

DAILY LOG

CRUISE
NUMBER

2000 - 20
22
23

INSTITUTE OF OCEAN SCIENCES

OCEAN SCIENCES AND PRODUCTIVITY DIVISION

DATE

5 JULY - 12 JULY

VESSEL

CCGS "SIR WILFRID LAURIER"

PROJECT

Captain: JOHN ANDERSON First Officer: MIKE MC CULLOUGH

Second Officer: PETER VISSER Third Officer: STEVE KENNEDY

Mission Participants / Agencies: IOS/DFO - U.TENNESSEE/NSF

Scientific Personnel: _____
Party Chief: BON VANDENBERG

Name	Watch	Cabin
BOB NAWHARDENBERG		524
JANE FEET		510
HOLLY KELLY		514
ARIANNE BALSON		539
JACKIE CLEMENT		512
JACKIE GREBETER		411
LEE COOPER		411
STEVE GAURIN		615
VINCE KELLY		617
MARK TREVORROW (ACOUSTIC)		614
KEN MORGAN (BIRD/HARTAL)		614

Second leg of Mission: Party Chief: _____

Name	Watch	Cabin	Name	Watch	Cabin
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[illegible]

Data logging computer: AIR-486 for GILDLINSE, SPIRIT 486 for SE-19 CAROUSEL

Data acquisition program: CTD' EXE

CTD deck unit make: GUILD model: 87107 serial number: 50E 33
SEABIRD

Primary CTD

Make: CALIFORNIA model: 488 serial number: 43825

Primary temperature sensor serial number: _____ Calibration date: _____

Primary conductivity sensor serial number: _____ Calibration date: _____

Secondary temperature sensor serial number: _____ Calibration date: _____

Secondary conductivity sensor serial number: _____ Calibration date: _____

Other sensors: _____

s/n: _____

Other sensors:		
s/n:		

Other sensors:	s/n:
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Other sensors: _____ s/n: _____

Secondary CTD

Make: _____ model: _____ serial number: _____

Primary temperature sensor serial number: _____ Calibration date: _____

Primary conductivity sensor serial number: _____ Calibration date: _____

Secondary temperature sensor serial number: _____ Calibration date: _____

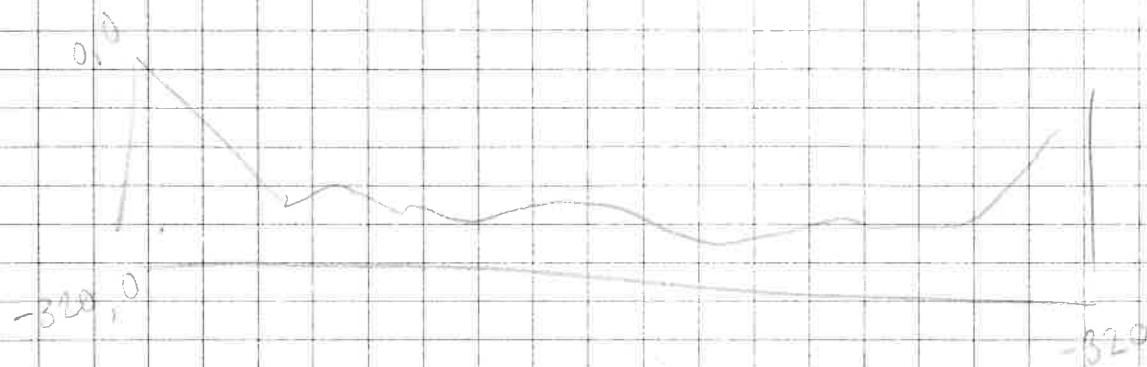
Secondary conductivity sensor serial number: _____ Calibration date: _____

Other sensors: _____ s/n: _____

Other sensors:	s/n:
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Other sensors:	s/n:

Comments: _____



Leg 3 cruise ID 2022. UTC = Time - 6.

