

Consec. Cast # 001		Vessel MILLER FREEMAN		Proj. & Leg MF-93-06		Event # 120		Vessel Sta. I.D.		Instructions										Sta. Designation 5			
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	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
001	54	43	99	N	156	48	22	W	03	MAY	3	16	32	04	3	03	9	9.4	27	080	14682	2104	005
CTD Type & SN 91220- Press. SN 25084 Temp. SN 701 Cond. SN 303			Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____						Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header Cast001-03May1614 Cast001-03May1614 Remarks w/o 571 m										
Pos. ID	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Acc				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press. -	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1		✓	450	1633	33						441.539	3.920	31.899	34.069			34.0742	12	N 800	1			
2			350								349.603	4.056	31.904	33.983					N 801	2			
3			250								254.003	4.219	31.905	33.867					N 802	3			
4			150								151.063	5.432	32.789	33.711					N 803	4			
5			50								50.425	4.299	30.773	32.562					N CH 804	5			
6			40								40.121	4.624	31.007	32.521					CHL	6			
7			30								30.624	5.048	31.320	32.472					CHL	7			
8	fluor.		20								20.966	5.233	31.463	32.460					CHL	8			
9			10								10.952	5.426	31.621	32.458					CHL	9			
10			Surf								0.998	5.484	31.665	32.457					N CH 805	10			
11																				11			
12																				12			

Consec. Cast # <u>002</u>		Vessel <u>MF</u>		Proj. & Leg <u>MF 93-06</u>		Event # <u>123</u>		Vessel Sta. I.D.		Instructions <u>992.2</u>										Sta. Designation <u>6</u>				
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <u>123</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.	
<u>002</u>	<u>54</u>	<u>46</u>	<u>N</u>	<u>156</u>	<u>51</u>	<u>W</u>	<u>03</u>	<u>MAY</u>	<u>93</u>	<u>18</u>	<u>25</u>	<u>05</u>	<u>2</u>	<u>05</u>	<u>0</u>	<u>92</u>	<u>37</u>	<u>100</u>	<u>18</u>	<u>86</u>	<u>5</u>	<u>15</u>	<u>71</u>	<u>006</u>
CTD Type & SN <u>91220</u>				Monitor Checks on Deck at Surface						Times JD/Time				Data Location										
Press. SN <u>25084</u>				Press. _____						Data on _____				Tape/Diskette I.D. _____										
Temp. SN <u>701</u>				Temp. _____						at Surface _____				File Name/Header <u>Cast 002 03 May 1993</u>										
Cond. SN <u>303</u>				Cond. _____						Start Down _____				_____										
_____				Other _____						at Bottom _____				_____										
_____				_____						Start Up _____				Remarks _____										
_____				_____						at Surface _____				_____										
_____				_____						Data off _____				_____										

Stn. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	C.C.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	<u>Sd</u>		<u>150m</u>							<u>150.982</u>	<u>5.155</u>	<u>32.533</u>	<u>33.697</u>			<u>33.7007</u>	<u>17</u>		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials DD/ms

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Consec. Cast # 003		Vessel MILLER FREEMAN		Proj. & Leg MF-93-06		Event # 125		Vessel Sta. I.D.		Instructions										Sta. Designation 7																								
Consec. Cast #	Latitude			N or S	Longitude			E or W	Date JD = 123			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																			
	Deg.	Min.			Deg.		Day		Mo.	Yr.	Hr.	Min.																																
003	5	4	4	9	7	5	N	1	5	6	5	4	9	4	W	0	3	1	9	4	7	5	0	4	5	9	1	3	7	0	9	5	2	0	8	6	5	1	1	5	4	0	0	7
CTD Type & SN <u>91220-</u>					Monitor Checks					Times					Data Location																													
Press. SN <u>25084</u>					on Deck					at Surface					Data on					Tape/Diskette I.D.					File Name/Header																			
Temp. SN <u>701</u>					Press. _____					Start Down <u>19:32</u>					_____					_____																								
Cond. SN <u>303</u>					Temp. _____					at Bottom _____					Start Up _____					_____																								
_____					Cond. _____					at Surface _____					Data off _____					Remarks																								
_____					Other _____					_____					_____					_____																								

