

Consec. Cast # <u>01</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event# LEG 1		Vessel Sta. I.D.		Instructions										Sta. Designation <u>PROTEUS 2</u>					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <u>107</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.		
001	54	47	04 N	168	32	87 W	16	A	P	R	92	00	09	01	4	01	4	77	56	31	52	08	77	2068	PROT2
CTD Type & SN _____			Monitor Checks			Times			JD/Time			Data Location													
Press. SN _____			on Deck			at Surface			Data on _____			Tape/Diskette I.D.			File Name/Header										
Temp. SN _____			Press. _____			_____			at Surface _____			_____			_____			_____			_____				
Cond. SN _____			Temp. _____			_____			Start Down _____			_____			_____			_____			_____				
_____			Cond. _____			_____			at Bottom _____			_____			_____			_____			_____				
_____			Other _____			_____			Start Up _____			_____			_____			_____			_____				
_____			_____			_____			at Surface _____			_____			_____			_____			_____				
_____			_____			_____			Data off _____			_____			_____			_____			_____				
Pos	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos						
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.									
1	38	B		00830		494.801	3.765	31.585	33.830							3.76	33.827	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 BT
WF

#177

Pg. 2 of

Consec. Cast # 002		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 177		Vessel Sta. I.D.		Instructions										Sta. Designation PROT 2														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 108 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.	
002		544705 N			1683107 W			17 APR 92			0358		025		018		85		38		240		14761		2225		PROT 2							
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				_____ CAST002-17 Apr. 0340																		
Cond. SN 303				Temp. _____								Start Down _____				_____																		
				Cond. _____								at Bottom _____				_____																		
				Other _____								Start Up _____				Remarks																		
				Data off _____								at Surface _____																						
												Data off _____																						

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	38	B	400 m	0401:30	0406:30	399.773	3.790	34.14	33.650							3.79	33.649	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 mc

Consec. Cast # 003		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # LEG 1		Vessel Sta. I.D.		Instructions										Sta. Designation G037A														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 109 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.	
003		545652 N			1683625 W			18 APR 92			2206		03		0027		0847		0601		0461		2200		G037A									
CTD Type & SN 91220A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on at Surface				Tape/Diskette I.D.				File Name/Header														
Temp. SN 701				Press. _____								Start Down ~ 2130				_____				CAST003-18APR2126														
Cond. SN 303				Temp. _____								at Bottom 220625				_____				_____														
_____				Cond. _____								Start Up 221142				_____				Remarks														
_____				Other _____								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		Depth		Trip		Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.						
1				1500		220625		221125		1498.803		2.330		31.300		34.474								1479		2.34		34.478		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 CD/WF

This position is incorrect. It should be 34° 48.00' N. E. A. Calvert
Confirmed by GPS data from SES. 16 Mar 93

Consec. Cast # 004		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 254		Vessel Sta. I.D.		Instructions 16 Mar 93										Sta. Designation G006A						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 110			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.																
004	54	40	N	168	28	04	W	19	A	P	R	92	00	54	05	00	38	10	38	04	01	03	61	21	85	G006A
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location										
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header										
Temp. SN 701				Press.								at Surface				CAST004_19APR0016										
Cond. SN 303				Temp.								Start Down 0418														
				Cond.								at Bottom 0054														
				Other								Start Up				Remarks										
												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			1000	01 04 07	01 09 07	1000.071	2.929	31.477	34.311						994	2.95	34.313	#02		1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials CD/ST
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Consec. Cast # 005		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 256		Vessel Sta. I.D.		Instructions										Sta. Designation G002A					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 110			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.															
005	54	39	N	168	19	80	W	19	A	P	R	92	02	59	04	00	29	11	38	03	01	03	81	1994	G002A
CTD Type & SN 91220-A			Monitor Checks										Times JD/Time				Data Location								
Press. SN 25084			on Deck					at Surface					Data on _____				Tape/Diskette I.D.				File Name/Header				
Temp. SN 701			Press. _____					_____					at Surface _____				_____				CAST005-19APR9221				
Cond. SN 303			Temp. _____					_____					at Bottom _____				_____				_____				
_____			Cond. _____					_____					Start Up _____				_____				Remarks				
_____			Other _____					_____					at Surface _____				_____				_____				
_____			_____					_____					Data off _____				_____				_____				
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.						
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.									
1			500	031900	0324	492.390	3.598	31.552	33.965							3.60	33.967	05		1					
2																				2					
3																				3					
4																				4					
5																				5					
6																				6					
7																				7					
8																				8					
9																				9					
10																				10					
11																				11					
12																				12					

