

Consec. Cast # 001		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 MF9112-1 & 2		Event # 173		Vessel Sta. I.D.		Instructions										Pg. 1 of 1		Sta. Designation 004			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 088			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 985.2	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or LD		
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.															
001	54	46	58	N	168	30	10	W	29	MAR	93	11	09	03	90	26	85	37	28	01	8	13	12	123	004
CTD 91220-A Type & SN 92067-ME				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom 11:08 Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST001-29 Mar 1993 Remarks 975 w/o													
iPress. SN 25084 Temp. SN 889 301 Cond. SN 530 303																									

Obs.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1																		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials **SB**
✓ **MC**

Consec. Cast # 002		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 MF9112-1 & 2		Event # 174		Vessel Sta. I.D.		Instructions										Sta. Designation 004																														
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 986.1	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																											
002	5	4	4	6	6	9	N	1	6	8	3	0	3	2	W	2	9	M	A	R	9	3	1	2	4	1	0	3	9	0	3	0	8	6	3	7	2	3	5	1	2	1	3	1	2	1	4	0	1	004

CTD 912209 Type & SN 92067 MF		Monitor Checks				Times JD/Time		Data Location					
Press. SN 25084		on Deck		at Surface		Data on		Tape/Diskette I.D.		File Name/Header			
Temp. SN 889 301		Press. _____		_____		at Surface 1213		_____		Cast 002 - 29 Mar 1213			
Cond. SN 530 303		Temp. _____		_____		Start Down 1216		_____		_____			
_____		Cond. _____		_____		at Bottom 1241		_____		_____			
_____		Other _____		_____		Start Up _____		Remarks		Therm.: 12:41 During Upcast spit out numerous lost frames			
_____		_____		_____		at Surface _____		_____		_____			
_____		_____		_____		Data off _____		_____		_____			

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1		B								inaccurate readings							02		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials _____
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Consec. Cast # 003		Vessel MILLER FREEMAN		Proj. & Leg MF93-03 MF9112-1 & 2		Event # 175		Vessel Sta. I.D.		Instructions										Sta. Designation 004												
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 987.5		S.S.	Vis.	Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
003		544652N			1683049W			29 MAR 93			1422		040		032		87		37	29	018		863		2148		004					
CTD 91220-A Type & SN 92067 MF Press. SN 25084 Temp. SN 889 301 Cond. SN 530 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on _____ at Surface 1349 Start Down 1352 at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header cast003-29 Mar 1349 Remarks thermo: 14:30 700m winch @ trip 14:35 * last sample																
Bottle	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				Sample Bot. Data Therm-P Avg Tw Sal.			Sal. Bot. #	Other Samp.	Bottle													
1	07	B	700m			702.154 3.157 34.199				702.154 3.157 34.199							30		1													
2																			2													
3						broke; replaced w/ bottle #38													3													
4																			4													
5																			5													
6																			6													
7																			7													
8																			8													
9																			9													
10																			10													
11																			11													
12																			12													

Initials _____
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Consec. Cast # 004		Vessel MILLER FREEMAN		Proj. & Leg MF 93-03 MF 9112-1 & 2		Event # 176		Vessel Sta. I.D.		Instructions										Sta. Designation 004		
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
004	54	46	N	168	30	28	W	29	MAR	93	15	52	03.9	03.1	88.0	37	290	12	87	22	126	004
CTD 91220-A Type & SN 92067 MF			Monitor Checks			Times JD/Time			Data Location													
iPress. SN 25084			on Deck			at Surface			Data on			Tape/Diskette I.D.							File Name/Header			
Temp. SN 889 701			Press. _____			_____			at Surface 1524			_____							Cast 004 - 29 Mar 1527			
Cond. SN 530 303			Temp. _____			_____			Start Down 1528			_____							_____			
_____			Cond. _____			_____			at Bottom 1553			_____							_____			
_____			Other _____			_____			Start Up 1559			Remarks							therms: 15:53			
_____			_____			_____			at Surface _____			_____							15:58			
_____			_____			_____			Data off _____			_____							_____			
St. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	St. #			
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.						
1	38	B	1000m	1553	1558					995.403	2793	31.382	34.341				15		1			
2																			2			
3																			3			
4																			4			
5																			5			
6																			6			
7																			7			
8																			8			
9																			9			
10																			10			
11																			11			
12																			12			

