 Cast 7. 16 Marks OK.

10:30 Transit to pump tanks.

11:15 Raining on station

11:50 Begin Station 2 Cast 8. 61000 GPS

13:02 End Station 2 Cast 8. 61000 GPS

14:48 Begin Station 2 Cast 9. 61000 GPS.

16:04 End Station 2 Cast 9.

16:15 Begin net tow.

22° 46.0854, 157° 59.8819

16:47 End net tow.

22° 46.2873, 157° 59.8444

7:13 BOTTLE #5 FAILS VACUUM TEST  
 REPLACE TOP CAP O-RING.



HOT - 300

FEB 26, 2018

17:56 Begin station 2 cast 10 G1000 GPS.

com port error. Restarting proc resolved the problem.

19:12 END Station 2 cast 10.

19:15 Pump tanks.

20:35 Begin ATE ( $22^{\circ} 49.8996$   
 $158^{\circ} 01.9528$ )

20:43 Begin hand-held net tow

( $22^{\circ} 49.8996$   
 $158^{\circ} 01.9528$ )

21:00 ATE OUT OF WATER

21:05 End tow net.

$22^{\circ} 49.9373$   
 $158^{\circ} 01.9455$

21:15 Start station 2 cast 11 (G1000 GPS).

22:30 End Station 2 cast 11.

22:4x Start Net tow.

$22^{\circ} 49.9556$   $158^{\circ} 01.9180$

The image shows a page from a ledger or account book. At the top left, the number '24' is printed. The page is filled with a grid of horizontal and vertical lines, creating a table structure. The table has approximately 25 columns and 30 rows. The first column is the narrowest, followed by a slightly wider column, and then several wider columns. The table is mostly empty, with only a few faint marks or characters visible in the lower right area.



HOT-300

Feb 26, 2018

23:16 END Net Tow

22° 49.7732

154° 01.5005

23:21 Begin Net tow.

22° 49.7710

158° 01.4905

23:48 End Net Tow.

22° 49.6177 ; 158° 01.1865

23:56 Begin station 2 cast 12 (ATP)  
G 1000 GPS.

01:15 End Station 2 Cast 12. 17 Marks OK.

01:30 Start of Net Tow

02:02 End of Net Tow

22° 49.675'N 158° 1.167'W

02:43 Begin Station 2 Cast 13 - G1000 GPS

03:59 End Station 2 Cast 13. 23 Marks OK.

04:02 Transit to pump tanks.

05:55 Begin Station 2 Cast 14. G1000 GPS



HOT-300

27 Feb. 2018

- 07:21 End Station 2 Cast 14. 14 Marks OK.
- 08:31 Begin Station 2 Cast 15 - G5000 GPS.
- 08:42 Recover CTD - caps left on, pinger left off
- 08:52 Re-deploy CTD.
- 09:30 Snap landing thru 200 m. Tension drops to negative values, 5 mpm.
- 09:32 Captain aborted the cast, 525 dbar max. Hauling in.
- 09:47 Module error @ 190 m, pumps remained on.
- 10:00 End Station 2 Cast 15. No bottles fired.

18:56 Begin station 52 cast 1. (yoyo  
G200 GPS)

Negative tensions.

cycle 1: 18:59:00 - 19:23:00 (~3 m off surface)

cycle 2: 19:23:00 - 19:53:40 (~6 m off surface)

cycle 3: 19:53:40 - 20:18:20 (~5 m off surface)

cycle 4: 20:18:20 - 20:40:10 (~4 m off surface)

cycle 5: 20:40:10 - 21:11:00



HOT-300

27 Feb 2018

21:11 End station 52 cast 1. G200 GPS  
(yoyo).

22:20 Begin hand held Net tow  
22° 41.6655'N 157° 59.5331'W

22:48 End net tow  
22° 41.6652'N 157° 59.5331'W

23:27 WHOTS Buoy Inspection

23:28 Transit to Kaena Point station

TRANSMISSOMETER CAL

LIGHT = 4.89621 VDC

DARK = .04029 VDC

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04:22 Bypassing Kaena; winds > 30 kts, SSH  
+10 ft.

04:23 Transit to HNL Harbor.

18:00 Arrive @ pier 35.