

Consec. Cast # 001		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 85		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 72 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.	
001		544303N			1602839W			13 MAR 94			0124		56		50		90		48		170		108		72		109							
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 26072				on Deck at Surface								Data on at Surface				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								Start Down at Bottom 01:24:48				CAST 001-13 MAR 1016.L06;1																		
Cond. SN 304				Temp. _____								Start Up 01:29:59				Remarks cal-vet attached to wire!																		
				Cond. _____								at Surface _____				PINGER, light meter, fluorometer																		
				Other _____								Data off _____				video camera attached to rosette! w/ 99																		
Pos.		Bot.		T Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.								
Depth		Depth		Trip		Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.								
1		1		A		100		01:24:48 01:29:49														Volts						19		1				
2																						1.0152								2				
3																														3				
4																														4				
5																														5				
6																														6				
7																														7				
8																														8				
9																														9				
10																														10				
11																														11				
12																														12				

therms did not trip

CAROL,
Here are copies of the CTD casts that were made at the mooring sites.
CASTS 19+20 - M4
21 - M3
33 - M2
Dave.

all video cast have a light attached
light meter Data?

moA/Header in Local +9 Time!

Initials PH

Consec. Cast # 002		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 118		Vessel Sta. I.D.		Instructions										Sta. Designation									
Consec. Cast #		Latitude Deg. Min. N or S		Longitude Deg. E or W		Date JD = 72 Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S. V.S.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
002		55 35 31 N		16 00 32 1 W		13 MAR 94		16 18		- 05		- 10		03		18		34		02		68		2		160			
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST002-14 Mar 0107 GMT Remarks calvert + Sea Cat																	
Press. SN 26072		Temp. SN 701		Cond. SN 304		Press. _____		Temp. _____		Cond. _____		Other _____																	
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						01:19.30						158.461 3.445 29.456 31.792								26				1					
2																								2					
3																								3					
4																								4					
5																								5					
6																								6					
7																								7					
8																								8					
9																								9					
10																								10					
11																								11					
12																								12					

GPS Down

Initials

WTF
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Consec. Cast # 003		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 135		Vessel Sta. I.D.		Instructions										Sta. Designation																																
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 72			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.																																										
003	5	5	3	6	1	1	N	1	5	9	4	8	6	3	W	1	3	M	A	R	9	4	2	2	1	0	-	2	2	-	2	5	1	2	4	7	2	9	0	1	3	5	/	1			7	1				
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																																								
Press. SN 26072				on Deck at Surface				Data on				Tape/Diskette I.D.				File Name/Header																																				
Temp. SN 701				Press. _____				at Surface _____				Start Down _____				CAST 003-14 Mar 06 50																																				
Cond. SN 304				Temp. _____				at Bottom _____				Start Up _____				Remarks Video camera																																				
				Cond. _____				at Surface _____				Data off _____				Seacat + Calvet																																				
				Other _____																																																

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		A	70	06:59:40	07:04:40					69.339	3.341	29.193	31.625				28		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Tham
Hung

Initials WF
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Consec. Cast # 004		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 182		Vessel Sta. I.D.		Instructions										Sta. Designation									
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 13		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
004		55 23 78 N		159 15 98 W		14 MAR 94		02 25 03 0		01 0		1012.0		1238		290		08		842		167							
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																	
Press. SN 26072				on Deck at Surface				Data on _____				Tape/Diskette I.D. File Name/Header																	
Temp. SN 701				Press. _____				at Surface _____				CAST 004-15 Mar 0216																	
Cond. SN 304				Temp. _____				Start Down _____				_____																	
				Cond. _____				at Bottom _____				_____																	
				Other _____				Start Up _____				Remarks cal-vet sea cast + video																	
				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		A		02:26	02:31					161.439	4.722	31.018	32.376				2		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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Consec. Cast # 005			Vessel MILLER FREEMAN			Proj. & Leg MF-94-03 LEG 1			Event # 207		Vessel Sta. I.D.			Instructions						Sta. Designation							
Consec. Cast #		Latitude Deg. Min. S			Longitude Deg. E or W		Date JD = 74 Day Mo. Yr.			Time 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.	
005		55 42 21 N			156 24 44 W		15 MAR 94			05 40		02 8		02 0		04 48		29 00 8		85 70		23 7					
CTD Type & SN <u>91220-A</u>					Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____					Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom <u>0540</u> Start Up <u>0550</u> at Surface _____ Data off _____					Data Location Tape/Diskette I.D. _____ File Name/Header <u>CAST 005-15MAR1429</u> _____ _____ Remarks <u>seacat, catvet, camera video</u> <u>NO BOTTLE, NO THERMS</u>												
Press. SN <u>26072</u>																											
Temp. SN <u>701</u>																											
Cond. SN <u>304</u>																											

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																		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 # <u>006</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # <u>272</u>		Vessel Sta. I.D.		Instructions										Sta. Designation																
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg. Min.		E or W		Date JD = <u>75</u> 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.	
006		5619		99		N		15614		09		W		16 MAR 94			0547		-27		-28		0338		340		168		62		269					
CTD Type & SN <u>91220-A</u>				Press. SN <u>26072</u>				Temp. SN <u>701</u>				Cond. SN <u>304</u>				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header <u>CAST 006 - 16 MAR 1437</u> _____ _____ Remarks <u>W/O 272</u> <u>wind angle increased while CTD @ depth</u> <u>pressure varied ~4m sal gradient @ depth</u>												

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		A		054800	055305					264.164	5.255	32.167	33.110				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 # 007		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 263		Vessel Sta. I.D.		Instructions										Sta. Designation																									
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg. Min.		E or W		Date JD = 75 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		5626		91		N		15658		52		W		16		MAR 94		0840		-27		-28		0338		340		1686		2		85		9443											
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____										Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom 0840 20 Start Up 0840 50 at Surface _____ Data off _____										Data Location Tape/Diskette I.D. _____ File Name/Header CAST 007-16MAR173S _____ _____ _____									
Remarks				CALVET CAST @ MOORING 9443 NO BOTTLES TRIPPED 7 10L BOTTLES FLUORIMETER w/o																																									
St. No.		Bot.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.																			
1		6								Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.				1											
2		23																																2											
3		2																																3											
4		L+ MEVIR																																4											
5		25 A																																5											
6		29																																6											
7		22																																7											
8		28																																8											
9																																		9											
10																																		10											
11																																		11											
12																																		12											

Initials

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Consec. Cast # 008		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 264		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = 75 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		562691N			1565870W			16 MAR 94			0913		-09		-15		0338		340		16862						809		9443					
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 26072				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				CAST 008-16 MAR 1994																		
Cond. SN 304				Temp. _____								Start Down _____				_____ 1756																		
				Cond. _____								at Bottom _____				_____ 1809																		
				Other _____								Start Up _____				Remarks 17 10 L BOTTLES 1 THERMS 4 METER, FLUOROMETER																		
												at Surface _____				w/o 75m CHLOR																		
												Data off _____																						
St. Bot.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.										
1		6		60				Press. Temp. Cond. Other				Press. Temp. Cond. Sal.				Therm-P Avg Tw Sal.																		
2		23		50								59.585 3.044 29.031 31.726								28		1												
3		2		40								49.537 3.046 29.029 31.727								30		2												
4		4		40								40.242 3.044 29.023 31.727								32		3												
5		25		30		0921:10 0926:15						29.735 3.042 29.017 31.727								68		24												
6		29		20								21.364 3.037 29.009 31.726								35		6												
7		22		10								9.669 3.012 28.982 31.725								33		7												
8		28		0								-0.414 3.011 28.977 31.724								4		8												
9																																		
10																																		
11																																		
12																																		