Initials _____
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Consec. Cast # 006		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 259		Vessel Sta. I.D.		Instructions										Sta. Designation G020A						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 110			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.																
006	54	30	55	N	168	11	74	W	19	A	P	R	92	05	05	03	6	02	9	12	38	000	106	61	1535	G020A
CTD Type & SN 91220-A			Monitor Checks										Times JD/Time		Data Location											
Press. SN 25084			on Deck					at Surface					Data on _____		Tape/Diskette I.D. _____											
Temp. SN 301			Press. _____					_____					at Surface _____		File Name/Header CAST006-19APR0427											
Cond. SN 303			Temp. _____					_____					at Bottom _____		_____											
_____			Cond. _____					_____					Start Up _____		_____											
_____			Other _____					_____					at Surface _____		Remarks											
_____			_____					_____					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			350	052900	053400	352.770	3.776	31.495	33.784							3.77	33.788	19		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 # 008		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 264		Vessel Sta. I.D.		Instructions										Sta. Designation GO10A																	
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 110			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1014.2	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.																										
008	5	4	13	89	N	16	7	54	66	W	19	A	P	R	92	09	04	04	9	0	2	8	1	4	38	29	0	1	0	7	6	7	1	3	8	3	GO10A
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																					
Press. SN 25084				on Deck at Surface								Data on 110 0834				Tape/Diskette I.D. File Name/Header																					
Temp. SN 701				Press. _____								at Surface _____				CAST008-19APR08 33																					
Cond. SN 303				Temp. _____								Start Down _____				_____																					
_____				Cond. _____								at Bottom 0908				_____																					
_____				Other _____								Start Up _____				Remarks																					
_____				Data off _____								_____				_____																					
Pos. a	Bot.	T Rack	Trip Depth	Time @		Monitor Values Sal.				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos. b																		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.																					
1	38	B	100	093250	093750	103.425	3.000	30.264	33.240							2.98	33.238	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 AC✓ CD

Consec. Cast # 009		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 318		Vessel Sta. I.D.		Instructions										Sta. Designation G038A														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 111 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
009		55 00 64 N			168 18 83 W			20 APR 92			14 01 03		1 0 2 0		1 8 3 7		2 5 0 0		6 9 - 7		1 8 8 8		G 0 3 8 A											
CTD Type & SN 91220A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				CAST09-20APR1356																		
Cond. SN 303				Temp. _____								Start Down _____				_____																		
				Cond. _____								at Bottom _____				_____																		
				Other _____								Start Up _____				Remarks CAST 1 FOR J. McDONALD / UA																		
												at Surface _____				CHLOROPHYLL, PROTOZOAN, CHEM. TRACERS																		
												Data off _____				NO SALINITY SAMPLE																		

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	20		60		140358					59.911	3.163	29.853	32.599					1	
2	22		50*		140506					49.980	3.113	29.792	32.582					2	
3	29		40		140608					39.770	3.086	29.756	32.570					3	
4	26		30		140721					30.207	3.052	29.709	32.553	DIDN'T CLICK				4	
5	27		20		140824					19.802	2.990	29.579	32.463					5	
6	28		10		140925					10.104	2.847	29.391	32.386					6	
7	25		5		141015					5.335	2.840	29.375	32.375					7	
8	LM																	8	
9	PR																	9	
10	BLANK																	10	
11	21		90							90.816	3.440	30.185	32.703					11	
12	26		70							70.284	3.248	29.951	32.626					12	

Initials cm/mc

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Consec. Cast # 010		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 321		Vessel Sta. I.D.		Instructions										Sta. Designation G038A					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 111			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.															
010	55	00	72	N	168	18	63	W	20	A	P	R	92	15	14	04	6	04	0	18	37	255	0886	11900	G038A
CTD Type & SN 91220-A			Monitor Checks						Times JD/Time				Data Location												
Press. SN 25084			on Deck						Data on				Tape/Diskette I.D.												
Temp. SN 701			at Surface						at Surface				File Name/Header												
Cond. SN 30.3			Press. _____						Start Down 151035				CAST010-20APR1510												
			Temp. _____						at Bottom 151402																
			Cond. _____						Start Up _____				Remarks SAMPLES FOR J. McDONALD/LA												
			Other _____						at Surface _____				PROTOZOANS, CHLOROPHYLLS & CHEM TRACERS												
			Data off _____																						

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	20		50		151720					49.968	3.085	29.761	32.571					1	
2	22		40		151820					40.203	3.052	29.712	32.552					2	
3	29		30		151915					30.097	3.083	29.723	32.539					3	
4	26		20		152015					20.210	2.757	29.380	32.456	DIDN'T CLICK				4	
5	27		10		152115					10.107	2.823	29.365	32.378					5	
6	28		5		152220					4.678	2.825	29.365	32.377					6	
7	25																	7	
8	LM																	8	
9	7GR																	9	
10	BLANK																	10	
11	21		90		151430					91.408	3.468	30.217	32.713			33.712	06	11	
12	26		70		151555					69.816	3.315	30.024	32.647					12	