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

Initials DN/mc
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211230

Pg. 4 of 8

Consec. Cast # 004			Vessel Miller Freeman			Proj. & Leg MF-93-06			Event # 127			Vessel Sta. I.D.			Instructions										Sta. Designation 8							
Consec. Cast #		Latitude Deg. Min. S			Longitude Deg. E or W			Date JD = 123 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb 790.5		S.S. Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
004		545346N			1565818W			03 MAY 93			2110		42		40		9136		125		228		65		1037		008					
CTD Type & SN 91220-					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 w/o = 515 max 2 = 502 Tape/Diskette I.D. _____ File Name/Header Cast004-03MAY2053																	
Press. SN 25084					Press. _____										Remarks - use 1st log R1e of 350 m bottle																	
Temp. SN 701					Temp. _____																											
Cond. SN 303					Cond. _____																											
Other _____					Other _____																											

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		✓		450	211730				0.112	449.589	4.019	31.4945	34.018			34.018	20	811	1
2				350					0.112	349.886	4.202	31.985	33.928					810	2
3				250					0.111	250.077	4.517	32.147	33.846					809	3
4				150					0.107	151.438	5.249	32.538	33.608					808	4
5				50					0.553	50.544	5.077	31.359	32.478				chl	807	5
6				40					0.583	41.086	5.190	31.435	32.460					chl	6
7				30					0.635	30.462	5.303	31.524	32.457					chl	7
8				X					0.781	23.677	5.336	31.548	32.456					chl	8
9				20					1.088	20.430	5.384	31.587	32.455					chl	9
10				10					1.059	10.821	5.463	31.645	32.450					chl	10
11				0					0.760	1.121	5.473	31.648	32.447					chl	11
12																			12

Initials LD

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Consec. Cast # <u>006</u>			Vessel <u>Miller Freeman</u>			Proj. & Leg <u>MF-93-06</u>			Event # <u>133</u>			Vessel Sta. I.D.			Instructions										Sta. Designation <u>10</u>											
Consec. Cast #		Latitude Deg. Min. S			Longitude Deg. E or W			Date JD = <u>123</u> Day Mo. Yr.			Time GMT Hr. Min.			Dry Bulb		Wet Bulb		Bar. mb <u>997.1</u>		S.S. S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.		
<u>006</u>		<u>5458</u>			<u>30</u> N			<u>157030</u> W			<u>03</u> MAY <u>93</u>			<u>23</u> <u>58</u>			<u>50</u>		<u>38</u>		<u>97</u>		<u>37</u>		<u>09</u>		<u>51</u>		<u>28</u>		<u>62</u>		<u>0858</u>		<u>010</u>	
CTD Type & SN <u>91220-</u>					Monitor Checks					Times JD/Time					Data Location																					
Press. SN <u>25084</u>					on Deck					Data on _____					max wo = <u>513</u>																					
Temp. SN <u>701</u>					at Surface					at Surface _____					max z = <u>508</u>																					
Cond. SN <u>303</u>					Press. _____					Start Down _____					Tape/Diskette I.D.																					
					Temp. _____					at Bottom _____					File Name/Header																					
					Cond. _____					Start Up _____					<u>Cost006-03MAY2343</u>																					
					Other _____					Data off _____					Remarks																					

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		✓		450					0.114	449.975	4.182	32.015	33.932			33.932	02		1
2				350					0.114	349.144	4.556	32.217	33.838						2
3				250					0.112	250.787	5.250	32.600	33.627						3
4				150					0.112	150.750	5.447	32.131	32.947						4
5				50					1.315	49.925	5.463	31.654	32.441						5
6				40					1.721	39.708	5.531	31.698	32.430						6
7				30					2.404	29.670	5.679	31.820	32.430						7
8				X					2.459	23.566	5.731	31.861	32.429						8
9				20					2.817	19.658	5.732	31.854	32.421						9
10				10					2.987	9.655	5.734	31.823	32.390						10
11				0					1.807	0.772	5.743	31.826	32.390						11
12																			12

Initials RD

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Consec. Cast # 007		Vessel Miller Freeman		Proj. & Leg MF-93-06		Event # 135		Vessel Sta. I.D.		Instructions 995.8										Sta. Designation 11			
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 124 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
007	54	59	2N	157	05	06W	04	M	A	Y	93	01	29	52	42	96	37	04	01	58	6/2	632	011