Initials MD
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34, 32B

Consec. Cast # 009		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 287		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = 75			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.	S		Deg.		Day		Mo.	Yr.	Hr.	Min.													
009	56	33	34	N	155	54	83	W	16	MAR	94	19	46	-	41	-	05	48	310	238			247		
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location									
Press. SN 26072				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header									
Temp. SN 701				Press. _____								at Surface _____				CAST009_17 Mar 0432									
Cond. SN 304				Temp. _____								Start Down _____				_____									
_____				Cond. _____								at Bottom _____				_____									
_____				Other _____								Start Up _____				Remarks <i>seacat, cal vet and video attached</i>									
_____				_____								Data off _____				<i>to locate w/o 260</i>									

Stn.	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		A		04:47						243.745	5.220	32.261	33.205				20		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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Consec. Cast # CTD 11		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 400		Vessel Sta. I.D.		Instructions										Sta. Designation						
Consec. Cast #	Latitude Deg. Min. N or S		Longitude Deg. E or W		Date JD = 77 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	57	53	26	N	154	53	51	W	18	MAR	94	20	42	-	26	-	60	03	38	34	52	54	/	2	213	
CTD Type & SN 91220-A			Monitor Checks						Times JD/Time				Data Location													
Press. SN 26072			on Deck at Surface						Data on				Tape/Diskette I.D. File Name/Header													
Temp. SN 701			Press. _____						at Surface _____				CAST 011-19mar0530													
Cond. SN 304			Temp. _____						Start Down _____				_____													
_____			Cond. _____						at Bottom _____				_____													
_____			Other _____						Start Up _____				Remarks Cal-vet													
_____			_____						Data off _____				video See cast attended													

Stn. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn. No.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		A	5432							204.642	5.007	31.351	32.460				7		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials WP

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Consec. Cast # 12		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 416		Vessel Sta. I.D.		Instructions										Sta. Designation																			
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg. Min.		E or W		Date JD = 78 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		5759		57		N		15423		46		W		19		MAR		94		0504		-3		2-6		603		37		345		28		221		330			
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				Monitor Checks on Deck at Surface FURUNO Press. EQ T 4.5 264 CTD Temp. 012 5.15 264 Cond. _____ Other _____								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____								Data Location Tape/Diskette I.D. _____ File Name/Header CAST012-19MAR1351 _____ _____ Remarks W/O 328 BOTTOM COMING UP DRIFTED TOWARD SHALLOWS WHILE AT DEPTH DECREASED W/O APPROX 2m/minute for 10min.							
St. 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		A				0505 10:10						315.769 5.207 31.776 32.697								16				1															
2																								2															
3																								3															
4																								4															
5																								5															
6																								6															
7																								7															
8																								8															
9																								9															
10																								10															
11																								11															
12																								12															

 CAL-VET
 CAMERA
 SEAKAT
 10 L BOTTLE
 W/THERMS

Initials

(PW)

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Consec. Cast # 013		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 431		Vessel Sta. I.D.		Instructions										Sta. Designation											
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 78 Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		V.S.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
013		580842N		1540925W		19 MAR 94		1041-73		-10		101		383		20		30		281				205							
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																			
Press. SN 26072				on Deck at Surface				Data on _____				Tape/Diskette I.D. File Name/Header																			
Temp. SN 701				Press. _____				at Surface _____				CAST 013-13 MAR 1929																			
Cond. SN 304				Temp. _____				Start Down _____				_____																			
_____				Cond. _____				at Bottom _____				_____																			
_____				Other _____				Start Up _____				Remarks W/O 202 CAL-VET, CAMERA																			
								Data off _____				WZ INCR. TO 20° @ DEPTH																			
												ROSETTE 205E @ 35 m off BOTTOM																			

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		A		114045	1046:00					181.539	4.848	31.079	32.313				22		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials

✓

Consec. Cast # 014		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 442		Vessel Sta. I.D.		Instructions										Sta. Designation																					
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg.		E or W		Date JD = 78 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		5813		94		N		15403		30		W		19		MAR		94		17		51		-		60		-		90		03		38310324		1		223			
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				<div> <div> Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____ </div> <div> Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____ </div> <div> Data Location Tape/Diskette I.D. _____ File Name/Header _____ CAST 014-20mar0239 Remarks SeaCat - Cal, Vet - video camera </div> </div>																									
Stn. #		Bot. 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		A		025130								229.28 5.153 32.607								08				1																	
2																								2																	
3																								3																	
4																								4																	
5																								5																	
6																								6																	
7																								7																	
8																								8																	
9																								9																	
10																								10																	
11																								11																	
12																								12																	

left tape on to record
to 30 meters on up-cast.

0000 Salinity at start of cast
came on at ~ 30 meters Frozen?

Initials WTF
✓

W/0235

Consec. Cast # 015		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 540		Vessel Sta. I.D.		Instructions										Sta. Designation											
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 80 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1015.2		S.S.	Vis.	Wind Dir. Variable		Wind Sp.		Cloud	Type	Weath.	Bottom Depth, m		Sta. Name or I.D.	
015		57 37 70 N			154 39 58 W			21 MAR 94			11 35		00		-1 5		15 28		55	8	light				841		219				
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 015-21 MAR 2026 Remarks 10L Bottle, THERMS, FUDROMETER, LIGHT METER Video Camera + light source															
Press. SN 26072				Press. _____																											
Temp. SN 701				Temp. _____																											
Cond. SN 304				Cond. _____																											
				Other _____																											

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		A		113515	113520					215.324	5.164	32.095	33.153				13		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials

PW



w/o 215


Consec. Cast # <u>16</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 552		Vessel Sta. I.D.		Instructions										Sta. Designation						
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 1009.7	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
016	57	40	N	155	17	52	W	22	MAR	94	16	32	-1	8	0	3	0	9	28	110	10	84	1	303		
CTD Type & SN <u>91220-A</u>				Monitor Checks								Times JD/Time				Data Location										
Press. SN <u>26072</u>				on Deck at Surface								Data on _____				Tape/Diskette I.D. File Name/Header										
Temp. SN <u>701</u>				Press. _____								at Surface _____				CAST016-22MAR0125										
Cond. SN <u>304</u>				Temp. _____								Start Down _____				_____										
_____				Cond. _____								at Bottom _____				_____										
_____				Other _____								Start Up _____				Remarks										
_____				_____								at Surface _____				cal vat video (right) see cat w/o:302										
_____				_____								Data off _____				_____										

Stn	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		A		01:38	01:43:50					296.472	5.201	32.218	33.218				14		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WJF

✓

Consec. Cast # 017		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 582		Vessel Sta. I.D.		Instructions										Sta. Designation											
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 81 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		57 09 65 N			155 02 05 W			22 MAR 94			07 12		03 5		02 9		00 36		14	02	28		66		203						
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location															
Press. SN 26072				on Deck				at Surface				Data on _____				Tape/Diskette I.D.				File Name/Header											
Temp. SN 701				Press. _____				_____				at Surface _____				_____				CAST 017-22MAR1603											
Cond. SN 304				Temp. _____				_____				Start Down _____				_____				_____											
				Cond. _____				_____				at Bottom _____				_____				_____											
				Other _____				_____				Start Up _____				_____				Remarks LIGHT METER, FLUOROMETER, VIDEO CAMERA											
												at Surface _____				_____				W/LIGHT SOURCE, 1-10L BOTTLE + THERMS.											
												Data off _____																			
St. Bot.		T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	St. #												
1		A		071240 071740		Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	23		1												
2																			2												
3																			3												
4																			4												
5																			5												
6																			6												
7																			7												
8																			8												
9																			9												
10																			10												
11																			11												
12																			12												

