

CRUISE
NUMBER

9921

DAILY LOG
INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

24 Aug - 14 Sept.

VESSEL

JOHN P. TULLY

PROJECT

LINE P

2nd CTD make: _____ model: _____ serial no.: 0443
Temperature sensor model: _____ serial no.: Primary Temp.: 2023 11-Mar-99
coefficients: slope: _____ offset: Primary Cond.: 1729 23-Mar-99
Conductivity sensor model: _____ serial no.: Secondary Temp.: 2106 05-May-99
coefficients: slope: _____ offset: Secondary Cond.: 1764 06-May-99
Pressure sensor range: _____ psi serial no.: 1920 - transmission delay
coefficients: FSP: _____ dB offset: _____
Transmissometer model: _____ serial no.: _____
coefficients: slope: _____ offset: _____

Winches:

1. make: _____ model: _____ serial no.: _____ use: _____
2. make: _____ model: _____ serial no.: _____ use: _____
3. make: _____ model: _____ serial no.: _____ use: _____
4. make: _____ model: _____ serial no.: _____ use: _____
5. make: _____ model: _____ serial no.: _____ use: _____
6. make: _____ model: _____ serial no.: _____ use: _____
7. make: _____ model: _____ serial no.: _____ use: _____

Salinometer: make: _____ model: _____ serial no.: _____

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: _____

$400 = 9335$

$500 = 12195$

500 lb

86

$\text{line } 68$

2860

$119.2 \text{ sec} = .84$

y I seawater rate

x B pressure

K acceleration

1500 lb 77 June 70

upward	250:	200925	70.2 sec
	650	202609	= 1.42 m/s

400 = 8745 500 = 10862 400.26 69 70
2117. 88.2 sec. = 1.13

86 up 400 14445 1442 60.8 sec
300 15887 = 165 m/s.

JF01 237.13481 (03:14) 48.25552 123.52150

JF02 237.20426 (04:54)

JF03 .28343 (06:48) 48.45345 124.51428

JF04 237.36606 (08:47) 48.53827 124.55988

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YEAR		MONTH		SHIP		CRUISE		PAGE		OF		/		/		/	
1999		August		JOHN P TULLY		9921		1		8							
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			
24	SI03	ROS	1756	BE	1	48 35.88	123 29.962	ENV F	226		1-15						
24	SI03	ROS		BO	1			BR									
24	SI03	ROS		EN	1												
25	JF1	LOOP	0315	-	-	48 15.331	123 31.290		174								
25	JF2	LOOP	0454			48 18	124 0										LOOP TAKEN
25	JF3	LOOP	0652	-	-	48 27.207	124 30.857		231.25								LOOP TAKEN
																	"
25	JF4	Loop	0852	BE		48 32.296	124 59.993		62								
25	P1	CTD	1116	BE	2	48 34 489	125 30 148	F	138								
25	P1	CTD	1120	BO	2	48 34 52	125 30 19			130							
25	P1	CTD	1122	EN	2	48 34 53	125 30 22										Loops TAKEN
25	P2	CTD	1345	BE	3	48 36 00	126 00 23	F									
25	P2	CTD	1347	BO	3	48 36 02	126 00 27										
25	P2	CTD	1349	EN	3	48 36 03	126 00 28										
25	P3	CTD	1538	BE	4	48 37.54	126 20.37	F	758								
25	P3	CTD	1553	BO	4	48 37 53	126 20.75										Loops Taken
25	P3	CTD	1601	EN	4					773							
2																	

CAST TYPE - BOT - bottle cast
CTD - CTD
MOR - MOR

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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YEAR		MONTH			SHIP			CRUISE					PAGE		OF	
1999		AUGUST			JOHN P. TULLY			9921					2		18	
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	P4	CTD	1921	BE	5	48 39.11	126 39.82	F	1317						CTD to 200 m with PAR + FLUO	
25	P4	CTD	1925	BO	5	48 39.09	126 39.79			204	—	Ø			Max Trans @ 15 m (but mixed layer)	
25	P4	CTD	1929	EN	5	48 39.06	126 39.82								Loops TAKEN	
25	P4	ROS	2211	BE	6	48 38.99	126 39.96	CNVF	1330							
25	P4	ROS	2238	BO	6	48 39.01	126 39.97	BTL		1316	16-34	19				
25	P4	ROS	2313	EN	6	48 39.03	126 39.99									
25	P4	NET	2350	BC	7	48 38.995	126 40.035		1330	150					BONGOS & PHYTO'S	
26	P4	BOT	0100	BC	8				↓						IRON WORK	
26	P4	BOT	↓		8				↓						PRIMARY PROD	
26	P4	BOT	1230	EN	8	48 38.999	126 40.021								10L & 30L GO FLO'S	
26	P5	CTD	1443	BC	9	48 41.50	127 10.00	F	2098							
26	P5	CTD	1507	BO	9	48 41.21	127 10.02			1500					pressure spike, funny sensor glitch - cable problems?	
26	P5	CTD	1530	EN	9	48 40.90	127 09.99								Loops taken	
26	P6	CTD	17:50	BE	10	48 44.52	127 39.88	F	2021						"	
26	P6	CTD	18:41	BO	10	48 44.25	127 39.49			1500					cable problems continue. glitch in data.	
26	P6	CTD	1906	EN	10	48 44.06	127 39.82									