Initials ca/mc

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Consec. Cast # 011		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 323		Vessel Sta. I.D.		Instructions										Sta. Designation G038A																
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg.		E or W		Date JD = 111 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		5500		86		N		16818		22		W		20 APR 92			1553		023		017		17		37		260		138		52		1900		G038A	
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																								
Press. SN 25084				on Deck				at Surface				Data on				Tape/Diskette I.D.								File Name/Header												
Temp. SN 701				Press.								at Surface												CAST011-20APR1549												
Cond. SN 303				Temp.								Start Down																								
				Cond.								at Bottom																								
				Other								Start Up												Remarks SAMPLES FOR J. McDONALD / UA												
				Data off																																

Stn. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn. #
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		50		155717	50.797	3.157	29.843	32.598									1	
2	22		40		155819	40.788	3.137	29.812	32.586									2	
3	29		30		155921	30.802	3.054	29.713	32.555									3	
4	26		20		160040	19.984	2.904	29.529	32.491									4	
5	27		10		160148	9.936	2.807	29.366	32.394									5	
6	28		5			5.031	2.805	29.356	32.387									6	
7	25																	7	
8	LM																	8	
9	PCR																	9	
10	BLANK																	10	
11	21		90		155400	90.555	3.508	30.268	32.734									11	
12	26		70		155539	70.327	3.472	30.204	32.704									12	

Initials COLWF



Consec. Cast # 013		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 325		Vessel Sta. I.D.		Instructions										Sta. Designation 6038A														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 111 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.	
013		550092 N			1681873 W			20 APR 92			1644		025		017		173		72		60		107		61		1900		6038A					
CTD Type & SN 91220A				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down 164125 at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST013-20APR1640 Remarks SAMPLE FOR J. McDONALD / UA																		
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		20				50								51.094 3.273 29.964 32.626				BOTTLE DIDN'T TRIP							1									
2		22				40								40.145 3.155 29.834 32.594				BOTTLE DIDN'T TRIP							2									
3		29				30								30.483 3.130 29.770 32.548											3									
4		26				20								20.653 2.969 29.588 32.496											4									
5		27				10								10.357 2.872 29.449 32.430											5									
6		28				5								5.787 2.844 29.406 32.408											6									
7		25																							7									
8		LM																							8									
9		PGR																							9									
10		BLANK																							10									
11		21				90		164						90.537 3.511 30.282 32.747				BOTTLE DIDN'T TRIP							11									
12		26				70								70.679 3.498 30.227 32.705				BOTTLE DIDN'T TRIP							12									

Initials CD/WF



Consec. Cast # 014		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 326	Vessel Sta. I.D.		Instructions										Sta. Designation G038A						
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 111 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	55	00	96	N	168	18	24	W	20	A	P	R	92	17	04	02	70	18	18	37	250	107	61	1906	G038A
CTD Type & SN 91220A				Monitor Checks								Times JD/Time				Data Location									
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header									
Temp. SN 701				Press.								at Surface				CAST014_20Apr1700									
Cond. SN 303				Temp.								Start Down													
				Cond.								at Bottom													
				Other								Start Up													
												at Surface				Remarks SAMPLES FOR J. McDONALD / UA									
												Data off													
St. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	St. #						
Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.													
1	20																	1							
2	22																	2							
3	29		90							89.369	3.511	30.284	32.751					3							
4	26		70							69.630	3.519	30.250	32.712					4							
5	27		50							51.166	3.371	30.067	32.651					5							
6	28		40							40.004	3.183	29.863	32.601					6							
7	25																	7							
8	LM																	8							
9	PCR																	9							
10	BLANK																	10							
11	21																	11							
12	26																	12							

Initials
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Consec. Cast # 015		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 327		Vessel Sta. I.D.		Instructions										Sta. Designation G038A							
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 111 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.				
015	55	00	95	N	168	18	07	W	20	A	P	R	92	17	22	02	7	0	1	7	18	37	270	167	61	1900	G038A
CTD Type & SN 91220A			Press. SN 25084			Temp. SN 701			Cond. SN 303			Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down 171917 at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST015_20APR1718				Remarks SAMPLES FOR J. McDONALD UA			
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	20		50											50.831	3.470	30.163	32.667								1		
2	22		40											40.091	3.175	29.856	32.602								2		
3	29		30											30.621	3.119	29.782	32.573								3		
4	26		20											20.636	3.104	29.727	32.528								4		
5	27		10											10.675	2.778	29.370	32.428								5		
6	28		5											4.921	2.796	29.364	32.406								6		
7	25		-																						7		
8	LM																								8		
9	PCR																								9		
10	BLANK																								10		
11	21		90		172241									90.809	3.528	30.304	32.756								11		
12	26		70											70.096	3.527	30.264	32.721								12		

Initials CD/WF

Consec. Cast # 016		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 370		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 112 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.	
016		534949 N			1713487 W			21 APR 92			183004		2038		22		46		255		158		55		3189									
CTD Type & SN 912209				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				CAST016-21APR1826																		
Cond. SN 302				Temp. _____								Start Down 1827				_____																		
				Cond. _____								at Bottom 1830				_____																		
				Other _____								Start Up _____				Remarks SAMPLES FOR J. McDONALD/UA																		
				Data off _____								at Surface _____				_____																		
												Data off _____				_____																		