Initials 
✓

207
w/0 205

Consec. Cast # 019		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 632		Vessel Sta. I.D.		Instructions										Sta. Designation																							
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 1000.5		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.									
019		5706		08		N		15600		61		W		23		MAR		94		07		23				11		11		00		35		165		23		877		220		M4	
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				Monitor Checks on Deck at Surface				Press. _____				Temp. _____				Cond. _____				Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 019-23MAR1616 Remarks CTD/ROSETTE LIGHTMETER, FUDROMETER 7-10L BOTTLES 1 THERM RACK CHLOR.			
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.		i																			
1		A		60		072845						60.433 2.705 28.884 31.883								09		chlor		1																			
2				50								50.979 2.809 28.968 31.886										chlor		2																			
3				40								39.358 2.812 28.960 31.880										chlor		3																			
4				30								29.931 2.805 28.949 31.875										chlor		4																			
5				20								20.131 2.794 28.936 31.879										chlor		5																			
6				10								9.447 2.790 28.926 31.877										chlor		6																			
7				0								.854 2.797 28.928 31.877										chlor		7																			
8																								8																			
9																								9																			
10																								10																			
11																								11																			
12																								12																			

Initials


✓

THERM RACK
HUNG!

w/o 209

Consec. Cast # 020		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 641		Vessel Sta. I.D.		Instructions										Sta. Designation															
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 82			Time GMT		Dry Bulb		Wet Bulb		Bar. mb		Ss		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.		
020		57 05 53 N			156 00 24 W			23 MAR 94			11 09		1 2		1 2		993.1		44		44		45		23		877		2.8		M4				
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																			
Press. SN 26072				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																			
Temp. SN 701				Press. _____								at Surface _____				CAST 020-23MAR1994																			
Cond. SN 304				Temp. _____								Start Down _____				_____																			
_____				Cond. _____								at Bottom _____				_____																			
_____				Other _____								Start Up _____				Remarks CTD/ROSETTE, LIGHT METER, FLUOROMETER																			
_____				Data off _____								at Surface _____				7-10 L BOTTLES 1 THERM RACK																			
_____				_____								Data off _____				_____																			
St. No.		Bot. Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #		Other Samp.		St. No.												
1		A		60		1113:30 1113:35		Press. 59.882		Temp. 2.		Cond. _____		Other _____		Press. 59.882		Temp. 2.602		Cond. 28.790		Sal. 31.871		Therm-P _____		Avg Tw _____		Sal. _____		21		chlor		1	
2				50												49.887		2.733		28.895		31.875								chlor		2			
3				40												39.895		2.765		28.919		31.877								chlor		3			
4				30												29.183		2.754		28.906		31.877								chlor		4			
5				20												19.917		2.760		28.905		31.875								chlor		5			
6				10												9.983		2.759		28.900		31.875								chlor		6			
7				0												0.614		2.762		28.899		31.876								chlor		7			
8																																8			
9																																9			
10																																10			
11																																11			
12																																12			

Initials

✓ 

Consec. Cast # 021		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 655		Vessel Sta. I.D.		Instructions Mossing M-3										Sta. Designation		
Consec. Cast #	Latitude Deg. Min. N or S		Longitude Deg. E or W		Date JD = 82 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
021	57	42	16	N	154	54	80	W	23	MAR	94	17	39	40	35	91	25	110	10	866	240	
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location										
Press. SN 26072				on Deck at Surface				Data on _____				Tape/Diskette I.D.				File Name/Header						
Temp. SN 701				Press. _____				at Surface _____				_____				CAST 021-24 MAR 0230						
Cond. SN 304				Temp. _____				Start Down _____				_____				_____						
				Cond. _____				at Bottom _____				_____				_____						
				Other _____				Start Up _____				Remarks Flow - 1.5 ft meter				u/0233						
								Data off _____														
Pos.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.			
						Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.						
1		A	60	02:44	02:49					60.606	3.970	30.239	32.255				29	chl	1			
2			50							50.970	3.954	30.215	32.247					chl	2			
3			40							39.816	3.882	30.127	32.220					chl	3			
4			30							29.790	3.850	30.081	32.203					chl	4			
5			20							19.991	3.839	30.061	32.195			Broken - bottle		chl	5			
6			10							9.644	3.835	30.047	32.188					chl	6			
7			0							6.808	3.868	30.072	32.189					chl	7			
8																		chl	8			
9																			9			
10																			10			
11																			11			
12																			12			

BROKEN NISKIN Bottle 20 with Sample

Initials WF
✓

9403

30 288ml
29 289ml
28 278ml
26 289ml
5 No Sample
27 288ml
31 279ml

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation										
Consec. Cast #		Latitude			N or S	Longitude			E or W	Date JD =			Time GMT		Dry Bulb		Wet Bulb		Bar. mb	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m		Sta. Name or I.D.	
022		MILLER FREEMAN		MF-94-03		LEG 1		Local		line 8 morning 9403																				
022		5730			35 N	15448			22 W	23 MAR 94			22 07														212			
CTD Type & SN 91220-A					Monitor Checks					Times					Data Location															
Press. SN 26072					on Deck					Data on					Tape/Diskette I.D.					File Name/Header										
Temp. SN 701					at Surface					at Surface										CAST022-24mar2654										
Cond. SN 304					Press.					Start Down																				
					Temp.					at Bottom																				
					Cond.					Start Up																				
					Other					at Surface																				
										Data off										Remarks										
																				Fluorometer light meter										
																				w/o 20										
Stn	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		A	60	01:06:30						60.552	3.414	29.598	32.043				27	Chl	1											
2			50							51.334	3.402	29.579	32.036					Chl	2											
3			40							41.049	3.385	29.556	32.030					Chl	3											
4			30							29.796	3.277	29.434	31.997					Chl	4											
5			20							20.357	3.158	29.301	31.960					Chl	5											
6			10							10.190	3.132	29.269	31.952					Chl	6											
7			0							1.083	3.134	29.266	31.951					Chl	7											
8																			8											
9																			9											
10																			10											
11																			11											
12																			12											

weather observation sheet time does not match up - leaving weather info blank

27/288ml
31/279ml
30/288ml
33/289ml
32/278ml
34/289ml
35/289

Initials W F
✓

CTD not recorded

Consec. Cast # 22A		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event #		Vessel Sta. I.D.		Instructions <i>Separate cast for MZ to 60m</i>								Sta. Designation				
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.	
			N			W		MAR 94														
CTD Type & SN <u>91220-A</u>			Monitor Checks						Times JD/Time				Data Location									
Press. SN <u>26072</u>			on Deck						Data on _____				Tape/Diskette I.D.									
Temp. SN <u>701</u>			at Surface						at Surface _____				File Name/Header									
Cond. SN <u>304</u>			Press. _____						Start Down _____				CAST <u>022 MZ</u>									
			Temp. _____						at Bottom _____													
			Cond. _____						Start Up _____				Remarks <i>log files in MZ</i>									
			Other _____						at Surface _____				<i>CTD not recorded</i>									
			Data off _____																			

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			60							60.462	3.439	29.623	32.047				MZ	1	
2			50							49.820	3.404	29.579	32.035				MZ	2	
3			40							39.398	3.394	29.565	32.033				MZ	3	
4			30							30.245	3.200	29.350	31.972				MZ	4	
5			20							20.042	3.135	29.274	31.951				MZ	5	
6			10							10.086	3.131	29.266	31.950				MZ	6	
7			0							0.126	3.129	29.259	31.948				MZ	7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials WF

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Consec. Cast # 23		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 672		Vessel Sta. I.D.		Instructions										Sta. Designation													
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 83			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.		
023		57 33 48 N		154 52 82 W		24 MAR 94			00 36 04		00 03 49		23 71 90		18 87 2		22 8																
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																					
Press. SN 26072				on Deck at Surface				Data on _____				Tape/Diskette I.D. File Name/Header																					
Temp. SN 701				Press. _____				at Surface _____				CAST 023-24 Mar 927																					
Cond. SN 304				Temp. _____				Start Down _____																									
				Cond. _____				at Bottom _____																									
				Other _____				Start Up _____				Remarks m2 + Chl																					
								Data off _____				F. B.rometer																					
St. Bot.		T Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.									
1		A		102		040:00		Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.		01		1	
2				60												102.581		3.735		29.971		32.149								m2 / CR1			
3				56												58.974		4.044		30.208		32.146								m2 / CR1			
4				40												49.740		4.128		30.278		32.151								m2 / CR1			
5				30												40.727		4.131		30.272		32.146								m2 / CR1			
6				20												30.636		3.817		29.947		32.076								m2 / CR1			
7				10												20.534		3.780		29.905		32.068								m2 / CR1			
8				0												10.330		3.803		29.922		32.070								m2 / CR1			
9																0.175		3.766		29.883		32.065								m2 / CR1			
10																																9	
11																																10	
12																																11	
																																12	

