

DAILY LOG

CRUISE
NUMBER

IUS / PBS
2001-018

INSTITUTE OF OCEAN SCIENCES

OCEAN SCIENCES AND PRODUCTIVITY DIVISION

DATE

24 July - 21 August 2001

VESSEL

W.E. Ricker (Mark Saunders)

PROJECT

Hake Acoustics, COPRA, WCVI CTD Lines,
Salmon, Herring, Sardine Distributions and a
whole bunch of other fish-related research.

Captain: Sid Webb First Officer: P. Tasher
Second Officer: S Wood ^{F.M.} Third Officer: J. Kokorudz
Mission Participants / Agencies: _____

Scientific Personnel: Party Chief: Mark Sanders

Name	Watch	Cabin	Name	Watch	Cabin
<u>Ken Cooke</u>	_____	_____	<u>Al Hirst</u>	_____	_____
<u>Bill Andrews</u>	_____	_____	<u>Micheal Sanborn</u>	_____	_____
<u>Dan Lucas</u>	_____	_____	<u>Doug Moore</u>	_____	_____
<u>Adam Bielinski</u>	_____	_____	_____	_____	_____
<u>Robert Kiser</u>	_____	_____	_____	_____	_____
<u>Lesley MacDougall</u>	_____	_____	_____	_____	_____
<u>Ron Tansichuk</u>	_____	_____	_____	_____	_____
<u>Dennis Chalmers</u>	_____	_____	_____	_____	_____
<u>Stephen Ponnabe</u>	_____	_____	_____	_____	_____
<u>John Morris</u>	_____	_____	_____	_____	_____
<u>Gerald Denny</u>	_____	_____	_____	_____	_____

Second leg of Mission: Party Chief: _____

Name	Watch	Cabin	Name	Watch	Cabin
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Data logging computer: _____
Data acquisition program: _____ serial number: _____
CTD deck unit make: _____ model: _____

Primary CTD

Make: PBS 911+ 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: _____
Other sensors: _____ s/n: _____
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: _____
Other sensors: _____ s/n: _____

Comments: _____

Guide to cable terminations:

Please read and complete this form before reterminating cable. We have two standard CTD cables in use, nominal .316" and .322". This form specifically addresses these two cables, however the same considerations apply to using other cables. The specifications for non standard cables and associated terminations are available at Tom Juhasz's office (room 1221).

Please identify cable diameter:

Actual diameter measurements, two locations in triplicate at termination and approximately 5 metres back from termination.

At cable end:

at 5 metres:

1. _____

2. _____

3. _____

For comparison, the outer armour measurements of new cable:

Nominal .316" should be .3155 to .3165"

Nominal .322" should be .318 to .326"

Record specifications for other cables: _____ within: _____

The tolerance of the PMI Evergrip termination is tighter and only cables within these limits should be used.

For nominal .316" cable the lowest possible diameter is .309".

For nominal .322" cable the lowest possible diameter is .321"

Describe cable:

Kinks: _____

Birdcage _____

Rust flaking off cable _____ (flaking, not just looks rusty)

Cable round or oval _____

Does cable have loose outer armour? _____

(Raised wires or space between wires.)

Are outer armour wires flattened? _____

Remove cable that exhibits these signs of deterioration. To be authorised by Chief Scientist of the cruise, or the winch shop (Tom Juhasz at 250-363-6598).

Megger results by conductor (should be greater than 10,000. meg ohms)

Inner armour to conductor 1 _____

Inner armour to conductor 2 _____

Inner armour to conductor 3 _____

Please identify PMI sleeve used by checking the appropriate blank:

For .316" cable, diameter of inner dimension of sleeve should be .3265" _____

part number 9004897-13, cable diameter range .309" to .320". _____

For .322" cable, diameter of inner dimension of sleeve should be .3400" _____

part number 9004897-14, cable range .321" to .333". _____

Sliding the sleeve onto the cable should be difficult.