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26	P7	CTD	²¹⁴⁹ 2141	BE	11	48 46.57	128 09.91		2524					Mixed layer: 26m		
26	P7	CTD	²²¹³ 2205	BO	11	48 46.62	128 10.04			1506	—	Ø		Re-spliced primary winch Loops taken		
26	P7	CTD	²²²⁹ 2221	EN	11	48 46.61	128 10.05							Computer 8 min late Actual start: 2149 UTC		
		TRY CTD 0443 OUT OF ROSETTE FRAME														
27	P8	CTD	0041	BE	12	48 48.98	128 40.47									
27	P8	CTD		BO	12	48 49.39	128 40.49									
27	P8	CTD	0137	EN	12	48 49.39	128 40.49									
27	P8	NET	0155	BE	13	48 48.973	128 40.01									
27	P9	CTD	0430	BE	14	48 51.45	129 10.01		2367					CTD SWITCH → 0437		
27	P9	CTD	0502	BO	14	48 51.44	129 10.02			1500				Loops Taken		
27	P9	CTD		EN	14											
27	P10	CTD	0739	BE	15	48 53.65	129 39.96		2663					Loops taken		
27	P10	CTD	0805	BO	15	48 53.61	129 39.96			1507				22 m mixed layer		
27	P10	CTD	0822	EN	15	48 53.58	129 40.01							Back to rosette 0437		
27	P11	CTD	1040	BE	16	48 56.01	130 10.09		2772					Loops taken, Mixed layer: 16m		
27	P11	CTD	1103	BO	16	48 55.96	130 10.06			1508				Clock wrong at 1st try		
27	P11	CTD	1118	EN	16	48 55.89	130 09.99									

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PS - switched to stand alone 0443 to try and isolate ETD problems 19D2 is mounted on 0443

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OCEAN PHYSICS

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YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1999		AUGUST		JOHN P. TULLY		2921		4						
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	P12	BOT	0130		16	48 58 31	130 38 97			45m				PRIMARY PROD. CASTS
27	P12	NET			17					150				BONGO TOW
27	P12	CTD		BE	18				3251					
27	P12	CTD	1822	BO	18	48 58 38	130 39.66			200				HOOPS TAKEN
27	P12	CTD		EN	18									
27	P12	ROS	1924	BE	19	48 58.28	130 39 93		3252					Deep cast
27	P12	ROS	2017	BO	19	48 58.24	130 40.01			3085	35-56	22		Mixed layer: 21m
27	P12	ROS	2127	EN	19	48 58.22	130 40.04							MANY MANY MANY spikes. Winch fixing on way up. Changed deck unit & slip winch cable. → no more spikes!
CRUISE INTERRUPTED BY SAR CALL														
28	SAR #20	LOOP	0306	LOOP		48 35.22	131 07.33		4204					LOOP
28	SAR 2ND	LOOP	0703	BE		48 28.110	131 43.971		3089					2 nd sar loop (+last)
28	P13	CTD	1035	BE	20	49 02.62	131 40.00		?					Loops taken. Had to re-start because of clock.
28	P13	CTD	1102	BO	20	49 02.66	131 40 01							
28	P13	CTD	1129	EN	20	49 02.61	131 40 02							Loops TAKEN ↓
28	P14	CTD	1626	BE	21	49 07.26	132 40.22		3387					*Wire has parted strands @ 195m
28	P14	CTD	1659	BO	21	49 06.78	132 40.55							*3rd termination in 4 days scheduled for this afternoon.
28	P14	CTD	1723	EN	21	49 06.37	132 41.06							*Some spikes, some more spikes, even more spikes. Well, its spiky.

