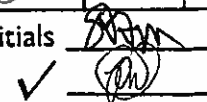


Consec. Cast # 001		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 095		Vessel Sta. I.D.		Instructions CTD to bottom w/salinity										Sta. Designation FOX55			
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 274 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weather	Bottom Depth, m	Sta. Name or I.D.
001	57	28	N	154	41	W	01	09	91	01	38	10	5	09	9	17	36	180	24	68		10059	FOX55
CTD Type & SN 91220-B			Monitor Checks			Times JD/Time			Data Location														
Press. SN _____			on Deck			at Surface			Data on 0135:12			Tape/Diskette I.D. File Name/Header											
Temp. SN 710			Press. _____			_____			at Surface 0135:15			MF9111 Cool #1 Cast 001 - 01 OCT 0134											
Cond. SN 304			Temp. _____			_____			Start Down 0136:30			_____											
_____			Cond. _____			_____			at Bottom 0138:20			_____											
_____			Other: _____			_____			Start Up 0139:30			_____											
_____			_____			_____			at Surface 0141:00			Remarks Vaux clock reset to UTC (-1.5 min) just minutes before "Data On"											
_____			_____			_____			Data off 0141:00			_____											
St. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	St. No.				
				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	17		bot		0139:12					52.868	9.669	34.624	31.746				31.7411	08		12			

Initials



Consec. Cast # 002		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event# 096		Vessel Sta. I.D.		Instructions CTD to bottom w/ Temp. Salin. Sample										Sta. Designation FOX 56						
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.	
002		573010N			1544711W			01 OCT 91			021409		5	09	5	1	73	61	75	20	75	8	0200		FOX 56	
CTD Type & SN 91220-8					Monitor Checks on Deck at Surface					Times JD/Time Data on 274/0206:55 at Surface 0206:55 Start Down 0207:50 at Bottom 0214:20 Start Up 0214:45 at Surface 0220:44 Data off 0214:45					Data Location Tape/Diskette I.D. File Name/Header MF-91-11 cast #2 cast002-01OCT0206											
Press. SN															Temp. SN 710					Cond. SN 304					Remarks	
Stn. #	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																				1						
2																				2						
3																				3						
4																				4						
5																				5						
6																				6						
7																				7						
8																				8						
9																				9						
10																				10						
11																				11						
12	17	10.7	0219:10	0219:35						10.650 9.692 30.8167 30.874								30.8888	28	12						

Initials PH  
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Consec. Cast # 003		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 097		Vessel Sta. I.D.		Instructions CTD bottom 1/2 T's samples										Sta. Designation FOX 57						
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.			
003	57	32	N	154	52	43	W	01	01	09	03	01	11	3	09	8	14	4	6	17	02	8	76	10229 FOX 57		
CTD Type & SN 91220-B			Monitor Checks			Times JD/Time			Data Location																	
Press. SN			on Deck			at Surface			Data on 274/0252:40			Tape/Diskette I.D.												File Name/Header		
Temp. SN 710			Press.						at Surface 0252:40			MF-91-11 Cast #3												cast003-01 OCT 0252		
Cond. SN 304			Temp.						Start Down 0254:05																	
			Cond.						at Bottom 0301:30																	
			Other:						Start Up 0306:11																	
									at Surface 0311:36															Remarks 222 m wire out		
									Data off 0306:11																	

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	208	0301:30	0306:10					208.187	4.723	31.698	33.137			33.1446	02		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12	17																		12

Initials

Consec. Cast # 004		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 099		Vessel Sta. I.D.		Instructions CTD to bottom w/ 5 sample										Sta. Designation																									
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 274 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																						
004	57	36	18	N	155	00	55	W	01	0	CT 91	04	02	1	0	0	1	0	0	1	2	4	7	1	7	5	2	7	7	6	1	0	2	3	7	F	U	X	5	8					
CTD Type & SN 91220-B				Press. SN				Temp. SN 710				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 274/0353:37</div> <div>at Surface 035400</div> <div>Start Down 035440</div> <div>at Bottom 0402:05</div> <div>Start Up _____</div> <div>at Surface 0408:52</div> <div>Data off 0402:05</div>										<div>Data Location</div> <div>Tape/Diskette I.D. File Name/Header</div> <div>MF9111 cast #4 Cast 004-01 OCT 0352</div> <div>Remarks wire out: 231 m</div> <div>wind patch of water</div>									
St. Bot.	T Rack	Trip Depth	Time @ Depth Trip		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	17		90		0406:20					90.130	8.561	33.759	31.826					31.8376	34			12																							