Evergrip helical Rods:

The part number is 9005-9002 and covers left hand lay cables of diameter range .309" to .333".

Presence of grit on inner surface (yes / no) _____

Condition of wires (damaged ends?) _____

Are the wires rusted? _____

Comments:

Seasave - would be nice to have an alarm pressure
at surface and at target depth

LB4 - LB 2

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001					Month July			Ship Richer			Cruise I.D. 018			
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
25	LD4	CTD	0559	BE	1	48 53.04	125 56.70		56		CTD #1		JA	Event Bongo #1
			0608	BO		48 53.04	125 56.70		60	51				CDASST 12278
			0610	EN		48 53.04	125 56.70		61					
26		BONG 6			2						Bongo #1			
26		L.P	1630		2A						Loop #1		JA	Loop sample Sal 29.942 Temp 11.349
27	NSTN	CTD	1302	BE	3	48 32.78	126 24.40		1116		CTD #2	1	JA	Bongo #1
			1327	BO		48 32.48	126 24.55		1127	1102				File 200118002.DAT
			1358	EN		48 32.25	126 24.57		1135					1405cmf 0705 POST Sal 30.912 Temp 11.690
					3A						Loop #2			
27	NSTN	CTD	1701	BE	4	48 37.33	126 8.40		157		CTD #3		JA	200118003.DAT 100.1 PST
			1705	BO		48 37.31	126 8.38		157	144				
			1709	EN		48 37.28	126 8.28		157					
28	NSTN	CTD	0228	BE	5	48 55.96	125 39.04		95		CTD #4		JA	200118004.DAT 0929 100.27
			0231	BO		48 56.02	125 39.04		93	82				PDST Surface 12.439
			0233	EN		48 56.04	125 39.04		93					Temp 30.427 Sal
28		Loop	2049		6	48 55.02	125 30.70				Loop #3		JA	Loop sample July 27, 2001 2049.DAT

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
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Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year <u>2001</u>					Month <u>July</u>			Ship <u>Recher</u>				Cruise I.D. <u>013</u>		
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
28	LD2	CTD	0633	BE	7	48° 58.27'	125° 47.10'		38		CTD #5		1/8	
			0634	BO		48° 58.27'	125° 47.10'		38	30				
			0635	EN		48 58 26	125 47.13'		38					
	BONGO	NET	0705	BO	7A				38	28	BONGO #2	1	DM	
28	NSTN	CTD	1415	BE	8	49 16.63	126 15.64		28		CTD #6		8	
			1416	BO		49 16.63	126 15.64		28	25				
			1417	EN		49 16.63	126 15.64		28					
28	NSTN	CTD	1913?	BE	9	49 13.53'	126 26.78'		78		CTD #7	1	DM	
			(1815)	BO		49 14.37'	126 26.86'		78	71				
				EN		49 13.44	126 26.89'		78					
28	NSTN	CTD	2234	BE	10	49 08.87'	126 39.97		129		CTD #8	1	DM	
			2238	BO		49 08.83'	126 40.02		129	121				
			2243	EN		49 08.82	126 40.04		129					
29	NSTN	CTD	0033	BE	11	49 04.93	126 52.86		277		CTD #9	1	DM	Pumps on at 50 m - ramp
			0041	BO		49 04.86	126 52.75		277	262				up to 0 - bend down again
			0047	EN		49 04.83	126 52.69		277					