DAILY LOG

Ocean Sciences and Productivity Division

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Year 2000					Month Sept			Ship Laurier			Cruise I.D. 2022			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
02/09	TP-5	ROS	1630	UTC	096	68° 49.04N	108° 36.18 W		78.0	71.0	Yes	11 (test)		bottles # 11 & 6 leaking
02/09	TP-4	CTD	1716	UTC	097	68° 47.00N	108° 36.94W		122	107	Yes			bottles OK
02/09	TP-3	ROS	1807	UTC	098	68° 44.05N	108° 25.95W		130	121	Yes	11 (test)		Hit bottom
02/09	TP-2	CTD	2000	UTC	099	68° 41.01N	108° 20.86W		73	62	Yes			bottles OK
02/09	TP-1	CTD	2040	UTC	100	68° 39.02N	108° 17.03W		29	24	Yes			CTD
02	TP-1	ROS	2050	UTC	101	68° 39.02N	108° 17.03W		29	24	Yes	9		went down @ half-speed
03	EI-11	CTD	1340	UTC	102	67° 50.90N	111° 16.65W		83	75	Yes			interested in bottles only
03	EI-11	ROS	1350	UTC	103	67° 50.90N	111° 16.59W		84	80	Yes	11		CTD
03	EI-10	CTD	15:20	UTC	104	67° 52.10N	111° 19.05W		184	175	Yes			went down @ half speed
03	EI-09	ROS	15:45	UTC	105	67° 53.28N	111° 21.52W		392	380	yes	11		interested in bottles only.
03	EI-08	CTD	17:26	UTC	106	67° 58.32N	111° 19.58W		263	257	yes	11 (test)		bottles 6 & 11 still leaking.
03	EI-07	ROS	18:17	UTC	107	68° 03.22N	111° 17.86W		311	300	yes			# 9, 3, 11 = 8L
03	EI-07	ROS	19:40	UTC	108	68° 03.07N	111° 17.64W		311	30	yes	12		
03	EI-06	CTD	20:40	UTC	109	68° 08.63N	111° 15.80W		146	140	yes	10		special cast to 30m only
03	EI-05	ROS	21:51	UTC	110	68° 16.20	111° 12.85W		181	181	yes			tripped at 11m
03	EI-04	CTD	23:13	UTC	111	68° 18.79	111° 09.61W		252	246?	yes	11		Radio failed during cast
04	EI-03	ROS	00:25	UTC	112	68° 23.76	111° 03.31W		153	143	yes			Hit Bottom. *
04	EI-02	CTD	01:32	UTC	113	68° 26.34	110° 59.89		108	97	yes	10		
04	EI-01	ROS	02:10	UTC	114	68° 27.71	110° 57.79		54	46	yes			

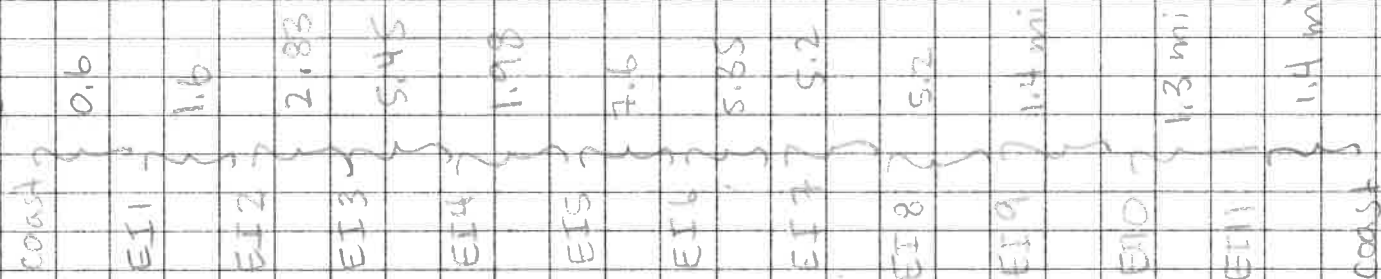
Cast type: BOT = otter cast
 CTD = CTD
 MOR = mooring
 ROS = Rosette
 NET = net haul
 DRF = drifter
 USW = sea water loop
 Time Code
 BE = beginning time of cast
 BO = bottom time of cast
 EN = end of cast time
 DE = deployment time
 MR = messenger release time
 RE = recover mooring time