CTD Type & SN 91220-		Press. SN 25084		Temp. SN 701		Cond. SN 303		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 max wo = -534 max z = 502 Tape/Diskette I.D. _____ File Name/Header Cast007-04MA/0114							
								Press. _____				Temp. _____				Cond. _____				Other _____			
																Remarks							

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				450					0.117	449.481	4.241	32.060	33.924				10	818	1
2				350					0.115	350.023	4.820	32.418	33.802					819	2
3				250					0.113	249.474	5.422	32.637	33.498					820	3
4				150					0.126	149.408	5.178	31.730	32.755					821	4
5				60					1.108	59.564	5.461	31.606	32.383					chl	5
6				50					1.292	49.280	5.590	31.688	32.357					chl 822	6
7				40					1.449	39.572	5.662	31.723	32.331					chl	7
8				30					1.460	29.389	5.667	31.722	32.331				32.3391	chl	8
9				20					1.636	19.607	5.672	31.722	32.331				↓	10 chl	9
10				10					1.440	10.792	5.690	31.733	32.331					chl	10
11				0					0.961	1.022	5.698	31.736	32.331					chl 823	11
12																			12

Initials RD

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Consec. Cast # 008			Vessel Miller Freeman			Proj. & Leg MF-93-06			Event # 137		Vessel Sta. I.D.			Instructions 994.3					Sta. Designation 12																														
Consec. Cast #		Latitude Deg. Min. S			N or S		Longitude Deg. E or W			Date JD = 124 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.														
008		550167			N		1570691			W			04 MAY 93			0249		551		4294		3709		0228		65		360		012																			
CTD Type & SN 91220-					Press. SN 25084					Temp. SN 701					Cond. SN 303					Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____										Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____										Data Location 394 max wo = 422 max z = 380 Tape/Diskette I.D. _____ File Name/Header Cast008-04MAY0234 Remarks - winch stopped at ~100 m									
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.		S.D.																							
1						350				0.117				350.062 4.425 32.136 33.876												1																							
2						250				0.114				250.718 5.412 32.418 33.259												2																							
3						150				0.116				149.942 4.630 30.944 32.386								32.3885		24		3																							
4						50				0.193				49.726 4.473 30.603 32.194												4																							
5						40				0.397				40.610 5.007 31.076 32.226												5																							
6						30				0.591				31.109 5.221 31.249 32.222												6																							
7						20				0.632				20.617 5.224 31.229 32.201												7																							
8						10				0.597				9.500 4.960 30.926 32.114												8																							
9						5				0.563				5.004 4.935 30.887 32.098												9																							
10						0				0.501				1.266 4.965 30.903 32.088												10																							
11																										11																							
12																										12																							

Initials RD



Consec. Cast # 009		Vessel Miller Freeman		Proj. & Leg MF-93-06		Event # 140		Vessel Sta. I.D.		Instructions 984.0										Sta. Designation 13																			
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg.		E or W		Date JD = 124 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		5503		72N		15708		05W		04 MAY 93			0408		41		36		84		47		08		52		28		66		238		013						
CTD Type & SN 91220-				Press. SN 25084				Temp. SN 701				Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____								Data Location max wd = 237 max dep = 227.65 Tape/Diskette I.D. _____ File Name/Header Cast 009-04 May 0357 _____ _____ _____ 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						200		179.236 4.497 0.130				179.236 4.497 30.738 37.262				32.2676				6				1															
2																								2															
3																								3															
4																								4															
5																								5															
6						203																		6															
7																								7															
8																								8															
9																								9															
10																								10															
11																								11															
12																								12															

Initials AJH



0409 50
0414 50 pop

Consec. Cast # 010		Vessel Miller Freeman		Proj. & Leg MF-93-06		Event # 142		Vessel Sta. I.D.		Instructions 984.0										Sta. Designation 14												
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.	
010		55 07 12 N		157 11 80 W		04 MAY 93			05 15		40		40		84		47		080		25		86		5		132		014			
CTD Type & SN 91220- Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____						Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____						max dep 123.5 Data Location w/o 128 Tape/Diskette I.D. File Name/Header cast-010-04MAY1993 Remarks																
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						120			0.157	121.350	4.415	30.522	32.120			32.1246	30	1														
2						60			0.243	60.314	4.376	30.364	32.004					2														
3						50			0.304	49.688	4.389	30.337	31.966					3														
4						40			0.387	40.880	4.459	30.379	31.951					4														
5						30			0.547	30.535	4.737	30.582	31.923					5														
6						20			0.613	20.477	4.904	30.711	31.916					6														
7						10			0.648	10.206	4.994	30.776	31.910					7														
8						0			0.658	0.678	4.995	30.772	31.909					8														
9																		9														
10																		10														
11																		11														
12																		12														

