CRUISE NUMBER 9618

DAILY LOG

INSTITUTE OF OCEAN SCIENCES

OCEAN PHYSICS

DATE Aug 12 - Sep 6, 1986

VESSEL John P. Tully

PROJECT Line P - Station P

96-18

Captain: JOHN ANDERSON First Officer: George

Second Officer: Third Officer:

Cruise Participants / Agencies: DFO(IOS), UBC, UVic, MemU., McGill U, Rimouski U

Scientific Personnel: Party Chief: FRANK WHITNEY — A

Name	Watch	Cabin	Name	Watch	Cabin
TIM SOUTAR	8-12	1	MAUREEN SOON	—	H
RON BELLEGAY	4-8	5	DELPHINE THIBAULT	—	G
DOUG ANDERSON	12-4	C	KEN CROCKER	—	E
WENDY RICHARDSON	—	G	PAUL MATTHEWS	—	Above
EDMAND FOK	4-8	C	JULIE GRANGER	—	F
MICHAEL BENTLEY	8-12	D	MAITE MALDONADO	—	F
HUGH MACKAY	12-4	7			
Phillip Boyd	—	D			
NELSON SHERRY	—	E			
Robert GOLDBLATT	—	H			

Second leg of cruise: Party Chief:

Name	Watch	Cabin	Name	Watch	Cabin

Data logging system: Unit no.:

Program Name: Program version:

CTD deck unit make: GUILDLINE model: 87107 | 87108 serial no.: 57160

Computer make: | DELL 433DE model: serial no.: | 12TX5

1st CTD make: GUILDLINE model: serial no.:

Temperature sensor model: serial no.:

coefficients: slope: offset:

Conductivity sensor model: serial no.:

coefficients: slope: offset:

Pressure sensor range: psi serial no.:

coefficients: FSP: dB offset:

Transmissometer model: serial no.:

coefficients: slope: offset:

Comments:

2nd CTD make: GUILDLINE model: "WOCE" serial no.:

Temperature sensor model: serial no.:

coefficients: slope: offset:

Conductivity sensor model: serial no.:

coefficients: slope: offset:

Pressure sensor range: psi serial no.:

coefficients: FSP: dB offset:

Transmissometer model: serial no.:

coefficients: slope: offset:

Winches:

1. make: SWANN model: 329 serial no.: 1307 use: CTD/ROS
2. make: " model: 329 serial no.: 1482 use: Spare CTD
3. make: " model: 320 serial no.: 1207 use: WORK (BARE DRUM)
4. make: " model: 455 serial no.: 1451 use: Spooling
5. make: " model: serial no.: use: Hydro
6. make: model: serial no.: use:
7. make: model: serial no.: use:

Salinometer: make: GUILDLINE model: PORTASAL serial no.: 59724

SAIL System:

Program version: Time zone:

Sampling interval: sec

CTF module no.: serial no.:

Remote temperature model: serial no.:

Flow sensor model: serial no.:

Other sensors: (special for this cruise)

Name: module ID: serial no.:

Name: module ID: serial no.:

Name: module ID: serial no.:

Comments:

ADCP Setup:

Program version: number of depth bins:

Time zone: bin length (2x):

Sampling interval: sec pulse length:

Blank beyond transmit: pings per ensemble:

Pulse cycle time:

% pings good threshold:

Comments:

Oxygen Data

files 96180002. .001 .721 ✓
19 .001 .721 × last value ✓
40 .001 .721 × last O_2
66 .001 .721 1500 O_2 no good. plot O_2 last O_2?
86 .001 .721 last O_2? ✓
130 .002 .720 2750 ~~O_2 and sat?~~

files 96180021.OXY were done for biological uptake of oxygen and are not to be
48 included in data set.
68
95
132

96180001.CAL cal file SAIL 16:24 4 227 14 Aug
29:09:13 4 Sept
.CHK

Secondary time Salinity
primary Julian-day Temperature
Salinity
Temperature

96180COMP.CHK

Temp correction -.0034
Salinity correction .2577 for all data (poor fit)
Julian 228 to 236 $y = .0185x - 4.0686$
236 to end .2744

14 Aug (UTC) Rosette cast at S3 Saanich Inlet to 220 db
Bullister + student collected CFCs + methalides

1900-2100 Pump system test (U. Vic).

DAILY LOG — OCEAN PHYSICS — INSTITUTE OF OCEAN SCIENCES

YEAR 1996 | MONTH Aug | SHIP Tully | CRUISE 9618 | PAGE 1 OF

DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
14	S3	ROS	1756	BE	001	48 35.56	123 30.06	GPS						-error in woce system M17, calib file c:\woce\all\param\woce_cal.txt error file in woce_cal.err
	↓	ROS		BO	001					223 db				
		ROS		BE	002						1-22	22		H_2S 210, 190→160
14	↓	ROS	1832	EN	002	48 35.64	123 30.25	GPS						not at 220 or ?200
	JF01	LOOP					123 30.0							-Fixed woce_cal.txt by D. Anderson
15	JF02	LOOP	0940			48 17.98	123 59.96	GPS						JF02 LOOP SAMPLES
15	JF03	LOOP	0637			48 26.89	124 29.97	GPS						JF03 LOOP SAMPLES
15	JF04	LOOP	0849	LOOPS		48 32.332	125 00.859	GPS						JF04 LOOPS
15	P1	CTD	1134	BE	004	48 34.30	125 30.32	GPS		134			12.460	-probe wasn't on consec#003
15	P1	CTD	1137	BO	004	48 34.27	125 30.37	GPS						-CTD hit bottom @108
15	P1	CTD	1137	BE	005	48 34.27	125 30.37	GPS						-LOOPS
15	P1	CTD	1145	EN	005	48 34.25	125 30.53	GPS					12.122	CTD, LOOPS
15	P2	CTD	1342	BE	006	48 36.10	126 0.02	GPS		115				
15	P2	CTD	1345	BO	006	48 36.13	126 0.08	GPS						
15	P2	CTD	1345	BE	007	48 36.14	126 0.09	GPS						
15	P2	CTD	1347	EN	007	48 36.18	126 0.05	GPS		115				
15	P3	CTD	1527	BE	008	48 37.40	126 20.05						13578	CTD TO BOT. 800M.
15	P3	CTD	1543	BO	008	48 37.23	126 19.98							

CAST TYPE - BOT - bottle cast; CTD - ctd; MOR - mooring; ROS - rosette; NET - net haul; DRF - drifter; USW - sea water loop

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POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

15 Aug 1800 7 FD* traps deployed, 3 for Rim/MUN (100, 210 + 310m) + 4 for 105
NaN_3/NaCl added to all cylinders (6g each) + dye to 105 traps.