Initials (PA)
✓

W/O 221

Consec. Cast # 24		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 677		Vessel Sta. I.D.		Instructions Fox 58										Sta. Designation																									
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			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.												
024		573642 N			1550066 W			24 MAR 94			0323		040		030		091		37		195		248		56		237				58														
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				<div>Monitor Checks</div> <div>on Deck at Surface</div> <div>Press. _____</div> <div>Temp. _____</div> <div>Cond. _____</div> <div>Other _____</div>										<div>Times JD/Time</div> <div>Data on _____</div> <div>at Surface _____</div> <div>Start Down _____</div> <div>at Bottom _____</div> <div>Start Up _____</div> <div>at Surface _____</div> <div>Data off _____</div>										<div>Data Location</div> <div>Tape/Diskette I.D. _____</div> <div>File Name/Header CAST 024-24 MAR 1215</div> <div>Remarks MZ + CHLOR LIGHT METER, FLUOROMETER</div>									
Stn. No.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.																					
1		A																		30				1																					
2		A		60		122830		61.218 4.037 30.293 32.252												NONE		CHLOR/MZ		2																					
3				50				50.374 4.017 30.258 32.237														CHLOR/MZ		3																					
4				40				40.600 4.029 30.260 32.232														CHLOR/MZ		4																					
5				30				30.770 3.890 30.107 32.193														CHLOR/MZ		5																					
6				20				20.534 3.833 30.041 32.176														CHLOR/MZ		6																					
7				18				12.944 3.836 30.042 32.178														CHLOR/MZ		7																					
8				10				9.350 3.831 30.034 32.176														CHLOR/MZ		8																					
9				0				0.234 3.832 30.030 32.175																9																					
10																								10																					
11																								11																					
12																								12																					

Initials

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W0/235

Consec. Cast # 025		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 684		Vessel Sta. I.D.		Instructions moon 9402 Fox 59										Sta. Designation														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 83 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.	
025		57 37 22 N			155 25 18 W			24 MAR 94			06 35		04 00		03 18		923		718		720		857				227				59			
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 26072				on Deck at Surface								Data on _____				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				CAST 025-24MAR1523																		
Cond. SN 304				Temp. _____								Start Down _____																						
				Cond. _____								at Bottom _____																						
				Other _____								Start Up _____				Remarks MZ, CHLOR																		
												Data off _____				LUBRIC METER, FLUOROMETER																		

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		A		0636:30	0641:30					203.635	5.155	32.111	33.186				30		1
2			60							60.660	4.002	30.252	32.252					CHLOR/MZ	2
3			50							51.002	4.000	30.257	32.252					CHLOR/MZ	3
4			40							42.182	3.997	30.249	32.250					CHLOR/MZ	4
5			30							30.747	3.922	30.164	32.228					CHLOR/MZ	5
6			20							20.792	3.935	30.172	32.231					CHLOR/MZ	6
7			10							10.815	3.931	30.163	32.229					CHLOR/MZ	7
8			0							1.183	3.933	30.161	32.229					CHLOR/MZ	8
9																			9
10																			10
11																			11
12																			12

W/O 246

THERMS HUNG!

Initials PA
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Consec. Cast # 026		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event# 689		Vessel Sta. I.D.		Instructions FOX 60				Sta. Designation - 60									
Consec. Cast #	Latitude N or S			Longitude E or W			Date JD = 83			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 993.5	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	Deg.	Min.	S	Deg.		W	Day	Mo.	Yr.	Hr.	Min.												
026	57	40	88N	155	10	90W	24	MAR	94	09	56	4	2	4	2	94	47	210	22	76	2	297	FOX 60
CTD Type & SN 91220-A			Monitor Checks						Times JD/Time				Data Location										
Press. SN 26072			on Deck						Data on				Tape/Diskette I.D.										
Temp. SN 701			at Surface						at Surface				File Name/Header										
Cond. SN 304			Press. _____						Start Down				CAST 026-24MAR1844										
			Temp. _____						at Bottom														
			Cond. _____						Start Up														
			Other _____						at Surface				Remarks CHLOR / MZ										
									Data off				LIGHT METER, FLUOROMETER										

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		A		195703						246.352	5.179	32.100	33.129				15		1
2			60							59.768	4.461	30.614	32.213					MZ CHLOR	2
3			50							49.802	4.137	30.280	32.144					MZ CHLOR	3
4			40							42.333	4.142	30.276	32.139					MZ CHLOR	4
5			30							31.542	4.135	30.252	32.123					MZ CHLOR	5
6			20							20.359	4.136	30.246	32.121					MZ CHLOR	6
7			10							10.130	4.136	30.240	32.119					MZ CHLOR	7
8			0							0.906	4.136	30.237	32.120					MZ CHLOR	8
9																			9
10																			10
11																			11
12																			12

40303

THERM RACK
HUNGInitials 90

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Consec. Cast # 027		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 695		Vessel Sta. I.D.		Instructions Fox 61 morning 9401					Sta. Designation																														
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 83 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 995.5	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																								
027	5	7	4	0	8	2	N	1	55	16	5	4	W	2	4	M	A	R	9	4	1	2	2	5	4	2	3	9	9	6	4	7	1	9	5	2	4	7	6	2	2	9	8		
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 027-24 MAR 2014				Remarks light meter, Fluorometer MZ, chloro																	
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		A		21.27	21.32					221.564	5.149	31.673	32.683				25		1																										
2			60							60.670	3.702	29.821	32.023					MZ/CH	2																										
3			55							51.403	3.743	29.857	32.031					MZ/CH	3																										
4			40							39.956	3.608	29.720	32.007					MZ/CH	4																										
5			30							30.595	3.574	29.682	32.000					MZ/CH	5																										
6			20							21.210	3.632	29.735	32.011					MZ/CH	6																										
7			10							10.153	3.615	29.715	32.009					MZ/CH	7																										
8			0							0.135	3.622	29.715	32.008					MZ/CH	8																										
9																			9																										
10																			10																										
11																			11																										
12																			12																										

rosette hitting the ship
when attaching calvet net to wire

Broke a niskin bottle no 50 meter sample

Initials

WPK

Consec. Cast # 028		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 737		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = 84 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.	
028		57 40 08 N			155 01 73 W			25 MAR 94			02 16		04		00 29		05		37		190		228		65		253							
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 028-25MAR1107																		
Press. SN 26072				Press. _____												Remarks CTD/ROSETTE CAL-VET																		
Temp. SN 701				Temp. _____												LIGHT METER, FLUOROMETER																		
Cond. SN 304				Cond. _____												1-10 L BOTTLE THERMS																		
Other _____																																		

Stn	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		A		021650						246.677	5.133	32.193	33.281				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

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w/b 258

Consec. Cast # 029		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 764		Vessel Sta. I.D.		Instructions										Sta. Designation			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 84			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1007.5	Ss	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.													
029	5	7	56	67	N	154	29	91	W	25	MAR	94	12	24	64	50	08	38	080	06	862	271	
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location							
Press. SN 26072				on Deck at Surface								Data on _____				Tape/Diskette I.D. File Name/Header							
Temp. SN 701				Press. _____								at Surface _____				CAST 029 - MAR 2113							
Cond. SN 304				Temp. _____								Start Down _____											
				Cond. _____								at Bottom _____											
				Other _____								Start Up _____				Remarks light meter fluorometer							
												Data off _____				calvet							