116
112

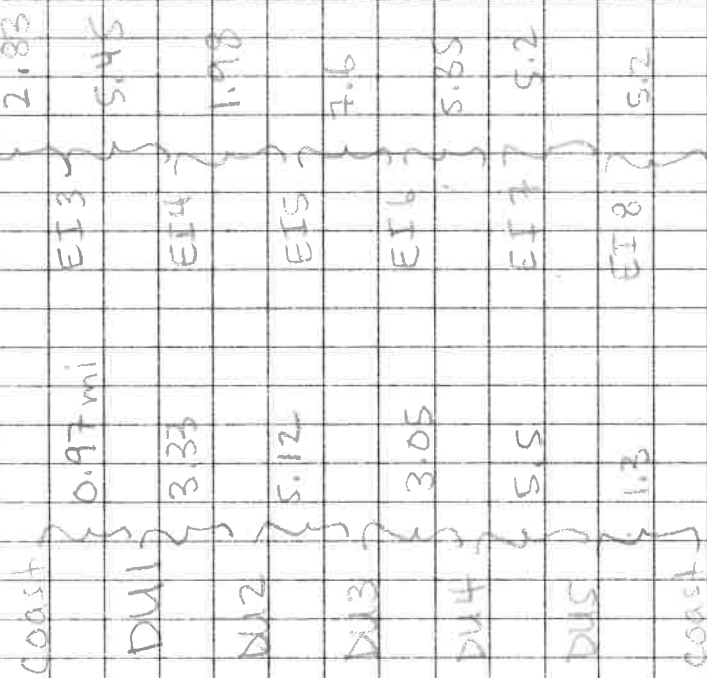
X.B

* Data looked OK on upcast

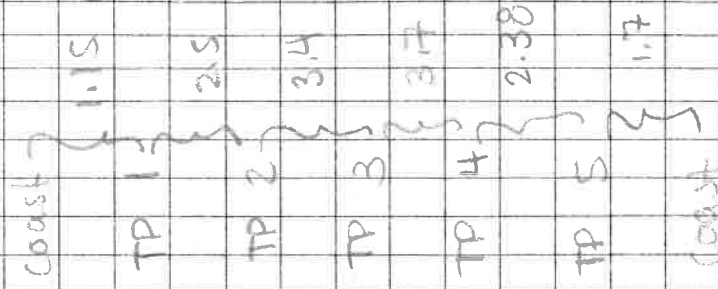
EI line



Du line



TP line



$$1 \text{ km} = 5/8 \text{ mi}$$

$$1852 \text{ m} = 1 \text{ n. mi}$$

D (C)

