

Consec. Cast # 001		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event#		Vessel Sta. I.D.		Instructions										Sta. Designation								
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 1007.9	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.					
001	5	6	27	05	N	156	59	47	W	03	MAY	94	11	36	02	7	-	01	08	38	26	01	23	8	1	68	003	
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 303 FLUOR VMULT = 1.0				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____						Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 001-03 May 11 31 Remarks w/o = Sta 3, haul 1 LIGHT METER, FLUOROMETER, CHLOR														
Pos.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				FLUOR Sample Bot. Data Therm-P Avg Tw Sal.			Sal. Bot. #	Other Samp.	Pos.									
1			100																									
2			64																									
3			60																									
4			45																									
5			30																									
6			20																									
7			10																									
8			10																									
9			10																									
10			0																									
11																												
12																												

Initials

✓

LL
(signature)w/o 66
nets
bottle

chloro.
139ml.

740

739

738

737

736

735

734

733

732

731

730

729

728

Consec. Cast # 002		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation												
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 123 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		570570N		1560019W		03 MAY 94			172703		2015		1037		2300		9381										221		004			
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																				
Press. SN 26072				on Deck at Surface				Data on				Tape/Diskette I.D. File Name/Header																				
Temp. SN 701				Press. _____				at Surface _____				CAST 002-03 May 17/9																				
Cond. SN 303				Temp. _____				Start Down _____				_____																				
FLUOR VMULT = 1.0				Cond. _____				at Bottom _____				_____																				
				Other _____				Start Up _____				Remarks w/o 217 net Buoy 4																				
								Data off _____				FLUOROMETER, CHLOR																				

St. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				FLUOR Sample Bot. Data			Sal. Bot. #	Other Samp.	St. #
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		✓	200	34.17						198.806	4.327	30.654	32.320	0.139			09	net	1
2			150							148.989	4.097	30.277	32.130	0.193				net	2
3			100							99.979	4.487		31.851	0.690			Chl	net	3
4			50							49.041	3.974		31.569	0.806			Chl	net	4
5			35							34.380	3.455		31.535	0.658			Chl	net	5
6			20							19.163	3.819		31.443	0.988			Chl	net	6
7			10							10.234	3.799		31.430	1.132			Chl	net	7
8			10							10.309	3.801		31.432	1.164			Chl	net	8
9			10							10.219	3.799		31.429	1.107			Chl	net	9
10			0							0.126	3.809		31.425	0.879			Chl	net	10
11																			11
12																			12

net #
748
Chloro
139ml

742

743

744

745

746

747

741

Initials

✓

LL

Consec. Cast # 003		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event #		Vessel Sta. I.D.		Instructions 9403a mooring										Sta. Designation						
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg. Min.		E or W	Date JD = 124 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 1007.9	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
03	57	29	84	N	154	49	04	W	04	M	A	Y	94	04	34		27	-01	08	38	26	01	23	81	203	005
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location										
Press. SN 26072				on Deck at Surface								Data on _____				Tape/Diskette I.D. File Name/Header										
Temp. SN 701				Press. _____								at Surface _____				_____ CAST 003-04 May 0424										
Cond. SN 303				Temp. _____								at Bottom _____				_____										
FLUOR VMULT = 1.0				Cond. _____								Start Up _____				Remarks W/O 203										
Other _____				Data off _____																						

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			200	04:38						201.737	4.182	30.576	32.370	22.21				1	
2		A	60							60.113	4.390	30.435	32.074	0.237			28	2	
3			50							49.997	4.406	30.413	32.038	0.220				3	
4			40							39.457	4.348	30.324	31.995	0.234				4	
5			30							30.128	4.160	30.112	31.935	0.270				5	
6			20							20.232	4.362	30.175	31.818	0.923				6	
7			10							9.769	4.680	30.348	31.718	2.706				7	
8			10							9.779	4.681	30.349	31.719	2.790				8	
9			10							9.750	4.681	30.350	31.719	2.753				9	
10			0							-0.042	4.680	30.346	31.721	2.894				10	
11																		11	
12																		12	

Initials **CH**

✓

Consec. Cast # 004		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event #		Vessel Sta. I.D.		Instructions FOX 056										Sta. Designation												
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 124 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1009.9		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
0457		3084 N		1544672 W		04 MAY 94			0603		32		15		103		7230		09381				209				006					
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																				
Press. SN 26072				on Deck				Data on				Tape/Diskette I.D.				File Name/Header																
Temp. SN 701				at Surface				at Surface								CAST004-04 MAY 0554																
Cond. SN 303				Press.				Start Down																								
FLUOR VMULT = 1.0				Temp.				at Bottom																								
				Cond.				Start Up								Remarks w/o 206																
				Other				Data off																								

Stn. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Fluor. Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1			805															1	
2			700							199.210	4.271	30.676	32.49	0.130				2	
3			150							149.753	4.180	30.459	32.262	0.189				3	
4			100							101.069	4.298	30.430	32.137	0.237			15	4	
5			60							60.144	4.363	30.390	32.047	0.273			MZ chl	5	
6			50							51.085	4.437	30.432	32.029	0.221				6	
7			40							40.370	4.407	30.371	32.993	0.215				7	
8			30							30.589	4.299	30.217	31.923	0.355				8	
9			20							20.784	4.253	30.140	31.882	0.660				9	
10			10							10.962	4.845	30.503	31.739	0.457			✓	10	
11																		11	
12																		12	

Initials CH

✓

 NUTS
 757
 756
 755
 754
 753
 752
 751
 750
 749

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation									
005		MILLER FREEMAN		MF-94-05						FOX057																			
Consec. Cast #		Latitude		Longitude		Date		Time		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
005		57 33 29 N		157 52 58 W		04 MAY 94		07 17		20		13		11		36		125		108		77		225		007			
CTD Type & SN 91220-A				Monitor Checks				Times				Data Location																	
Press. SN 26072				on Deck at Surface				Data on				Tape/Diskette I.D. File Name/Header																	
Temp. SN 701				Press. _____				at Surface _____				CAST005-D4MAY0708																	
Cond. SN 303				Temp. _____				Start Down _____				_____																	
FLUOR VMULT = 1.0				Cond. _____				at Bottom _____				_____																	
				Other _____				Start Up _____				Remarks W/O 224																	
								Data off _____																					

Bottle #	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		222 Bot							222.154	4.504	30.981	32.517	0.163				1	
2	✓	200							200.017	4.176	30.571	32.572	0.156			7	2	
3		150							150.289	3.962	30.275	32.253	0.162				3	
4		100							99.057	3.671	29.869	32.091	0.181				4	
5		60							60.098	3.992	30.082	32.049	0.230			MZ CHL	5	
6		50							50.623	4.130	30.186	32.040	0.176				6	
7		40							41.069	4.114	30.158	32.028	0.199				7	
8		30							30.332	4.067	30.074	31.981	0.231				8	
9		20							19.658	4.297	30.147	31.848	0.142				9	
10		10							9.388	4.544	30.290	31.781	2.464				10	
11																	11	
12																	12	