Doug A's first solo cast

Digital thermometers used on #10

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
15	P3	CTD	1543	BE	009	48 37.25	126 19.97	GPS	~820	799 db		—		LOOP SAMPLES
15	P3	CTD	1557	EN	009	48 36.96	126 19.90							TAKEN
15	P4	DRF	1818	BE	—	48 35.696	126 39.470	GPS	1352	300 m	—	7 traps		FD* deployed SSJ P4
15	P4	CTD	1916	BE	010	48 39.049	126 40.084	GPS	1316	(Btm -20)			14589	
15	P4	CTD	1935	BO	010	48 39 022	126 40 048	GPS		(Btm -20)	—			
15	P4	CTD	1937	BE	011	48 39 022	126 40 056	GPS						
15	P4	CTD	1952	EN	011	48 39 081	126 39 946							
15	P4	ROS	2026	BE	012	48 39 019	126 40 088		1314	400	23-42	20	14603	
15	P4	ROS	2034	BO	012	48 39 085	126 40 00							
15	P4	LOOP	19:30	BE	LOOP	48 38 966	126 40 . 110	GPS	1					
15	P4	ROS	20:30	DE	013	48 39 080	126 39 988							
15	P4	ROS	20:45	EN	013	48 39 033	126 40 372	GPS						
15	P4	ROS	23:19	BE	014	48 39.02	126 40 38	GPS	1314	250	43-65	23		Maureen's Cast
15	P4	ROS	23:26	BO	014	48 38.97	126 40 39							- radio not working properly
15	P4	ROS	23:26	BE	015	48 38.97	126 40.39							- down to 289 fm wire out
15	P4	ROS	23:58	EN	015	48 39.00	126 40.22	GPS		250				- salinity not working - keeps bottom
16	P4	ROS	01:14	BE	016	48 39.31	126 39.38	GPS	1304	100	66-78			DELPHINE CAST
16	P4	ROS	01:13	BO	016	48 39 31	126 39 .35	GPS						

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16 Aug 0220 U.Vic pump cast underway.

~1000 utc Successful pumpcast @ P04.

~1400 crane hit frame, hyro-fluid on rosette with bottles 14 to 23 open

~1500 rosette cleaned with detergent + water.

1500 utc (0800 PDT) JGOFS sampling - light + Go-flos + nets

Cast 19 STOPPED AT 200M for a short time to grease winch
TRIGGER NOT CONFIRMED AT 25M #13
2 Bottles tripped at 25M → #13/#14

17 Aug 1343 GO-FLO - 30L done

1430 utc Left P4 to recover FDA.

1530 Recovery of FDA - 1 lid open on 100m trap as broke surface.

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
16	P4	ROS	1:13	BE	017	48 39.31	126 39.35	GPS	1304	100				Delphin cast
16	P4	ROS	1:21	EN	017	48 39.39	126 39.16	GPS		100				Delphin Cast
16	P4	ROS	20:16	BE	018	48 39010	126 40 066	GPS	1316					
16	P4	ROS	20:35	BO	018	48 39019	126 39 964							
16	P4	ROS	20:55	BE	019	48 39.03	126 39 97			1300	79-94	16		
16	P4	ROS	21:14	EN	019	48 39.03	126 39.30							
17	P4	NET	00:05	BE		48 38.439	126 40 140	GPS		250				Begin Tucker Trawl
17	P4	NET	00:50	EN										End " "
17	P4	NET	09:21	BE		48 39 11	126 40 26			250				Tucker Trawl
17	P4		10:20	EN										Tucker on deck.
17	P4	ROS	14:00	BE	020	48 38.75	126 39.58	GPS	1323	300				Nelson cast
17	P4	ROS	14:05	BO	020	48 38.77	126 39.49	GPS						
17	P4	ROS	14:06	BE	021	48 38.76	126 39.44	GPS			95-108	14		
17	P4	ROS	14:24	EN	021	48 38.83	126 39.04	GPS						
17	P4	DRF	1530	EN	—	48 30.49	126 33.52	GPS	1550					Recover FD~~R~~, traps closed
17	P5	CTD	19:28	BE	22	48 41.462	127 09 980	GPS	2087	2050			15.373	Header reads cast 18.
17	P5	CTD	19:52	BO	22	48 41.557	127 09919	GPS						
17	P5	CTD	19:54	BE	23	48 41.552	127 09 880	GPS						Header reads cast 24

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
17	P5	CTD	20:18	EN	23	48 41.587	127 09 832	GPS						
17	P5	LOOP	19:47	BE	LOOP	48 41.560	127 09.924	GPS						LOOPS TAKEN
17	P6	CTD	23:22	BE	24	48 44.56	127 40.15	GPS	2567	(6 1/4 - 20) 2520			15.142	LOOPS TAKEN.
17	P6	CTD	23:58	BO	24	48.44.41	127 40.23	GPS						
17	P6	CTD	23:59	BE	25	48.44 41	127.40.23	GPS						
18	P6	CTD	00:25	EN	25	48.44.41	127 40.35	GPS						
18	P7	CTD	02:04	BE	26	48 46.53	128 10.17	GPS	2504	2480			15.495	LOOPS TAKEN
18	P7	CTD	03:18	BO	26	48 46.47	128 10.13	GPS						
18	P7	CTD	03:18	BE	27	48 46.47	128 10.128	GPS						
18	P7	CTD	03:47	EN	27	48 46.45	128 10.132	GPS						
18	P8	CTD	0630	BE	28	48 49.04	128 40.04	GPS					16.254	LOOPS TAKEN.
18	P8	CTD	0704	BO	28	48 48.95	128 40.27	GPS.						
18	P8	CTD	0704	BE	29	48 48.95	128 40.27	GPS						
18	P8	CTD	0733	EN	29.	49 49.002	128 40.434	GPS.						
18	P9	CTD	9:45	BE	30	48 51 296	129 10.145	GPS	2365	2340			16.117	LOOPS TAKEN
18	P9	CTD	10:18	BO	30	48 51 411	129 10 395	GPS						
18	P9	CTD	10:19	BE	31	48 51 413	129 10 398	GPS						
18	P9	CTD	10:43	EN	31	48 51 421	129 10 590	GPS						

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18 Aug

Extra 15:30 PST ED & T/M trip to figure out how "raw sail" works (1 hr). Found - "rawsail" expected "cruise id + consec. #" which is different than the original file names - SAIL SYSTEM does not set up properly, won't log "1801" data.