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						BACK TO WINCH #1307 (MIDDLE)									
28	P15	CTD	2250	BE	22	49° 11.99	133° 39.99		3422					Loops taken	
28	P15	CTD	2314	BO	22	49 11 97	133 40 07				—	Ø			
28	P15	CTD	2333	EN	22	49 11 99	133 40 00								
29	P16	GO FLOS	0703	EN	23	49° 17.148	134° 39.896		3644						
29	P16	CTD	0714	BE	24	49° 17.06	134° 40.11		3644					FLUOROMETER INSTALLED	
29	P16	CTD	0718	BO	24	49° 17.06	134° 40.13			205				30 m mixed layer LOOPS TAKEN	
29	P16	CTD	0722	EN	24	49° 17.02	134° 40.08							1 spike on way up	
29	P16	ROS	0737	BE	25	49° 17.02	134° 40.16		3644					Fluorometer off Deep cast	
29	P16	ROS	0835	BO	25	49° 17.03	134° 40.06			3687	57-78	22 +1	(many)	1 spike ↓ More spikes on way up	
29	P16	ROS	0954	EN	25	49° 16.93	134° 39.98								
29	P16	NET	1010	BE	26	49 16.99	134 40 00		3645	150				BONGO'S & PHYTO HAULS	
29	P16	BOT	1356	EN	27	49 16 95	134 40 03							PRIMARY PRODUCTIVITY	
29	P17	CTD	18:34	BE	28	49 20.75	135 40.31		3713						
29	P17	CTD	1855	BO	28	49° 20.50	135° 40.53			1507					
29	P17	CTD	1915	EN	28	49° 20.52	135° 40.46								
		CHANGE CABLE				FROM	CTD TO	SEA CABLE (what else can we try??)							

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Cast 0033: Primary salinity (+ T° ?) bad from $\approx 37m$ to $\approx 70m$
on way down

Secondary (S + T° ??) bad from ≈ 50 to surface on way up?
Or is it the other way around?

FROM $\approx 36m$ on way up: 2° difference between PRI and SEC T°

Thermosalinograph $T^{\circ} = 12^{\circ}$

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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	P18	CTD	2319	BE	29	49 26 05	136 40 07	GPS						Redetermined Wmoh #1483 Aug 29/99 →
29	P18	CTD	2341	BO	29	49 26 05	136 40 15							Loops TAKEN
29	P18	CTD	2359	EN	29	49 25 99	136 40 23							
30	P19	CTD	0452	BE	30	49 29.99	137 39.89		3930					changed config. file CH43CTD
30	P19	CTD	0517	BO	30	49 30.02	137 39.94			1500				Seems to have fixed cond. problem
30	P19	CTD	0535	EN	30	49 29.99	137 39.95							Loops TAKEN
30	P20	BOT	1000	BE	31	49 34 02	138 40 00		3970	60				PRIMARY PRODUCTION
30	P20	NET	1200	BE	32	49 33 96	138 40 010							BONGO'S & PHYTO
30	P20	ROS	1255	BE	33	49 34 04	138 40 01		3970					DEEP ROSETTE CAST
30	P20	ROS	1350	BO	33	49 34 02	138 39 18			4029	79-100			Loops TAKEN
30	P20	ROS		EN	33									← See note (processor)
30	P20	CTD	2135	BE	34	49 31.02	138 33 01		3986					Shallow PAR + FLUO
30	P20	CTD	2139	BO	34	49 30 92	138 33.03			205				cast
30	P20	CTD	2142	EN	34	49 30.91	138 33.01							
31	P21	CTD	0224	BE	35	49 38 01	139 40.04		3963					Loops TAKEN
31	P21	CTD	0247	BO	35	49 38.05	139 40.11			1500				
32	P21	CTD	0304	EN	35	49 38.04	139 40 08							

CAST TYPE - BOT - bottle cast
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Reterminated winch 1483(stb) 5780m - 200m - 200m = 5380m(approx)

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31	P22	CTD	0745	BE	36	49 42.05	140 39.87	GPS	3896					Loops taken OVERFLOW light on at beg. of cast, everything froze, had to restart. Thermohalineograph T: 12.64 S: 32.48 Stays @ 1510 a long time because of wind Loops TAKEN → SAME THING (OVERFLOW LIFE & FROZE)
31	P22	CTD	0808	BO	36	49 42.04	140 39.98			1500				
31	P22	CTD	0829	EN	36	49 42.03	140 40.01							
31	P23	CTD	1332	BE	37	49 45.98	141 40.01		4054					
31	P23	CTD	1351	BO	37	49 45.98	141 40.00			1500				
31	P23	CTD	1413	EN	37	49 45.99	141 40.00							
31	P24	CTD	2016	BE	38	49 50.20	142 39.82		3990					Loops taken
31	P24	CTD	2044	BO	38	49 50.25	142 39.96			1507				22 m TO mixed layer
31	P24	CTD	2102	EN	38	49 50.24	142 39.88							
01	P	-				SWITCHED TO 0443 Stand-Alone CTD				0443CTD.COM	TRANSMITTER 1920			
01	P25	CTD	0258	BE	39	49 59.95	143 36.35		4145					Loops TAKEN
01	P25	CTD	0324	BO	39	49 59.96	143 36.26			1505				≈ 30 to 60 ↓ 2nd set not good
01	P25	CTD	0342	EN	39	49 60.00	143 36.27							
01	P35	CTD	0736	BE	40	50 00.06	144 18.17		4149					Loops taken
01	P35	CTD	0759	BO	40	49 59.98	144 18.23			1506				30 m mixed layer
01	P35	CTD	0821	EN	40	50 00.00	144 18.19							