D C B

0.5-1.5

light
32° orange

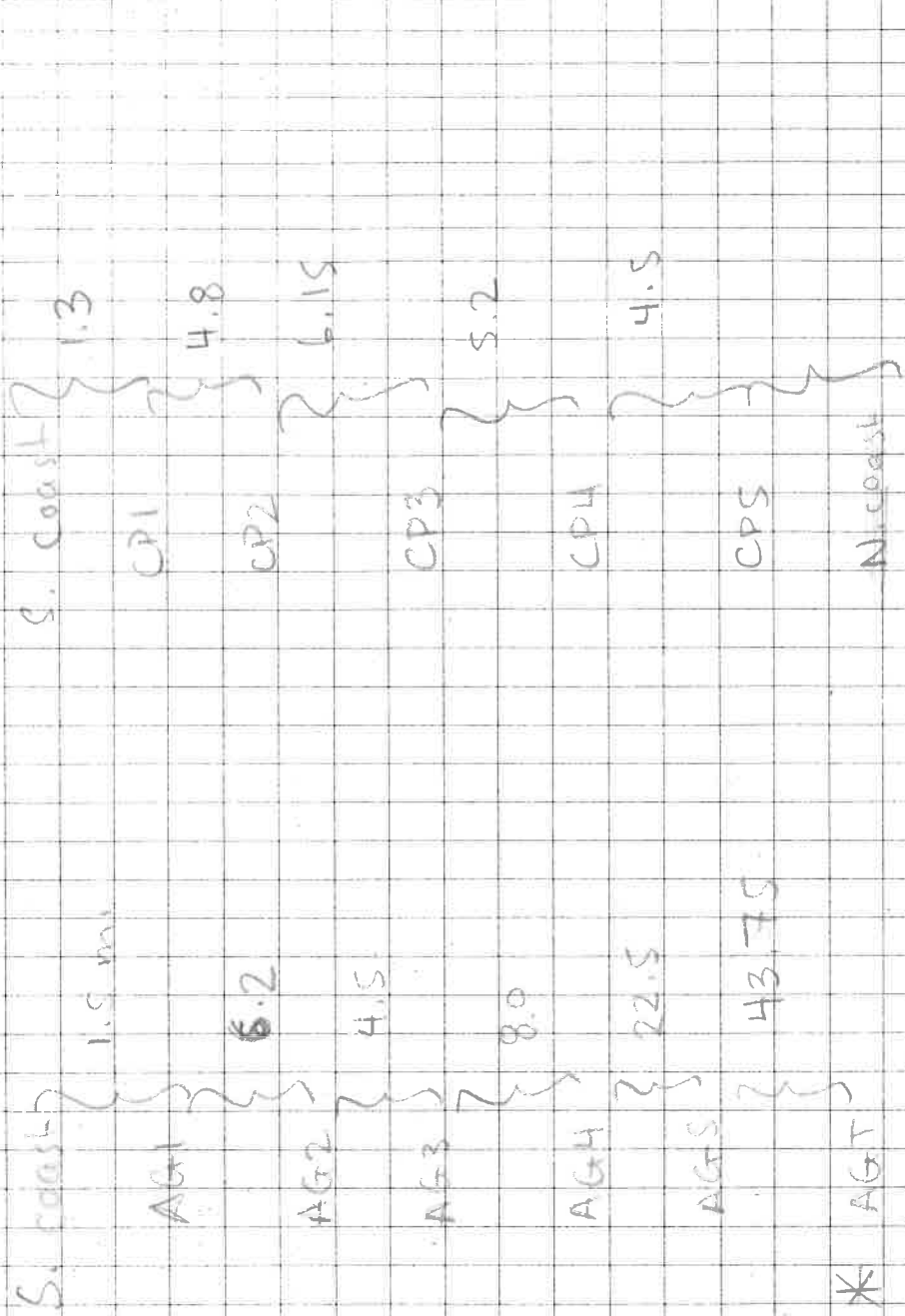
EI line

Distance 0 to 74 km South to N. E
Depth 0 to 370 B

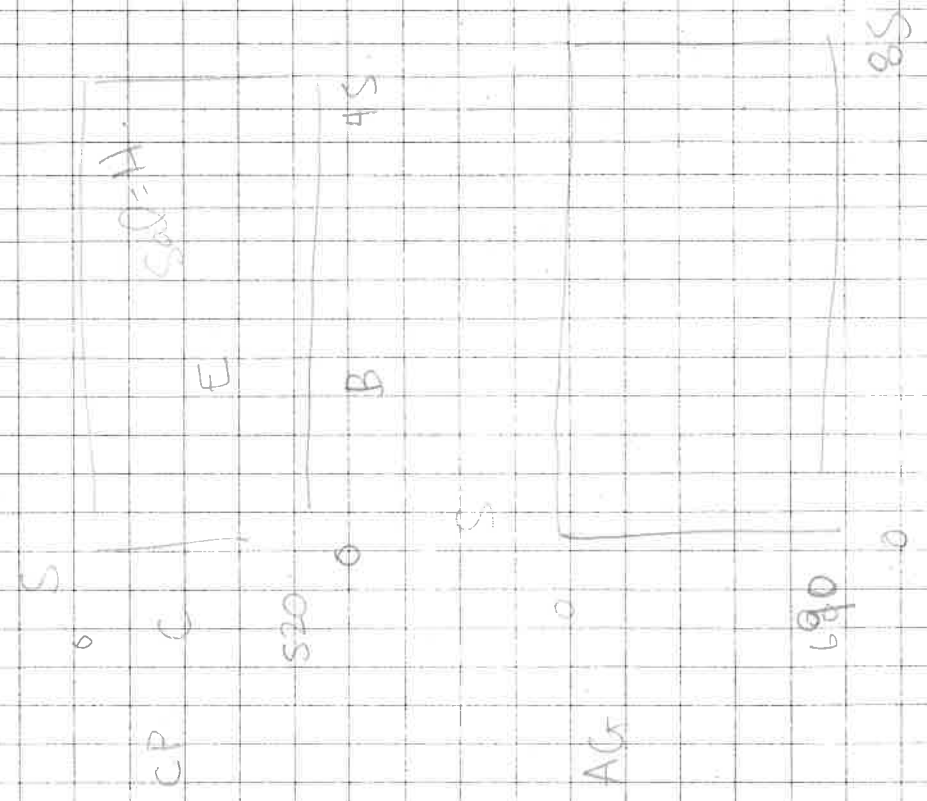
Du line

Distance 0 to 36 DC E
TP line C E B

Distance 0 to 28
0 to 30 B



* AGT



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Year <u>2000</u>					Month <u>September</u>			Ship <u>Laurier</u>			Cruise I.D. <u>2077</u>			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude (N)	Longitude (W)	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
04	DU-1	ROS	16:12	UTC	115	68 49.18	113 42.53		26	20	Yes	5		new radio system!
04	DU-2	CTD	16:59	UTC	116	68 47.32	113 50.45		48	40	Yes			
04	DU-3	ROS	18:17	UTC	117	68 45.43	114 03.66		49	42	Yes	8		SST: 4.26°C
04	DU-4	CTD	19:18	UTC	118	68 43.77	114 10.28		42	38	Yes			SST: 4.1°C
04	DU-5	ROS	20:13	UTC	119	68 42.68	114 25.14		29	23	Yes	5		SST: 4.2°C
05	DU-5	ROS	00:06	UTC	120	68 42.68	114 25.16		28	22	Yes	6		special cast
05	CP5	ROS	17:01	UTC	121	69 34.97	118 24.13		520	502	Yes	12		
05	CP4	CTD	18:50	UTC	122	69 31.04	118 30.23		447	437	Yes			