Bottle #
NUTS 767

766

765

764

763

762

761

760

759

758

Initials

✓

Consec. Cast # 006		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 135		Vessel Sta. I.D.		Instructions										Sta. Designation																												
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = 124			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	5	7	3	6	1	1	N	1	5	5	0	0	8	6	W	0	4	M	A	Y	9	4	0	8	5	2	2	2	1	6	1	0	2	6	1	7	5	1	0	6	7	1	2	3	2	0	0	8
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 303 FLUOR VMULT = 1.0					Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____					Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____					Data Location Tape/Diskette I.D. _____ File Name/Header CAST 006-04 May 08 43 Remarks Fox 058 w/ 228																																	
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			250								224.960	5.075		32.928	0.162			1																														
2			200								197.845	4.483		32.540	0.154			2																														
3			150								149.889	4.433		32.292	0.242			3																														
4			100								99.813	4.021		32.084	0.207			4																														
5			60								61.063	4.076		31.985	0.462		MZ Che	5																														
6			50								50.054	4.261		31.975	0.896			6																														
7			40								40.112	4.353		31.933	2.066			7																														
8			30								30.030	4.457		31.903	3.103			8																														
9			20								20.053	4.508		31.884	3.492			9																														
10			10								10.122	4.730		31.733	5.283			10																														
11																		11																														
12																		12																														

nuts/bot.#

585

584

583

582

581

580

579

578

577

576

Initials

✓

W

W

Consec. Cast # 007		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 136		Vessel Sta. I.D.		Instructions										Sta. Designation			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 124			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.													
007	57	37	N	155	04	W	04	MAY	94	10	22	19	1	3	08	24	100	12	8	7	2	273	009
CTD Type & SN 91220-A			Monitor Checks						Times JD/Time				Data Location										
Press. SN 26072			on Deck						Data on				Tape/Diskette I.D.										
Temp. SN 701			at Surface						at Surface				File Name/Header										
Cond. SN 303			Press. _____						Start Down _____				CAST 007-04 May 10 12										
FLUOR VMULT = 1.0			Temp. _____						at Bottom _____				_____										
			Cond. _____						Start Up _____				Remarks: MOOANING 9402 WRONG BOTTLE CONFIG. -										
			Other _____						at Surface _____				v/o 272 (AST REDONE. (physical data is good, though, so cast will be processed).)										
			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						250				240.374	5.081		32.932	0.199				1	
2						200				197.901	4.417		32.536	0.187				2	
3						150				150.022	4.225		32.216	0.186				3	
4						100				99.636	4.533		32.090	0.230				4	
5						60				60.339	4.190		31.980	0.328				5	
6						50				50.084	4.239		31.941	0.787				6	
7						40				40.103	4.243		31.903	0.944				7	
8						30				29.976	4.292		31.855	2.438				8	
9						20				19.897	4.325		31.853	3.239				9	
10						10				9.789	4.705		31.771	4.759				10	
11																		11	
12																		12	

Initials LL
✓

Consec. Cast # 008		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 140		Vessel Sta. I.D.		Instructions										Sta. Designation															
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg.		E or W		Date JD = Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1006.0		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
008		57 36		99		N		155 04		85		W		01 MAY 94		12 10		23		17		06		34		100		15		87		2		243 90.0.9	
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 303				FLUOR VMULT = 1.0				Monitor Checks on Deck at Surface				Times JD/Time Data on at Surface Start Down at Bottom Start Up at Surface Data off				Data Location Tape/Diskette I.D. File Name/Header CAST 008-04 May 1200				Remarks Mooring 9402 40240			
St. Bot.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				Sample Bot. Data Therm-P Avg Tw Sal.				Sal. Bot. #		Other Samp.		Pos.											
1						250						238.469 5.091				32.939 0.260				26				1											
2						50						49.499 4.098				31.954 0.458						chk		2											
3						30						30.400 4.289				31.858 1.887								3											
4						13						13.127 4.441				31.798 2.873								4											
5						13						13.133 4.517				31.795 3.470								5											
6						13						13.118 4.475				31.793 3.437								6											
7						10						10.181 4.574				31.784 4.096								7											
8						10						10.232 4.541				31.783 3.624								8											
9						10						10.242 4.600				31.777 4.014								9											
10						0						0.104 4.675				31.765 4.539						↓		10											
11																								11											
12																								12											

Initials

✓

LL

Consec. Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 143		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1003.0		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
009		5738 27 N			1550438 W			04 MAY 94			1322		26		20		0337		100		20872		247		010									
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 26072				on Deck at Surface								Data on at Surface				Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								Start Down				CAST 009-04 May 1313																		
Cond. SN 303				Temp. _____								at Bottom																						
FLUOR VMULT = 1.0				Cond. _____								Start Up				Remarks Line 8, Fox 09																		
				Other _____								Data off				40251																		

Pos	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		✓	250	25						239.496	5.116		32.968	0.181			16		1
2			200							199.922	4.613		32.597	0.143					2
3			150							151.294	4.144		32.207	0.159					3
4			100							100.703	4.040		32.032	0.177					4
5			60							60.261	4.095		31.930	0.553				Chl MZ	5
6			50							50.650	4.316		31.868	1.019				Chl MZ	6
7			40							40.447	4.423		31.844	1.588				Chl MZ	7
8			30							29.970	4.531		31.836	3.145				Chl MZ	8
9			20							20.127	4.741		31.795	5.226				Chl MZ	9
10			10							9.767	4.772		31.771	5.327				Chl MZ	10
11																			11
12																			12

Pnts., bot H

595
594
593
592
591
590
589
588
587
586

 Initials ✓ AK

Consec. Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF-94-- 05		Event# 146		Vessel Sta. I.D.		Instructions										Sta. Designation								
Consec. Cast #		Latitude N or S Deg. Min.		Longitude E or W Deg.		Date JD = 124 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1002.5		S.S. Vis.		Wind Dir.		Wind Sp.		Cloud Type Weath.		Bottom Depth, m		Sta. Name or I.D.	
010		574024N		1551023W		04 MAY 94			1501		28		1		703		37090		258		72		281		011			
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 303 FLUOR VMULT = 1.0				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 010-04 May 0554 Remarks Line 8, Fox 060																
St. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos									
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.												
1		A	250	11:22						249.161	5.087		32.942	0.161			04		1									
2			200							200.263	4.422		32.409	0.152					2									
3			150							148.219	4.227		32.126	0.151					3									
4			100							99.221	4.225		31.930	0.885					4									
5			60							60.054	4.601		31.873	1.764					5									
6			50							50.414	4.521		31.839	2.360					6									
7			40							40.794	4.673		31.828	1.882					7									
8			30							30.657	4.535		31.698	2.013					8									
9			20							20.799	4.022		31.524	0.628					9									
10			10							10.234	4.095		31.449	1.096					10									
11																			11									
12																			12									