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bottle cast
ctd
mooring

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rosette
net haul
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beginning time of cast
BO -
bottom time of cast
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deployment time
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1	P26	CTD	22 22	BO	41	50 00 22	144 59 82		4250					Shallow PAR + FLUO cast		
1	P26	CTD	22 26	BO	41	50 00 32	144 59.87			206	—	Ø		Switch to Rosette / 0437 CTD, CON 34m mixed layer		
1	P26	CTD	22 29	EN	41	50 00.38	144 59.81									
1	P26	ROS	22 52	BE	42	50 00 12	144 59.80		4250					LOOPS TAKEN Deep Rosette (chem) cast		
2	P26	ROS	00 03	BO	42	50 00 02	144 59 99			4305	101-124	24				
2	P26	ROS	01 32	EN	42	50 00 09	145 00 01									
2	P26	NET	11 09	BE	43	50 00 210	144 59 832							BONGO'S & PHYTO NET TOWS		
2	P26	BOT			44									PRIMARY PRODUCTIVITY		
3	P41	CTD	09 31	BE	45	50 27.04	144 59 95		4256					Loops taken 29m mixed layer		
3	P41	CTD	09 56	BO	45	50 27.01	144 59.91			1508	—	Ø				
3	P41	CTD	10 13	EN	45	50 27.02	144 59.99									
3	P32	CTD	13 05	BE	46	50 53 95	144 59 96		4256					LOOPS TAKEN		
3	P32	CTD	13 29	BO	46	50 53 99	145 00 02			1502				BAD SPIKING		
3	P32	CTD	13 45	EN	46	50 54 03	145 00 01							REALLY BAD (I've seen worse)		
3	Z1	CTD	16 40	BE	47	51 21.00	145 00.09		~3600							
3	Z1	CTD	17 05	BO	47	51 20.76	145 00.23			1503				LOOPS TAKEN		
3	Z1	CTD	17 23	EN	47	51 20.57	145 00.43									

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bottle cast

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ctd

MOR -

mooring

ROS -

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YEAR		MONTH				SHIP			CRUISE				PAGE		OF	
1999		SEPTEMBER				JOHN P. TULLY			9921				9			
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		
3	Z2	CTD	2026	BC	48	51'48.00	144'59.97		3850					Mixed layer ~35m Loops taken		
3	Z2	CTD	2055	BO	48	51'48.04	145'00.02			1507	—	①		OVERFLOW PROBLEM AGAIN!!!		
3	Z2	CTD	2113	EN	48	51'48.00	144'59.96									
3	Z3	CTD	2338	BC	49	52'12.03	145'00.01		4068					Loops taken		
4	Z3	CTD	0006	BO	49	52'12.03	145'00.01			1500						
4	Z3	CTD	0023	EN	49	52'12.01	145'00.05									
4	Z4	CTD	0302	BE	50	52'39.02	144'59.98		4064					Shallow Cast: ^{Pearl} # Fluor		
4	Z4	CTD	0306	BO	50	52'39.00	144'59.97			202						
4	Z4	CTD	0309	EN	50	52'39.02	144'59.97									
4	Z4	GO-FLO	0420		51	52'39.02	144'59.95			200 \$100				GO-FLO - Dr. Crawford.		
4	Z4	ROS	0517	BE	52	52'39.03	144'59.84		4063							
4	Z4	ROS	0623	BO	52	52'39.03	144'59.75			4103	125-148	24		Loops taken		
4	Z4	ROS	0748	EN	52	52'38.94	145'00.09									
4	Z4	NET	1105	BC	53	52'38.937	144'59.910							BONGO'S & PHYTO NET HAULS		
4	Z4	BOT	1353	EN	54	52'38.94	144'59.80							PRIMARY PROD. GO-FLO'S		
4	Z5	CTD	1628	BE	55	53'06.20	144'59.81									
4	Z5	CTD	1651	BO	55	53'06.47	144'59.34									
4	Z5	CTD	1708	EN	55	53'06.38	144'59.12									