19 Aug 0600 UTC In midst of pump sampling at P12

Sounder doesn't read below 3000 m, no fluorescence being logged on SAIL.

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
18	P10	CTD	13:03	BE	33	48 53.59	129 40.27		2642	2622		16	076	Stop Cast #32 - too windy, wire angle. - files removed - restart as #33
18	P10	CTD	13:40	BO	33	48 53.58	129 40.35							
18	P10	CTD	13:40	BE	34	48 53.58	129 40.35							Loops taken.
18	P10	CTD	14:13	EN	34	48 53.55	129 40.22							
18	P11	CTD	1623	BE	35	48 55.95	130 10.13	GPS	2753	2740		16	121	LOOPS TAKEN.
18	P11	CTD	1700	BO	35	48 55.85	130 10.04	GPS						
18	P11	CTD	1700	BE	36	48 55.85	130 10.04	GPS						spooled out briefly ~600 m
18	P11	CTD	1738	EN	36	48 55.64	130 09.90	GPS						
18	P12	CTD	2010	BE	37	48 58.085	130 40.129		2888	2960			15977	
18	P12	CTD	2044	BO	37	48 58 021	130 40 188							
18	P12	CTD	2045	BE	38	48 58 019	130 40 187							LOOPS TAKEN
18	P12	CTD	21:21	EN	38	48 58 089	130 40. 320							
18	P12	ROS	23:13	BE	39	48 58.07	130 40.28	GPS	3019	3009			1640	bottle 17 didn't trip at
18	P12	ROS	23:57	BO	39	148 57.89	130 40.61	GPS						proper depth - see
18	P12	ROS	23:58	BE	40	48 57.89	130 40.61	GPS			109-129	21		rosette log.
19	P12	ROS	01:10	EN	40	48 57.56	130 41.22	GPS						
19	P12	ROS	1554	BE	41	48 58.20	130 40.10	GPS						100 m CAST TO
19	P12	ROS	1558	BO	41	48 58.19	130 40.09	GPS						GENERATE PROFILE FOR

CAST TYPE - BOT - bottle cast; CTD - ctd; MOR - mooring; ROS - rosette; NET - net haul; DRF - dritter; USW - sea water loop

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Aug 19/96 (Ed) (Extra) Fixed system. PS2. parallel port. took the system down & connect parallel port finally — 1½ hrs

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
19	P12	ROS	1554	BE	42	48 56.19	130 40.09	GPS						
19	P12	ROS	1604	EN	42	48 58.17	130 40.07	GPS						
19	P12	ROS	1934	BE	43	48 58.153	130 40.002	GPS		400				
19	P12	ROS	1943	BO	43	48 58 14	130 39.86	GPS						TRIGGER NOT CONFIRMED
19	P12	ROS	1944	BE	44	48 58 149	130 39 842	GPS			130-147	18		AT 250M, BUT THE CORRECT AMMOUNT OF
19	P12	ROS	2003	EN	44	48 58 121	130 39 785	GPS						BOTTLES WERE TRIPPED
19	P12	ROS	2113	BE	45	48 58 090	130 40 031	GPS						MAUREEN'S CAST
19	P12	ROS	2116	BO	45	48 58 082	130 40 028	GPS		200				
19	P12	ROS	2117	BE	46	48 58 078	130 40 020	GPS			148-170	23		
19	P12	ROS	21:34	EN	46	48 58 054	130 40 040	GPS						
20	P12	ROS	02:13	BE	47	48 58 03	130 40 05	GPS						Nelson's cast
20	P12	ROS	02:18	BO	47	48 58 14	130 40 11	GPS						
20	P12	ROS	02:18	BE	48	48 58 14	130 40 11	GPS				14		
20	P12	ROS	02:36	EN	48	48 58 16	130 40 09	GPS						
20	P12	Net	10:30	BE		48 58 26	130 38 96	GPS						Tucker Trawl
20	P12	Net	10:55	EN										Tucker Trawl onboard.
			11:00		Heading to station P13									
20	P13	RTD	1521	BE	49	49 02.53	131 39.90	GPS	2970?				15427	LOOPS TAKEN

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
20	P13	CTD	1601	BO	49	4902.22	131 39.55	GPS						SOUNDER SHOWS UNCERTAIN BOTTOM
20	P13	CTD	1601	BE	50	4902.22	131 39.55	GPS	2870	2867				
20	P13	CTD	1631	BN	50	4902.02	131 39.42	GPS						
20	P14	CTD	2036	BE	51	4907.489	132 40010	GPS	3344	3000			15.391	SOUNDER ACTIVE
20	P14	CTD	2113	BO	51	49 07 559	132 39857	GPS						LOOPS TAKEN
20	P14	CTD	2114	BE	52	49 07 549	132 39 795	GPS						
20	P14	CTD	2145	EN	52	49 07 584	132 39 720	GPS						
21	P15	CTD	02:05	BE	53	49 11-89	133 39-97	GPS	3436	3000			15.473	LOOPS TAKEN
21	P15	CTD	02:35	BO	53	49 11 63	133 39 61	GPS						
21	P15	CTD	02:35	BE	54	49 11-63	133 39-60	GPS						
21	P15	CTD	03:05	EN	54	49 11-48	133 39-36	GPS						
			DEPART		70	SAN P16.	PST Aug 20	20:41						
21	P16	CTD	7:12	BE	55	49 17050	134 40.117	GPS	3659	3000			14.776	
21	P16	CTD	7:48	BO	55	49 17.089	134 39.960	GPS						
21	P16	CTD	7:49	BE	56	49 17 .079	134 39.931	GPS						
21	P16	CTD	8:19	EN	56	49 17 057	134 39 818	GPS						
						49 16.992	134 39 747							Loops Taken
21	P16	NET	11:30	BE		49 16 75	134 39 56	GPS		250				Tucker trawl

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Aug 21 12:30. PM.
NEIS — KEN.
GO-FLO — ?x
Winds to 25kt - Tucker transd broke.

* IN HEADER FILES CONS. # 63 = 62a
" " 64 = 62b

Aug 22 12:12. Fixed pumps.