Stn.	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		A		21:25						267.735	5.191	31.990	32.981				11		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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271 w/o

Consec. Cast # 030		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 781		Vessel Sta. I.D.		Instructions Trawl 24										Sta. Designation												
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1001.0		SS	Vis.	Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
030		580180N			1542055W			25 MAR 94			1855		26		25		0136		040	11	877		249									
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																
Press. SN 26072				on Deck at Surface								Data on _____				Tape/Diskette I.D. File Name/Header																
Temp. SN 701				Press. _____								at Surface _____				CAST 03-0-26 men 0344																
Cond. SN 304				Temp. _____								Start Down _____				_____																
				Cond. _____								at Bottom _____				_____																
				Other _____								Start Up _____				Remarks light meter fluorometer																
												at Surface _____				calvert																
												Data off _____																				
St. Δ		Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.											
1			A		03:56 04:01						241.592 4.894 31.247 32.432								10		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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Trawl 24

w/6246

Consec. Cast # 031		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event# 807		Vessel Sta. I.D.		Instructions										Sta. Designation							
Consec. Cast #	Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 85 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	V.S.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.					
031	5	8	17	38	N	153	56	76	W	26	MAR	94	06	16	-3	3	-4	10	03	90	09	12	43	1	245		
CTD Type & SN 91220-A			Press. SN 26072			Temp. SN 701			Cond. SN 304			Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 031-26MAR1507				Remarks CTD/ROSETTE, LIGHT METER FLUOROMETER, VIDEO CAMERA w/LIGHT SOURCE			
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.	g R								
1																				1							
2																				2							
3																				3							
4																				4							
5																				5							
6																				6							
7																				7							
8																				8							
9																				9							
10																				10							
11																				11							
12																				12							

SECOND ATTEMPT AT CAST, ICE PLUGGED COND. CELL? NO GOOD FROM 0-90 M
NO SAMPLES TAKEN, BOTTLE TRIPPED ON FIRST TRY.

Initials

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w/o
242

Consec. Cast # <u>633</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # <u>831</u>		Vessel Sta. I.D.		Instructions <u>Mooring M-2</u>										Sta. Designation							
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = <u>85</u>			Time GMT		Dry Bulb	Wet Bulb	Bar. mb <u>1016.3</u>	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.															
<u>033</u>	<u>5</u>	<u>8</u>	<u>36</u>	<u>35</u>	N	<u>153</u>	<u>06</u>	<u>52</u>	W	<u>26</u>	<u>MAR</u>	<u>94</u>	<u>20</u>	<u>43</u>	<u>-</u>	<u>6</u>	<u>-</u>	<u>2</u>	<u>3</u>	<u>16</u>	<u>47</u>	<u>220</u>	<u>22</u>	<u>76</u>	<u>1</u>	<u>159</u>	
CTD Type & SN <u>91220-A</u>				Monitor Checks										Times JD/Time				Data Location									
Press. SN <u>26072</u>				on Deck at Surface										Data on _____				Tape/Diskette I.D. File Name/Header									
Temp. SN <u>701</u>				Press. _____										at Surface _____				CAST <u>033-27 Mar</u>									
Cond. SN <u>304</u>				Temp. _____										Start Down _____				_____									
				Cond. _____										at Bottom _____				_____									
				Other _____										Start Up _____				Remarks									
														at Surface _____				<u>light water / Fluorometer</u>									
				Data off _____																							

Stn #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos	#	M/ml	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.						
1			60	05:47						59.766	3.150	29.279	31.884				06	chl	1	30	288	
2			40							40.921	2.863	28.957	31.826					chl	2	28	278	
3			30							29.954	2.219	28.337	31.712					chl	3	32	278	
4			20							19.662	2.116	28.236	31.696					chl	4	29	289	
5			10							10.265	2.104	28.222	31.695					chl	5	26 31 27	289 277 288	10
6			3							3.579	2.126	28.238	31.698					chl	6	30 28	288 278	3
7			0							0.659	2.108	28.220	31.695					chl	7	32	278	
8																			8	35	289	
9																			9			
10																			10			
11																			11			
12																			12			

Initials WF
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Consec. Cast # 034		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 928		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 88 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.	
034		58 07 43 N			154 09 03 W			29 MAR 94			06 51		04 50		04 00		03 36		03 60		36 22		86 2				280				35			
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 26072				on Deck at Surface								Data on _____				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				CAST 034 29 MAR 1994																		
Cond. SN 304				Temp. _____								Start Down _____				_____																		
				Cond. _____								at Bottom _____				_____																		
				Other _____								Start Up _____				Remarks CALVET, LIGHT METER, FLUOROMETER																		
												Data off _____				10L BOTTLES / THERMS																		

Stn. #	Bot. Rack	Trip	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	A	273	155145	155630					273.610	4.941	31.317	32.451				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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w/o 281

Consec. Cast # 035		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 939		Vessel Sta. I.D.		Instructions										Sta. Designation																
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg.		E or W		Date JD = 88 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.	
035		58 06 95		N		154 08 97		W		29 MAR 94			11 25		05 00		04 10		33 70		33 70		37 03		02 08		62		297		36					
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 0352 MAR 2011 Remarks CAL-VET CTD 1 BOTTLE 1 THERMS LIGHTMETER, FLUOROMETER												
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		A		202505						287.429 4.911 31.290 32.444								17				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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w/o 243

Consec. Cast # 036		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 955		Vessel Sta. I.D.		Instructions										Sta. Designation											
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 603.5		S.S.	Vis.	Wind Dir.		Wind Sp.		Cloud Type		Weath.	Bottom Depth, m		Sta. Name or I.D.	
036		580677 N			1540913 W			29 MAR 94			2031		60		50		04		16	020	20		862		301						
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 036-30MAR 0519															
Press. SN 26072				Press. _____												Remarks light meter Fluorometer W0/292															
Temp. SN 701				Temp. _____																											
Cond. SN 304				Cond. _____																											
				Other _____																											
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.	St. #												
1		A		0512						288.607 4.902 31.324 32.491							18		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




Consec. Cast # 037		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 966		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 89 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		Ss		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
037		S 8 11 30 N			154 05 65 W			30 MAR 94			02 33		06 00		05 00		00 61		70		15		10		875		227				98			
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 037-30 MAY 1992 Remarks LIGHT METER, FLUOROMETER, CALVET 1 10L BOTTLES / THERMS																		
Press. SN 26072				Press. _____																														
Temp. SN 701				Temp. _____																														
Cond. SN 304				Cond. _____																														
				Other _____																														
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				A		113333								222.936 3.145 29.295 31.861							24				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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w/0224

Consec. Cast # 038			Vessel MILLER FREEMAN			Proj. & Leg MF-94-03 LEG 1			Event# 978			Vessel Sta. I.D.			Instructions										Sta. Designation									
Consec. Cast #			Latitude N or S			Longitude E or W			Date JD = 89			Time GMT			Dry Bulb		Wet Bulb		Bar. mb		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
038			58 04 89 N			154 12 76 W			30 MAR 94			10 11			07 0		06 0		1 1		17		040		128		62		262					
CTD Type & SN 91220-A						Monitor Checks						Times JD/Time						Data Location																
Press. SN 26072						on Deck at Surface						Data on						Tape/Diskette I.D. File Name/Header																
Temp. SN 701						Press.						at Surface						CAST 038-30MAR1998																
Cond. SN 304						Temp.						Start Down																						
						Cond.						at Bottom																						
						Other						Start Up						Remarks CTD CAL-VED																
												at Surface						LIGHT METER, FLUOROMETER																
												Data off																						
Pos		Bot. Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos										
Depth				Depth		Trip		Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.						
1		A		260		191100		191608								259.505		2.998		29.166		29.166								66		1		
2																																2		
3																																3		
4																																4		
5																																5		
6																																6		
7																																7		
8																																8		
9																																9		
10																																10		
11																																11		
12																																12		