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

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1999			MONTH SEPTEMBER			SHIP JOHN P TULLY			CRUISE 9921				PAGE 10 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
4	Z6	CTD	1957	BE	56	53 32.82	144 60.00		4055					Loops taken
4	Z6	CTD	2020	BO	56	53 32.68	144 59.94			1507	—	Ø		
4	Z6	CTD	2041	EN	56	53 32.68	144 59.98							
4	Z7	CTD	2348	BE	57	53 59.97	145 00.18		4021					Loops TAKEN
5	Z7	CTD	0013	BO	57	53 59.69	145 00.92							MIXED LAYER 18 m
5	Z7	CTD	0031	EN	57	53 59.69	145 00.56							
5	Z8	CTD	0331	BE	58	54 26.71	145 0.07		4109					Loops TAKEN
5	Z8	CTD	0353	BO	58	54 26.69	145 0.22							
5	Z8	CTD	0411	EN	58	54 26.66	145 0.15							
5	Z9	CTD	0925	BE	59	54 59.99	144 59.82		4042					MIXED LAYER (T) ~ 27m
5	Z9	CTD	0929	BO	59	54 59.97	144 59.82			208	—	Ø		SHALLOW FLUO CAST
5	Z9	CTD	0932	EN	59	54 59.95	144 59.83							
5	Z9	NET	1135	BE	60	55 00.027	144 59.882							BONGO'S PHYTO NET HAULS
5	Z9	BOT	1339	EN	61	54 59.80	144 59.96							PRIMARY PROD CO. FLUO
5	Z9	ROS	1400	BE	62	54 59.91	144 59.94							DEEP ROSETTE CAST
5	Z9	ROS	1502	BO	62	54 59.79	145 0.44				149-172			Loops TAKEN
5	Z9	ROS	1636	EN	62	54 59.90	145 00.20							

CAST TYPE -

BOT - bottle cast
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DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	MONTH				SHIP				CRUISE				PAGE	OF
1999	SEPTEMBER				JOHN P. TULLY				9921				11	
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
5	Z10	CTD	2143	BE	63	55°30.00	144°59.88		4002					Loops TAKEN
5	Z10	CTD	2209	BO	63	55°30.32	144°59.87			1510	—	Ø		Memory message had to go out of SEASAVE
5	Z10	CTD	2230	EN	63	55°30.03	144°59.96							HEADER SAYS Z9
6	Z11	CTD	0142	BE	64	56°00.06	145°00.05							Loops TAKEN
6	Z11	CTD	0206	BO	64	56°00.06	145°00.11							
6	Z11	CTD	0225	EN	64	55°59.99	145°00.25							
6	Z12	CTD	0531	BE	65	56°30.09	144°59.83		3356					
6	Z12	CTD	0619	BO	65	56°30.01	144°59.91			3172				Loops TAKEN
6	Z12	CTD	0657	EN	65	56°30.12	145°00.05							Some turbidity @ → something approx 2100 m. upcast
6	Z13	CTD	1008	BE	66	56°59.96	144°59.94		3839					Have to re-boot computer Memory problems
6	Z13	CTD	1118	BO	66	56°59.99	145°00.04			3889				Loops TAKEN 22 m mixed layer
6	Z13	CTD	1205	EN	66	57°00.01	145°00.02							BIG TURBIDITY SALT - Bottom 110 m
6	Z14	CTD	1518	BE	67	57°29.97	144°59.82		3970					Shallow rosette - par + fluoro
6	Z14	CTD	1522	BO	67	57°29.91	144°59.80			201				
6	Z14	CTD	1525	EN	67	57°29.93	144°59.76							
6	Z14	CTD	1733	BE	68	57°29.99	145°00.33		3927					Shallow rosette - par + fluoro
6	Z14	CTD	1737	BO	68	57°29.96	145°00.35			201				
6	Z14	CTD	1740	EN	68	57°29.93	145°00.43							

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

YEAR	1999			MONTH	Sept.		SHIP	Tully			CRUISE				9921		PAGE	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				
6	Z14	ROS	1808	BE	69	57 29.64	145 00.51		3930									
6	Z14	ROS	1922	BO	69	57 29.71	145 01.58			3955	173-196	24		Loops Taken				
6	Z14	ROS	2050	EN	69	57 29.54	145 02.03											
6	Z14	NET	1600	BE	70	57 29.97	140 00.01		3947	150				BONGO'S + PHYTO NET HAULS				
7	ED01	CTD	0327	BE	71	57 41.96	145 57.11											
7	ED01	CTD	0348	BO	71	57 41.85	145 57.27							Loops Taken				
7	ED01	CTD	0408	EN	71	57 41.77	145 57.47											
7	ED02	BONGO	0732	BO	72	57 53.976	146 53.886		4787					BONGO'S				
7	ED02	ROS	0802	BE	73	57 53.95	146 53.98		4787					LOOPS TAKEN Mixed layer ~ 15 m.				
7	ED02	ROS	0826	BO	73	57 53.93	146 54.02			1501	197-213	17		Great transmissometer trace!				
7	ED02	ROS	0907	EN	73	57 53.97	146 54.04											
7	Z15	CTD	1522	BE	74	58 0.07	144 59.85		3888					LOOPS TAKEN (by Doug)				
7	Z15	CTD	1539	BO	74	58 0.16	144 59.78											
7	Z15	CTD	1557	EN	74	58 0.09	144 59.43											
7	Z16	CTD	1918	BE	75	58 29.96	144 59.93		3984					LOOPS TAKEN Mixed layer ~ 17 m				
7	Z16	CTD	1948	BO	75	58 30.00	145 00.13			1505								
7	Z16	CTD	2005	EN	75	58 29.94	145 00.16											