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		50			49.995	3.119	30.329	33.225									1	
2	22		40		183440	39.627	3.120	30.325	33.224									2	
3	29		30			29.339	3.122	30.322	33.224									3	
4	26		20			19.873	3.122	30.318	33.224									4	
5	27		10			9.877	3.123	30.314	33.225									5	
6	28		5			4.770	3.123	30.311	33.224									6	
7	25																	7	
8	LM																	8	
9	PGA																	9	
10	BLANK																	10	
11	21		90		183055	90.296	3.098	30.331	33.228							33.232	08	11	
12	26		70		183205	70.274	3.109	30.331	33.226									12	

 Initials _____
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Consec. Cast # 017		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 374		Vessel Sta. I.D.		Instructions										Sta. Designation G042A										
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 112 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	53	50	44	N	171	32	34	W	21	A	P	R	92	20	25	05	80	42	22	22	37	24	51	09	74	32	01	60	42	A
CTD Type & SN 91220A				Monitor Checks								Times JD/Time				Data Location														
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header														
Temp. SN 701				Press. _____								at Surface _____				CAST017-21APR2019														
Cond. SN 303				Temp. _____								Start Down _____				_____														
				Cond. _____								at Bottom _____				_____														
				Other _____								Start Up _____				Remarks SAMPLES FOR J. McDONALD / UA														
				Data off _____								at Surface _____																		
												Data off _____																		
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.											
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.														
1	20		50			50.000	3.101	30.315	33.226										1											
2	22		40			40.119	3.105	30.312	33.224										2											
3	29		30			30.134	3.108	30.310	33.224										3											
4	26		20			20.036	3.105	30.303	33.224										4											
5	27		10			9.833	3.115	30.307	33.224										5											
6	28		5			4.767	3.122	30.311	33.224										6											
7	25																		7											
8	LM																		8											
9	PGR																		9											
10	BLANK																		10											
11	21		90			89.770	3.095	30.329	33.229										11											
12	26		70			69.737	3.101	30.324	33.227										12											

 Initials _____
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Consec. Cast # 018		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 378		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 112 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.	
018		535025 N			1713279 W			21 APR 92			2310049		038		222		37		235		109		74		3260		6042A							
CTD Type & SN 91220A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				Start Down 230645																		
Cond. SN 203				Temp. _____								at Bottom _____				Start Up _____																		
				Cond. _____								at Surface _____				Data off _____																		
				Other _____												Remarks SAMPLES FOR J. McDONALD / UA																		

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	20		50			50.285	3.100	30.313	33.225									1	
2	22		40			40.163	3.101	30.309	33.224									2	
3	29		30			29.951	3.104	30.306	33.223									3	
4	26		20			20.246	3.114	30.310	33.223									4	
5	27		10			10.032	3.152	30.338	33.223									5	
6	28		5			5.082	3.174	30.353	33.222									6	
7	25																	7	
8	LM																	8	
9	PGR																	9	
10	BLANK																	10	
11	21		90			89.711	3.099	30.331	33.227									11	
12	26		70			69.746	3.099	30.322	33.226									12	

 Initials _____
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Consec. Cast # 019		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 379		Vessel Sta. I.D.		Instructions										Sta. Designation G042A														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 112 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.	
019		535015 N			1713247 W			21 APR 92			2334		047		039		2347		2351		2774		3255		G042A									
CTD Type & SN 91220A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				CAST019-21APR2330																		
Cond. SN 303				Temp. _____								Start Down _____				_____																		
				Cond. _____								at Bottom _____				_____																		
				Other _____								Start Up _____				Remarks SAMPLES FOR J. McDONALD/UA																		
				Data off _____								at Surface _____				_____																		
												Data off _____				_____																		

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		50							50.425	3.099	30.312	33.225					1	
2	22		40							39.983	3.100	30.208	33.224					2	
3	29		30							30.121	3.101	30.304	33.224					3	
4	26		20							20.050	3.107	30.304	33.224					4	
5	27		10							10.058	3.155	30.339	33.222					5	
6	28		5							4.878	3.181	30.360	33.223					6	
7	25																	7	
8	LM																	8	
9	PCR																	9	
10	BLANK																	10	
11	21		90							90.788	3.097	30.331	33.227					11	
12	26		70							70.357	3.097	30.322	33.228					12	

Initials ✓

Consec. Cast # 020		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event# 383		Vessel Sta. I.D.		Instructions										Sta. Designation												
Consec. Cast #		Latitude N or S Deg. Min.		Longitude E or W Deg.		Date JD = 113 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.	
020		534926 N		1713589 W		22 APR 92			0134		045		036		23		47		225		1077		13151									
CTD Type & SN 91220A Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down 013035 at Bottom 013349 Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST020-22 APR 0129 Remarks SAMPLES FOR J. McDONALD / UA																				
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		20				50								50.069 3.121 30.330 33.224											1							
2		22				40								40.236 3.122 30.325 33.223											2							
3		29				30								30.251 3.125 30.325 33.224											3							
4		26				20								20.131 3.136 30.328 33.223											4							
5		27				10								10.180 3.184 30.366 33.224											5							
6		28				5								5.126 3.255 30.424 33.224											6							
7		25																							7							
8		LM																							8							
9		PGR																							9							
10		BLANK																							10							
11		21				90		013407						89.357 3.110 30.340 33.226											11							
12		26				70		013600																	12							