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21	P16	NG	12:15	EN	—	—	GQUIPHENT CALIBRATED	—	TRAWL BAR	off on 40 m	—			
21	P16	CTD	13:28	BE	57	49 16.54	134 38.97	GPS	3662	100				- for Paul, down to 10m
21	P16	CTD	13:31	BO	57	49 16.47	134 38.94	GPS						- MUN
21	P16	CTD	13:31	BE	58	49 16.45	134 38.94	GPS						
21	P16	CTD	13:40	EN	58	49 16.26	134 38.86	GPS						
21	P16	ROS	1822	BE	59	49 16.76	134 40.09	GPS		600			14821	TRACE col damaged
21	P16	ROS	1836	BO	59	49 16.72	134 40.14	GPS						IOS
21	P16	ROS	1836	BE	60	49 16.72	134 40.09	GPS			148-166 130-147	19		"DMS" cast
21	P16	ROS	1902	EN	60	49 16.69	134 40.35							
21	P16	ROS	2016	BE	61	49 17.087	134 41.818	GPS	3662		200			Maureen's Cast
21	P16	ROS	20:20	BO	61	49 17.88	134 41.86							
21	P16	ROS	20:20	BE	62	49 17 083	134 41.885							
21	P16	ROS		EN	62									INTERRUPTED
21	P16	ROS	—	EN	63									NO DATA
21	P16	ROS	20 42	EN	64	49 17.14	134 42.20		?			sea over	←	LAST 1/2 of Maureen's cast UP EAST
22	P16	ROS	14.08	BE	65	49 16.873	134 40.939	GPS	3660					IOS
22	P16	ROS	1505	BO	65	49 17.20	134 40.51	GPS						
22	P16	ROS	1505	BE	66	49 17.20	134 40.51	GPS		3678	167-189	23		

CAST TYPE - BOT - bottle 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; DE - deployment time; MR - messenger release; RE - recover mooring

POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

DAILY LOG

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
22	P16	ROS	1625	EN	66	49 17.45	134 39.75	GPS						
22	P16	ROS		BE	67			GPS	—	—	file is stopped (no CTD data)			COND. CELL CAPS LEFT ON RESTART
22	P16	ROS	18:50 19:13	BO EN	68	49 16.92 49 16.76	134 39.82 134 39.75	GPS	—		74 O2 samples.	15		CAST TO 300m FOR NERSON LOOPS
22	P16.5	LOOPS	2142	LOOP	—	49 19 148	135 11 880	GPS						
22	P17	ROS	23:49	BE	69	49 20 90	135 4025	GPS	3560	200			14.838	IOS
22	P17	ROS	23:53	BO	69	49 20 90	135 40 26	GPS						
22	P17	ROS	23:53	BE	70	49 20 89	135 4026	GPS			190-195	6		
23	P17	ROS	00:05	EN	70.	49. 20 91	135 4034	GPS						
23	P17	CTD	00:23	BE	71	49 20 88	135 40 50	GPS	3560	3000			14.751	IOS.
23	P17	CTD	01:01	BO	71	49 20 79	135 40 87	GPS						Loops taken.
23	P17	CTD	01:02	BE	72	49 2079	135 40 87	GPS						
23	P17	CTD	01:51	EN	72.	49 20 81	135 41.10	GPS						
						DEPART TO P18								
23	P17.5	USW	0340	USW		49. 23.50	136 10.00	GPS						LOOPS TAKEN.
23	P18	CTD	0557	BE	73	49 26.00	136 40.08	GPS		2999			14.587	LOOPS TAKEN.
23	P18	CTD	0640	BO	73	49 26.09	136 40.25	GPS						
23	P18	CTD	0640	BE	74	49 26.09	136 40.25	GPS						
23	P18	CTD	07:13	EN	74	49 26.00	136 40.36	GPS						

CAST TYPE - BOT - bottle 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; DE - deployment time; MR - messenger release; RE - recover mooring

POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

suggestion: "Resume - key stroke" in CTD - Acquisition program.

- CTD DOWN cast 80: there are gaps in wire spooling system.
  up cast 81: up speed varies to fix wire spooling system.
  - stop @ 840 db to fix wire spooling system (about 2 min)
  - resume.

UTC (14:28) shot to T20.

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m) 1/16	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
23	P18	ROS	7:25	BE	75	49 26 072	136 40 172	GPS	3856	700			14.575	JOS
23	P18	ROS	7:28	BO	75	49 26 045	136 40 88	GPS						
23	P18	ROS	7:29	BE	76	49 26 044	136 40 89	GPS			196-201	6		
23	P18	ROS	7:40	EN	76	49 26 043	136 40 306	GPS						
23	MP 19.5	LOOP	0951	LOOP	-	49 27.983	137 09.961	GPS						LOOPS TAKEN
23	P19	ROS	12:06	BE	77	49 29.94	137 40.16	GPS	3951	200			14.225	- JOS
23	P19	ROS	12:10	BO	77	49 29.90	137 40.18	GPS						
23	P19	ROS	12:10	BE	78	49 29.90	137 40.18	GPS			202-207	6		-up-cast bot
23	P19	ROS	12 13	EN	78	49 29.88	137 40 18	GPS						wrong key in first sample
23	P19	ROS	12:B	BE	79	49 29.88	137 40 18	GPS						-2 up-cast bots 78+79
23	P19	ROS	12:22	EN	79	49 29.82	137 40.25	GPS						79 re-named to 78A
23	P19	CTD	12:58		80	49 29.60	137 40.66	GPS		3000				-LOOPS TAKEN
23	P19	CTD	13:39		80	49 29.43	137 41.23	GPS						- JOS
23	P19	CTD	1339		81	49 29.42	137 41 23	GPS						
23	P19	CTD	14:22		81	49 29.23	137 41.50	GPS						
23	P19.5	LOOP	16:11	LOOP	-	49 31.98	138 10.00	GPS						
23	P20	ROS	1618	BE	84	49 34.02	138 39 99	GPS		200	up + down		14.009	UBC SOON 200M
23	P20	ROS	1843	EN	84	49 33.92	138 39.81	GPS						

CAST TYPE - BOT - bottle 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; DE - deployment time; MR - messenger release; RE - recover mooring

POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

- GO-FLO done (HUN)

- NEIS done (UBC) (Tucker Trawl)

- NEIS done (HUN)

Aug 24 1730 WOCE CTD failed - wouldn't power up. Deck unit failure?

Change CTDs on Rosette - for one cast. Cable failed at termination - shorted from being bent too sharply. Doug reterminated the cable + remounted WOCE CTD on Rosette.

* Turning the probe on after each trip seems to introduce quite a bit of noise in the profile
* There is a gap in the data from about 400 - 380 and another from 5 to surface.

Aug 24 00:00 cable - WOCE failed.