Initials AJH
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Consec. Cast # 011		Vessel MF		Proj. & Leg MF-93-06		Event # 145		Vessel Sta. I.D.		Instructions 984.0										Sta. Designation 15						
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.			
011	55	10	76	N	157	15	21	W	04	M	A	Y	93	06	15	05	0	04	0	84	47	070	26	865	106	015
CTD Type & SN 91220- Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location w/o 101.0 max dep 96.3 Tape/Diskette I.D. _____ File Name/Header cast011_04MAY0608										
Remarks started at 10m then up to surf then down																										

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	X	T		6:16:50	6:22:30					70.208	4.386	30.340	31.962			31.9714	1		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials DJH
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Consec. Cast # 12		Vessel MF		Proj. & Leg MF-93-06		Event # 148		Vessel Sta. I.D.		Instructions 984.0										Sta. Designation 016																			
Consec. Cast #		Latitude Deg. Min.		N or S		Longitude Deg.		E or W		Date JD = 124 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		5517		98N		15722		32W		04 MAY 93			0741		050		041		184		47		070		26		86		5		86		016						
CTD Type & SN 91220-				Press. SN 25084				Temp. SN 701				Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____								Data Location max dep 78.1 w/o 78 Tape/Diskette I.D. _____ File Name/Header cast 012 - 04 MAY 93							
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										~80 7 0.244 78.066 4.311 30.241 31.915								31.9215 8						1															
2										50 0.266 49.268 4.284 30.193 31.900														2															
3										40 0.292 39.970 4.292 30.191 31.894														3															
4										30 0.365 30.146 4.276 30.161 31.880														4															
5										20 0.580 20.455 4.602 30.416 31.867														5															
6										10 0.565 10.072 4.644 30.446 31.866														6															
7										0 0.533 0.97 4.652 30.449 31.866														7															
8																								8															
9																								9															
10																								10															
11																								11															
12																								12															

 Initials ASH
 ✓

003817

Consec. Cast # 13			Vessel Miller Freeman			Proj. & Leg MF-93-06			Event # 193			Vessel Sta. I.D.			Instructions										Sta. Designation 021		
Consec. Cast #		Latitude		N or S	Longitude		E or W	Date JD = 125			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.			
013		55 03		22 N	155 55		10 W	05 MAY 93			00 32		60	51	84	47	020	16	58	1	18	37	021				
CTD Type & SN 91220-				Monitor Checks				Times JD/Time				Data Location 18 93															
Press. SN 25084				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 _____				_____															
_____				Cond. _____				at Bottom _____				_____															
_____				Other _____				Start Up _____				_____															
_____				_____				Data off _____				Remarks															
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	✓		300					0.112	303.897	4.353	32.060	33.886			33.8882	29	1									
2																		2									
3																		3									
4																		4									
5																		5									
6																		6									
7																		7									
8																		8									
9																		9									
10																		10									
11																		11									
12																		12									

Initials RD/WF
✓

Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation											
014		Miller Freeman		MF-93-06		196														022											
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.		Deg. Min.		Day Mo. Yr.		Hr. Min.						983.8																	
014		550751N		1555986W		05 MAY 93		0201		69		60		84		47		040		135		81		1660		022					
CTD Type & SN		91220-		Monitor Checks										Times		Data Location															
Press. SN		25084		on Deck at Surface										Data on		max wo = 502															
Temp. SN		701		Press. _____										at Surface		max z = 500.9															
Cond. SN		303		Temp. _____										Start Down		Tape/Diskette I.D.															
				Cond. _____										at Bottom		File Name/Header															
				Other _____										Start Up		Cast 014-05MAP148															
														Data off		Remarks															