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1999		MONTH SEPTEMBER		SHIP JOHN P TULLY				CRUISE 9921				PAGE 13		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	
7	Z17	CTD	2224	BE	76	58 49.97	145 00.05		3980					LOOPS TAKEN	
7	Z17	CTD	2246	BO	76	58 49.99	144 59.96			1506					
7	Z17	CTD	2306	EN	76	58 50.03	145 00.09								
8	Z18	CTD	0121	BE	77	59 10.12	145 00.03		4063					LOOPS TAKEN	
8	Z18	CTD	0147	BO	77	59 10.08	145 00.68			1502				TRANSMISOMETER V NOIST FROM	
8	Z18	CTD	0208	EN	77	59 10.11	145 00.58							500 mV to 1500m	
8	Z19	GoFlo			78										
8	Z19	CTD	0556	BE	79	59 26.52	145 00.04								
8	Z19	CTD	0601	BO	79	59 26.51	145 00.02		971	203					
8	Z19	CTD	0606	EN	79	59 26.54	145 00.04								
8	Z19	ROS	0647	BE	80	59 26.47	144 59.95		971						
8	Z19	ROS	0702	BO	80	59 26.48	144 59.91			972	214-228	15			
8	Z19	ROS	0732	EN	80	59 26.44	144 59.91								
8	Z19	NET	1115	BE	81	59 26.483	145 00.005							BONGO'S & PHYTO NETS	
8	Z19	BOT	1321	EN	82	59 26.419	145 00.080							PRIMARY PRODUCTION GO FLOS	
8	Z20	ROS	1608	BE	83	59 49.96	145 00.09		200		229-236	8			
8	Z20	ROS	1614	BO	83	59 49.93	144 60.00			190				Loops taken	
8	Z20	ROS	1624	EN	83	59 49.80	144 59.87								

CAST TYPE -

BOT - bottle cast
CTD - ctd
MOR - mooringROS - 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 castDE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE -

RAD - RADAR
GPS - GLOBAL
LOR - LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR			MONTH			SHIP			CRUISE			PAGE		OF	
1999			Sept			Tully			9911			1-1			
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
8	Z21	CTD	18:19	BE	84	60 05.01	145 00.37	EOS	96m						
8	Z21	CTD	18:21	BO	84	60 05.01	145 00.42	↓		89					
8	Z21	CTD	18:22	EN	84	60 04.98	145 00.47								
9	L1	Loop	1130			59 29.394	141 02.830								CUT CORNER BECAUSE Loops TAKEN OF VESSEL TRAFFIC
9	L2	Loop	1435			58 59.913	140 59.974								Loops TAKEN
9	L3	Loop	?			~58 30?	~141 0	Sample collection not logged?						CTD TEST SEE #12-7	
9	L4	Loop	2034			58 00.143	140 59.973								Loops TAKEN
9	L5	Loop	2330			57 30.200	140 59.783								Loops TAKEN
10	L6	Loop	0223			57 00.896	141 00.001								Loops TAKEN
10	L7	Loop	0349			56 59.934	140.00.500								Loops TAKEN
10	L8	Loop	0849			57 00.067	139 01.180		3284						Loops taken
10	L9	Loop	1152			57 00.014	138 00.514								Loops TAKEN
10	L10	Loop	1326			57 00.005	137 30.150								Loops TAKEN
10	L11	Loop	1459			56 59.964	137 00.932								Loops TAKEN
10	L12	Loop	1625? 0425			57 00.001	136.50.01								Loop TAKEN
10	L13	ROS	1848	BE	85	56 50.97	136 00.02		260						Loops TAKEN
10	L13	ROS	1853	BO	85	56 51.02	136 00.10			260	237-245	9			
10	L13	ROS	1907	EN	85	56 51.11	136 00.48								

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
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LOR -RADAR
GLOBAL
LORAN

992143TS. DAT → File for 0443's bath test; it appears to be free of spikes

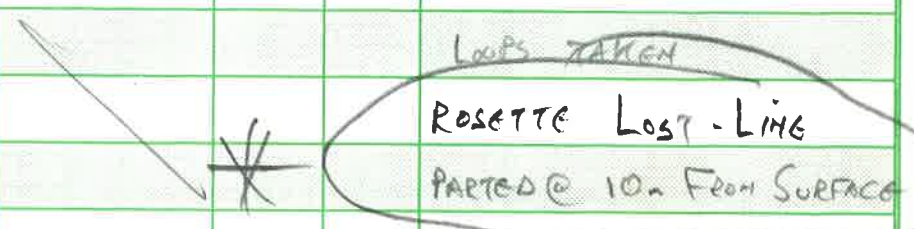
992137TS. DAT → " " 0437's " " ; 1 spike ???