Aug 25 N:0 pump done

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
23	P20	ROS	20:32	BE	85	49 34 077	138 39.992	GPS	3988	3960	208-230		14.098	105
23	P20	ROS	21:32	BO	85	4934 120	13839.715	GPS						
23	P20	ROS	21 33	BE	86	49 34 105	138 39 7.93	GPS			208-230	23		
23	P20	ROS	22:53	EN	86	49 33 913	138 39.717	GPS						LOOPS TAKEN
23	P20	CTD	23:12	BE	87	49 38 9 2	138 39 63	GPS	3989	3000				105
23	P20	CTD	23:47	BO	88	49 34 29	138 38 98	GPS						
23	P20	CTD	23:48	BE	89	49 34 29	138 38 97	GPS						
24	P20	CTD	00:25	EN	89	49 34 75	138 38 57	GPS						
24	P20	NET	09:00	BE		49 34 95	135 39 79	GPS		250				TUCKER TRAWL
24	P20	CTD	13:20	BE	90	49 35 18	138 40 40	GPS	3985	100				CTD for MUN (Paul/Ed)
24	P20	CTD	13:23	BO	90	49 35 19	138 40 29	GPS						100m
24	P20	CTD	13:23	BE	91	49 35 19	138 40 28	GPS						processed & printed
24	P20	CTD	13:25	EN	91	49 35 19	138 40 23	GPS						
24	P20	ROS	19:20	BE	92	49 34 114	138 40 13	GPS	3988					CTD PROBE ON ROSETTE
24	P20	ROS	19:30	BO	92	[illegible]		GPS						IOS DMS Gear
24	P20	ROS	19:31	BE	93	49 35.21	138 40.17	GPS		400	231-248	18		GAP IN DATA
24	P20	ROS	19:51	EN	93	49 33 82	138 40 21	GPS						
25	P20	ROS	11:32	BE	94	49 33 74	138 39.79	GPS	3988	300				Problem with rosette #8

CAST TYPE - BOT - bottle 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; DE - deployment time; MR - messenger release; RE - recover mooring

POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
25	P20	ROS	11:37	BO	94	49 33.70	138 39.71	GPS		300				- Nelson cherry casts
25	P20	ROS	11:38	BE	95	49 33.69	138 39.71	GPS				16		
25	P20	ROS	11:56	EN	95	49 33.75	138 39.40	GPS						Nisk1 didn't trip - properly
			12:08				DEPART TO STN 21							
25	P20.5		14:05	LOOPS		49 36.10	139 10.5							LOOPS
25	P21	ROS	1611	BE	96	49 37.96	139 40.07	GPS	3981				13.914	LOOPS TAKEN.
25	P21	ROS	1652	BO	96	49 38.38	139 40.03	GPS						
25	P21	ROS	1652	BE	97	49 38.38	139 40.03	GPS			249-254	6		
25	P21	ROS	1738	EN	97	49 38.51	139 39.97	GPS						
25	P22	ROS	22:06	BE	98	49 ~~40.00~~ 42.04	140 40.08	GPS	3959	3000	* Note: Day forgot to change station from MP21 to MP22.		13.685	LOOPS TAKEN
25	P22	ROS	22:45	BO	98	49 42.06	140 40.33	GPS						49 42.04
25	P22	ROS	22:46	BE	99	49 42.06	140 40.33	GPS						140 40.24
25	P22	ROS	23:34	EN	99	49 41.87	140 39.97	GPS			255-260	6.		
26	P22.5	LOOPS	01:39	EN		49 44.0	141 10.0							SAL, NU7, NU7, CHL
26	P23	ROS	0339	BE	100	49 45.88	141 40.09	GPS	4072	3001	261-266		13.459	LOOPS TAKEN
26	P23	ROS	0424	BO	100	49 45.86	141 40.36	GPS						
26	P23	ROS	0424	BE	101	49 45.86	141 40.36	GPS						
26	P23	ROS	0507	EN	101	49 46.17	141 40.28	GPS						

CAST TYPE - BOT - bottle cast; CTD - ctd; MOR - mooring; ROS - rosette; NET - net haul; DRF - drifter; USW - sea water loop

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POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

Aug 26 2215 UTC (1515 PDT) FDA deployment started at
50 00.088N 144 45.380W. Trap set at 1010, 310+190 for D. Thibault
+9 depths for 10S

2305 UTC 50 00.386N 144 45.844W FDA all in. Wire angles poor
for deployment of shallow traps.

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
26	P23½		8:10			49 42 49.0	142 10.0	GPS						LOOPS TAKEN
26	P24	ROS	9:15	BE	102	49 50.30	142 39.92	GPS	4000				14.095	LOOPS TAKEN
26	P24	ROS	10:00	BO	102	49 50.16	142 39.76	GPS		3000	"			
26	P24	ROS	10:01	BE	103	49 50.15	142 39.75	GPS			267-272	6		
26	P24	ROS	10:45	EN	103	49 49.0	142 39.47	GPS						
26	P24.5	USW	12:40			49 50.6	143 10.0	GPS						SAL, NUT, CHL
26	P25	ROS	14:39	BE	104	50 00.18	143 36.34	GPS	4160				13.464	LOOPS 14:45
26	P25	ROS	1520	BO	104	50 00.06	143 35.93	GPS		3001				50 0 21 143 36.23
26	P25	ROS	1520	BE	105	50 00.06	143 35.93	GPS			273-278	6		
26	P25	ROS	1601	EN	105	50 00.12	143 35.54	GPS						
26	P35	ROS/CTD	1837	BE	106	50.00.20	144 18.30	GPS		4169			13784	USING ROSSETTE BUT ONLY USING CTD DATA/NO SAMPLES.
26	P35	ROS/CTD	1929	BO	106	50.00.38	144 18.370	GPS						
26	P35	ROS/CTD	1930	BE	107	50.00.38	144 18.37	GPS						
26	P35		2007	EN	107	50 00.50	144 18.32	GPS						LOOPS TAKEN
26	FD4	MOR		DE	—				4220	1000 m	—			Free drifting traps ~10 Mi E of P26
27	P26	ROS	00:23	BE	108	50 0.80	145 0.28	GPS	4260	2000			13453	UBC - Maureen's cast
27	P26	ROS	00:51	BO	108	50 1.16	145 0.27							
27	P26	ROS	00:51	BE	109	50 1.17	145 0.28							

CAST TYPE - BOT - bottle cast; CTD - ctd; MOR - mooring; ROS - rosette; NET - net haul; DRF - drifter; USW - sea water loop

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POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

Aug 27 1415 UTC Mooring "AR" released near P26 (Welch's Acoustical Tags, Farmers acoustics + Boyds fluorometer/light instrument + S4 current meter)