Initials

✓

W
(P)

note, bot. #

605

604

603

602

601

600

599

598

597

596

Consec. Cast # <u>011</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event #	Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD =			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.										
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																							
<u>011</u>	<u>57</u>	<u>40</u>	<u>N</u>	<u>155</u>	<u>14</u>	<u>09</u>	<u>W</u>	<u>04</u>	<u>MAY</u>	<u>94</u>	<u>16</u>	<u>49</u>	<u>3</u>	<u>4</u>	<u>0</u>	<u>9</u>	<u>8</u>	<u>3</u>	<u>7</u>	<u>0</u>	<u>8</u>	<u>0</u>	<u>3</u>	<u>2</u>	<u>8</u>	<u>7</u>	<u>4</u>	<u>2</u>	<u>9</u>	<u>3</u>	<u>0</u>	<u>1</u>	<u>2</u>
CTD Type & SN <u>91220-A</u>				Monitor Checks				Times JD/Time				Data Location																					
Press. SN <u>26072</u>				on Deck				at Surface				Data on				Tape/Diskette I.D.				File Name/Header													
Temp. SN <u>701</u>				Press. _____				_____				at Surface _____				_____				CAST <u>011-04 May 1638</u>													
Cond. SN <u>303</u>				Temp. _____				_____				at Bottom _____				_____				_____													
FLUOR VMULT = <u>1.0</u>				Cond. _____				_____				Start Up _____				_____				Remarks <u>Mooring 7401</u> <u>suspicious looking jump in sal at 30 m on way down.</u>													
_____				Other _____				_____				Data off _____				_____				_____													

Stn #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				FLUOR Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn #	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1			250									250.658	4.726		32.653	0.160		08		1
2			60									60.291	4.349		31.738	0.474		Chl		2
3			40									49.683	4.215		31.660	0.742				3
4			40									39.841	3.919		31.493	0.769				4
5			30									30.202	3.874		31.433	0.858				5
6			20									20.502	3.817		31.380	1.091				6
7			10									10.404	3.814		31.376	1.136				7
8			10									10.446	3.811		31.370	1.151				8
9			10									10.033	3.811		31.371	1.252				9
10			0									-0.074	3.816		31.376	1.091				10
11																				11
12																				12

w/o
296

Initials

✓ U

Consec. Cast # 012		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 153		Vessel Sta. I.D.		Instructions										Sta. Designation											
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 124 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 997.0		S.S.	Vis.	Wind Dir.		Wind Sp.		Cloud	Type	Weath.	Bottom Depth, m		Sta. Name or I.D.	
012		574275 N			1551529 W			04 MAY 94			1916		37		11		97		47	08	028		876		292		013				
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 303 FLUOR VMULT = 1.0				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 012 - 04 May 1994 Remarks Line 8, Fox 061																			
Pos.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				Fluor Sample Bot. Data Therm-P- Avg Tw Sal.			Sal. Bot. #	Other Samp.	Pos.												
1			250							248.891	4.609		32.991	0.160			35		1												
2			200							198.909	4.357		32.191	0.166				2													
3			150							149.270	4.426		31.999	0.315				3													
4			100							98.633	4.531		31.892	0.384				4													
5			60							60.682	3.990		31.461	0.882				5													
6			50							51.666	3.997		31.447	0.757				6													
7			40							41.086	3.997		31.430	0.817				7													
8			30							30.600	3.979		31.410	0.768				8													
9			20							19.726	3.929		31.356	1.075				9													
10			10							9.727	3.925		31.343	1.177				10													
11																		11													
12																		12													

Initials

✓

LL
PDA

nuts #

615

614

613

612

611

610

609

608

607

606

Consec. Cast # 013		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 182		Vessel Sta. I.D.		Instructions										Sta. Designation			
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 125 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 993.3	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
013	56	17	82 N	156	48	01 W	05	MAY	94	07	25	38	32	93	46	14	52	08	65	103		014	
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 303 FLUOR VMULT = 1.0				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST013-05MAY0720 Remarks w/D = Line 16, Station 147											
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Fluor. Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1			100 Bot																				620 NUTS
2		A	60																				619
3			50																				618
4			40																				617
5			30																				616
6			20																				613
7			10																				612
8																							
9																							
10																							
11																							
12																							

 Initials WF
 ✓ CH

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation								
Consec. Cast #		Latitude			Longitude			Date			Time		Dry Bulb		Wet Bulb		Bar.		Wind		Wind		Cloud		Bottom		Sta. Name	
Cast #		Deg. Min. S			Deg. W			Day Mo. Yr.			Hr. Min.		Bulb		Bulb		mb		Dir. Sp.		Type		Depth, m		or I.D.			
014		562149 N			1565245 W			05 MAY 94			0821		36		30		93.2		45130		17876		128		015			
CTD Type & SN		91220-A			Monitor Checks										Times		Data Location											
Press. SN		26072			on Deck at Surface										Data on		Tape/Diskette I.D. File Name/Header											
Temp. SN		701			Press. _____										at Surface		_____											
Cond. SN		303			Temp. _____										Start Down		_____											
FLUOR VMULT = 1.0					Cond. _____										at Bottom		_____											
					Other _____										Start Up		_____											
															Data off		Remarks w/o 121											
																	Line 16, 148											
Bot.		T Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos				
Depth				Depth		Trip		Press. Temp. Cond. Other		Press. Temp. Cond. Sal.				Therm-P Avg Tw Sal.														
1				250																				1				
2				200																				2				
3				120								119.540 3.379 31.919				0.189				01		3						
4				100								98.806 3.370 31.888				0.200						4						
5				60								60.616 3.562 31.849				0.269				Chl/mz		5						
6				50								50.360 3.774 31.816				0.624						6						
7				40								39.548 3.971 31.817				1.065						7						
8				30								29.406 4.240 31.791				1.780						8						
9				20								20.216 4.258 31.789				1.883						9						
10				10								9.933 4.251 31.789				1.743						10						
11																								11				
12																								12				

Initials LL
✓ (P)