05	CP3	ROS	19:57	UTC	123	69 26.28	118 36.08		315	310	Yes	11		
05	CP2	CTD	21:46	UTC	124	69 21.04	118 43.01		165	158	Yes			
05	CP1	ROS	22:42	UTC	125	69 17.02	118 49.84		33	30	Yes			V _{main} = 11.9 (SBE)
06	Test-J	CTD	04:24	UTC	126	69 41.18	118 53.83		412	402	Yes			Gld seems to be behaving better
07	AG-5	ROS	14:13	UTC	127	70 32.97	122 55.55		672	452	Yes	12		special cast
07	AG-5	ROS	15:17	UTC	128	70 32.68	122 55.25		666	600	Yes	12		
07	AG-1	ROS	21:54	UTC	129	69 52.24	122 56.45		51	48	Yes	8		
07	AG-2	CTD	23:40	UTC	130	69 58.30	122 56.61		212	206	Yes			
08	AG-3	ROS	00:36	UTC	131	70 02.43	122 56.32		294	287	Yes	12		Hit Bottom
08	AG-4	CTD	02:52	UTC	132	70 10.81	122 56.44		404	396	Yes			
08	AG-5	ROS	14:01	UTC	133	70 33.26	122 54.22		672	70	Yes	12		special cast

Cast type:

BOT = otter cast
CTD = CTD
MOR = mooring

ROS = Rosette
NET = net haul
DRF = drifter

USW = sea water loop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end of cast time

DE = deployment time
MR = messenger release time
RE = recover mooring time

SST 3.70

1.6

284

2.89

17

B

C

7:30

see note on next page

Julie B.