Initials

Consec. Cast # <b>005</b>		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 100		Vessel Sta. I.D.		Instructions CTD to bottom w/ <sup>temp</sup> salinity sample										Sta. Designation FOX 59									
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <b>274</b> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weather	Bottom Depth, m	Sta. Name or I.D.						
005	57	38	28	N	155	04	63	W	01	0	9	10	4	51	10	0	1	0	0	1	3	57	175	257	610	254	FOX 59		
CTD Type & SN 91220-B				Monitor Checks								Times				Data Location													
Press. SN _____				on Deck								at Surface				Data on <b>274/0441:40</b>				Tape/Diskette I.D. File Name/Header									
Temp. SN 710				Press. _____								Start Down <b>0442:06</b>				MF-91-11 Cast #5 C05005-02 OCT 04													
Cond. SN 304				Temp. _____								at Bottom <b>0450:53</b>				_____													
_____				Cond. _____								Start Up <b>0451:30</b>				_____													
_____				Other: _____								at Surface <b>0503:30</b>				Remarks wire out: 262 m													
Data off <b>0451:28</b>				_____								_____																	

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	38	B	144	0434:19	0459:40					143.613	5.456	31.603	32.343			32.3408	01	2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12	17																	12	

Initials SAM

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Consec. Cast # 006		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 101		Vessel Sta. I.D.		Instructions CTD to bottom w/ salinity sample										Sta. Designation FOX60					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 274 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	57	40	N	155	10	30	W	01	0	CT91	05	47	10	0	0	9	6	1	6	57	180	32	76	10298	FOX60
CTD Type & SN 91220-B			Monitor Checks									Times JD/Time			Data Location										
Press. SN			on Deck									Data on 274/0537:02			Tape/Diskette I.D.										
Temp. SN 710			at Surface									at Surface 0537:12			File Name/Header										
Cond. SN 304			Press. _____									Start Down 0537:55			MF-91-11 cast #6										
			Temp. _____									at Bottom 0547:00			cast 006-010CT0536										
			Cond. _____									Start Up 0548:00													
			Other: _____									at Surface 0555:45			Remarks wire out: 287m										
			Data off 0547:23																						
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.						
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.									
1																		1							
2																		2							
3																		3							
4																		4							
5																		5							
6																		6							
7																		7							
8																		8							
9																		9							
10																		10							
11																		11							
12	17		32		0554:25					32.030	10.229	33.377	30.021				30.0361	33	12						

Initials

84M  
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Consec. Cast # 007		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 102		Vessel Sta. I.D. —		Instructions CTD to bottom w/ salinity sample										Sta. Designation FOX 61								
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 274 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	57	43	30	N	155	15	60	W	01	OCT	91	06	34	10	3	0	9	8	3	0	4	6	1	90	28	F62	0134	FOX 61
CTD Type & SN 91220-B				Monitor Checks								Times JD/Time				Data Location												
Press. SN _____				on Deck at Surface								Data on 274/0629:22				Tape/Diskette I.D. File Name/Header												
Temp. SN 710				Press. _____								at Surface 0629:45				MF91-11 cast #7 cast007-01OCT0628												
Cond. SN 304				Temp. _____								Start Down 0630:17																
				Cond. _____								at Bottom 0634:27																
				Other: _____								Start Up 0634:53																
												at Surface 0638:58				Remarks wire out: 129												
												Data off 0634:55																
St. Q	Bot.	T Rack	Trip Depth	Time @ Depth Trip		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	17		75		0637:10					74.981	10.063	33.495	30.259				30.2745	10		12								

Initials 8AM

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Consec. Cast # <b>008</b>		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # <b>119</b>		Vessel Sta. I.D.		Instructions										Sta. Designation <b>M9101</b>														
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = <b>274</b>			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.																						
<b>008</b>	<b>57</b>	<b>41</b>		<b>39</b>	<b>N</b>	<b>155</b>	<b>14</b>		<b>20</b>	<b>W</b>	<b>01</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>9</b>	<b>4</b>	<b>0</b>	<b>8</b>	<b>9</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>9</b>	<b>5</b>	<b>M9101</b>
CTD Type & SN <u>91220-B</u> Press. SN <u>          </u> Temp. SN <u>710</u> Cond. SN <u>304</u> <u>                    </u> <u>                    </u>						Monitor Checks on Deck                      at Surface Press. <u>                    </u> <u>                    </u> Temp. <u>                    </u> <u>                    </u> Cond. <u>                    </u> <u>                    </u> Other: <u>                    </u> <u>                    </u>						Times JD/Time Data on <u>                    </u> at Surface <u>                    </u> Start Down <u>16:01</u> at Bottom <u>16:11</u> Start Up <u>16:12</u> at Surface <u>                    </u> Data off <u>                    </u>						Data Location Tape/Diskette I.D. <u>                    </u> File Name/Header <u>CAST008-01OCT1558</u> <u>                    </u> <u>                    </u> Remarks <u>READ-OUT BOX FOR WIRE RATE</u> <u>NOT WORKING</u>																