Consec. Cast # 015		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 185		Vessel Sta. I.D.		Instructions										Sta. Designation																				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 125			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 993.2	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.																														
015	55	62	39	7	N	15	65	51	6	W	05	M	A	Y	9	4	09	03	3	5	3	0	9	3	4	5	1	3	0	1	8	8	7	6	1	2	4	0	1	6
CTD Type & SN 91220-A				Monitor Checks				Times				Data Location																												
Press. SN 26072				on Deck				at Surface				Data on				Tape/Diskette I.D.				File Name/Header																				
Temp. SN 701				Press. _____				Start Down				_____				CAST 015-05 May 09720																								
Cond. SN 303				Temp. _____				at Bottom				_____				_____																								
FLUOR VMULT = 1.0				Cond. _____				Start Up				_____				Remarks																								
				Other _____				at Surface				_____				Line 16, Fox 149																								
				Data off				_____																																

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			250															1	
2			200															2	
3			115							115.844	3.410		31.899	0.205		27		3	
4			100							100.175	3.375		31.884	0.207				4	
5			60							60.152	3.466		31.818	0.233			ME	5	
6			50							50.680	3.432		31.795	0.259				6	
7			40							40.256	3.566		31.777	0.389				7	
8			30							30.481	4.122		31.763	1.339				8	
9			20							20.504	4.209		31.751	1.409				9	
10			10							10.607	4.209		31.747	1.542				10	
11																		11	
12																		12	

w/o 117

Nuts, bot #

636

635

634

633

632

631

630

629

Initials

✓

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation									
016		MILLER FREEMAN		MF-94-05		186																							
Consec. Cast #		Latitude		Longitude		Date		Time		Dry Bulb		Wet Bulb		Bar. mb		Wind Dir.		Wind Sp.		Cloud		Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min. N or S		Deg. E or W		JD = Mo. Yr.		GMT Hr. Min.																					
016		562649 N		1565744 W		05 MAY 94		0946		39		33		93		47		150		178		76				96		017	
CTD Type & SN 91220-A				Monitor Checks				Times				Data Location																	
Press. SN 26072				on Deck				Data on				Tape/Diskette I.D.				File Name/Header													
Temp. SN 701				at Surface				at Surface								CAST 016-05 May 94													
Cond. SN 303				Press. _____				Start Down																					
FLUOR VMULT = 1.0				Temp. _____				at Bottom																					
				Cond. _____				Start Up																					
				Other _____				at Surface								Remarks													
								Data off								Line 16, Sta. 150 w/o = 91													

Stn. #	Bot. 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		90																1924
2		60																1923
3		50																1922
4		40																1921
5		30																640
6		20																639
7		10																638
8																		
9																		
10																		
11																		
12																		

Initials

✓

LL

PD

nuts bottle #

Consec. Cast # 017		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 187		Vessel Sta. I.D.		Instructions										Sta. Designation															
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 125 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 172.0		S.S. Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.				
017		5430 05 N			15700 08 W			15 MAY 94			1030		39		33		92		77		180		18		876		45		018						
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 303				FLUOR VMULT = 1.0				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 017-05 May 1994				Remarks Line 16, Sta. 151			
v. #		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						250																				1									
2						200																				2									
3						150																				3									
4						100																				4									
5						60																				5									
6						50																				6									
7						40								41.279 3.849				31.874 0.943				SAL (10) 101 m2				7									
8		A				30		8:16 3:16						29.945 3.890				31.873 1.023								8									
9						20								19.590 4.078				31.858 1.193								9									
10						10								9.589 4.079				31.857 1.187								10									
11																										11									
12																										12									

Nuts, bot #

1928

1927

1926

1925

Initials

✓

LV

PH

Consec. Cast # 018		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 385		Vessel Sta. I.D.		Instructions										Sta. Designation														
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 128 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1002.0		SS 1002.0		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
018		57149.3 N			155343.4 W			08 MAY 94			1727		40		31		0248		0452		68		62		269		76							
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 26072				on Deck				at Surface				Data on				Tape/Diskette I.D.						File Name/Header												
Temp. SN 701				Press. _____				Temp. _____				Start Down _____				_____						CAST 018-08 MAY 94												
Cond. SN 303				Temp. _____				Start Up _____				_____						_____				_____												
FLUOR VMULT = 1.0				Cond. _____				Data off _____				Remarks LIGHTMETER, FLUOROMETER, CHLOR. , Larval patch sample. w/o 216						max: 252																
Stn. #		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.										
1				200								200.791 4.486 32.530 0.296										1												
2		A		150		32:00 32:00						146.985 4.274 32.204 0.224								20		2												
3				100								100.348 4.056 32.021 0.233										3												
4				60								60.861 4.342 31.891 0.664								Chl m2		4												
5				50								50.291 4.470 31.809 1.135										5												
6				40								40.128 4.691 31.749 3.852										6												
7				30								30.633 4.568 31.668 1.894										7												
8				20								20.747 4.559 31.588 2.690										8												
9				10								10.452 4.644 31.576 3.463										9												
10				0								0.075 4.652 31.577 3.216										10												
11																								11										
12																								12										

Initials

L1

✓

(P)

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions		Sta. Designation												
019		MILLER FREEMAN		MF-94-05																				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 129		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.		
019	57	09	84	N	155	38	66	W	09	MAY	94	00	17	50	35	99	4	12	030	20	46	1	271	79
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location												
Press. SN 26072				on Deck at Surface				Data on at Surface				Tape/Diskette I.D. File Name/Header												
Temp. SN 701				Press. _____				Start Down _____				CAST 019-09MAY0006												
Cond. SN 303				Temp. _____				at Bottom _____				_____												
FLUOR VMULT = 1.0				Cond. _____				Start Up _____				Remarks Larval patch sample.												
_____				Other _____				at Surface _____				w/o = 278												
_____				_____				Data off _____				_____												
Stn. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Fluor. Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.					
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.								
1			200							200.652	4.377		32.495	0.252				1						
2		✓	150							148.931	4.328		32.245	0.232			21	2						
3			100							100.856	4.115		32.076	0.239				3						
4			60							60.710	4.401		31.874	0.541			MZ chl	4						
5			50							49.593	4.479		31.849	0.918				5						
6			40							40.561	4.716		31.804	2.707				6						
7			30							30.610	4.826		31.773	4.790				7						
8			20							20.048	4.896		31.746	5.628				8						
9			10							10.084	4.835		31.701	4.799				9						
10			0							0.656	4.855		31.689	2.698			↓ ↓	10						
11																		11						
12																		12						