2330 AR Mooring being deployed near P26

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
27	MP 26	ROS	0134	EN	109	50 01.39	145 0.26	GPS		2000 m				
27	MP 26	LOOPS	0046	LOOPS	—	50 01.036	145 00.288	GPS						LOOPS TAKEN
27	P26	ROS	1156	BE	110	49 59.65	145 0.09	GPS	4268	400		18		-1 up extra bottle at
27	P26	ROS	1202	BO	110	49 59.75	145 0.23	GPS						surface, total # of
27	P26	ROS	1203	BE	111	49 59.75	145 0.22	GPS			279-295	17		bottles tripped =19
27	P26	ROS	1232	EN	111	49 59.98	145 0.60	GPS						- on board, only 17
														bottles empty tripped
27	P26	CTD	1403	BE	112	50 2.44	144 57.17	GPS	4215	200				
27	P26	CTD	1408	BO	112	50 2.40	144 57.35	GPS						
27	P26	CTD	1408	BE	113	50 2.40	144 57.37	GPS						
27	P26	CTD	1414	EN	113	50 2.29	144 57.49	GPS						
27	P26	MOR	1415	RE	—	50 01.82	144 57.39	GPS						AR mooring released
27	P26	CTD	1747	BE	114	50 02.14	144 57.61	GPS						CAST AFTER
27	P26	CTD	1750	BO	114	50 02.05	144 57.60	GPS		150				MOORING RECOVERY.
27	P26	CTD	1750	BE	115	50 02.05	144 57.60	GPS						
27	P26	CTD	2026	EN	115	5002.47	145 1.63	GPS						
27	P26	CTD	2135	BE	116	5001.93	144 57.17	GPS						CAST BEFORE
27	P26	CTD	2138	BO	116	5001.88	144 57.15	GPS						MOORING DEPLOYMENT

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POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

28 Aug 1300-1400 Go-flo cast 6mi NW of P26 for prim. prod (10S)
1440
1500 utc (0800 PDT) 50 01.18 145 03.34W Prod dunglers in near P26

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
27	P26	CTD	21:59	BE	117	50 01.87	144 57.18	GPS						
27	P26	CTD	2141	EN	117	50 01.80	144 57.11	GPS						
27	P26	MOORING	2351	—	—	50 01.804	144 57 123	GPS	—	—	—	—	—	"WITNESS AWAY"
28	P26	MOORING	0140	—	—	50 01 567	144 57167	GPS	—	—	—	—	—	FINAL RECOVERY AR Mooring
28	P26	CTD	02:10	BE	118	50 01.97	144 57.80	GPS		150				
28	26	CTD	02:13	BO	118	50 01.93	144 57 90	GPS						
28	26	CTD	02:13	BE	119	50 01 93	144 57 90	GPS						
28	26	CTD	02:17	EN	119	50 01.94	144 57 99	GPS						
28	26	CTD	03:18	BE	120	49 59.83	144 57.95	GPS		1000	- caps on conductivity			UVIC (Todd)
28	26	CTD	03:31	BO	120	49 59.91	145 0.11	GPS			cell			1.0 m/sec
28	26	CTD	03:32	BE	123	49 59.91	145 0.11	GPS			- device Z/D error			- miss first 40 m in
28	26	CTD	03:43	EN	123	49 5993	145 023	GPS			on file 122			down cast - missed communication
28	26	GoFlo	1300	BE	—				4260	100 m	—	9		10 S Go-Flos for prod
28	26	ROS	19:22	BE	124	50 00.08	144 57.62	GPS	4266	1000				
28	26	ROS	19:37	BO	124	50 00.07	144 57.74							
28	26	ROS	19:38	BE	125	50 00.06	144 57.73				296-317	22		
28	26	ROS	20:13	EN	125	50 00.04	144 57.52							
28	26	NET	23:54	NET		50 01.61	144 58.79							USC BUDDIES

CAST TYPE - BOT - bottle 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; DE - deployment time; MR - messenger release; RE - recover mooring

POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
29	26	THM	11:00	EN		50 00.848	144 59.572							UVIC
29	26	NET	12:52	EN		49 59.821	144 58.78							UBC - ROBERT
29	26	NET	1400	EN		49 59.871	144 59.596							MUN / RIM
29	26	ROS	1451	BE	126	50 00.71	145 00.63		4268	200				UBC - Maxim's cast.
29	26	ROS	1455	BO	126	50 00.76	145 00.66							
29	26	ROS	1455	BE	127	50 00.76	145 00.66							
29	26	ROS	1516	EN	127	50 00.71	145 00.69							
29	P26	ROS	1648	BE	128	50 00.21	144 59.99	GPS						STOPPED AND RESTARTED ON NEXT CAST.
29	P26	ROS	1707	BE	129	50 00.22	144 59.90	GPS						ZOS
29	P26	ROS	1812	BO	129	50 00.40	145.00.15	GPS		4320				
29	P26	ROS	1812	BE	130	50 00.40	145 00.15	GPS			318-340	23		
29	P26	ROS	19:36	EN	130	50 00.88	145 00 54	GPS						
29	P26	NET	20:48	BE		50 01 26	145 01 81	GPS		250				Tucker trawl
29	P26	[illegible]	2315	EN		49 59.81	144 58.71	GPS						60 - ILC [illegible]
30	P26	ROS	0549	BE	131	50 00.22	144 59.80	GPS						Nuts
30	P26	ROS	0555	BO	131	50 00.26	144 59.80	GPS						
30	P26	ROS	0555	BE	132	50 00.26	144 59.80	GPS				13		O_2 only
30	P26	ROS	0611	EN	132	49 59.97	145 00.67	GPS						

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POSITION CODE - RAD - RADAR; GPS - GLOBAL; LOR - LORAN

Aug 30 2200 utc Cleaned WOCE CTD cond cell with soap + Kimtipes.

Aug 31 0117 utc (1817 PDT) Messenger released on FDA, closing traps.

Aug 31 10:15 Heave compensator hook let go twice while hoisting the rosette off the deck, causing shock to the rosette & risk to the watchkeeper. Beware of the H.C. & don't use until further notice. Doug A.