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.			
<b>1</b>	<b>0</b>	<b>B</b>	<b>250</b>	<b>161246</b>	<b>1617</b>					<b>251.525</b>	<b>4.828</b>	<b>31.971</b>	<b>33.327</b>			<b>33.3349</b>	<b>32</b>		<b>1</b>
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials WF/CD  
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Consec. Cast # 009		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 126		Vessel Sta. I.D.		Instructions										Sta. Designation M9102												
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 274 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		S 73 59 4 N		155 01 52 W		01 OCT 91			21 36		09		09		00		08		47		200		307		96		0237		M9102			
CTD Type & SN 91220-B				Monitor Checks				Times JD/Time				Data Location																				
Press. SN				on Deck				Data on 21 28				Tape/Diskette I.D.																				
Temp. SN 710				at Surface				at Surface 21 28 23				File Name/Header																				
Cond. SN 304				Press.				Start Down 21 28 45				Cast 009 01 OCT 21 27																				
				Temp.				at Bottom																								
				Cond.				Start Up																								
				Other				at Surface				Remarks																				
				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	6																		
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Initials ✓

Consec. Cast # 010		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 131		Vessel Sta. I.D. —		Instructions CTD to bottom w/ salinity sample										Sta. Designation M9103														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 275 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.	
010		57 29 32 N			154 47 43 W			02 OCT 91			00 50		09 16		08 08		90 47		220 25		86 20		186		M9103									
CTD Type & SN 91220-B				Monitor Checks on Deck at Surface								Times JD/Time Data on 0042 at Surface 0042 Start Down 0043:30 at Bottom 0049:40 Start Up 0050:15 at Surface Data off				Data Location Tape/Diskette I.D. File Name/Header CAST010-02 OCT 0042 Remarks																		
Press. SN		Temp. SN 710		Cond. SN 304		Press.		Temp.		Cond.		Other		Press.		Temp.		Cond.		Sal.		Therm-P		Avg Tw		Sal.		Sal. Bot. #		Other Samp.				
16		10												10.994		9.879		33.150		30.092						30.1004		18						
2																																		
3																																		
4																																		
5																																		
6																																		
7																																		
8																																		
9																																		
10																																		
11																																		
12																																		

Initials WFRD  
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Consec. Cast # 011		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 223		Vessel Sta. I.D.		Instructions CTD to bottom w/ T & S samples										Sta. Designation 9139																
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 276 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	58	46	N	152	15	96	W	03	Oct	91	21	02	09	4	08	3	1	4	5	7	2	2	5	26	4	6	1	0	1	1	7	0	9	1	3	9
CTD Type & SN 91220-B				Monitor Checks								Times JD/Time				Data Location																				
Press. SN				on Deck				at Surface				Data on 276/2057:45				Tape/Diskette I.D.										File Name/Header										
Temp. SN 710				Press.								at Surface 2058:04				MF91-11 cast 11										cand011-030CT2057										
Cond. SN 304				Temp.								Start Down 2058:40																								
				Cond.								at Bottom 2102:48																								
				Other								Start Up				Remarks wire out: 118 m																				
												at Surface 2112:38																								
												Data off 2102:48																								
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																																				
2																																				
3																																				
4	38	B	37	2106:05	2111:18					36.994	8.459	33.800	31.983				34.9483	30																		
5																																				
6																																				
7																																				
8																																				
9																																				
10																																				
11																																				
12																																				