Initials

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Consec. Cast # 021		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation															
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 113 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.				
021		53 49 07 N		171 36 08 W		22 APR 92			02 00		04 50		03 16		23 47		22 51		07 71		13 15														
CTD Type & SN 91220-A SEABIRD				Monitor Checks						Times JD/Time						Data Location																			
Press. SN 25084				on Deck at Surface						Data on at Surface						Tape/Diskette I.D. File Name/Header																			
Temp. SN 701				Press. _____						Start Down 015640						CAS021-22APR0155																			
Cond. SN 303				Temp. _____						at Bottom _____						_____																			
				Cond. _____						Start Up _____						Remarks SAMPLES FOR J. McDONALD/UA																			
				Other _____						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						50												49.605		3.123		30.331		33.224										1	
2						40												39.487		3.124		30.327		33.224										2	
3						30												29.798		3.126		30.325		33.224										3	
4						20												19.841		3.139		30.332		33.224										4	
5						10												9.536		3.213		30.390		33.224										5	
6						5												4.434		3.286		30.450		33.224										6	
7																																		7	
8																																		8	
9																																		9	
10																																		10	
11						90												90.028		3.103		30.335		33.227										11	
12						70												69.625		3.116		30.335		33.225										12	

Initials _____

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33.231
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Consec. Cast # 022		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 421		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 113 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.	
022		52 26 47 N			171 33 00 W			22 APR 92			20 40		041		026		23		37		165		20		722		531							
CTD Type & SN 91220-A SEABIRD				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom 204020 Start Up 204530 at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST022-22APR2022																		
Press. SN 25084				Press. _____												Remarks AMUKTA PASS WINCH OP IMMED STARTED IMMED FOR THE BOTTOM, BROUGHT BACK TO THE SURFACE FM ~40 M THEN RE-STARTED CAST FIRST 90 M MIGHT NOT BE ON TAPE.																		
Temp. SN 701				Temp. _____																														
Cond. SN 303				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		38 B		500		204020						504.543 3.865 31.653 33.803								33.792 04				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 # 023			Vessel MILLER FREEMAN			Proj. & Leg MF-92-04 FOCI			Event # 422			Vessel Sta. I.D.			Instructions										Sta. Designation																						
Consec. Cast #			Latitude N or S			Longitude E or W			Date JD = 113 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.		
023			52 25 31 N			171 41 05 W			22 APR 92			21 42			049			031			233			716			021			712			498														
CTD Type & SN 91220-A SEABIRD						Monitor Checks						Times JD/Time						Data Location																													
Press. SN 25084						on Deck						Data on						Tape/Diskette I.D.																													
Temp. SN 701						at Surface						at Surface						File Name/Header																													
Cond. SN 303						Press. _____						Start Down _____						CAST 023-22APR92																													
						Temp. _____						at Bottom _____																																			
						Cond. _____						Start Up 214350																																			
						Other _____						at Surface _____						Remarks Amulet Pass																													
						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			380	214605						396.966	3.649	31.498	33.898			33.896	03		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

 Initials _____
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Consec. Cast # 025		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCT		Event # 424		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 113 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		522263 N			1715729 W			22 APR 92			23 47		04		203		322		47		150		208		12		313							
CTD Type & SN 91220-A SEABIRD		Monitor Checks on Deck at Surface										Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up 2348 at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST025-22APR2335 Remarks <i>omitted Pass</i>																		
Press. SN 25084		Temp. SN 701		Cond. SN 303		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				101		235345 235854						102.620 3.750 31.004 33.360				3.75 33.355				24				1										
2																								2										
3																								3										
4																								4										
5																								5										
6																								6										
7																								7										
8																								8										
9																								9										
10																								10										
11																								11										
12																								12										

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Consec. Cast # 026		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 428		Vessel Sta. I.D.		Instructions										Sta. Designation												
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 114 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.	
026		522154 N			1720476 W			23 APR 92			0044		04		2033		2247		150		2281		20391									
CTD Type & SN 91220-A SEABIRD				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down 003243 at Bottom 004445 Start Up 004516 at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST026-23APR0031 Remarks <i>Amplitude Pass</i> <i>Up & down casts dramatically different</i> <i>Station 0-175m</i>																
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						50		005210 005722						51.248 3.928 31.114 33.337				3.94 33.335				11				1						
2																										2						
3																										3						
4																										4						
5																										5						
6																										6						
7																										7						
8																										8						
9																										9						
10																										10						
11																										11						
12																										12						