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				450					0.113	450.021	4.197	32.036	33.941					1	
2				350					0.113	350.023	4.448	32.147	33.865					2	
3				250					0.108	248.640	5.167	32.613	33.727					3	
4				150					0.112	151.911	5.741	32.626	33.218					4	
5				60					0.597	56.555	5.138	31.406	32.469				5	5	
6				50					1.329	50.738	5.343	31.577	32.468					6	
7				40					1.466	40.517	5.346	31.576	32.469					7	
8				30					1.470	30.581	5.346	31.571	32.469					8	
9				20					1.992	20.514	5.461	31.666	32.470					9	
10				10					1.701	10.444	5.493	31.690	32.472					10	
11				0					0.677	1.257	5.518	31.707	32.471					11	
12																		12	

Initials RV



Consec. Cast #		Vessel		Proj. & Leg		Event #		Vessel Sta. I.D.		Instructions		Sta. Designation													
015		MF		MF-93-06		199				985.0		023													
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 125		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.			
015	55	11	8	N	156	04	30	W	05	M	A	Y	93	03	27	59	50	85	47	04	51	35	81	1109	023
CTD Type & SN				91220-				Monitor Checks				Times JD/Time				Data Location									
Press. SN				25084				on Deck				Data on				w/508m									
Temp. SN				701				at Surface				at Surface				Tape/Diskette I.D.									
Cond. SN				303				Press.				Start Down				File Name/Header									
				Temp.				at Bottom				Start Up				Cast 015-05 MAY 03 13									
				Cond.				at Surface				Data off				Remarks									
				Other												max depth 502									

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1		✓		500					0.113	502.858	4.091	32.010	33.992			33.9918	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 LD/JS/
ASH

Consec. Cast # 16		Vessel MF		Proj. & Leg MF-93-06		Event # 201		Vessel Sta. I.D.		Instructions 985.0										Sta. Designation 24														
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	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m 810	Sta. Name or I.D.											
016	55	14	00	N	156	06	39	W	05	M	A	Y	93	04	41	5	5	5	5	8	5	4	7	0	20	13	6	8	1	8	1	5	0	24
CTD Type & SN 91220-				Monitor Checks								Times JD/Time				Data Location																		
Press. SN 25084				on Deck at Surface								Data on _____				505.3 max w/ 509 Tape/Diskette I.D. File Name/Header																		
Temp. SN 701				Press. _____								at Surface _____				_____																		
Cond. SN 303				Temp. _____								Start Down _____				_____																		
_____				Cond. _____								at Bottom _____				_____																		
_____				Other _____								Start Up _____				_____																		
_____				_____								Data off _____				Remarks No hardcopy plot																		

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						450			.172	450.953	4.110	31.982	33.966					1	
2						350			.112	351.066	4.394	32.085	33.848					2	
3						250			.112	250.534	5.296	32.633	33.620					3	
4						150			.173	150.352	5.112	31.542	32.604			32.6010	21	4	
5						50			.769	61.338	5.313	31.451	32.350					5	
6						50			1.119	50.862	5.358	31.477	32.341					6	
7						40			.881	40.456	5.391	31.498	32.338					7	
8						30			1.507	30.544	5.435	31.530	32.336					8	
9						20			1.132	20.481	5.456	31.543	32.336					9	
10						10			1.370	10.522	5.534	31.604	32.334					10	
11						0			1.451	1.881	5.545	31.609	32.334					11	
12																		12	

Initials **AST**

05:49:30
05:55:30

Consec. Cast # 17		Vessel MF		Proj. & Leg MF-93-06		Event # 203		Vessel Sta. I.D.		Instructions 986.0										Sta. Designation 25						
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg. Min.		E or W	Date JD = 125 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 493	Sta. Name or I.D.			
017	55	16	37N	156	08	71W	05	M	A	Y	93	05	49	56	50	846	47	330	08	68	1	516	025			
CTD Type & SN 91220-			Press. SN 25084			Temp. SN 701			Cond. SN 303			Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____					Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____					Data Location 483 max dep u/o 489 Tape/Diskette I.D. _____ File Name/Header Cast017-05MAY0532 _____ _____ _____ Remarks hit extra event marker at surface (ignore 1st one)				
Pos. 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						4150			.117	449.857	4.203	32.037	33.937			33.9400	32		1							
2						350			.115	353.261	4.349	32.078	33.885						2							
3						250			.117	251.105	5.127	32.466	33.597						3							
4						150			.129	150.409	5.288	31.847	32.780						4							
5						60			.622	60.804	5.426	31.583	32.390						5							
6						50			.953	50.229	5.473	31.576	32.342						6							
7						40			.870	39.996	5.475	31.564	32.332						7							
8						30			1.228	30.197	5.501	31.583	32.334						8							
9						20			1.800	20.238	5.607	31.669	32.333						9							
10						10			1.654	9.719	5.634	31.686	32.331						10							
11						0			2.016	1.066	5.662	31.705	32.331						11							
12																			12							