Initials SAM  
✓

Consec. Cast # 012		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 230		Vessel Sta. I.D.		Instructions										Sta. Designation 9142											
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 277 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		590026N			1515649W			0400T911			0153		105		085		074		8	3	3522		281			194	9142				
CTD Type & SN 91220-B					Monitor Checks on Deck at Surface					Times JD/Time Data on _____ at Surface _____ Start Down 01:46:30 at Bottom 01:52:50 Start Up 01:52:55 at Surface 01:55:00 Data off _____					Data Location																
Press. SN _____															Tape/Diskette I.D. _____					File Name/Header CAST012_04OCT0142											
Temp. SN 710					Press. _____ Temp. _____ Cond. _____ Other _____										Remarks CAST WAS TAKEN THE NIGHT PRIOR TO RECOVERY 186m																
Cond. SN 304																															
Stn. No.	Bot. Rack	T	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn. No.												
1	6		187	01:53:40		Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	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 # 013		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 232		Vessel Sta. I.D.		Instructions										Sta. Designation 9141							
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 277			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.				
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																	
013	59	01	77	N	151	53	81	W	04	04	91	02	47	10	9	08	8	08	4	8	3	15	12	28	1	192	9141
CTD Type & SN 91220-B			Monitor Checks										Times JD/Time		Data Location												
Press. SN _____			on Deck					at Surface					Data on 02:39:09		Tape/Diskette I.D.						File Name/Header						
Temp. SN 710			Press. _____					_____					at Surface 02:39:03		_____						CAST 013-04 OCT 0238						
Cond. SN 304			Temp. _____					_____					Start Down 02:40:39		_____						_____						
_____			Cond. _____					_____					at Bottom 02:47:15		_____						_____						
_____			Other: _____					_____					Start Up 02:47:40		_____						_____						
_____			_____					_____					at Surface _____		Remarks CAST WAS RE-STARTED DUE TO LOW SALINITIES NEAR SURFACE -						_____						
_____			_____					_____					Data off _____		HELD CTD @ SURFACE FOR ~30 SECS -						_____						

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	6	/										3.490	10.667	32.503	28.814			28.7509	26		1
2																					2
3																					3
4																					4
5																					5
6																					6
7																					7
8																					8
9																					9
10																					10
11																					11
12																					12

CAST WAS TAKEN ON NIGHT PRIOR  
TO MOORING RECOVERY

Initials \_\_\_\_\_

✓ \_\_\_\_\_

meters @ 39, 41, 74, 104, 164

Consec. Cast # 014		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 279		Vessel Sta. I.D.		Instructions CTD to bottom w/ T: S samples										Sta. Designation F9138				
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.			
014	58	35	45	N	150	48	87	W	04	OCT	91	22	27	11	0	09	0	95	28	00	00	21	0180	F9138
CTD Type & SN 91220-B			Monitor Checks						Times JD/Time				Data Location											
Press. SN			on Deck						Data on 277/2219:53				Tape/Diskette I.D.											
Temp. SN 710			at Surface						at Surface 2220:06				File Name/Header											
Cond. SN 304			Press.						Start Down 2220:55				MF91-11cust#14											
			Temp.						at Bottom 2226:40				Cast 014-04OCT2219											
			Cond.						Start Up 2226:45															
			Other						at Surface 2236:40				Remarks wire out: 174											
			Data off 2227:30																					

St. R.	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	38	B	165	2227:20	2232:37					164.673	5.325	32.052	32.971			32.9842	35	4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials SAW  
✓

Consec. Cast # 015		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 285		Vessel Sta. I.D.		Instructions CTD to bottom w/ Salinity sample										Sta. Designation F9137					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 278 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	58	42	47	N	150	50	43	W	05	Oct	91	00	38	10	6	08	8	90	28	270	08	38	10	187	F9137
CTD Type & SN 91220-B				Monitor Checks				Times JD/Time				Data Location													
Press. SN _____				on Deck at Surface				Data on _____				Tape/Diskette I.D. File Name/Header													
Temp. SN 710				Press. _____				at Surface 003150				MF91-11 Cat #15 cat 15-05 Oct 0030													
Cond. SN 304				Temp. _____				Start Down 003210				_____													
_____				Cond. _____				at Bottom 003806				_____													
_____				Other: _____				Start Up 003835				Remarks													
_____				_____				at Surface _____				_____													
_____				_____				Data off 003812				_____													

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	17	-			0042:46					20.516	9.474	34.691	32.002				31.9981	11	12