Initials 

260

Consec. Cast # 039		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 992		Vessel Sta. I.D.		Instructions										Sta. Designation		
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 89			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.												
039	58	06	N	154	10	69	W	30	MAR	94	17	23	75	60	15	38	04	01	27	71	268	
CTD Type & SN 91220-A			Monitor Checks								Times JD/Time		Data Location									
Press. SN 26072			on Deck at Surface								Data on		Tape/Diskette I.D. File Name/Header									
Temp. SN 701			Press. _____								at Surface _____		CAST 039_30MAR0212									
Cond. SN 304			Temp. _____								Start Down _____		_____									
_____			Cond. _____								at Bottom _____		_____									
_____			Other _____								Start Up _____		Remarks									
_____			_____								Data off _____		Fluorometer light meter									
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		A		02:24						257.156	3.935	30.182	32.123				77		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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Consec. Cast # 40		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1005		Vessel Sta. I.D.		Instructions Foci Sounding 41										Sta. Designation								
Consec. Cast #		Latitude Deg. Min. N or S		Longitude Deg. E or W		Date JD = 89 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1016.9		SS Vis.		Wind Dir.		Wind Sp.		Cloud Type Weath.		Bottom Depth, m		Sta. Name or I.D.	
040		58 04 09 N		154 12 52 W		30 MAR 94			22 47		51		41		172		270		40		166		61		273			
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 304				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 040.31 Mar 0735 Remarks <i>Fluorometer light meter</i> w/o 271																
Stn. #		Bot. 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		A		07:47								270.055 4.084 30.372 32.193							76				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 # <u>041</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF-94-03 LEG 1</u>		Event # <u>1013</u>		Vessel Sta. I.D.		Instructions										Sta. Designation					
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.													
<u>041</u>	<u>5</u>	<u>8</u>	<u>02</u>	<u>15</u>	N	<u>154</u>	<u>16</u>	<u>22</u>	W	<u>31</u>	<u>MAR</u>	<u>94</u>	<u>03</u>	<u>00</u>	<u>05</u>	<u>00</u>	<u>42</u>	<u>15</u>	<u>37</u>	<u>04</u>	<u>52</u>	<u>08</u>	<u>62</u>	<u>271</u>	
CTD Type & SN <u>91220-A</u>				Monitor Checks				Times JD/Time				Data Location													
Press. SN <u>26072</u>				on Deck				Data on				Tape/Diskette I.D.				File Name/Header									
Temp. SN <u>701</u>				at Surface				at Surface								CAST <u>041-31mar/146</u>									
Cond. SN <u>304</u>				Press. _____				Start Down _____																	
				Temp. _____				at Bottom _____																	
				Cond. _____				Start Up _____								Remarks <u>CTD CAL-VET</u>									
				Other _____				Data off _____								<u>LIGHT METER, FLUOROMETER</u>									

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		A		115945						272.537	3.936	30.191	32.123				72		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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w/o
274

Consec. Cast # 042		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1032		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = 89			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1010.8	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	Deg.	Min.			Deg.		Day		Mo.	Yr.	Hr.	Min.													
042	58	00	88	N	154	17	00	W	31	MAR	94	14	10	5	2	4	2	11	47	050	28	8	62	264	
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location									
Press. SN 26072				on Deck at Surface								Data on				Tape/Diskette I.D.				File Name/Header					
Temp. SN 701				Press. _____								at Surface _____				_____				CAST 042-3/mar2257					
Cond. SN 304				Temp. _____								Start Down _____				_____				_____					
				Cond. _____								at Bottom _____				_____				_____					
				Other _____								Start Up _____				_____				_____					
												at Surface _____				_____				_____					
												Data off _____				_____				_____					
																Remarks				Fluorometer / Light meter					
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		A	23.11							263.657	4.393	30.774	32.363				83		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 # <u>044</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF-94-03 LEG 1</u>		Event # <u>1113</u>		Vessel Sta. I.D.		Instructions										Sta. Designation						
Consec. Cast #	Latitude <u>N</u>			Longitude <u>E</u>			Date <u>JD = 92</u>			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.	S	Deg.	or W	Day	Mo.	Yr.	Hr.	Min.																
044	56	03	92	N	156	12	26	W	02	APR	94	05	10	04	2	03	1	1	3	38	255	15	23	1	214	
CTD Type & SN <u>91220-A</u>			Monitor Checks						Times JD/Time						Data Location											
Press. SN <u>26072</u>			on Deck at Surface						Data on _____						Tape/Diskette I.D. File Name/Header											
Temp. SN <u>701</u>			Press. _____						at Surface _____						CAST <u>044 - 02 APR 1401</u>											
Cond. SN <u>304</u>			Temp. _____						Start Down _____						_____											
			Cond. _____						at Bottom _____						_____											
			Other _____						Start Up _____						Remarks <u>CALVET, LIGHTMETER, FLUOROMETER</u>											
									at Surface _____						<u>1 - 10L BOTTLE/TITRIMS, CAMERA W/LIGHT SOURCE</u>											
									Data off _____						<u>LIGHT METER REA</u>											
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	S.D.							
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.										
1		A		141019						210.126	5.379	32.205	33.069				69		1							
2																			2							
3																			3							
4																			4							
5																			5							
6																			6							
7																			7							
8																			8							
9																			9							
10																			10							
11																			11							
12																			12							

no seabird cost 43

* 43 was Seacat only Jason Bay
EK500 calibration cost!

Initials

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w/o
228

Consec. Cast # 045		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1151		Vessel Sta. I.D.		Instructions 49 Local time										Sta. Designation																										
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 92			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	ss	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																							
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																																				
045	5	6	3	2	5	1	N	15	5	5	5	3	W	03	APR	9	4	2	0	5	4	0	4	0	0	3	0	2	5	3	8	V	A	R	0	4	3	0	1	2	4	8				
CTD Type & SN 91220-A			Press. SN 26072			Temp. SN 701			Cond. SN 304			Monitor Checks on Deck 02 at Surface						Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____						Data Location Tape/Diskette I.D. _____ File Name/Header CAST 045-3APR0543						Remarks cal vet sea cat light meter																
St. No.	Bot. Rack	T	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	A			05:55									247.793	5.208	32.125	33.128					65		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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* Based on comparison of data, 1- on ship log data to
be used, + local time - 49 min. Date correction to 03 APR 94

Consec. Cast # 046		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1175		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD =			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	Deg.	Min.			Deg.		Day		Mo.	Yr.	Hr.	Min.													
046	56	48	16	N	155	53	24	W	03	APR	9	4	08	56	35	27	25	38	050	08	30	1	364		
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location													
Press. SN 26072				on Deck at Surface				Data on				Tape/Diskette I.D. File Name/Header													
Temp. SN 701				Press. _____				at Surface _____				CAST 046_3APR1644													
Cond. SN 304				Temp. _____				Start Down _____				_____													
				Cond. _____				at Bottom _____				_____													
				Other _____				Start Up _____				Remarks CALVET LIGHT METER, FLUOROMETER													
								Data off _____				SCALAT NO CAMERA / NO LIGHT SOURCE													
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		A		16 56:10						303.656	5.201	32.167	33.154				28		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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46307