Initials MC

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Consec. Cast # 005		Vessel MILLER FREEMAN		Proj. & Leg MF93-03 MF91I2-182		Event # 178		Vessel Sta. I.D.		Instructions										Sta. Designation 004						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD =			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 989.5	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																
005	54	46	N	168	29	45	W	29	MAR	93	17	43	04	20	31	89	38	30	01	45	71	21	28	004		
CTD 91220-A Type & SN 92067 MF				Monitor Checks								Times JD/Time				Data Location										
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header										
Temp. SN 889 701				Press. _____								at Surface 1714				_____										
Cond. SN 530 303				Temp. _____								Start Down 1717				_____										
				Cond. _____								at Bottom _____				_____										
				Other _____								Start Up 1800				Remarks										
												at Surface _____				therma: 17:55 tripped @ 500m										
												Data off _____				18:00										
No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos							
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.										
1	38	B	500m																					05		1
2																										2
3																										3
4																										4
5																										5
6																										6
7																										7
8																										8
9																										9
10																										10
11																										11
12																										12

Initials _____
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Consec. Cast # 006		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 MF9112-182		Event # 179		Vessel Sta. I.D.		Instructions										Sta. Designation 004				
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 990.5	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
006	54	47	00N	168	29	90W	29	MAR	93	19	01	06	1	04	2	90	48	30	01	44	71	21	23	004
CTD 91220-A Type & SN 92067-MF				Monitor Checks				Times JD/Time				Data Location												
Press. SN 25084				on Deck at Surface				Data on				Tape/Diskette I.D. File Name/Header												
Temp. SN 889 301				Press. _____				at Surface 1834				_____												
Cond. SN 530 303				Temp. _____				Start Down 1837				_____												
_____				Cond. _____				at Bottom 1901				_____												
_____				Other _____				Start Up 1902				_____												
_____				_____				at Surface _____				Remarks												
_____				_____				Data off _____				Therms: 19:13 19:18 Trip @ 400m												
No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	No.					
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.								
1	38	B	400m									400.697	3.694	31.522	33.877				22		1			
2												1001.690	2.771	31.371	34.347	log file @ depth					2			
3																					3			
4																					4			
5																					5			
6																					6			
7																					7			
8																					8			
9																					9			
10																					10			
11																					11			
12																					12			

Initials _____

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Consec. Cast # 007		Vessel MILLER FREEMAN		Proj. & Leg MF93-03 MF9112-1 & 2		Event # 180		Vessel Sta. I.D.		Instructions										Sta. Designation 004						
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 088 Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.				
007	54	46	N	168	29	71	W	29	MAR	93	20	20	05	6	04	1	9	2	4	8	2	80	124	71	2106	004
CTD 91220-A Type & SN 92067-MF Press. SN 25084 Temp. SN 889 701 Cond. SN 530 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface 1959 Start Down 2000 at Bottom 2021 Start Up 2022 at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header cast 007 - 29 Mar 1957 Remarks 20:37 therm: 20:42 tripped @ 75m														
Sts.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Sts. #							
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.										
1	38	B	75m										75.348	3.393	30.531	33.174				26		1				
2													999.027	2.773	31.369	34.345	log file @ depth					2				
3																						3				
4																						4				
5																						5				
6																						6				
7																						7				
8																						8				
9																						9				
10																						10				
11																						11				
12																						12				

Initials _____

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Consec. Cast # 008		Vessel MILLER FREEMAN		Proj. & Leg MF93-03 MF9112-1 & 2		Event # 181		Vessel Sta. I.D.		Instructions										Sta. Designation 004																
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg.		E or W		Date JD = 088 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
008		5446		14		N		16829		12		W 29 MAR 93			21 33		04 50		3 9		93		48		280		12		47		12082		004			
CTD 91230-A Type & SN 92067-MF		Monitor Checks										Times JD/Time		Data Location																						
Press. SN 25084		on Deck					at Surface					Data on 210911		Tape/Diskette I.D.					File Name/Header																	
Temp. SN 889 701		Press. _____					Temp. _____					at Surface 2109		_____					cast 008 - 29 Mar 2109																	
Cond. SN 530 303		Start Down 2109					Temp. _____					at Bottom 2133		_____					_____																	
_____		Start Up 2133					Cond. _____					at Surface _____		Remarks 944 w/o					THERMS WERENT READ																	
_____		Data off _____					Other _____					_____					_____					_____														
Pos.		Bot. Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.												
1		✓		435		214435 2149						433.945 3.553 31.461 33.933				— —				33				1												
2																								2												
3																								3												
4																								4												
5																								5												
6																								6												
7																								7												
8																								8												
9																								9												
10																								10												
11																								11												
12																								12												