Initials **ATK**

Consec. Cast # 18		Vessel MF		Proj. & Leg MF-93-06		Event # 205		Vessel Sta. I.D.		Instructions 986.0										Sta. Designation 26			
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	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m 2 3 1	Sta. Name or I.D.
018	55	18	76N	156	10	46W	05	M	A	Y	93	06	54	56	50	86	47	320	10	88	1	241	026
CTD Type & SN 91220--			Monitor Checks			Times JD/Time			Data Location														
Press. SN 25084			on Deck			at Surface			Data on			max dep: 215.0 w/b: 217 Tape/Diskette I.D.											
Temp. SN 701			Press. _____			_____			at Surface _____			File Name/Header cast018_05MAY0645											
Cond. SN 303			Temp. _____			_____			Start Down _____			_____											
_____			Cond. _____			_____			at Bottom _____			_____											
_____			Other _____			_____			Start Up _____			_____											
_____			_____			_____			Data off _____			Remarks extra event recorded inadvertently at 30 m ; ignore first event here											

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						215			.117	215.113	5.353	32.431	33.350			33.354	16		1
2						150			.133	149.593	5.051	31.571	32.698						2
3						50			1.412	50.553	5.630	31.682	32.311						3
4						40			1.417	40.001	5.679	31.677	32.312						4
5						30			1.445	30.281	5.636	31.679	32.312						5
6						20			1.518	20.116	5.653	31.690	32.312						6
7						10			1.315	10.086	5.658	31.690	32.312						7
8						0			1.372	-0.111	5.662	31.688	32.312						8
9																			9
10																			10
11																			11
12																			12

Initials **ASH**

Consec. Cast # 19		Vessel MILLER FREEMAN		Proj. & Leg MF 93-06		Event # 226		Vessel Sta. I.D.		Instructions 789.0										Sta. Designation 30			
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	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
019	55	33	N	156	25	W	05	MAY	19	3	15	03	65	55	89	38	010	054	81	252	30		
CTD Type & SN 91220-			Press. SN 25084			Temp. SN 701			Cond. SN 303			Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____				Times JD/Time Data on 1453 at Surface 125 / 1451 Start Down 1454 at Bottom 1503 Start Up 1503 at Surface 1520 Data off _____				Data Location Tape/Diskette I.D. _____ File Name/Header CAST019-05MAY1451 Remarks 244 m wire out			
Stn. No.	Bot. Rack	T	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press. -	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1			250		150322					243.85	5.170		32.955				N	1					
2	✓	B	150	150645	151215					151.39	4.597		32.363			—	27	2					
3			150		151228					157.56	4.612		32.371				N	3					
4			50		151549					48.45	4.616		32.137				N-chl	4					
5			40		151721					40.57	4.619		32.132				chl	5					
6			30		151813					30.06	4.649		32.124				chl	6					
7			20		151853					20.14	4.712		32.063				chl	7					
8			10		151948					9.87	4.975		31.984				chl	8					
9			0		152051					1.33	4.975		31.985				N	9					
10																		10					
11																		11					
12																		12					

Initials **DD/mr**
✓ AJT

Consec. Cast # 20		Vessel MF		Proj. & Leg MF-93-06		Event# 228		Vessel Sta. I.D.		Instructions 990.0										Sta. Designation 31					
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	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m 205	Sta. Name or I.D. 31			
20	55	29	00 N	156	21	57 W	05	M	A	Y	93	16	25	6	0	5	0	90	47	060	08	68	1	207	31
CTD Type & SN 91220-			Monitor Checks on Deck at Surface			Times JD/Time			Data Location																
Press. SN 25084			Press. _____			Data on _____			Tape/Diskette I.D.																
Temp. SN 701			Temp. _____			at Surface 125/1616			File Name/Header																
Cond. SN 303			Cond. _____			Start Down 1618			CAS020-05MAY1616																
_____			Other _____			at Bottom 1625			Remarks 196 m wire out																
_____			_____			Start Up 1625			cast depth 196 m																
_____			_____			at Surface 1630																			
_____			_____			Data off 1625																			
Stn. #	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.						
				Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.											
1			100	1628	162815					99.103	4.797		32.313			—	13	—							
2																	2								
3																	3								
4																	4								
5																	5								
6																	6								
7																	7								
8																	8								
9																	9								
10																	10								
11																	11								
12																	12								