Casts 121-125

Problems noted with Guildline data

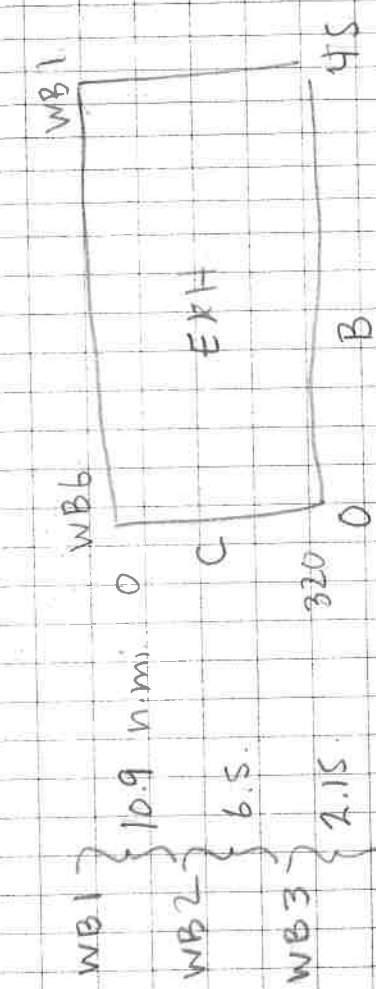
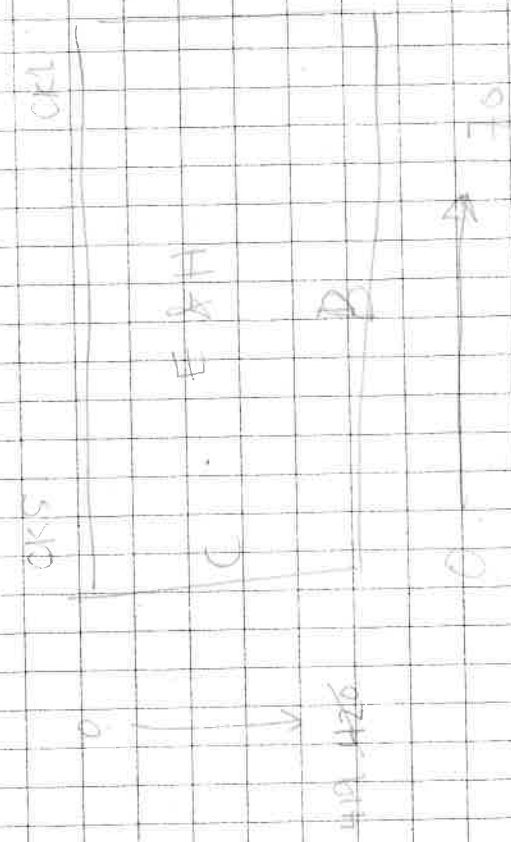
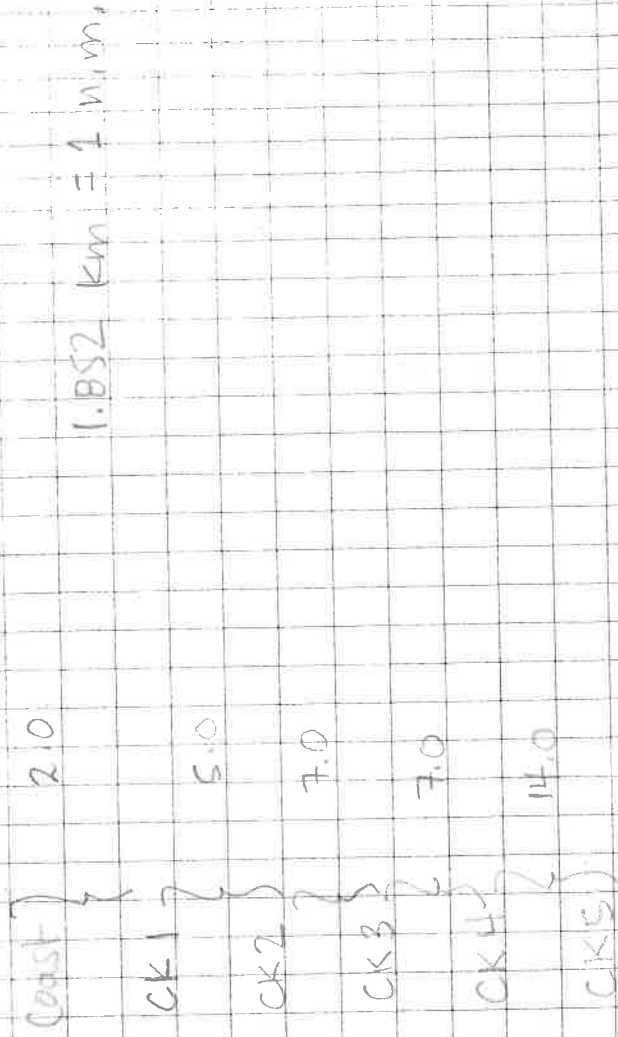
- Recorded colder temperatures than SBE (0.2°C colder @ 500m).
- Data from the Guildline's upcast and downcast are offset from each other