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Consec. Cast # 027		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 426		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 114 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.	
027		522021 N			1721286 W			23 APR 92			014104		6036		2248		150208		12		337													
CTD Type & SN 91220-A SEABIRD				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface 013028				CAST027-23APR0129																		
Cond. SN 303				Temp. _____								Start Down 013045																						
				Cond. _____								at Bottom																						
				Other _____								Start Up																						
												at Surface																						
												Data off				Remarks Amukta Pass																		

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					014720					51.043	3.191	30.460	33.309		3.21	33.305	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 # 028			Vessel MILLER FREEMAN			Proj. & Leg MF-92-04 FOCI			Event #			Vessel Sta. I.D.			Instructions <i>Alaskan Stream Trawl Sta 1</i>			Sta. Designation																																
Consec. Cast #			Latitude N or S			Longitude E or W			Date JD = 114 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			522136 N			1711189 W			23 APR 92			0602			0430			35			24			37			135			20			84			2			502											
CTD Type & SN 91220-A SEABIRD			Monitor Checks on Deck at Surface									Times JD/Time Data on _____ at Surface _____ Start Down <u>054810</u> at Bottom _____ Start Up _____ at Surface _____ Data off _____									Data Location Tape/Diskette I.D. _____ File Name/Header <u>CAST028-23APR0544</u>																													
Press. SN <u>25084</u>			Press. _____									Start Down _____									Tape/Diskette I.D. _____																													
Temp. SN <u>701</u>			Temp. _____									at Bottom _____									File Name/Header _____																													
Cond. SN <u>303</u>			Cond. _____									Start Up _____									Tape/Diskette I.D. _____																													
			Other _____									Data off _____									Remarks <i>Computer & Sea-Bird took several attempts to get good numbers. No transmission of light meter on this line.</i>																													
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									060705 061213							301.600 3.631 31.280 33.706							3.64 33.706		13		1																							
2																											2																							
3																											3																							
4																											4																							
5																											5																							
6																											6																							
7																											7																							
8																											8																							
9																											9																							
10																											10																							
11																											11																							
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Consec. Cast # 030			Vessel MILLER FREEMAN			Proj. & Leg MF-92-04 FOCT			Event# 437			Vessel Sta. I.D.			Instructions <i>Alaska Stream Transport, Sta 3</i>										Sta. Designation							
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 114 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.	
030		52 11 12 N			17 16 19 W			23 APR 92			09 13		04 30		3 5		24 47		130		20		84		21		530					
CTD Type & SN 91220-A SEABIRD				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 CAST030-23APR0828- 0-1182 m CAST030-23APR0904- 1178-1476 m																
Press. SN 25084				Press. _____												Remarks <i>Sea-Bird press went to ~12k @ 30-40 m - Re-started cast - stopped @ 1182 m - scale only went to 1200 m - Restrict cast @ 1178 m</i>																
Temp. SN 701				Temp. _____																												
Cond. SN 303				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				45		094640						20.727 4.381 30.807 32.537				4.37 32.528 12						1										
2																* sample depth, had unstable						2										
3																val, * temp						3										
4																						4										
5																						5										
6																						6										
7																						7										
8																						8										
9																						9										
10																						10										
11																						11										
12																						12										

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Consec. Cast # 031			Vessel MILLER FREEMAN			Proj. & Leg MF-92-04 FOCI			Event #		Vessel Sta. I.D.			Instructions <i>Alaska Stream Transport, Sta. 4</i>					Sta. Designation															
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 114 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.	
031		520722 N			1710373 W			23 APR 92			1112		043		038		254		71		401		684		22		845							
CTD Type & SN 91220-A SEABIRD					Monitor Checks										Times JD/Time					Data Location														
Press. SN 25084					on Deck					at Surface					Data on					Tape/Diskette I.D.					File Name/Header									
Temp. SN 701					Press. _____					_____					at Surface 103708					_____					CAST031_23APR1036									
Cond. SN 303					Temp. _____					_____					Start Down 103720					_____					_____									
_____					Cond. _____					_____					at Bottom 111220					_____					_____									
_____					Other _____					_____					Start Up 111305					_____					_____									
_____					_____					_____					at Surface _____					_____					Remarks									
_____					_____					_____					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				112320									996.503	3.029	31.587	34.340		3.04	34.339	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 ✓

Consec. Cast # 032		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 440		Vessel Sta. I.D.		Instructions <i>Alaska, Hoonah Trench, Sta 5</i>					Sta. Designation																
Consec. Cast #	Latitude N or S Deg. Min.		Longitude E or W Deg.		Date JD = 114 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.										
032	52	02	00	N	171	01	99	W	23	APR	92	13	04	04	5	03	8	26	47	14	5	16	8	4	2	3	5	9	2		
CTD Type & SN 91220-A SEABIRD		Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface <u>122730</u> Start Down <u>122745</u> at Bottom <u>130420</u> Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header <u>CAST032-23APR1227</u> _____ _____ _____ Remarks _____																	
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				130420						1524.328	2.405	31.382	34.482		2.41	34.482	#15		1												
2																			2												
3																			3												
4																			4												
5																			5												
6																			6												
7																			7												
8																			8												
9																			9												
10																			10												
11																			11												
12																			12												