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
30	P26	NET	08:38	BE		49 59 81	145 01 80	GPS		250				TUCKER TRAWL
30	P26	NET	09:30	EN		49 59 99	145 03 65	GPS						TRAWL ON BOARD
30	P26	FLO.	14:45	EN.										GO-FLO
30	P26	PUM	15:30	BE		50 00.489	145 00 945	GPS	4270	1000	—	—		U.Vic pumps
31	P26	PUM	00:20	EN		50 01.90	145 00.981	GPS						
31	P26	FD★	01:30	RE		50 00.62	144 53.23	GPS	4248	1000	—	—		FD★ recovery
31	P26	FD★	02:26	EN		50 00.76	144 53.13	GPS						
31	P26	FLO	03:07	EN		50 00.12	144 57.92	GPS						30L GO-FLO for McGill
31	P26	ROS	0322	BE	133	49 59.97	145 00.22	GPS						
31	P26	ROS	0328	BO	133	49 59.87	145 00.34	GPS						
31	P26	ROS	0328	BE	134	49 59.87	145 00.34	GPS			341-358	18		
31	P26	ROS	0404	EN	134	49 59.84	145 00.59	GPS						
31	P39	LOOPS	0654			49 59.98	145 42.00	GPS						LOOPS TAKEN
31	P30	ROS	958	BE	135	50 00.07	146 24.01	GPS					13.022	
31	P30	ROS	10:03	BO	135	50 00.08	146 24.01	GPS						* HEAVE COMP. 1400K LET GO WHILE HOISTING
31	P30	ROS	10:04	BE	136	50 00.09	146 24.07	GPS			358-363	6		ROSETTE (TWICE)
31	P30	ROS		EN	136	50 00.11	146 24.10	GPS						
31	P 30	LOOPS	1015	-		50 00 089	146 24.090	GPS						LOOPS TAKEN

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Transmissivity coeff. before changes

	slope	offset
NOCC-CTD	0.0031715	0.40912
8705_CTD	-2.17809	108.904

(UTC) Sep 01 05:03 Doug puts transcometer from 8705_CTD on Rosette (NOCC_CTD)
— start from cast 145

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
31	P40	CTD	1410	EN		50 27.00	145 42.00							LOOPS TAKEN
31	P32	ROS	1907	BE	137	50 53.92	144 59.84						13.115	LOOPS TAKEN
31	P32	ROS	1821	BO	137	50 53.93	144 59.89							
31	P32	ROS	1921	BE	138	50 53.93	144 59.89				364-373	10		
31	P32	ROS	1944	EN	138	50 54.18	144 59.15							
31	P49	ROS	2133	BE	139	50 53.93	144 16.97	GPS	3964				13.247	LOOPS TAKEN
31	P49	ROS	2145	BO	139	50 54.01	144 16.83	GPS						
31	P49	ROS	2146	BE	140	50 54.01	144 16.83	GPS			374-379	6		
31	P49	ROS	2204	EN	140	50 54.02	144 16.73	GPS						
01	P33	ROS	00:46	BE	141	50 53.99	143 34.38	GPS	3440	1500			13.157	
01	P33	ROS	01:01	BO	141	50 54.06	143 34.28							
01	P33	ROS	01:02	BE	142	50 54.06	143 34.27				380-385	6		
01	P33	ROS	01:24	EN	142	50 53 99	143 34.21							
01	P33	USW	01:29	EN		50 54.04	143 33.80	GPS						LOOPS STaken
01	R20	ROS	0332	BE	143	50 55.58	143 01.00	GPS	3589	1000			13.142	LOOPS TAKEN
01	R20	ROS	0347	BO	143	50 55 58	143 01.12	GPS						-transmissomiter not
01	R20	ROS	0347	BE	144	50 55 58	143 01.12	GPS			386-391	6		working propely
01	R20	ROS	0409	EN	144	50 55.57	143 01.27	GPS						

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* Sep 1 2220 UTC (1520 PDT) ALACE seen at 50 54.04 N, 140 09.10 W (TIM SAW BEFORE TRANSMIT)

2240 UTC (1540 PDT) RECOVERED P-ALACE 578. NOTED FOULING (Algal?) on T+C sensors.

96/09/01 - Doug A. put transmissometer 192D on the rosette, after ascertaining that the problem was probably a faulty cable. The change

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
01	R19	ROS	0647	BE	145	50 57.85	142 19.91	GPS	3929	1000			13.326	- see prev. page for remarks on transmissometer
01	R19	ROS	0701	BO	145	50 57 92	142 20.07	GPS						
01	R19	ROS	0702	BE	146	50 57 92	142 20 .08	GPS			392-397	6		= Loops taken
01	R19	ROS	0723	EN	146	50 57 93	142 20 .23	GPS						
01	R18	ROS	1000	BE	147	50 59 98	141 38 87	GPS	3900	1000			13453	LOOPS TAKEN
01	R18	ROS	10:12	BO	147	51 0202	141 38 77	GPS						
01	R18	ROS	10:13	BE	148	51 0202	141 38 76	GPS			398-403	6		
01	R18	ROS	10:31	EN	148	51 00.10	141 38 .63	GPS						
01	R17	ROS	13:08	BE	149	51 01.90	140 56 02	GPS	3876	1000			13.826	
01	R17	ROS	13:24	BO	149	51 01.77	140 56.00	GPS						
01	R17	ROS	13:24	BE	150	51 01.77	140 56 00	GPS			404-409	6		
01	R17	ROS	13.51	EN	150	51 01.89	140 56-18	GPS						
01	R17	USW	1413-? 18:13 ?	EN		51 01.867	140 56.025	GPS						LOOPS TAKEN
01	R16	ROS	1708	BE	151	51 03.925	140 14.26	GPS	3793	1000			13.724	LOOPS TAKEN.
01	R16	ROS	1721	BO	151	51 03.94	140 14.35	GPS						
01	R16	ROS	1721	BE	152	51 03.94	140 14.35	GPS			410-419	10		
01	R16.	ROS	1745	EN	152	51 03.88	140 14.42	GPS						
02	Sq 1	USW	00:28	EN		51.00.80	139 90.00				(LOOPS TAKEN)			* See over for transmissometer notes