Nuts, bott. #

2025

2040

2039

2038

2037

2036

2035

1408

1407

1406

Initials

✓

Consec. Cast # 020			Vessel MILLER FREEMAN			Proj. & Leg MF-94-05			Event # 420			Vessel Sta. I.D.			Instructions										Sta. Designation																																																																									
Consec. Cast #			Latitude Deg. Min.			N or S			Longitude Deg. Min.			E or W			Date JD = 129 Day Mo. Yr.			Time GMT Hr. Min.			Dry Bulb			Wet Bulb			Bar. mb 998.2			S.S.			Vis.			Wind Dir.			Wind Sp.			Cloud Type			Weath.			Bottom Depth, m			Sta. Name or I.D.																																															
020			5706			51			N			15548			81			W			09			MAY			94			06			14			4			7			3			4			9			8			3			8			0			1			0			0			4			1			7			1			2			7			7			8			4		
CTD Type & SN 91220-A										Monitor Checks										Times JD/Time										Data Location																																																																				
Press. SN 26072										on Deck										at Surface										Data on										Tape/Diskette I.D.										File Name/Header																																																
Temp. SN 701										Press. _____										Start Down										_____										CAST 020-09MAY0604																																																										
Cond. SN 303										Temp. _____										at Bottom										_____										_____																																																										
FLUOR VMULT = 1.0										Cond. _____										Start Up										_____										_____																																																										
										Other _____										Data off										Remarks w/o 280																																																																				

Stn	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Fluor Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1			200															1	
2			150															2	
3			100															3	
4			60															4	
5			50															5	
6			40															6	
7			30															7	
8			20															8	
9			10															9	
10			0															10	
11																		11	
12																		12	

NATS

Initials CX

✓

Consec. Cast # 021			Vessel MILLER FREEMAN			Proj. & Leg MF-94-05			Event # 436			Vessel Sta. I.D.			Instructions			Sta. Designation										
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 798.0		S.S. Vis.		Wind Dir. Sp.		Cloud Type Weath.		Bottom Depth, m		Sta. Name or I.D.	
021		570642N			1555942W			09 MAY 94			1318		49		30		98		38		33516231		232		87			
CTD Type & SN 91220-A					Monitor Checks					Times JD/Time					Data Location													
Press. SN 26072					on Deck at Surface					Data on at Surface					Tape/Diskette I.D.					File Name/Header								
Temp. SN 701					Press. _____					Start Down _____					_____					CAST 021-09 May 2004								
Cond. SN 303					Temp. _____					at Bottom _____					_____					_____								
FLUOR VMULT = 1.0					Cond. _____					Start Up _____					Remarks 228					w/0 w/4 dep = 227								
Other _____					Data off _____					_____					_____					_____								

Stn. #	Bot. Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
			Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		200								199.584	4.029		32.271	0.174			32	1
2		150								199.995	4.284		32.137	0.193				2
3		100								100.153	4.252		31.937	0.381				3
4		60								60.314	4.563		31.794	0.533			near	4
5		50								49.955	4.615		31.705	4.409				5
6		40								40.274	4.832		31.699	4.682				6
7		30								30.023	4.554		31.586	2.931				7
8		20								20.275	4.216		31.499	1.420				8
9		10								10.380	4.420		31.410	2.478				9
10		6								-0.086	4.372		31.391	2.406				10
11																		11
12																		12

Nats. bott. #

2012

2013

2014

2015

2016

2020

2021

2022

2023

2024

Initials L1

✓

Consec. Cast # 022		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 449		Vessel Sta. I.D.		Instructions										Sta. Designation									
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 129		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 999.7		S.S. Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
022		5705 98 N		15605 17 W		09 MAY 94		1809		55		38		00		38		345		10		531				79		89	
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 022-09 May 805																	
Press. SN 26072				Press. _____								Remarks w/o = 72 max depth 72																	
Temp. SN 701				Temp. _____																									
Cond. SN 303				Cond. _____																									
FLUOR VMULT = 1.0				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						60								60.065 4.392				31.867 0.570						che/mz		1			
2		A				50		16:10:10 15:						49.723 4.535				31.762 0.694				19		che/mz		2			
3						40								40.196 4.522				31.693 1.347						che/mz		3			
4						30								29.757 4.684				31.656 3.136						che/mz		4			
5						20								19.965 4.622				31.579 3.539						che/mz		5			
6						10								9.884 4.408				31.411 3.038						che/mz		6			
7						0								-0.621 4.437				31.383 1.671						che/mz		7			
8																										8			
9																										9			
10																										10			
11																										11			
12																										12			

Initials

LL

✓

into #5

2011

2010

2009

2008

2007

2006

2005

Consec. Cast # <u>023</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF-94-05</u>		Event # <u>471</u>		Vessel Sta. I.D.		Instructions <u>In Patch study</u>				Sta. Designation									
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg. Min.		E or W	Date <u>JD = 130</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.	
023	57	08	49	N	156	05	74	W	10	MAY	94	00	17	62	40	01	29	31	01	05	31	93	92
CTD Type & SN <u>91220-A</u>				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 <u>CAST 023-10 MAY 0004</u>											
Press. SN <u>26072</u>				Press. _____								Remarks <u>special bottle for chlor. max. taken w/o 90 @ 60m</u>											
Temp. SN <u>701</u>				Temp. _____																			
Cond. SN <u>303</u>				Cond. _____																			
FLUOR VMULT = 1.0				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			BOT							89.951	4.389		31.834	0.610			14	1996	1				
2			60							60.279	4.882		31.707	5.498				—	2				
3			60							60.096	4.875		31.706	6.036		NZ	Chl	1995	3				
4			50							49.670	4.647		31.642	3.027			Chl	1994	4				
5			40							40.060	4.713		31.628	4.145			Chl	1993	5				
6			30							30.141	4.580		31.518	3.888			Chl	2001	6				
7			20							20.151	4.495		31.438	3.397			Chl	2002	7				
8			10							10.368	4.562		31.379	3.778			Chl	2003	8				
9			0							0.346	4.693		31.373	2.592			Chl	2004	9				
10																			10				
11																			11				
12																			12				

Initials CH

✓

Consec. Cast # 024		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 485		Vessel Sta. I.D.		Instructions										Sta. Designation																
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg. Min.		E or W		Date JD = 130 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
024		5709		72		N		1560591		W		10 MAY 94			0605		60		44		02		27		005		0686		2		99		94			
CTD Type & SN 91220-A				Press. SN 26072				Temp. SN 701				Cond. SN 303				FLUOR VMULT = 1.0				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 CAST024-10MAY10601				Remarks w/o 95				
Stn. No.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				Fluor Sample Bot. Data Therm-P Avg Tw Sal.				Sal. Bot. #		Other Samp.		Pos												
1		✓		BOT								94.407 4.283				31.816 0.382				33				1												
2				60								59.194 4.777				31.652 4.357						MZ Chl		2												
3				50								50.671 4.727				31.640 4.385								3												
4				40								40.026 4.647				31.589 3.906								4												
5				30								30.278 4.634				31.491 4.276								5												
6				20								20.548 4.645				31.471 3.612								6												
7				10								10.703 4.815				31.432 3.595								7												
8				0								-0.228 5.045				31.392 2.987						✓		8												
9																								9												
10																								10												
11																								11												
12																								12												