Consec. Cast # 047		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1212		Vessel Sta. I.D.		Instructions										Sta. Designation								
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 94			Time GMT ^{Local} AOT		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.																		
047	57	07	68	N	155	30	04	W	04	APR	94	02	33	05	00	04	6	2	4	3	8	VAR	LT	8	7	2	258	
CTD Type & SN 91220-A			Monitor Checks										Times JD/Time		Data Location													
Press. SN 26072			on Deck at Surface										Data on _____		Tape/Diskette I.D. File Name/Header													
Temp. SN 701			Press. _____										at Surface _____		CAST 047-4 APR 1020													
Cond. SN 304			Temp. _____										Start Down _____		_____													
_____			Cond. _____										at Bottom _____		_____													
_____			Other _____										Start Up _____		Remarks CTD ROSETTE, 1 BOTTLE / THERMS,													
_____			_____										at Surface _____		LIGHTMETER, FLUOROMETER													
_____			_____										Data off _____		n/o. 257													
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		A		103306	103810					357.132	5.172	32.151	33.188				26		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 # 048		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1242		Vessel Sta. I.D.		Instructions										Sta. Designation					
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.													
048	57	31	19	N	55	30	87	W	04	APR	94	16	40	3	5	24	19	48	050	25	28	1	299		
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 304				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 048 - SAPR 0627 Remarks Light meter Fluoro meter Socat													
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		A		00 14 ^b								294.337	5.226	32.065	32.065				22		1				
2																					2				
3																						3			
4																						4			
5																						5			
6																						6			
7																						7			
8																						8			
9																						9			
10																						10			
11																						11			
12																						12			

Initials WY

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Consec. Cast # 049		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1258		Vessel Sta. I.D.		Instructions Trawl # 42										Sta. Designation						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 94			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1018.5	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																
49	57	37	N	155	19	44	W	04	APR	94	23	13	42	3	5	19	6	8	0	7	0	23	23	1	328	
CTD Type & SN 91220-A			Monitor Checks			Times JD/Time			Data Location																	
Press. SN 26072			on Deck			at Surface			Data on			Tape/Diskette I.D.														
Temp. SN 701			Press.						at Surface			File Name/Header														
Cond. SN 304			Temp.						Start Down			CAST 049-05 Apr 0659														
			Cond.						at Bottom																	
			Other						Start Up			Remarks Fluorometer														
									Data off			Seaght meter														
Stn. #	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		A		0714						323.009	5.190	32.037	33.008				13		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



Consec. Cast # CAST 90		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1270		Vessel Sta. I.D.		Instructions Trawl 43										Sta. Designation																												
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 95			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1017.5	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.																																						
050	5	7	3	4	7	1	N	1	5	4	5	2	2	W	0	5	APR	9	4	0	3	0	4	4	2	3	0	1	7	5	8	6	6	0	2	2	0	0	0	2	4	0						
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				<div> <div> Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____ </div> <div> Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____ </div> <div> Data Location Tape/Diskette I.D. _____ File Name/Header CAST 050_05 APR 1055 Remarks CTD, ROSETTE, CALVET, LIGHTMETER FLUOROMETER / ON BOTTOM, 235m </div> </div>																																
Stn. #	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		A		1104:35	1109:4						228.911	5.091	31.810	32.893				82		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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W/O 242

Consec. Cast # 051		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1295		Vessel Sta. I.D.		Instructions										Sta. Designation				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 95			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.														
051	57	39	N	155	08	66	W	05	APR	94	13	45	53	38	17.4	6	80	65	24	6	6	1	273	
CTD Type & SN 91220-A			Monitor Checks				Times JD/Time				Data Location													
Press. SN 26072			on Deck at Surface				Data on _____				Tape/Diskette I.D. File Name/Header													
Temp. SN 701			Press. _____				at Surface _____				CAST 051-05 Apr 2134													
Cond. SN 304			Temp. _____				Start Down _____				_____													
_____			Cond. _____				at Bottom _____				_____													
_____			Other _____				Start Up _____				Remarks													
_____			_____				Data off _____				cal-Vet SeaCat Fluorometer Light meter w/0270													
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		A		21:44:30						268.684	4.883	31.450	32.664				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 WJ

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Consec. Cast # 52		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1309		Vessel Sta. I.D.		Instructions Trawl # 45										Sta. Designation												
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 95			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.									
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																						
052	57	45	N	154	59	W	06	APR	94	19	56	4	9	3	9	1	6	4	8	0	4	5	2	0	6	3	1	2	9	9		
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 304				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 052-06 APR-0342 Remarks Sea Cat Fluorometer light meter																				
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		A																														1
2																																2
3																																3
4																																4
5																																5
6																																6
7																																7
8																																8
9																																9
10																																10
11																																11
12																																12

40° wire angle est.

Initials W
✓

w/0 360-315

Consec. Cast # 053		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1324		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 96			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.	Deg.	Day	Mo.	Yr.	Hr.	Min.																	
053	57	49	02 N	154	56	80 W	06	APR	94	02	45	04	90	38	15	48	070	18	25	1	302				
CTD Type & SN 91220-A			Monitor Checks			Times			JD/Time			Data Location													
Press. SN 26072			on Deck			at Surface			Data on			Tape/Diskette I.D.			File Name/Header										
Temp. SN 701			Press.						at Surface						CAST 053-06 APR 1030										
Cond. SN 304			Temp.						Start Down																
			Cond.						at Bottom																
			Other						Start Up																
									Data off																
CTD		T		Trip		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.		Other		Pos.	
Stn	Bot.	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.							
1		A		104500						301.385	5.096	31.961	33.024				20						1		
2																							2		
3																							3		
4																							4		
5																							5		
6																							6		
7																							7		
8																							8		
9																							9		
10																							10		
11																							11		
12																							12		

Initials

✓

W0
302

Consec. Cast # 054		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1338		Vessel Sta. I.D.		Instructions										Sta. Designation																															
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 96			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																												
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																																									
054	5	7	5	3	7	4	N	1	5	4	3	2	1	3	W	0	6	APR	9	4	0	7	4	6	0	4	2	0	3	0	1	3	4	8	0	5	0	2	2	4	8	1	2	4	3						
CTD Type & SN 91220-A			Monitor Checks										Times JD/Time				Data Location																																		
Press. SN 26072			on Deck										Data on				Tape/Diskette I.D.																																		
Temp. SN 701			at Surface										at Surface				File Name/Header																																		
Cond. SN 304			Press. _____										Start Down				CAST 054_06APR1535																																		
			Temp. _____										at Bottom																																						
			Cond. _____										Start Up																																						
			Other _____										Data off				Remarks CTD ROSETTE LIGHTMETER, FLUOROMETER w/o CALVET. SEACAT 248																																		

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		A		154540	155050					237.553	5.132	31.826	32.866				01		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 # 055		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1351		Vessel Sta. I.D.		Instructions Trawl 49										Sta. Designation								
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 96			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	Ss	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.						
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																		
055	5	7	59	N	154	23	22	W	06	APR	94	12	58		51		3	7	1	3	3	8	055	18	56		317	
CTD Type & SN 91220-A			Monitor Checks						Times JD/Time				Data Location															
Press. SN 26072			on Deck at Surface						Data on				Tape/Diskette I.D. File Name/Header															
Temp. SN 701			Press. _____						at Surface _____				CAST 055-06 APR 2013															
Cond. SN 304			Temp. _____						Start Down _____				_____															
			Cond. _____						at Bottom _____				_____															
			Other _____						Start Up _____				Remarks light meter															
									Data off _____				Sea cat Fluorometer															
St. 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	A		2058															1										
2																		2										
3																		3										
4																		4										
5																		5										
6																		6										
7																		7										
8																		8										
9																		9										
10																		10										
11																		11										
12																		12										

No Thermos on Sal. SCS Pgm Failed at Depth when log file was closed?
Pgm ran slower than usual

Initials WT
✓

Consec. Cast # 056		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1363		Vessel Sta. I.D.		Instructions Trawl # 50										Sta. Designation					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 96			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1010.0	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.															
056	58	03	N	154	07	78	W	96	APR	9	4	17	52	56	4	5	10	28	08	0	10	47	1	228	
CTD Type & SN 91220-A			Monitor Checks									Times JD/Time			Data Location										
Press. SN 26072			on Deck at Surface									Data on			Tape/Diskette I.D.			File Name/Header							
Temp. SN 701			Press. _____									at Surface _____			_____			CAST 056-07Apr0142							
Cond. SN 304			Temp. _____									Start Down _____			_____			_____							
			Cond. _____									at Bottom _____			_____			_____							
			Other _____									Start Up _____			Remarks F/monometer see cat			W/O 226							
			Data off _____									Data off _____			light meter										
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	A		01:52:30							225.225	4.763	31.134	32.439				08		1						
2																		2							
3																		3							
4																		4							
5																		5							
6																		6							
7																		7							
8																		8							
9																		9							
10																		10							
11																		11							
12																		12							

SCS system slow!