What we did to try to fix:

- Gave the Gld more warm-up time on deck and in water
(it was much colder on the 5th than the previous days)
- Darren checked & cleaned all connectors. The main communications connector was particularly green & scummy
- Performed a deep (400m) test cast (Stn Test-J, cast 126)
Data looked much better. Temperatures $>0^{\circ}\text{C}$ recorded @ 400m ... makes more sense.
Good overlap with SBE data

JB.

CK line



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Year 2000					Month 09			Ship <i>Laurier</i>			Cruise I.D. 2022			
Day	Station I.D.	Cast Type	Time (UTC)	Time Code	Consec. Number	Latitude	Longitude	Position Code	Bottom Depth	Max Depth	Consec Sample #	# of Bottles	initials	Comments
09	AGT	ROS	03:28	UTC	134	70 47.93	125 00.22 W		319	310	yes	12		
09	LW1	ROS	17:60	UTC	135	72 23.96	129 30.76		450	443	yes	12		special cast water for Llyd
09	LW2	CTD	20:03	UTC	136	72 24.49	129 40.72		596	590	yes			
10	LW3	ROS	22:18	UTC	137	72 33.28	130 17.57		1212	600	yes	12		special cast (water for Llyd)
12	CK5	ROS	16:53	UTC	138	71 56.50	127 44.99		419	413	yes	12		① (see next page)
12	CK5	ROS	17:54	UTC	139	71 56.52	127 45.04		429	47	yes	12		special cast (water for Llyd)
12	CK4	CTD	19:18	UTC	140	71 56.50	126 59.94		360	350	yes			②
12	CK3	ROS	20:13	UTC	141	71 56.50	126 39.00		190	180	yes	10		③
12	CK2	CTD	22:16	UTC	142	71 56.54	126 16.05		52	47	yes			
12	CK1	ROS	22:52	UTC	143	71 56.51	125 59.89		25	22	yes	5		New Batteries in Seabird 12.7 VDC
13	AGT2	ROS	21:15	UTC	144	71 33.87	130 35.22		269	260	yes	10		④
13	AGT2	ROS	22:18	UTC	145	71 33.48	130 35.13		258	43	yes	6		⑤ special cast water for Llyd.
14	AGT3	ROS	05:05	UTC	146	71 17.86	126 29.78		460	446	yes	12		bottle 11 got stuck (didn't trip)
14	WB1	ROS	13:01	UTC	147	70 33.54	126 26.05		320	310	yes	12		
14	WB2	CTD	14:43	UTC	148	70 28.63	126 56.00		284	274	yes			
14	WB3	ROS	15:41	UTC	149	70 25.83	127 12.54		195	187	yes	12		bottle spigots not closed lost all water
14	WB3	ROS	16:05	UTC	150	70 25.85	127 12.46		193	189	yes	12		retake of cast 149
14	WB4	CTD	17:05	UTC	151	70 24.44	127 18.34		58	53	yes			
14	WB5	ROS	17:32	UTC	152	70 23.98	127 22.46		34	30	yes	6		transmissivity goes down to -10%!!!