Initials SD
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Consec. Cast # 009		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 MF0112-1 & 2		Event # 182		Vessel Sta. I.D.		Instructions										Sta. Designation 004					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 088 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
009	54	46	40	N	168	30	63	W	29	MAR	93	22	49	03	50	30	09	43	82	75	13	46	12	106	004
CTD 91220-A Type & SN 92067 MF				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface 22 24 Start Down 22 25 at Bottom 22 49 Start Up 22 50 at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST009_29MAR_2223 Remarks NO DATA FROM ~730-780 M (CTD plugs were bumped during Seacat testing)									
iPress. SN 25084		Temp. SN 889 701		Cond. SN 530 303		Press. _____		Temp. _____		Cond. _____		Other _____													
Sts.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.						
1		✓	150	230530	231030	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	03		1						
2																			2						
3																			3						
4																			4						
5																			5						
6																			6						
7																			7						
8																			8						
9																			9						
10																			10						
11																			11						
12																			12						

Initials _____
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Consec. Cast # 010		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 MF9112-1 & 2		Event# 183		Vessel Sta. I.D.		Instructions										Sta. Designation 004				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 089			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.														
010	54	46	N	168	29	47	W	30	MAR	93	00	20	03	9	02	8	95	37	26	01	34	61	2092	004
CTD 91320-A Type & SN 92067 MF		Monitor Checks										Times JD/Time		Data Location										
IPress. SN 25084		on Deck at Surface										Data on		Tape/Diskette I.D. File Name/Header										
Temp. SN 889 301		Press. _____										at Surface 2355		CAST010 29MAR2354										
Cond. SN 530 303		Temp. _____										Start Down 2355												
		Cond. _____										at Bottom _____												
		Other _____										Start Up _____												
												at Surface _____		Remarks 1011 w/o										
												Data off _____												
Pgs.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pgs.					
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.								
1		✓	850	002409	002940					826.678	3.028	31.457	34.272				27		1					
2																			2					
3																			3					
4																			4					
5																			5					
6																			6					
7																			7					
8																			8					
9																			9					
10																			10					
11																			11					
12																			12					

Initials _____
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Consec. Cast # 011		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 B.S. FOCI		Event # 184		Vessel Sta. I.D.		Instructions										Sta. Designation 004														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 089 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
011		544699N			1683058W			30MAR93			014107		005596		382451166		12129												004					
CTD Type & SN Sea-Bird 91220A Press. SN 25084 Temp. SN 701 Cond. SN 303					Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____					Times JD/Time Data on _____ at Surface 0115 Start Down 0116 at Bottom _____ Start Up _____ at Surface _____ Data off _____					Data Location Tape/Diskette I.D. _____ File Name/Header CAST011-30MAR0114 Remarks w/o 972 last cast of time series at PEGGY mooring (11 casts total)																			
Pos.		Bot.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				Sample Bot. Data Therm-P Avg Tw Sal.			Sal. Bot. #		Other Samp.		Pos.									
1				✓		300		01:54 01:59		304.156 37.62 31.428 33.745											30				1									
2																									2									
3																									3									
4																									4									
5																									5									
6																									6									
7																									7									
8																									8									
9																									9									
10																									10									
11																									11									
12																									12									

Initials WF

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Cast #003 Station 6 as marked in MOA

Pg. 12 of

Consec. Cast # 012		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 B.S. FOCI		Event # 204		Vessel Sta. I.D.		Instructions		972		Sta. Designation 006i											
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
012	54	47	41	N	116	830	70	W	30	Mar	93	17	20	03	00	20	90	-	10	150	30	-	-	2121	006
CTD Type & SN Sea-Bird 91220A				Monitor Checks				Times JD/Time				Data Location													
Press. SN				on Deck				Data on				Tape/Diskette I.D.													
Temp. SN 701				at Surface				at Surface				File Name/Header													
Cond. SN 303				Press.				Start Down				cast 012 30 Mar 1720													
				Temp.				at Bottom																	
				Cond.				Start Up				Remarks cast aborted @ 400m													
				Other				at Surface				Tape for cast #12 may have small portion of aborted cast #13 at beginning													
								Data off																	

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1																		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials

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Consec. Cast # 013		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 B.S. FOCI		Event # 233		Vessel Sta. I.D.		Instructions		Sta. Designation 007										
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD =			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.													Min.
013	53	44	N	167	30	65	W	31	MAR	93	19	35	04	00	33	64	-5	09	32	7	850	007
CTD Type & SN Sea-Bird 91220A			Monitor Checks						Times JD/Time			Data Location										
Press. SN			on Deck						Data on			Tape/Diskette I.D.										
Temp. SN 701			at Surface						at Surface 1911			File Name/Header										
Cond. SN 303			Press.						Start Down 1912			can 013 310m 909										
			Temp.						at Bottom 1934													
			Cond.						Start Up 1935													
			Other						at Surface			Remarks										
									Data off			19:54 19:59										

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	38	B	100							99.185	3.845	30.625	32.815					1	
2										872.630	3.057	31.77	34.243	log file @ depth				2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials

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Cast #1 station 8 as marked in MOA