Initials CH

✓

NUTS
1988
1987
1986
1985
2000
1999
1998
1997

Consec. Cast # 025		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event #	Vessel Sta. I.D.		Instructions										Sta. Designation						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 130			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1021.0	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.															
025	57	11	N	154	01	51	W	10	MAY	94	12	14	4	2	3	3	0	1	2	8	350	1686	2	160	97
CTD Type & SN 91220-A			Monitor Checks				Times JD/Time				Data Location														
Press. SN 26072			on Deck				at Surface				Data on				Tape/Diskette I.D.						File Name/Header				
Temp. SN 701			Press. _____				_____				at Surface _____				_____						CAST 025-10 May 1998				
Cond. SN 303			Temp. _____				_____				at Bottom _____				_____						_____				
FLUOR VMULT = 1.0			Cond. _____				_____				Start Up _____				Remarks w/o 154.						_____				
_____			Other _____				_____				at Surface _____				max dep = 150.						_____				
_____			_____				_____				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			200															1	
2			150							149.910	4.246		32.042	0.254				2	
3			100							99.594	4.326		31.798	0.463		24	mr chl	3	
4			60							60.020	4.550		31.665	1.758				4	
5			50							50.205	4.613		31.622	2.507				5	
6			40							40.355	4.614		31.612	2.656				6	
7			30							30.673	4.547		31.563	2.786				7	
8			20							20.027	4.455		31.477	2.559				8	
9			10							10.300	4.886		31.409	3.527				9	
10			0							-0.422	4.945		31.402	3.116				10	
11																		11	
12																		12	

Nuts, bott #

1861

1860

1859

1858

1857

1992

1991

1990

1989

Initials LL

✓

Consec. Cast # 026		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 999.8	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
026	5	70	8	2	5	N	155	59	7	W	10	MAY	94	18	21	51	45	00	47	05	02	38	76	198	101
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface				Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST 026-10MAY1814													
Press. SN 26072				Press. _____				_____				Remarks <i>Cast re-done because not all Nut. bottles tripped. Physical data are fine, however, so this cast was saved.</i>													
Temp. SN 701				Temp. _____				_____																	
Cond. SN 303				Cond. _____				_____																	
FLUOR VMULT = 1.0				Other _____				_____																	

St. No.	Bot. Rack	T	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			200															1	
2			150							150.309	4.263		32.023	0.263				2	
3			100							100.499	4.397		31.888	0.344				3	
4			60							60.536	4.618		31.627	2.620			<i>me che</i>	4	
5			50							50.493	4.519		31.581	2.413				5	
6			40							40.217	4.315		31.499	1.653				6	
7			30							30.193	4.607		31.417	2.712				7	
8			20							20.043	4.671		31.402	2.531				8	
9			10							10.362	4.666		31.405	3.072				9	
10			0							-0.196	4.667		31.401	2.470			↓ ↓	10	
11																		11	
12																		12	

Nuts, bott.#

Initials W

✓

Consec. Cast # 028		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 534		Vessel Sta. I.D.		Instructions In Patch / storm study										Sta. Designation											
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 130		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 998.1		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
028		57 07 60 N		155 55 73 W		10 MAY 94		23 58		55		51		98		46		080		15		876		263				104			
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location																			
Press. SN 26072				on Deck				Data on				Tape/Diskette I.D.				File Name/Header															
Temp. SN 701				at Surface				at Surface								CAST 028 - 10 MAY 2348															
Cond. SN 303				Press. _____				Start Down																							
FLUOR VMULT = 1.0				Temp. _____				at Bottom																							
				Cond. _____				Start Up																							
				Other _____				at Surface								Remarks w/o 265															
								Data off																							

Stn. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Fluor. Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		✓	200							199.986	4.285	-	32.217	0.179			12		1
2			150							150.721	4.196		32.051	0.274					2
3			100							100.755	4.429		31.913	0.362					3
4			60							60.869	4.644		31.645	2.253				CHI MZ	4
5			50							50.063	4.622		31.628	2.349					5
6			40							39.731	4.561		31.558	2.572					6
7			30							29.539	4.695		31.405	3.106					7
8			20							19.672	4.734		31.393	3.205					8
9			10							10.018	4.740		31.380	3.375					9
10			0							-0.005	4.746		31.386	3.124					10
11																			11
12																			12

Initials CH

✓

NUTS

1881

1880

1879

1878

1877

1876

1875

1874

1873

1872

Consec. Cast # 29		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 551		Vessel Sta. I.D.		Instructions STORM STUDY										Sta. Designation		
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 131			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.		
029	57	01	58	N	155	54	36	W	11	MAY	94	06	12	59	51	98	47	110	16	875	277	107
CTD Type & SN 91220-A		Monitor Checks								Times JD/Time				Data Location								
Press. SN 26072		on Deck				at Surface				Data on				Tape/Diskette I.D.				File Name/Header				
Temp. SN 701		Press. _____				_____				at Surface _____				_____				CAST 029-11 MAY 0603				
Cond. SN 303		Temp. _____				_____				Start Down _____				_____				_____				
FLUOR VMULT = 1.0		Cond. _____				_____				at Bottom _____				_____				_____				
_____		Other _____				_____				Start Up _____				_____				Remarks Max. depth 270				
_____		_____				_____				at Surface _____				_____				W/O 275				
_____		_____				_____				Data off _____				_____				_____				
g	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			200							200.495	4.123		32.230	0.209				1				
2			150							151.201	4.030		32.073	0.215				2				
3			100							100.602	4.221		31.943	0.348			3					
4			60							61.052	4.650		31.675	1.418			MZ CHL	4				
5			50							50.741	4.652		31.624	2.714				5				
6			40							39.454	4.370		31.536	1.788				6				
7			30							29.542	4.503		31.395	3.220				7				
8			20							19.879	4.527		31.387	3.000				8				
9			10							9.542	4.548		31.384	3.261				9				
10			0							-0.395	4.546		31.386	2.851				10				
11																		11				
12																		12				

Initials CH

✓

NATS

1891

1890

1889

1888

1887

1886

1885

1884

1883

1882

Consec. Cast #						Vessel MILLER FREEMAN						Proj. & Leg MF-94-05						Event#		Vessel Sta. I.D.						Instructions										Sta. Designation					
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.								
030		5657.76 N			15553.28 W			11 MAY 94			1221		53		46		96		47		070		10		865		306				11										
CTD Type & SN 91220-A						Monitor Checks on Deck at Surface						Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____						Data Location Tape/Diskette I.D. _____ File Name/Header CAST030-11MAY1209 Remarks LIGHT METER, FLUOROMETER, CHL am MAX : 300																							
Pos.		Bot.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				FLUOR Sample Bot.Data Therm-P Avg Tw Sal.				Sal. Bot. #		Other Samp.		Pos.															
1				A		200		24:17 29:17						200.078 4.158 32.291				0.211				79				1															
2						150								150.437 4.104 32.066				0.235								2															
3						100								100.989 4.434 31.953				0.270								3															
4						60								59.495 4.540 31.616				1.493								4															
5						50								50.047 4.307 31.534				0.956								5															
6						40								40.173 4.477 31.402				2.748								6															
7						30								30.005 4.448 31.382				2.863								7															
8						20								20.003 4.459 31.379				2.973								8															
9						10								9.766 4.461 31.379				3.016								9															
10						0								6.490 4.464 31.380				2.463								10															
11																										11															
12																										12															