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Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation																
33		MILLER FREEMAN		MF-92-04 EOCI																																
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 115			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.	
033		544650 N			1685714 W			24 APR 92			2244		0470		041		26		27		110		08		87		120		39							
CTD Type & SN				91220-A SEABIRD				Monitor Checks				Times				Data Location																				
Press. SN				25084				on Deck				at Surface				Data on				Tape/Diskette I.D.				File Name/Header												
Temp. SN				701				Press.								at Surface				224055				CAST033-24APR2239												
Cond. SN				303				Temp.								Start Down				224105																
				Cond.								Start Up																								
				Other								Data off												Remarks SAMPLES FOR J. McDONALD/UA												

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	27		90							89.861	3.443	30.346	32.893					1	
2	29		70							69.501	3.770	30.543	32.809					2	
3	25		60							59.863	3.600	30.289	32.683			32.719	29	3	
4	28		50							49.723	3.616	30.277	32.658					4	
5	20		40							39.578	3.038	29.699	32.550					5	
6	6		30							28.539	2.956	29.600	32.519					6	
7	21		20							19.673	3.017	29.598	32.460					7	
8	23		10							9.687	3.476	29.785	32.230					8	
9	20		5							5.135	3.612	29.851	32.177					9	
10	47																	10	
11																		11	
12																		12	

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Consec. Cast # 034				Vessel MILLER FREEMAN				Proj. & Leg MF-92-04 FOCI				Event # 500		Vessel Sta. I.D.				Instructions										Sta. Designation								
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 116 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		544673 N			1685705 W			25 APR 92			0049		050		042		2538		110		108		62		2043											
CTD Type & SN 91220-A SEABIRD				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 CAST034-25APR0045 Remarks SAMPLES FOR J. McDONALD/UA																				
Press. SN 25084		Temp. SN 701		Cond. SN 303		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		27				90								89.831 3.693 30.602 32.946												1										
2		29				70								69.033 3.677 30.527 32.884												2										
3		25				60								59.355 3.673 30.480 32.836								33.224		20		3										
4		28				50								49.332 3.668 30.460 32.823												4										
5		20				40								40.197 3.712 30.487 32.817												5										
6		6				30								30.298 3.802 30.551 32.807												6										
7		21				20								19.983 3.900 30.568 32.734												7										
8		23				10								10.040 3.561 29.962 32.357												8										
9		20				5								4.930 3.565 29.920 32.305												9										
10		LM																								10										
11																										11										
12																										12										

Initials _____
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Consec. Cast # 035			Vessel MILLER FREEMAN			Proj. & Leg MF-92-04 FOCI			Event #	Vessel Sta. I.D.			Instructions										Sta. Designation												
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 116 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	55	64	6	27	N	168	57	68	W	25	A	P	R	9	2	01	18	03	5	0	3	0	2	5	3	8	1	1	0	10	8	6	2	20	43
CTD Type & SN 91220-A SEABIRD			Monitor Checks										Times JD/Time				Data Location																		
Press. SN 25084			on Deck at Surface										Data on				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701			Press. _____										at Surface _____				CAST035_25APR0113																		
Cond. SN 303			Temp. _____										Start Down 011505				_____																		
_____			Cond. _____										at Bottom _____				_____																		
_____			Other _____										Start Up _____				Remarks SAMPLES FOR J. McDONALD/UA																		
_____			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	27		90							90.594	3.472	30.441	32.977						1																
2	29		70							70.873	3.715	30.575	32.902						2																
3	25		60							60.358	3.698	30.492	32.826			32.838	25		3																
4	28		50							50.138	3.861	30.611	32.808						4																
5	20		40							39.989	3.960	30.647	32.757						5																
6	6		30							30.111	3.406	30.010	32.560						6																
7	21		20							19.961	3.297	29.792	32.413						7																
8	23		10							10.155	3.516	29.878	32.302						8																
9	20		5							4.957	3.530	29.879	32.292						9																
10	LM																		10																
11																			11																
12																			12																

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Consec. Cast # 036				Vessel MILLER FREEMAN				Proj. & Leg MF-92-04 FOCT				Event # 503		Vessel Sta. I.D.				Instructions										Sta. Designation								
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 116 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.	
036		544624 N			1685698 W			25 APR 92					0312042		0315		2438		100		1086		22043													
CTD Type & SN 91220-A SEABIRD				Monitor Checks										Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface										Data on _____				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____										at Surface _____				_____ CAST036_25APR0307																		
Cond. SN 303				Temp. _____										Start Down 030830				_____																		
				Cond. _____										at Bottom _____				_____																		
				Other _____										Start Up _____				Remarks SAMPLES FOR J. McDONALD / UA																		
				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	27		90							90.107	3.337	30.382	33.045					1	
2	29		70							69.556	3.556	30.496	32.968					2	
3	25		60							61.066	3.571	30.483	32.942			31.129	34	3	
4	28		50							49.818	3.443	30.290	32.847					4	
5	20		40							39.866	3.656	30.455	32.835					5	
6	6		30							29.861	3.799	30.562	32.823					6	
7	21		20															7	
8	23		10							9.654	3.823	30.367	32.578					8	
9	20		5							4.688	3.836	30.338	32.534					9	
10	LM																	10	
11																		11	
12																		12	