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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
29	NSTN	CTD	0234	BE	12	49 02.51	127 01.08		1051		CTD #10			change file name to reflect Event # (not CTD #) = EUT #12
			0250	BO		49 02.32	127 00.89		1036	1021		1		Send messenger - 5 min wait
			0310	EN		49 02.26	127 00.77		1027					Salinity
29		NISKIN	0312		13	49 02.25	127 00.76		1027	2 m		1		NUTS, CHLa
29	NSTN	CTD	1306	BE	14	48 33.96	124 43.46		80		CTD #11	1		2001180014.DAT
			1310	BO		48 34.02	124 43.50		79	71				
			1315	EN		48 34.05	124 43.53		78					
29	NSTN	CTD	1608	BE	15	48 30.38	124 54.81		78		CTD #12	1		SWIFTSURE BANK.
			1612	BO		48 30.40	124 54.70		77	70				NUTS, CHLa
			1618	EN		48 30.40	124 54.67		77					2001-180015.DAT
29	NSTN	CTD	1852	BE	16	48 25.32	125 07.74		110		CTD #13	1		NUTS, CHLa
			1856	BO		48 25.30	125 07.72		108	99				2001-180016.DAT
			1900	EN		48 25.31	125 07.67		108					

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29	NSTN	CTD	2315	BE	17	48 18.83	125 23.84		119		CTD #14	1	OK	200180017. DAT
			2321	BO		48 18.79	125 23.79		118	109				1615 JUL 29.2001 POST
			2324	EN		48 18.77	125 23.77		118					Boat at surface for MMS
30	NSTN	CTD	0243	BE	18	48 12.15	125 40.92		530	555	CTD #15	1	OK	SALINITY ^{measured} 0253.5-0256
			0256	BO		48 12.05	125 40.66		526	515		1		200180018. DAT.
			0306	EN		48 11.97	125 40.50		491					
30	NSTN	NISKIN	0314		19	48 11.81	125 40.09		490	1 m		1	MS	NUTS, CHLOR
30	C-3	CTD	0508	BE	20	48 23.41	125 20.77		119		CTD #16		OK	200180020. DAT
			0511	BO		48 23.40	125 20.74		119	108				
			0514	EN		48 23.39	125 20.72		120					
	C-3	NET	0530	BO	21	48 23.38	125 20.71		120	110			OK	BONGO/VNH 0-110 m
30	C-2	CTD	0637	BE	22	48 25.40	125 07.71		115		CTD #17		OK	200180022
			0640	BO		48 25.37	125 07.66		110	100				
			0642	EN		48 25.36	125 07.63		109					
30	C-2	NET	0655	BO	23	48 25.36	125 07.63		109	95			OK	BONGO/VNH 0-95 m

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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
30	C-1	CTD	0749	BE	24	48 28.98	125 15.39		148		CTD*18		DM	2001180024.DAT
			0753	BO		48 28.97	125 15.43		148	140				
			0758	EN		48 28.96	125 15.46		148					
30	C-1	NET	0813	BO	25	48 28.96	125 15.46		148	135			DM	Bongo/VNH 0-135 m
30	NSTN	CTD	1303	BE	26	48 19.91	125 57.51		615		CTD#19		DM	2001180026.DAT
			1317	BO		48 19.75	125 57.62		572	557				J-L 30 2001 0613
			1326	EN		48 19.62	125 57.61		540			1		Bottle as value NUTS, CHL
30	NSTN	CTD	1724	BE	27	48 21.70	125 53.76		133		CTD*20		DM	2001180027.DAT
			1727	BO		48 21.70	125 53.76		134	121				
			1730	EN		48 21.70	125 53.76		135			1		NISKIN AT SURF: NUTS/CHL
30	NSTN	CTD	2159	BE	28	48 32.51	125 31.14		111		CTD*21		DM	2001180028.DAT
			2206	BO		48 32.52	125 31.20		113	103				
			2210	EN		48 32.53	125 31.18		112			1		NISKIN AT SURF: NUTS, CHL