Sep 11/99 Lost 24 bottle Rosette with Trans, PAR + Fluorometer. Cable on 329 #1307 parted ~10m from surface, strands broke over a distance of ~1ft. Wire is corroded + ~~not~~ brittle-cuts easily. Switching to CTD only work + Go-flor for Bowie survey.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR			MONTH			SHIP			CRUISE			PAGE		OF	
1999			SEPTEMBER			JOHN P TULLY			9921			15			
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	
10	L14	LOOP	2156			56 30 086	135 39 114							LOOPS TAKEN	
11	L15	Loop	0100			55 43 031	135 38 95							Loops TAKEN	
11	L16	Loop	0403			55 30 11	135 39 05							Loops Taken J.P.	
11	L17	Loop	0723			54 59.583	135 39 101		2634					Log 254 Julian	
11	L18	Loop	1040			54 29 549	135 39 046		2883						
11	L19	Loop	1340			54 00 424	135 38 973							Loops TAKEN	
11	B9	CTD	2306	BE	86	52 48 21	135 38 96		3468					Loops TAKEN	
11	B9	CTD	2315	BO	86	52 48 23	135 39 01			500				 ROSETTE Lost - LINE PARTED @ 10m FROM SURFACE	
11	B9	CTD	2321	END	86	52 48 18	135 39 09								
12	B9	NET	0145	BE	87	52 47 93	135 38 99								
12	B9	CTD	0115	BE	88	52 48 00	135 39 18	END	3469					NET TOWS TO 250 + 50m	
12	B9	CTD	0123	BO	88	52 47 98	135 39 33							Charged to CH43 w/o rosette Trans 1920 - 0443CTD.COM	
12	B9	CTD	0129	EN	88	52 47 96	135 39 18								
12	B08	CTD	0359	BE	89	52.59.91	135 39.36	END	3346					LOOPS TAKEN	
12	B08	CTD	0407	BO	89	52.59.90	135 39.38			400					
12	B08	CTD	0412	EN	89	52.59.87	135 39.41								
12	B07	CTD	0512	BE	90	53.6.18	135.39.29	END	3318						
12	B07	CTD	0520	BO	90	53.6.18	135.39.54			400					

CAST TYPE -

BOT -

bottle cast

CTD -

ctd

MOR -

mooring

ROS -

rosette

NET -

net haul

DRF -

dritter

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 -

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RADAR

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GLOBAL

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DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH				SHIP				CRUISE				PAGE		OF	
1999		SEPTEMBER				JOHN P. TULLY				9921				16			
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			
12	B07	CTD	0526	EN	90	53 6.10	135 39.53										
12	B07	NET	0544	BE	91	53'05.94	135'38.74							2 NETS, 50m, 250m.			
12	B07	GO- FLOS	0707	BE	92	53'05.903	135'38.817		3318		246-249	4.		0, 10, 20, 35m			
12	B07	GO- FLOS	0722	EN	92	53'05.918	135'38.478										
12	B06	CTD	0811	BE	93	53°12.19	135°39.07		25.61					Mixed layer 40m.			
12	B06	CTD	0821	BO	93	53'12.18	135'38.98			402				Loops taken			
12	B06	CTD	0827	EN	93	53°12.17	135'38.82							Funny current @ 135m Cold + salty			
12	B05	CTD	0951	BE	94	53'18.02	135'39.12		32-35m					Mixed layer: 28			
12	B05	CTD	0952	BO	94	53'18.02	135'39.16		38	30							
12	B05	CTD	0953	EN	94	53'18.01	135'39.16										
12	B5	BONJOUR NETS	1008	BO	95	53'18.036	135'39.016		30	20							
12	B5	PHYTO NETS	1022	BO	96	53'18.016	135'39.031		28'	20							
12	B5	GO- FLOS	1030	BE	97	53'17.992	135'39.038		26- 35	20-10-2	250-252	3.		20-10-2			
12	B5	GO- FLOS	1042	EN	97	53'18.024	135'39.035							Loops TAKEN			

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
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net haul
drifter

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sea water loop

TIME CODE -

BE -
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EN -beginning time of cast
bottom time of cast
end of castDE -
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messenger release
recover mooring

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LORAN

The fluorometer is in series with the 2nd pump.

Cast 105: Tubing from pump to primary cells was undone.