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Is it our offset's fault?

transmissometer Problems.

① * After cast 138, we put another tie strap on the transmissometer (we think it might be moving on the way down) ... will see if this takes some of the noise off the data.

JB.

② ** % trans (on deck): 63% (use to be ~81-86%)

③ *** % trans (on deck): 150% ... think the big Y splice under the GLD is leaking...

Sept 12/13 - cascade of problems: GLD and SBE both not acquiring

figured out that: - some connectors were leaky

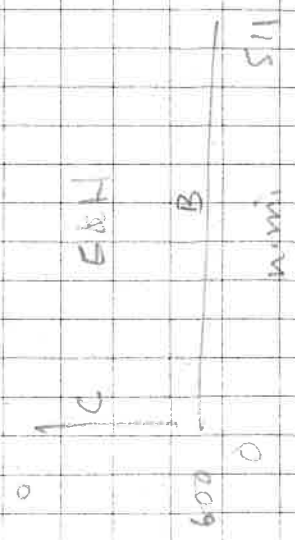
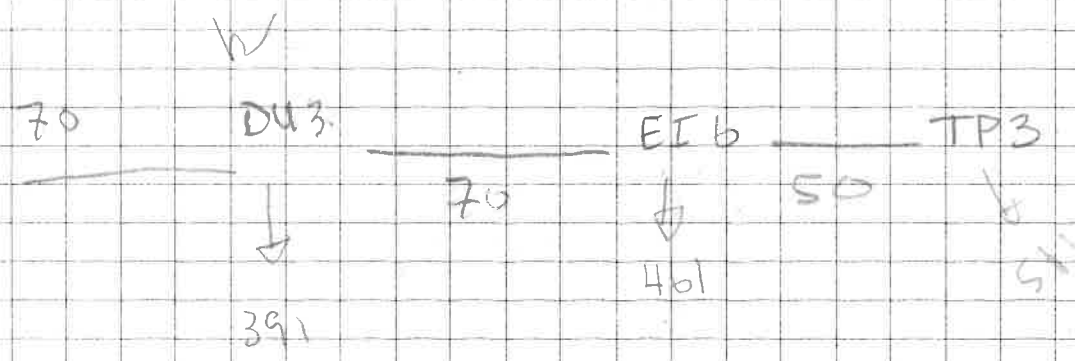
- the main power + signal Y-splice to the SBE & GLD was wet (on the SBE side)
- the winch cable fuse on the SBE deck unit had blown
- one of the connectors in the SBE deck unit was loose

④ in GLD software, new trans slope = -2.31422, offset = 100 (after calling J. Love)

- ⑤
- SBE deck unit blew a fuse on the upcast ~5m
 - Deck team forgot to take plug off GLD conductivity cell → bad conductivity data
 - blown fuse due to arcing between SBE pins at connector before Y-splice (smell's bad!)
 - Darren cleaned and spliced connector. Hopefully that will solve forever.

115
38.5
152.5

Distance = 283



110
38.5
148.5

148.5
38
186.5

123.5
36
219.5
30
250.5

183
38
321
40

391
80
471

441
70
511

391
70
461

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[illegible]

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