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Year 2001					Month 07/08			Ship Richer				Cruise I.D. 018		
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
31	NSTN	CTD	0053	BE	29	48 37.34	125 18.49		102		CTD #22			200180029.DAT
			0056	BO		48 37.34	125 18.51		103	91				
			0059	EN		48 37.33	125 18.52		103			1		NISKIN@SURF: NUTS/CHLa
31	NSTN	CTD	0239	BE	30	48 43.05	125 13.50		70		CTD #23			200180030.DAT
			0244	BO		48 43.03	125 13.53		71	60				
			0246	EN		48 43.03	125 13.54		71			1		NISKIN@SURF: NUTS/CHLa
01	B8	CTD	0505	BE	31	48 34.53	125 30.04		114	110		1	SL	
			0509	BO		48 34.54	125 30.09							
			0513	EN		48 34.57	125 30.18							
01	B8	NET	0532	BO	32	48 34.57	123 30.18						SL	Bongo VNH
01	B7	CTD	0559	BE	33	48 32.04	125 35.40		76	70			SL	
			0602	BO		48 32.03	125 35.43							
			0603	EN		48 32.04	125 35.45							
01	B7	NET	0619	BO	34	48 32.64	125 35.45		76	70			SL	Bongo VNH

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Year	2001				Month	08		Ship	Ricker				Cruise I.D.			018	
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			
01	B6	CTD	0745	BE	35	48 36.46	125 54.07		89	85			SR				
			0748	BO		48 36.47	125 54.07										
			0750	EN		48 36.47	125 54.06										
01	B6	NET	0806	BO	36	48 36.47	125 54.06		89	85			SR	Norpac VNH			
01	B5	NET	0902	BO	37	48 40.64	125 46.22		76	70			SR	Norpac VNH			
01	B5	CTD	0905	BE	33	48 40.64	125 46.22		93	87			SR				
			0907	BO		48 40.66	125 46.26										
			0909	EN		48 40.68	125 46.34										
02	A1	CTD	0340	BE	39	48 29.35	126 07.09		198	192			SR	Winch counter broken,			
			0347	BO		48 29.32	126 07.02							wrong pressure on CTD			
			0351	EN		48 29.29	126 07.00										
02	A1	NET	0419	BO	40	48 29.29	126 07.00		198	190			SR	Bongo VNH			

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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		
01	A3	CTD	0529	BE	41	48 24.75	126 15.68		915	501.		1	SR	+salinity @ 5m		
			0539	BO		48 24.78	126 15.60							above CTD @ 501m		
			0552	EN		48 24.76	126 15.53									
02	A3	NET	0615	BO	42	48 24.76	126 15.53		915	250			SR	Bongo VNH		
02	A2	CTD	0715	BE	43	48 22.63	126 03.83		375	371			SR			
			0723	BO		48 22.56	126 03.68									
			0729	EN		48 22.53	126 03.62									
02	A2	NET	0801	BO	44	48 22.53	126 03.62		375	250			SR	Norpac VNH		
04	E1	CTD	0254	BE	45	48 30.71	125 03.87		134	130			SR			
			0259	BO		48 30.66	125 03.88									
			0302	EN		48 30.65	125 03.89									
04	E1	NET	0318	BO	46	48 30.65	125 03.87		130	125			SR	Bongo VNH		

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Year 2001					Month 08			Ship Ricker				Cruise I.D. 018		
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
0A	J-Buoy	CTD	0455	BE	47	48 29.48	124 42.93		257	251			SL	
			0501	BO		48 29.52	124 42.93							
			0506	EN		48 29.57	124 42.93							
04	J-Buoy	NET	0527	BO	48	48 29.57	124 42.93		254	250			SA	Bongo VNH
05	NS1N	CTD	1257	BE	49	49 28.38	126 36.57		27.8				LM	0557 Ags. POST
			1310	BO		49 28.29	126 36.35		27.5	20				INSIDE - NORTHERN LINE
			1311	EN		49 28.27	126 36.34		27.5					
05	NS1N2	CTD	1832	BE	50	49 29.21	126 51.554		82.0				LM	1140 POST Ags
			1847	BO		49 29.20	126 51.60		80.2	71				
			1850	EN		49 29.75	126 51.62		80.8					
05	NS1N	CTD	2215	BE	51	49 31.63	127 13.35	158	157				VA	1514 POST
			2219	BO		49 31.64	127 13.38	15	158	157				200118 0051. DAT
			2222	EN		49 31.66	127 13.38		158					NO BOTTLE TOO DEEP