Sep 12/99

1540 PDT ZODIAC off to pick up rockfish from "NOPSA" for Jackie O'Connell + stomach content
53 18.25N, 135 33.63W

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1999		SEPTEMBER		JOHN P TULLY		9921		17		18				
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
12	B4	CTD	1136	BE	98	53 24 02	135 38 97		2630					Loops Taken
12	B4	CTD	1146	BO	98	53 24 03	135 39 02			401				
12	B4	CTD	1151	EN	98	53 24 04	135 39 02							
12	B3	CTD	1236	BE	99	53 30 04	135 38 98							Loops Taken
12	B3	CTD	1247	BO	99	53 30 02	135 38 95		3013					
12	B3	CTD	1252	EN	99	53 30 04	135 38 95			401				
12	B3	NETS	1305	BE	100	53 29 96	135 38 763			250/150/50				BONGOS + PHYTO NET HAULS
12	B3	BOT	1420	EN	101	53 29 997	135 38 89			35	253-256	4.		Go FLOS Prim. Prod. MIX layer @ 35
12	B2	CTD	1504	BE	102	53 36.01	135 38.91		3020		82			
12	B2	CTD	1514	BO	102	53 35.88	135 38.78			400	GO NE			LOOPS TAKEN
12	B2	CTD	1519	EN	102	53 35.83	135 38.99				? - overwrite -			no fault assigned DA
12	B1	CTD	1649	BE	102	53 47.90	135.38.84		2912					Loops Taken
12	B1	CTD	1659	BO	102	53 47.78	135.38.95			402				
12	B1	CTD	1705	EN	102	53 47.68	135.39.01							
12	B1	NETS	1800	BE	104	53 47.610	135.38.952			50/250				Bongos
12	B2	CTD	2001	BE	105	53 36.03	135 39.06		3028					Re-do B2
12	B2	CTD	2011	BO	105	53 36.01	135 39.05			404				Mixed layer 40m
12	B2	CTD	2018	EN	105	53 35.99	135 39 02							Fluorometer data suspicious on way down.

CAST TYPE -

BOT -

bottle cast

ROS -

rosette

USW -

sea water loop

TIME CODE -

BE -

beginning time of cast

DE -

deployment time

POSITION CODE -

RAD -

RADAR

CTD -

ctd

NET -

net haul

BO -

bottom time of cast

MR -

messenger release

GPS -

GLOBAL

MOR -

mooring

DRF -

drifter

EN -

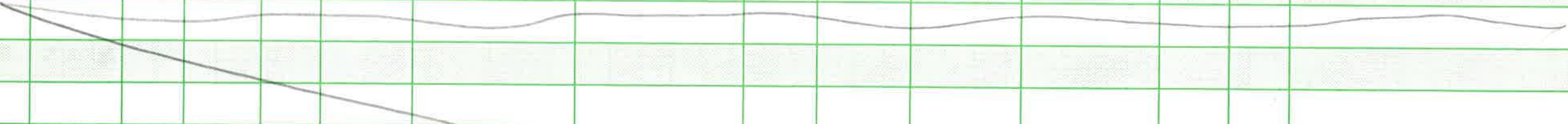
end of cast

RE -

recover mooring

LOR -

LORAN

YEAR		MONTH		SHIP		CRUISE		PAGE		OF				
1999		SEPTEMBER		JOHN P. TULLY		9921		18		18				
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
13	L20	Loops	0057			53 17.880	135 00.081							Loops TAKEN
13	L21	Loops	0242			53 18 10	134 30 241							Loops TAKEN
13	L22	Loops	0428			53 18.009	134 00 00							Loops TAKEN
13	L23	Loop	0614			53 17.973	133 29.902							Loops TAKEN
13	L24	Loop	0758			53 15.027	133 00.721		590					LI
13	L25?	Loop	1100			52 46 607	132 43 332		1664					Loops TAKEN
13	L26?	Loop	1500			52 18.524	131 53.204							Loops TAKEN
13	L27	Loop	2303			52 05.721	131 11.711							Loops TAKEN ANTHONY ISLAND
13	TEST	—	—			—	—							TESTED CTD →
14	L28	Loop	0300			51 37.964	130 53.499							
14	L29	Loop	0700			51 07.270	130 05.279							Loops TAKEN
14	L30	Loop	0800			51 00.002	129 54.066							Loops TAKEN
14	L31	Loop	1105			51 00 035	129 01.832							Loops TAKEN
14	L32	Loop	1400		—	51 00.034	128 16.48	GPS	79m					Loops (LAST)
14	L33	Loop	1553			50 58.588	127 49.689							Loops TAKEN
														

CAST TYPE - BOT - bottle cast
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

99/09/13

Tested CTD 0443, Data file 992143T2.DAT

Spikes due to bubbles pumped through cond. cells, but NO PRESSURE SPIKES!
D.A.