Initials LL

v

Consec. Cast # 031		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 593		Vessel Sta. I.D.		Instructions										Sta. Designation												
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = 132 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 992.3		S.S.	Vis.	Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
031		54 11 08 N			154 58 92 W			12 MAY 94			00 13		54		44		924		8	025	187		31		193		113					
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location																
Press. SN 26072				on Deck at Surface								Data on at Surface				Tape/Diskette I.D. File Name/Header																
Temp. SN 701				Press. _____								Start Down _____				CAST 031-12 MAY 0005																
Cond. SN 303				Temp. _____								at Bottom _____				_____																
FLUOR VMULT = 1.0				Cond. _____								Start Up _____				Remarks Sta. 113, haul 11																
_____				Other _____								at Surface _____				w/o 195																
_____				_____								Data off _____				_____																
Bot. Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Flux, Sample Bot. Data				Sal. Bot. #		Other Samp.		Bot. #										
1		Bot				Press. Temp. Cond. Other				Press. Temp. Cond. Sal.				Therm-P Avg Tw Sal.								1										
2		150								189.725 4.497 32.547				0.198								2										
3		100								151.177 4.105 32.343				0.195								3										
4		60								100.301 3.857 32.114				0.191								4										
5		50								59.571 3.710 32.05				0.205								5										
6		40								49.728 3.764 32.000				0.197								6										
7		30								39.818 3.782 32.001				0.176								7										
8		20								30.411 4.175 32.008				0.166								8										
9		10								20.243 4.381 31.856				0.975								9										
10		6								10.518 4.744 31.817				2.767								10										
11										-0.013 4.826 31.814				2.914								11										
12																						12										

Initials CH

✓

Nts. bottle

1911
1910
1909
1908
1907
1906
1905
1904
1903
1902

Consec. Cast # 032		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 600		Vessel Sta. I.D.		Instructions CTD @ drifter										Sta. Designation							
Consec. Cast #	Latitude Deg. Min. S		N or S	Longitude Deg. E or W		Date JD = 132 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.					
032	57	27	64	N	155	23	36	W	12	MAY	94	04	08	6	2	5	59	2	4	7	0	60	23	76	1	270	114
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 303 FLUOR VMULT = 1.0				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____						Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____						Data Location Tape/Diskette I.D. _____ File Name/Header CAST032-12MAY0358 Remarks Max depth 269 w/o 272											
St. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Fluor. Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos								
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.											
1		✓	250										249.978	4.834		32.713	0.156									1	
2		✓	200										199.755	4.013		32.305	0.155					67				2	
3			150										150.085	3.741		32.154	0.160									3	
4			100										100.253	4.575		32.081	0.153									4	
5			50										50.558	4.633		31.941	0.243							chl.		5	
6			30										29.372	4.981		31.882	3.850									6	
7			10										10.529	5.102		31.821	5.710									7	
8			10										10.456	5.104		31.820	5.797									8	
9			10										10.429	5.101		31.821	5.477									9	
10			0										-0.368	5.101		31.821	5.326									10	
11																										11	
12																										12	

OUT 1919
1918
1917
1916
1915
1914
1913
1912

Initials CH
✓

Consec. Cast # 033		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 695		Vessel Sta. I.D.		Instructions M2				Sta. Designation									
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 1009.9	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
033	58	35	41	N	153	06	66	W	13	MAY	94	21	25	50	46	104	70	77	13	76	1	158	116
CTD Type & SN 91220-A				Monitor Checks				Times JD/Time				Data Location											
Press. SN 26072				on Deck at Surface				Data on				Tape/Diskette I.D. File Name/Header											
Temp. SN 701				Press. _____				at Surface _____				CAST033-13MAY2118											
Cond. SN 303				Temp. _____				Start Down _____				_____											
FLUOR VMULT = 1.0				Cond. _____				at Bottom _____				_____											
				Other _____				Start Up _____				Remarks Sta. 116, Haul 1											
								at Surface _____				w/o 157											
								Data off _____															

Sts	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Fluor. Sample Bot. Data			Sal. Bot. #	Other Samp.	Sts		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
1			Bot									154.947	5.231	32.134	32.134	0.330			1	2057	
2		✓	50									49.753	5.222		32.083	0.267		24	ChL	2	2056
3			30									29.950	5.336		31.999	0.362				3	2055
4			10									9.936	5.370		31.991	0.318				4	2054
5			10									9.850	5.375		31.991	0.308				5	2053
6			10									9.923	5.363		31.991	0.320				6	2052
7			3									3.052	5.376		31.992	0.293				7	2051
8			3									3.052	5.377		31.991	0.285				8	2050
9			3									3.005	5.380		31.991	0.284				9	2049
10			0									0.439	5.383		31.991	0.258				10	1940
11																				11	
12																				12	

Initials CH

✓

Consec. Cast # 034		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 718		Vessel Sta. I.D.		Instructions GP 1					Sta. Designation								
Consec. Cast #	Latitude Deg. Min. N or S		Longitude Deg. E or W		Date JD = 134 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	59	05	92	N	151	00	04	W	14	MAY	94	06	20	6	0	55	13	37	085	14	866	167	117
CTD Type & SN 91220-A			Monitor Checks						Times			Data Location											
Press. SN 26072			on Deck						Data on			Tape/Diskette I.D.											
Temp. SN 701			at Surface						at Surface			File Name/Header											
Cond. SN 303			Press. _____						Start Down			CAST034-14 MAY 0613											
FLUOR VMULT = 1.0			Temp. _____						at Bottom			_____											
			Cond. _____						Start Up			_____											
			Other _____						at Surface			Remarks Sta. 117, haul 1											
									Data off			w/o 163											
Sts.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Sts.				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1			Bot									162.785	5.446		32.051	0.259					1	NUTS	
2			150									149.915	5.423		31.885	0.301			18		2	2066	
3			100									100.601	5.403		31.747	0.381					3	2065	
4			75									75.623	5.416		31.747	0.419					4	2064	
5			50									50.610	5.417		31.747	0.372					5	2063	
6			35									34.862	5.424		31.745	0.366					6	2062	
7			20									20.644	5.421		31.742	0.316					7	2061	
8			10									9.627	5.413		31.715	0.358					8	2060	
9			3									3.203	5.422		31.710	0.321					9	2059	
10																					10	2058	
11																					11		
12																					12		