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2001														
5	NSTN	CTD	2328	BE	52	49 34.32	127 17.90		474				19	2001180052.DAT
			2337	BO		49 34.30	127 17.76		433	417				16 Bottle
			2345	EN		49 34.30	127 17.74		415					1632 PDST
6	NSTN	CTD	03:18	BE	53	49 38.19	127 22.56		168	150				END of Fish set 62
			03:21	BO		49 38.16	127 22.58		165	150			JM	2001180053.DAT
			03:26	EN		49 38.18	127 22.54		168					2020 Aug 6 PDST
6	NSTN	CTD	14:15	BE	54	49 53.55	127 14.58		43	38			JM	2001180054.DAT
			14:16	BO		49 53.52	127 14.59		43					0715 Aug 6 PDST
			14:18	EN		49 53.50	127 14.57		44					
6	NSTN	CTD	1636	BE	55	49 53.96	127 25.14		63				19	2001180055.DAT
			1638	BO		49 53.99	127 25.15		63	54				0937 PDST Aug 6, PDST
			1640	EN		49 54.01	127 25.17		63					
6	NSTN	CTD	1904	BE	56	49 53.13	127 38.60		100				19	2001180056.DAT
			1906	BO		49 53.14	127 38.58		100	93				
			1908	EN		49 53.16	127 38.57		100					

Cast type:

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year					Month	Ship					Cruise I.D.			
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
6	NSTN	CTD	2049		57	49 51.71	127 46.09		522			2	JK	2001180057.DAT
			2101			49 51.72	127 46.12		530	511				Aug: 1405 POST
			2114			49 51.71	127 46.13		530					NISKIN @ DEPTH
6		LOOP			58	49 51.71	127 46.13				LOOP #4	1	JK	
6	NSTN	CTD	16:25	BH	59	50 28.13	128 9.62		38	33			JM	2001180059.DAT
	time should be 18:25		16:26	B0		50 28.12	128 9.86		39					
			16:28	EN		50 28.12	128 9.87		38					
7	NSTN	CTD	10:04	BE	60	50 28.96	128 32.07		214	205			JM	2001180060.DAT
	time should be 22:07		10:04	B0		50 27.96	128 31.96		212					
			10:13	EN		50 27.96	128 31.97		213					
7	NSTN	CTD	01:23	B0	61	50 27.989	124 44.100		1824.2			2	JM	6:53 PDT
			02:00	B0		50 27.986	128 44.138		1831.4	497				
			02:11	EN		50 27.985	128 44.101		1837.6					
7		LOOP			62	50 27.984	124 44.100		1		LOOP #4		JM	

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year <u>2001</u>					Month <u>AUGUST</u>			Ship <u>WE RICKER</u>				Cruise I.D. <u>018</u>		
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
9	NSTN	CTD	07:34	BE	63	47° 56.998	131° 27.492		2149				ML	(PDT 12:34)
			7:56	BO		50° 9.68	130° .089		2200	505				(discrepancy between the 2 computers re: lat + long)
			08:06	EN		50° 9.69	130 .092		2167					
9	NSTN	CTD	09:19	BE	64	50° .969	129° .816		1360				ML	(PDT 2:19)
			09:35	BO		50° 969	-129 .819		14183	500				
			09:44	EN		50 .970	-129 .820		1461.1					
9	NSTN	CTD	02:55	BE	65	50.956	-129.127		106					
			02:59	BO		50.954	-129.130		107	95			ML	20:00 (PDT)
			03:02	EN		50.953	-129.131		107					
10	NSTN	CTD	11:08	BE	66	51.638	-130.035		352				ML	4:08 (PDT)
				BO		51.639	-130.035		352	343				
				EN		51.639	-130.034		354					
10	NSTN	CTD	02:10	BE	67	51.635	-130.411		382					
			02:18	BO		51.634	-130.413		387	371			ML	
			02:26	EN		51.633	-130.415		391					