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Consec. Cast # 037		Vessel MILLER FREEMAN		Proj. & Leg MF-92-04 FOCI		Event # 504		Vessel Sta. I.D.		Instructions										Sta. Designation												
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 116 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.	
037		544601 N		1685731 W		25 APR 92			0334		045		036		23		38		110		108		62		2043							
CTD Type & SN 91220-A SEABIRD		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 CAST037_25APR0307 _____ _____ Remarks																		
Press. SN 25084		Temp. SN 701		Cond. SN 303		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		27				90								89.650 3.537 30.542 33.033												1						
2		29				70								69.674 3.567 30.493 32.955												2						
3		25				60								60.148 3.409 30.292 32.879								31.188 21				3						
4		28				50								50.124 3.510 30.335 32.833												4						
5		20				40								39.788 3.728 30.513 32.831												5						
6		6				30								29.800 3.805 30.561 32.816												6						
7		21				20								19.683 3.960 30.665 32.789												7						
8		23				10								10.037 3.897 30.494 32.655												8						
9		20				5								4.825 3.848 30.356 32.513												9						
10		27																								10						
11																										11						
12																										12						

 Initials _____
 ✓ _____

Consec. Cast # <i>Test Cast #1</i>		Vessel MILLER FREEMAN		Proj. & Leg MF-92-05 FOCI		Event #	Vessel Sta. I.D.		Instructions										Sta. Designation				
Consec. Cast #	Latitude N or S		Longitude 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.		
	55	29	69	N	156	11	09	W	27	APR	9	2	1	8	23								
CTD Type & SN 91220-A SEABIRD		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 _____ Remarks <i>Sal check - 27 Apr 1816</i>													
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				200m						200.573	5.136	31.808	32.860				21	32.8554	1				
2				175m						175.495	5.016	31.614	32.768				24	32.7767	2				
3				150m						150.374	4.834	31.269	32.562				34	32.6614	3				
4				50m						51.941	4.158	30.233	32.067				16	32.0766	4				
5				25m						26.906	4.217	30.218	32.005				29	32.0084	5				
6																			6				
7																			7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

 Initials _____
 ✓ _____

Consec. Cast # 001		Vessel MILLER FREEMAN		Proj. & Leg LEG 1 MF-92-034 FOCI		Event #		Vessel Sta. I.D.		Instructions <i>Repair this to stn. CM1. EOE 4 June 93</i>								Pg. 1 of 1		Sta. Designation 9105														
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 104 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		562120 N			1565546 W			13 APR 92			1718		032		026		99		47		070		288		57		1389		105					
CTD Type & SN 91220-A SEABIRD				Monitor Checks on Deck at Surface								Times JD/Time Data on _____ at Surface _____ Start Down <u>1714</u> at Bottom <u>1719</u> Start Up <u>1719</u> at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header _____ MF9203 CAST001-13APR92 Remarks CAST PRIOR TO MOORING RECOVERY																		
Press. SN 25084		Temp. SN 701		Cond. SN 303		Press. _____		Temp. _____		Cond. _____		Other _____																						
Pos. D		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						171950				118.533 2.990 29.064 31.789								2.99 31.789				23				1								
2										68.525 3.054 29.075 31.765												31.766		27		2								
3										29.092 3.295 29.233 31.738												31.738		69		3								
4																										4								
5																										5								
6																										6								
7																										7								
8																										8								
9																										9								
10																										10								
11																										11								
12																										12								

Initials WF/CD
✓

Consec. Cast #		Vessel MILLER FREEMAN		Proj. & Leg LEG 1 MF-92-034 FOCI		Event #		Vessel Sta. I.D.		Instructions <i>Revalue this to str. CM2. 68E 4 June 93</i>								Sta. Designation 9140											
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 105 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. <i>mooring</i>	
002554444		N		1583345		14 APR 92		0118049		03994		47070		20877		0093		9140											
CTD Type & SN 91220-A SEABIRD				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 MF9203 CAST002_14APR011																	
Press. SN 25084				Press. _____								Remarks <i>all bottles fired</i>																	
Temp. SN 701				Temp. _____								CAST PRIOR TO MOORING RECOVERY																	
Cond. SN 303				Cond. _____																									
Other _____				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						85.605	3.691	29.821	32.022	DNC TRIPPER Did not click							32.021	6		1
2						49.983	3.236	29.298	31.864								31.860	3		2
3						16.315	3.038	29.072	31.804								31.804	12		3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

 Initials WF
 ✓ RT