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
02	SU02	ROS	02:21	BE	153	51 00.12	139 09.94	GPS	3810	1000			14278	See notes on transmissometer
02	SU02	ROS	02:35	BO	153	51 00.20	139 10.09	GPS						on prev. page.
02	SU02	ROS	02:35	BE	154	51 00.18	139 10.06	GPS			420-425	6		
02	SU02	ROS	02:57	EN	154	51 00.25	139 10.21	GPS						
02	SU02	USW	0225	EN		51 00.15	139 09.95	GPS						LOOPS TAKEN.
02	SU3	USW LOOP	0451			51 00.03	138 40.00	GPS						LOOPS TAKEN.
02	SU4	ROS	0640	BE	155	51 00.09	138 10.03	GPS	3756	1000			14243	LOOPS TAKEN.
02	SU4	ROS	0655	BO	155	51 00.17	138 09.92	GPS						
02	SU4	ROS	0655	BE	156	51 00.17	138 09.92	GPS			426-431	6		
02	SU4	ROS	0711	EN	156	51 00.16	138 09.88	GPS						
02	SU5	USW LOOP	904		LOOPS	51 00.01	137 39.23	GPS						LOOPS TAKEN
02	SU6	ROS	10:53	BE	157	50 59.91	137 09.93	GPS	3684	1000			14202	LOOPS TAKEN.
02	SU6	ROS	11:07	BO	157	50 59 98	137 0990	GPS						
02	SU6	ROS	11:07	BE	158	50 59 98	137 0991	GPS			432-437	6		
02	SU6	ROS	1129	EN	158	50 59 98	137 10 01	GPS						
07	SU07	USW	13:18	EN		50 59 97	136 39.94	GPS						LOOPS TAKEN.
02	SU8	ROS	1511	BE	159	50 59 95	136 10.11	GPS					14024	LOOPS TAKEN
02	SU8	ROS	1526	BO	159	51 00.07	136 10.18	GPS						

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96/09/02 Transmissometer on downcast # 161, station 3010 experienced a malfanction, causing the transmisivity to dip to 63% or so. Possibly a temperature compensation problem. The problem seems to have corrected itself on cast # 162.

96/09/02 CAST #163 was a test cast for the transmissometer. The transmissometer data down to the 200 meter cast depth is good.

96/09/03 After cast 165, where the transmissometer drifted once again, the transmissometer # 1920 was pulled and replaced with # 1820. The calibration coefficients weren't changed because I didn't know how to transform the cal coeff. for # 1820 into those useable on the WOCE CTD. Thus, after cast # 165, 1820 is in use instead of 1920, but with 1920's cal coeff.

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
02	SU8	ROS	1526	BE	160	51 00.07	136 10.18	GPS	3370	1000	438-443	6		
02	SU8	ROS.	1546	EN	160	51 00.09	136 10.19	GPS						
02	SU9	LOOP	1744			50 59.97	136 40.00	GPS						LOOPS TAKEN
02	SU10	ROS	1940	BE	161	50 59.05	135 10.17	GPS	3658	1000			14.544	
02	SU10	ROS	1951	BO	161	51 00.07	135 10.28	GPS						
02	SU10	ROS	1952	BE	162	51 00.12	135 10.33	GPS			444-453	10		*TRANSMISSOMETER NOTE
02	SU10	ROS	2014	EN	162	51 00 15	135 10.446	GPS						
02	SU10	TEST	2016	BE	163									TRANSMISSOMETER
02	SU10	TEST	2019	EN	163									TEST CAST * NOTE
02	SU 11	LOOPS	2221	LOOP		51 00, 00	134 40, 00							LOOPS TAKEN
03	SU12	ROS	0018	BE	164	51 00.19	134 10.24	GPS	3270	1000			15562	TRANSMISSOMETER
03	SU12	ROS	0034	BO	164	51 00.28	134 10.32	GPS						SEVERELY DRIFTING ON DOWN CAST
03	SU12	ROS	0034	BE	165	51 00.28	134 10.32	GPS			454-459	6		
03	SU12	ROS	0054	EN	165	51.00.37	134 10 16	GPS.						
03	SU12	USW	0018	EN.		51 00.19	134 10.24	GPS						LOOPS TAKEN
03	SU13	USW	0243	EN		50 59.99	133 40.10							see over for yet another * transmissometer note. *
03	SU14	ROS	0432	BE	166	51 00.10	133 10.15	GPS	3054	1000			15.994	LOOPS TAKEN
03	SU14	ROS	0447	BO	166	51 00.19	133 10.17	GPS						

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
03	SU14	ROS	0447	BE	167	50 00.19	133 10.17	GPS			460-465	6		
03	SU14	ROS	0507	EN	167	5100.22	133 10.31	GPS						
03	SU15	LOOP	0659	—	—	51 00.002	132 40.618	GPS						LOOP SAMPLES TAKEN.
03	SU16	ROS	0850	BE	168	50 59.97	132 09.85	GPS					15560	LOOPS TAKEN
03	SU16	ROS	0903	BO		50 59.80	13209.57	GPS						
03	SU16	ROS	0904	BE	169	50 59.79	132 09.57	GPS			466-471	6.		
03	SU16	ROS	0920	EN		50 59.60	132 09.24	GPS						
03	SU17	USW	11.04	EN	—	51 00.02	131 40.26	GPS						LOOP TAKEN
03	SU18	ROS	12:57	BE	170	51 00.01	131 09.94	GPS	2613	1000			15.113	
03	SU18	ROS	13:10	BO		50 59.93	131 09.72	GPS						
03	SU18	ROS	13:10	BE	171	5059.93	131 09.72	GPS			472-477	6		
03	SU18	ROS	13:43	EN		50 59.83	131 09.44	GPS						
03	SU18	USW	1502	EN	—	50 59.93	131 0.984	GPS						LOOP TAKEN
03	SU19	USW	1516	EN	—	51 00.01	130 40.0	GPS						LOOPS TAKEN.
03	SU20	ROS	1708	BE	172	5100.09	130 09.84	GPS	2151	1000			15.658	LOOPS TAKEN.
03	SU20	ROS	1722	BO	172	5100.00	130 09.77	GPS						
03	SU20	ROS	1722	BE	173	51 00.00	130 09.77	GPS			478-483	6		
03	SU20	ROS	1742	EN	173	50 59.85	130 09.64	GPS						

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* Casts # 175 & 176 contain garbage data *

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
03	SU21	ROS	19:30	BE	174	51 00.00	129 40.00	GPS	560	588			14.701	
03	SU21	ROS	19:43	BO	174	51 00.05	129 39.88	GPS						
03	SU21	ROS	19:45	BE	174	51 00.07	129 39.88	GPS			484-489	6		
03	SU21	ROS	19:58	EN	174	51 00.08	129 39.92	GPS						
03	SU21	CTD	20:30	BE	177 *	50 59.93	129 40.09	GPS		639				UBC TEST CAST TO CAL.
03	SU21	CTD	20:53	BO	177	50 59.97	129 40.12	GPS						THEIR EQUIPMENT.
03	SU21	CTD	20:54	BE	178	50 59.96	129 40.11	GPS						*SEE OVER
03	SU21	CTD	21:15	EN	178	50 59.99	129 40.05	GPS						

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