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001					Month August			Ship WE RICKER				Cruise I.D. 2001-18		
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
10	NSTN	CTD	04:20	BE	68	51.636	-130.832		1103.2				AK	PDT 9:23
			4:34	BO		51.633	-130.831		1150.7	502				(min bottom temp 4.95C)
			4:43	EN		51.632	-130.832		1215.5					
11	NSTN	CTD	13:01	BE	69	52.813	-131.20.03		100.5					
			13:06	BO		52.810	-131.20.09		112.5	91			AK	PDT 06:09
			13:09	EN		52.810	-131.20.10		118.7					
11	NSTN	CTD	14:31	BE	70	52.819	-131.38.61		1873.5					PDT 07:30
			1442	BO		52.816	-131.38.69		1867.9	500			AK	bottom + surface sample
			1458	EN		52.809	-131.38.78		1847.0					
12	NSTN	CTD	00:08	BE	71	52.44.84	-132.11.03		521.4					
			00:20	BO		52.44.82	-132.11.21		608.0	498			AK	surface water sample
			00:32	EN		52.44.79	-132.11.31		613.5					
12	NSTN	CTD	0435	BE	72	53.136	-132.936		929.2				AK	PDT 9:35 pm
			0448	BO		53.134	-132.937		948.6	502				
			0457	EN		53.132	-132.938		973.7					

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001					Month August			Ship WE RICKER			Cruise I.D. 2001-181			
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
12	NSTN	CTD	0601	BE	73	53 08.14N	132 56.12W		315.0				AM	PDT 11:01 pm
			0609	BO		53.137	-132.675		326.9	314				
			0615	EN		53.136	-132.676		371.7					
						53 08.2 N	132 40.42W							
12		LOOP	0623		74	53.136	-132.676				LOOP #8		R	PDT 11:23 pm
						53.28.08N	132 56.90W							
12	NSTN	CTD	0103 pm	BE	75	53.468	-132.948		112.8					PDT 6:03 am
			0106	BO		53.468	-132.948		111.0	103				
			0109	EN		53.468	-132.949		111.5					
12	NSTN	CTD	1515	BE	76	53 28.15	-133 6.08		565				AC	PDT 0815
			1530	BO		53 28.17	-133 6.14		595	560				
			1538	EN		53 28.13	-133 6.17		607					
13	NSTN	CTD	0240	BE	77	54 8.12	-133 44.30		547				AC	PDT 2050
			0250	BO		54 8.16	-133 44.42		557	501				Temp @ 334 < 5.0 °C
			0300	EN		54 8.15	-133 44.56		574					
13	NSTN	CTD	0454	BE	78	54 8.06	-133 17.51		109	90'			AC	PDT 2202
			0457	BO		54 8.02	-133 17.58		110					
			0500	EN		54 7.96	-133 17.61		113					

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year					Month	Ship							Cruise I.D.		
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	
13	NSTN	CTD	1259	BE	79	54 47.50	-133 3.12		123.5	116			HR	PDT 06:05	
			1302	BO		54 47.52	-133 2.98		128.0						
			1305	EN		54 47.54	-133 2.89		122.2						
13	NSTN	CTD	1525	BE	80	54 46.41	-133 11.08		197.5	183			HR	PDT 0834	
			1530	BO		54 46.37	-133 11.02		195.5						
			1533	EN		54 46.33	-133 10.95		197.2						
13	NSTN	CTD	1639	BE	81	54 45.68	-133 18.89		113.5	100			HR	PDT 0940	
			1642	BO		54 45.63	-133 18.84		114.2						
			1645	EN		54 45.61	-133 18.83		115.0						
13	NSTN	CTD	1747	BE	82	54 45.01	-133 26.91		146.3				HR	PDT 1052	
			1752	BO		54 44.99	-133 26.94		146.5	135					
			1755	EN		54 44.97	-133 26.96		146.6						
13	NSTN	CTD	1857	BE	83	54 44.40	-133 34.73		194.0	180			HR	PDT 1157	
			1902	BO		54 44.39	-133 34.87		194.5						
			1906	EN		54 44.39	-133 34.94		194.5						
13	NSTN	CTD	2012	BE	84	54 43.57	-133 42.62		217.9	205			HR	PDT 1317	
			2017	BO		54 43.51	-133 42.71		212.0						
			2022	EN		54 43.46	-133 42.83		206.8						