Initials CH
✓

Consec. Cast #		Vessel		Proj. & Leg		Event#		Vessel Sta. I.D.		Instructions										Sta. Designation											
035		MILLER FREEMAN		MF-94-05																											
Consec. Cast #		Latitude		Longitude		Date		Time		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Wind Dir.		Wind Sp.		Cloud		Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
		Deg. Min. N or S		Deg. E or W		JD = Day Mo. Yr.		GMT Hr. Min.						1014.2																	
035		59 00 44 N		150 59 20 W		14 MAY 94		08 52		19		43		14		37		100		108		66				164		119			
CTD Type & SN 91220-A				Monitor Checks				Times				Data Location																			
Press. SN 26072				on Deck				Data on				Tape/Diskette I.D.				File Name/Header															
Temp. SN 701				at Surface				at Surface								CAST 035 - 14 MAY 0846															
Cond. SN 303				Press. _____				Start Down																							
FLUOR VMULT = 1.0				Temp. _____				at Bottom																							
				Cond. _____				Start Up																							
				Other _____				Data off								Remarks v/o = 162															
																max depth = 160															
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						30				30.124 4.5466 31.154				0.347						28				1							
2																										2					
3																										3					
4																										4					
5																										5					
6																										6					
7																										7					
8																										8					
9																										9					
10																										10					
11																										11					
12																										12					

Initials

LL

✓

(P)

Consec. Cast # 036		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 730		Vessel Sta. I.D.		Instructions		Sta. Designation																														
Consec. Cast #	Latitude Deg. Min. S		Longitude Deg. E or W		Date JD = Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 1014.9	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																						
036	58	56	7	7	N	150	55	6	5	W	14	M	A	Y	9	4	0	9	4	8	5	4	4	9	1	5	3	7	1	1	5	1	2	8	6	5	1	4	9	1	2	0

CTD Type & SN 91220-A
 Press. SN 26072
 Temp. SN 701
 Cond. SN 303
 FLUOR VMULT = 1.0

Monitor Checks
 on Deck at Surface
 Press. _____
 Temp. _____
 Cond. _____
 Other _____

Times JD/Time
 Data on _____
 at Surface _____
 Start Down _____
 at Bottom _____
 Start Up _____
 at Surface _____
 Data off _____

Data Location
 Tape/Diskette I.D. _____
 File Name/Header
 CAST 036-
 Remarks w/o = 139
Thermos didn't trip fully.

Pos.	Bot. Rack	T Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Q
			Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		230																1
2		200																2
3		139 150							138.955	5.398	5.391	32.115	0.213					3
4		A 100	152.00	1:57					101.031	5.868		32.084	0.387			060		4
5		75							74.548	5.920		32.057	0.393					5
6		50							50.036	5.961		32.051	0.447				che	6
7		35							34.891	5.940		32.043	0.457				che	7
8		20							19.885	5.635		31.928	0.408				che	8
9		10							10.190	5.580		31.906	0.373				che	9
10		3							3.169	5.582		31.906	0.388				che	10
11																		11
12																		12

nicks #
 2074
 2073
 2072
 2071
 2070
 2069 bottle spigot open
 2068
 2067

Initials LL

✓



Initials LL

Initials LL

Consec. Cast # 038			Vessel MILLER FREEMAN			Proj. & Leg MF-94-05			Event #	Vessel Sta. I.D.			Instructions										Sta. Designation								
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.	Vis.	Wind Dir.		Wind Sp.		Cloud	Type	Weath.	Bottom Depth, m		Sta. Name or I.D.	
038		58 47 05 N			150 53 81 W			14 MAY 94			12 51		53		42		153		8	105	10		76	2	177		122				
CTD Type & SN 91220-A Press. SN 26072 Temp. SN 701 Cond. SN 303 FLUOR VMULT = 1.0					Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____					Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____					Data Location Tape/Diskette I.D. _____ File Name/Header CAST 038 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			250																										1		
2			170																										2		
3			150																										3		
4			100																										4		
5			75																										5		
6			50																										6		
7			35																										7		
8			20																										8		
9			10																										9		
10			3																										10		
11																													11		
12																													12		

Initials VL
✓

nuts
2083
2082
2081
2080
2079
2078
2077
2076
2075

Consec. Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event # 742		Vessel Sta. I.D.		Instructions										Sta. Designation											
Consec. Cast #		Latitude N or S Deg. Min.			Longitude E or W Deg.			Date JD = 134 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 1016.0		S.S.	Vis.	Wind Dir.		Wind Sp.		Cloud Type		Weath.	Bottom Depth, m		Sta. Name or I.D.	
039		584246N			1505062W			14 MAY 94			1436		55		45		16		38	110	12		761		186		123				
CTD Type & SN 91220-A				Monitor Checks								Times JD/Time				Data Location															
Press. SN 26072				on Deck at Surface								Data on				Tape/Diskette I.D. File Name/Header															
Temp. SN 701				Press. _____								at Surface _____				CAST 039															
Cond. SN 303				Temp. _____								Start Down _____				_____															
FLUOR VMULT = 1.0				Cond. _____								at Bottom _____				_____															
				Other _____								Start Up _____				Remarks U/O = 182															
												Data off _____				max depth = 182															

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			60 ft							181.703	5.415		32.576	0.176				1	
2			150							150.700	5.418		32.567	0.165		07		2	
3			100							100.135	5.401		32.294	0.167				3	
4			75							74.996	5.537		32.084	0.415				4	
5			50							50.484	5.574		32.059	0.404			che	5	
6			35							35.247	5.574		32.055	0.399			che	6	
7			20							19.991	5.568		32.054	0.424			che	7	
8			10							10.360	5.566		32.054	0.431			che	8	
9			3							3.410	5.561		32.053	0.375			che	9	
10																		10	
11																		11	
12																		12	

Initials u/rw

Consec. Cast # 040		Vessel MILLER FREEMAN		Proj. & Leg MF-94-05		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 134			Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1016.7	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.													
040	35	28	N	150	48	68	W	14	M	A	Y	94	16	26	56	46	173	810	512	761	174	124	
CTD Type & SN 91220-A			Monitor Checks										Times JD/Time		Data Location								
Press. SN 26072			on Deck at Surface										Data on _____		Tape/Diskette I.D.		File Name/Header						
Temp. SN 701			Press. _____										at Surface _____		_____		CAST 040						
Cond. SN 303			Temp. _____										Start Down _____		_____		_____						
FLUOR VMULT = 1.0			Cond. _____										at Bottom _____		_____		_____						
_____			Other _____										Start Up _____		Remarks 2/0 = 171		E-P-7						
_____			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										59.649	5.568		32.262	0.618			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 LL

✓