 Initials WF/CD/SAM  
 ✓

Consec. Cast # 016		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event #		Vessel Sta. I.D.		Instructions CTD to bottom w/ T & S samples										Sta. Designation F9136															
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.												
016	58	49	02	N	150	53	27	W	05	0	CT91	02	27	09	5	0	7	9	8	1	3	8	2	5	5	1	2	4	8	1	0	1	8	2	F9136
CTD Type & SN 91220-B				Monitor Checks								Times JD/Time				Data Location																			
Press. SN				on Deck								Data on 278/0220:20				Tape/Diskette I.D.										File Name/Header									
Temp. SN 710				Press.								at Surface 0220:25				MF91-11 cast #16										C016-05OCT0219									
Cond. SN 304				Temp.								Start Down				at Bottom 0228:00																			
				Cond.								Start Up				at Surface										Remarks wire out:									
				Other:								Data off 02:27:10																							
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																																			
2																																			
3																																			
4	38	B	151	0228:10	0233:07					151.220	5.465	32.079	32.870				32.8824	21																	
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			
11																																			
12																																			

Initials





Consec. Cast # <b>017</b>		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 9135		Vessel Sta. I.D.		Instructions										Sta. Designation F9135				
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 278 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	58	53	21 N	150	54	40 W	05	0	CT	91	05	02	09	00	07	8	08	38	24	51	25	88	146	F9135
CTD Type & SN 91220-B				Monitor Checks								Times JD/Time				Data Location								
Press. SN _____				on Deck				at Surface				Data on 0456				Tape/Diskette I.D.				File Name/Header				
Temp. SN 710				Press. _____				_____				at Surface 0457:15				_____				CAST017-05OCT0443				
Cond. SN 304				Temp. _____				_____				Start Down 0457:45				_____				_____				
_____				Cond. _____				_____				at Bottom 0502:20				_____				_____				
_____				Other: _____				_____				Start Up 0503:05				_____				_____				
_____				_____				_____				at Surface _____				Remarks				_____				
_____				_____				_____				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																		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12	6	✓			05:05:15					89.127	6.104	32.268	32.495				32.4971	29	12

Initials

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Consec. Cast # 018		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 297		Vessel Sta. I.D.		Instructions										Sta. Designation 9134												
Consec. Cast #		Latitude N or S Deg. Min.		Longitude E or W Deg.		Date JD = 278 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		58 57 06 N		150 55 85 W		05 OCT 91			05 49		9 0		7 30		8 38		200		135		81		150		9134							
CTD Type & SN 91220-B				Monitor Checks on Deck at Surface								Times JD/Time Data on 05:42 at Surface 05:43:15 Start Down 05:43:40 at Bottom 05:48:35 Start Up 05:48:45 at Surface 05 Data off				Data Location																
Press. SN																Tape/Diskette I.D.										File Name/Header Cast 018 05 OCT 05 41						
Temp. SN 710				Press.																												
Cond. SN 304				Temp.																												
				Cond.																												
				Other												Remarks w/ 144																

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	6	/	10		05:53:53							16.600	10.332	34.016	30.577			30.5876	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

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Consec. Cast # 019		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 298		Vessel Sta. I.D.		Instructions										Sta. Designation 9133												
Consec. Cast #		Latitude N or S Deg. Min.		Longitude E or W Deg.		Date JD = 278 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		590074N		1505901W		05 OCT 91			0632		86		78		073		82		0010		588		165		9133							
CTD Type & SN 91220-B				Monitor Checks on Deck at Surface						Times JD/Time Data on 06:25:20 at Surface 06:26:10 Start Down 06:26:51 at Bottom 06:32:20 Start Up at Surface Data off				Data Location																		
Press. SN														Tape/Diskette I.D. File Name/Header CAST019-05OCT0624																		
Temp. SN 710				Remarks																												
Cond. SN 304																																

Stn. #	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	6	/	150		3255					150.675	5.625	32.053	32.686			32.6982	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 # 020		Vessel MILLER FREEMAN		Proj. & Leg MF9111		Event # 300		Vessel Sta. I.D.		Instructions										Sta. Designation 9132		
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 278 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	59	05	N	150	59	W	05	02	91	07	25	90	8	00	73	82	25	86	81	165	9132	
CTD Type & SN 91220-B			Monitor Checks			Times JD/Time			Data Location													
Press. SN			on Deck			at Surface			Data on			Tape/Diskette I.D.										
Temp. SN 710			Press.						at Surface			File Name/Header										
Cond. SN 304			Temp.						Start Down 07:18:54			CAST020-050CT9116										
			Cond.						at Bottom 07:24:55													
			Other						Start Up 07:26:30													
									at Surface			Remarks										
									Data off			wo=159										

St. 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	6	/	SS	5	072822					53.262	10.401	35.005	31.440			31.4968	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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PD