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Consec. Cast # 014		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 B.S. FOCI		Event # 239		Vessel Sta. I.D.		Instructions										Sta. Designation 008														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 090 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
014		540585 N			1675267 W			31 MAR 93			22 53		05		9049		63		47		09		43		09		72		1640		008			
CTD Type & SN Sea-Bird 91220A Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on 2214 at Surface 2215 Start Down 2215 at Bottom 2252 Start Up 2257 at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST014-31MAR2213 Remarks w/o 1533																		
Stn. #		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				Sample Bot. Data Therm-P Avg Tw Sal.			Sal. Bot. #		Other Samp.		Pos.											
1		✓		1500		225215 225715						1496.447 2.320 31.291 34.475							25				1											
2																							2											
3																							3											
4																							4											
5																							5											
6																							6											
7																							7											
8																							8											
9																							9											
10																							10											
11																							11											
12																							12											

Initials
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Cast 1 at Station 9 marked in MOA

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Consec. Cast # 015		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 B.S. FOCI		Event # 247		Vessel Sta. I.D.		Instructions										Sta. Designation 009														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 091 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
015		542749 N			16E1402 W			01 APR 93			0234		037		030		644		710		026		972		1351		009							
CTD Type & SN Sea-Bird 91220A Press. SN 2 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on 0159 at Surface 0159 Start Down 0159 at Bottom 0234 Start Up 0234 at Surface _____ Data off _____				Data Location Tape/Diskette I.D. File Name/Header CAST015-01APR0157 Remarks 1337 wlo																		
Pos.	Bot.	Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.															
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.																		
1	36	✓	1000	024242	024755						981.246	2.865	31.431	34.333				35		1														
2																				2														
3																				3														
4																				4														
5																				5														
6																				6														
7																				7														
8																				8														
9																				9														
10																				10														
11																				11														
12																				12														

Initials

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Cast # 1 at station 10 as marked in MDA

Consec. Cast # 016		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 B.S. FOCI		Event # 255		Vessel Sta. I.D.		Instructions										Sta. Designation 010					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 091			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.		Deg.	Day		Mo.	Yr.	HR.	Min.	Day													Mo.	Yr.
016	54	48	N	168	38	48	W	01	APR	93	06	14	04	00	03	56	7	-5	09	32	7	-	-	2183	010

CTD Type & SN <u>Sea-Bird 91220A</u> Press. SN _____ Temp. SN <u>701</u> Cond. SN <u>303</u>	Monitor Checks		Times JD/Time		Data Location	
	on Deck	at Surface	Data on _____	Tape/Diskette I.D. _____		File Name/Header _____
	Press. _____	_____	at Surface <u>0537</u>	_____		_____
	Temp. _____	_____	Start Down <u>0537</u>	_____		_____
	Cond. _____	_____	at Bottom <u>0614</u>	_____		_____
_____	_____	Start Up _____	_____		Remarks	
_____	_____	at Surface _____	_____			
_____	_____	Data off _____	_____			

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1			1500	061445	061955							1501.839	2.240	31.241	34.496			32		1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials _____
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Cast # 1 at Station 11 as Marked in MOA

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Consec. Cast # 017		Vessel MILLER FREEMAN		Proj. & Leg MF-93-03 B.S. FOCI		Event # 257		Vessel Sta. I.D.		Instructions										Sta. Designation 011			
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 091 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
017	54	47	39 N	168	31	05 W	01	APR	93	07	45	04	00	03	16	7	61	00	22	--	--	2131	011
CTD Type & SN Sea-Bird 91220A			Press. SN			Temp. SN 701			Cond. SN 303			Monitor Checks on Deck at Surface			Times JD/Time Data on 0732 at Surface 0733 Start Down 0733 at Bottom 0745 Start Up 0745 at Surface Data off			Data Location Tape/Diskette I.D. File Name/Header CAST017_01APR0732					
Remarks			fluor. max ~29m ~8oz bottle for chlon. Chlorophyll: 0,11,20,30,39,50,60,70 Nutrients																				
Stn. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1	26		39							39.440	3.247	30.256	33.012				19	775	1				
2	28		30							30.150	3.244	30.251	33.012				20	776	2				
3	21		20							20.441	3.246	30.247	33.011				60	777	3				
4	27		11							11.315	3.244	30.242	33.012				3	778	4				
5	22		0							0.041	3.245	30.238	33.012				10	779	5				
6																			6				
7	23		100							101.432	3.286	30.476	33.203				19	769	7				
8	6		90							91.656	3.138	30.304	33.153					770	8				
9	25		80							79.952	3.049	30.204	33.129					771	9				
10	2		70							70.795	2.968	30.098	33.090				20	772	10				
11	29		60							60.918	3.073	30.150	33.049				40	773	11				
12	30		50							50.343	3.243	30.259	33.013				50	774	12				

Initials

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