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year <u>2001</u>					Month <u>August</u>			Ship <u>WE Richer</u>				Cruise I.D. <u>HS 2001-018</u>		
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
13	NSTN	CTD	2054		85	54°42.87	133°50.31"		225	215			R	PDT 1356
			2101			54 42.90	133 50.39		226					
			2106			54 42.92	133 50 39		226					
13	NSTN	CTD	2206		86	54 42 25	133 58 21		203	190			R	PDT 1524
			2214			54 42 27	133 58 25		205					
			2218			54 42 28	133 58 27		204					
13	NSTN	CTD	2318		87	54 41 51	134 05 96		222	210			R	PDT 1627
			2323			54 41 59	134 05 90		223					
			2328			54 41 65	134 05 83		223					
14	NSTN	CTD	0323		88	54 40.01	134 21.70		2115.0	561			RE	PDT 2050
			0334			54 39 98	134 21.59		2115.0					
			0344			54 39.97	134 21.48		2090.0					
14	NSTN	CTD	0452	BE	89	54.639	-134.633		2200				RE	PDT 2152
			0504	BO		54.639	-134.630		2370	501				
			0514	EN		54.639	-134.625		2369					
14	NSTN	CTD	1307	BO	90	54 36.60	132 41.58		126.4	115'			RE	PDT 0644
			1310	BO		54 36.60	132 41.60		124.2					
			1313	EN		54 36.59	132 41.61		119.8					

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year					Month			Ship			Cruise I.D.			
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
15	NSTN	CTD	1530	BE	91	54 14.11	132 41.24		170.0	160			AK	POT 0838
			1534	BO		54 14.14	132 41.27		171.9					
			1537	EN		54 14.16	132 41.31		173.1					
						54 26.18N	132 06.98W							
15	NSTN	CTD	0641	BE	92	54.436	-132.117		328.2				AK	PDT 11:41
			0647	BO		54.437	-132.122		330	321				
			0653	EN		54.436	-132.124		331.7					
15	NSTN	CTD	0803	BE	93	54 36 43	132 06.84		144	132			R	PPT 1316
			0808	BO		54 36 47	132 06.97		137					
			0811	EN		54 36 47	132 06.97		138					
15	NSTN	CTD	0920	BE	94	54 36 47	131 49.92		337	325			R	PDT 1420
			0926	BO		54 36 44	131 49 87		337					
			0932	EN		54 36 43	131 49 83		337					
	NSTN	CTD	1042	BE	95	54 36 46	131 39 90		143	135				
			1045	BO		54 36 48	131 32 94							
				EN		54 36 47	131 32 94							
15	NSTN	CTD	01:02	BE	96	54.258	-131.542		48.2				Z	PDT 18:06
				BO		54.258	-131.541		46.4	37				
				EN		54.257	-131.540		44.8					