Initials WP
✓

Consec. Cast # <u>57</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF-94-03</u> <u>LEG 1</u>		Event # <u>1376</u>		Vessel Sta. I.D.		Instructions <u>Trawl #57</u>										Sta. Designation			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = <u>96</u>			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.													
<u>057</u>	<u>58</u>	<u>11</u>	<u>14</u>	<u>N</u>	<u>154</u>	<u>04</u>	<u>44</u>	<u>W</u>	<u>06</u>	<u>APR</u>	<u>94</u>	<u>22</u>	<u>28</u>	<u>41</u>	<u>30</u>	<u>1028</u>	<u>050</u>	<u>04</u>	<u>25</u>	<u>1</u>	<u>276</u>		
CTD Type & SN <u>91220-A</u>			Monitor Checks						Times JD/Time				Data Location										
Press. SN <u>26072</u>			on Deck at Surface						Data on _____				Tape/Diskette I.D. File Name/Header										
Temp. SN <u>701</u>			Press. _____						at Surface _____				CAST <u>057-07 APR 0615</u>										
Cond. SN <u>304</u>			Temp. _____						Start Down _____				_____										
_____			Cond. _____						at Bottom _____				_____										
_____			Other _____						Start Up _____				Remarks										
_____			_____						Data off _____				<u>Light meter</u> <u>Fluorometer</u> <u>Sessat</u> <u>colvet</u> <u>w/0272</u>										
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.							
<u>1</u>		<u>A</u>		<u>06:27</u>						<u>272.476</u>	<u>4.660</u>	<u>31.072</u>	<u>32.444</u>				<u>16</u>		<u>1</u>				
<u>2</u>																		<u>2</u>					
<u>3</u>																		<u>3</u>					
<u>4</u>																		<u>4</u>					
<u>5</u>																		<u>5</u>					
<u>6</u>																		<u>6</u>					
<u>7</u>																		<u>7</u>					
<u>8</u>																		<u>8</u>					
<u>9</u>																		<u>9</u>					
<u>10</u>																		<u>10</u>					
<u>11</u>																		<u>11</u>					
<u>12</u>																		<u>12</u>					

Initials WF

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Consec. Cast # 058		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1385		Vessel Sta. I.D.		Instructions Trawl # 53										Sta. Designation																									
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 97 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vls.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.												
058		58 09 16 N			154 01 50 W			07 APR 94			02 55		03 20		02 50		08 18		24 00		05 00		00 00				237																		
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 304				<div>Monitor Checks</div> <div>on Deck at Surface</div> <div>Press. _____</div> <div>Temp. _____</div> <div>Cond. _____</div> <div>Other _____</div>										<div>Times JD/Time</div> <div>Data on _____</div> <div>at Surface _____</div> <div>Start Down _____</div> <div>at Bottom _____</div> <div>Start Up _____</div> <div>at Surface _____</div> <div>Data off _____</div>										<div>Data Location</div> <div>Tape/Diskette I.D. _____</div> <div>File Name/Header CAST 058-07 Apr 1046</div> <div>Remarks CTD CALVET, FLUOROMETER, LIGHT METER</div>									
St. #		Bot. Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.																					
1		A				103503 05459						230.551 4.657 31.011 32.397								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

PW

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w/b
232

Consec. Cast # 059		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1409		Vessel Sta. I.D.		Instructions										Sta. Designation											
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1005.9		S.S.	Vis.	Wind Dir.		Wind Sp.		Cloud	Type	Weath.	Bottom Depth, m		Sta. Name or I.D.	
059		58 22 8 2 N			153 49 3 4 W			07 APR 94			12 43		55		44		06		3	8	230		16		000	208					
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 059-07APR2033															
Press. SN 26072				Press. _____												Remarks cal-vet sealed light meter Fluorometer video + light w/314															
Temp. SN 701				Temp. _____																											
Cond. SN 304				Cond. _____																											
Other _____				Other _____																											
St. #		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			A	264230							206.941 4.886 31.258 32.468							07		1											
2																				2											
3																				3											
4																				4											
5																				5											
6																				6											
7																				7											
8																				8											
9																				9											
10																				10											
11																				11											
12																				12											

 Initials JP
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Consec. Cast # 060		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 7428		Vessel Sta. I.D.		Instructions Trawl 54										Sta. Designation					
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 97 Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S. Vs.		Wind Dir. Wind Sp.		Cloud Type Weath.		Bottom Depth, m		Sta. Name or I.D.	
060		57 58 23 N		154 01 18 S W		07 APR 94		20 35		7 2		5 6		05 38		24 01 8 13 1				194					
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 060 - 08 Apr 0426 Remarks cal-vet. light meter w/191 Sea cat fluorometer													
Press. SN 26072		Temp. SN 701		Cond. SN 304		Press. _____		Temp. _____		Cond. _____		Other _____													
%		Bot. 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.		%	
1		A		04:24:20								190.410 4.613 30.944 32.383								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 # 661			Vessel MILLER FREEMAN			Proj. & Leg MF-94-03 LEG 1			Event # 1437			Vessel Sta. I.D.			Instructions TRAWL #56										Sta. Designation						
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = 98 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.	
061		575333N			1535298W			08 APR 94			0029		0520		48		0538		23	01	91		61				193				
CTD Type & SN 91220-A					Monitor Checks on Deck at Surface					Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____					Data Location Tape/Diskette I.D. _____ File Name/Header CAST061-08APR0821																
Press. SN 26072					Press. _____										Remarks CTD SEACAT, FLUOROMETER, LIGHTMETER CAL-VET																
Temp. SN 701					Temp. _____																										
Cond. SN 304					Cond. _____																										
Other _____					Other _____																										
Stn. No.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.												
1		A		0829:25		Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	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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w/o
191

Consec. Cast # 062		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1488		Vessel Sta. I.D.		Instructions Trawl S8										Sta. Designation					
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = 98			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1005.0	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.													
062	57	47	61	N	154	18	71	W	08	APR	94	07	03	20	10	05	28	260	15	231			197		
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location									
Press. SN 26072				on Deck								Data on				Tape/Diskette I.D.									
Temp. SN 701				at Surface								at Surface				File Name/Header									
Cond. SN 304				Press. _____								Start Down				CAST 062_08APR1456									
				Temp. _____								at Bottom													
				Cond. _____								Start Up													
				Other _____								at Surface				Remarks CTD, SEACAT, LIGHTMETER, FLUOROMETER									
												Data off				CAL-VET									

Stn. No.	Bot. Rack	T	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn. No.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	A		150410	150430	150430					191.012	4.997	31.645	32.813				10		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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w/097

Consec. Cast # 063		Vessel MILLER FREEMAN		Proj. & Leg MF-94-03 LEG 1		Event # 1464		Vessel Sta. I.D.		Instructions FOCI 66										Sta. Designation						
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = 98			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
	Deg.	Min.	Deg.		Day	Mo.	Yr.		Hr.	Min.																
063	5	8	02	38	N	154	14	14	W	08	APR	94	14	22	04	6	02	2	04	37	240	18	18	1	27	
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface				Times JD/Time				Data Location														
Press. SN 26072				Press. _____				Data on _____				Tape/Diskette I.D.				File Name/Header										
Temp. SN 701				Temp. _____				Start Down _____				_____				CAST063-08Apr2211										
Cond. SN 304				Cond. _____				at Bottom _____				_____				_____										
_____				Other _____				Start Up _____				Remarks Light meter				video camera + light										
_____				_____				Data off _____				Fluorometer				cal vet										
Stn #	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	

at depth = 10 min. for camera

Initials WJP
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w/o 271