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54 15.50N

Time Code

131 32.52W

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year 2001					Month August			Ship WE RICKER				Cruise I.D. 2001-18		
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
15	NSTN	CTD	02:46	BE	97	54.251	-131.038		118					
			02:51	BO		54.250	-131.037		116.9	111			W	
			02:54	EN		54.250	-131.036		116.4					
16	NSTN	CTD	03:05	BE	98	52 38.24	-129 47.46		160.9	150			W	
				Bo		52 38.23	-129 47.51		161.2					
				BN		52 38.21	-129 47.57		161.4					
16	NSTN	CTD	04:27	BE	99	52 38.20	-130 06.35		252.5	240			W	PDT 2138
			0432	Bo		52 38.22	-130 06.36		251.8					
			0436	BN		52 38.26	-130 06.32		251.9					
16	NSTN	CTD	0534	BE	100	52.637	-130.345		180.8					PDT 22:34
			0538	Bo		52.637	-130.346		178.6	172				
			0541	EN		52.637	-130.346		177.6					
16	NSTN	CTD	1246	BE	101	51 48.11	-131 01.66		1658	500			W	PDT 0547
			1259	Bo		51 48.01	-131 02.24		1851					
			1310	EN		51 47.93	-131 02.58		1800					
16	NSTN	CTD	0154	BE	102	51 48.09	-130 53.52		181.9	150			R	PDT 0708
			0159	Bo		51 48.11	-130 53.66		193					
			0203	BN		51 48.11	-130 53.72		181					

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time to be shown 1354

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year					Month			Ship				Cruise I.D.		
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
16	NSTN	CTD	07:28	BE	103	51 48 07	129 43 40		305.7	290			R	PDT 12:28
			07:34	BO		51 48 07	129 43 28		305.1					
			07:40	EN		51 48 05	129 43 13		302.9					
16	NSTN	CTD	1045	BE	104	51 48 08	128 51 28		56.0	46			R	PDT 15:52
			1046	BO		51 48 03	128 51 26		56					
			1047	EN		51 48 02	128 51 26		56					
17	NSTN	CTD	0000	BO	105	51 47.97	128 32.68		136.2	126			AR	PDT 1705
			0004	BO		51 47.95	128 32.66		136.3					
			0007	EN		51 47.94	128 32.64		136.6					
17	NSTN	CTD	0108	BO	106	51 48.13	128 16.79		145.2	136			AR	PDT 1810
			0113	BO		51 48.10	128 16.75		145.5					
			0117	EN		51 48.12	128 16.73		144.2					
17	NSTN	CTD	1310	BO	107	51 28.12	128 49.96		96.8	85			AR	PDT 0615
				BO		51 28.10	128 49.83		97.6					
				EN		51 28.10	128 49.80		97.6					
17	NSTN	CTD	1850	BE	108	51 18.15	128 22.06		78.0				SM	PDT 1150
			1853	BO		51 18.16	128 22.09		82.3	73				
			1855	EN		51 18.17	128 22.13		82.5					

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Year <u>2001</u>					Month <u>AUGUST</u>			Ship <u>WE RICKER</u>				Cruise I.D. <u>200118</u>		
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
17	NSTN	CTD	0945	BE	109	51 18 28	129 06.48		263	250			R	PDT 1503
time to be shown 2145			0953	BO		51 18 33	129 06 33		263					
			0958	EN		51 18 34	129 06 34		263					
18	NSTN	CTD	0419	BE	110	51 8.8	128 29.01		169				M.	PDT 9:19 pm.
			0425	BO		51 8.27	128 28.82		173	170				
			0428	EN		51 8.29	128 28.75		173.5					
18	NSTN	CTD	0547	BE	111	51 8.01	128 45.01		91.5				M	PDT 10:47 pm.
			0549	BO		51 7.96	128 44.94		91.0	81				
			0551	EN		51 7.92	128 44.88		90.8					
18	NSTN	CTD	0706	BE	112	51 8.07	129 1.06		128.2				M	PDT 12:07 am
			0709	BO		51 8.06	129 1.06		126.9	121				
			0712	EN		51 8.05	129 1.06		127.4					
18	NSTN	CTD	1248	BE	113	51 8.18	129 16.79		210				M	PDT 5:48
			1253	BO		51 8.17	129 16.76		209	191				
			1256	EN		51 8.17	129 16.74		208.2					

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

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