Initials **DD/mc**✓ **AJH**

Consec. Cast # 21		Vessel MF		Proj. & Leg MF-93-06		Event# 230		Vessel Sta. I.D.		Instructions 989.0										Sta. Designation 32																			
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		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m 190		Sta. Name or I.D.				
21		55 24		77 N		156 16		89 W		05 MAY 93			17 27		70		55		89		37		050		08		68		1		191		32						
CTD Type & SN 91220-				Press. SN 25084				Temp. SN 701				Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on 125 / 1720 at Surface 1719 Start Down 1721 at Bottom 1727 Start Up 1727 at Surface 1733 Data off 1728								Data Location Tape/Diskette I.D. _____ File Name/Header CAST021-05MAY1720 Remarks wire out 186 m							
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				MAX		1728						182.92 5.132 32.917				32.9242				22				1															
2																								2															
3																								3															
4																								4															
5																								5															
6																								6															
7																								7															
8																								8															
9																								9															
10																								10															
11																								11															
12																								12															

Initials *DB/mc*✓ *AJH*

Consec. Cast # 22		Vessel MF		Proj. & Leg MF-93-06		Event# 232		Vessel Sta. I.D.		Instructions 990.0										Sta. Designation 33							
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 125			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.						
22	55	22	6	3	N	156	14	99	W	05	M	A	Y	93	18	19	6	0	5	0	90	37	020	066	81	187	33
CTD Type & SN 91220-		Monitor Checks								Times JD/Time				Data Location													
Press. SN 25084		on Deck				at Surface				Data on 1812				Tape/Diskette I.D.						File Name/Header							
Temp. SN 701		Press. _____				_____				at Surface 125 / 1810				_____						CASTO22-OSMAY1811							
Cond. SN 303		Temp. _____				_____				Start Down 1813				_____						_____							
_____		Cond. _____				_____				at Bottom 1819				_____						_____							
_____		Other _____				_____				Start Up 1820				_____						_____							
_____		_____				_____				at Surface 1827				Remarks 179 m wireout						_____							
_____		_____				_____				Data off 1820				_____						_____							
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			MAX		181935					177.97	5.137		32.930				N	1									
2			150		1821					150.60	5.120		32.908				N	2									
3			50		1824					50.84	4.547		32.246				N chl	3									
4			40		1825					4.79	4.467		32.203				chl	4									
5			30		1825					30.38	4.563		32.181				chl	5									
6			20		1826					20.71	4.639		32.122				chl	6									
7			10		1826					10.91	4.894		32.007			32.0134	25	7									
8			0		1827					0.42	5.035		31.962				N chl	8									
9																		9									
10																		10									
11																		11									
12																		12									

Initials DD MC

✓ AJ4

Consec. Cast #		23		Vessel		MF		Proj. & Leg		MF-93-06		Event #		234		Vessel Sta. I.D.		Instructions		990.2		Sta. Designation		34																			
Consec. Cast #		Latitude		N or S		Longitude		E or W		Date JD = 125		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.									
23		55		20		74		N		156		129		7W		05		MAY		93		19		26		80		65		90		39		350		106		81		197		34	
CTD Type & SN		91220-		Monitor Checks		on Deck		at Surface		Times		JD/Time		Data Location		Tape/Diskette I.D.		File Name/Header		Remarks		187 m wireout		max cast depth 187 m																			
Press. SN		25084		Press.						Data on		1918																															
Temp. SN		701		Temp.						at Surface		125 / 1918																															
Cond. SN		303		Cond.						Start Down		1920																															
				Other						at Bottom		1926																															
										Start Up		1926																															
										at Surface		1938																															
										Data off		1927																															

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	✓	B	100	192830																
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Initials DD/mc

✓ A5H

Consec. Cast # 24		Vessel MF		Proj. & Leg MF-93-06		Event # 347		Vessel Sta. I.D.		Instructions 1006.8										Sta. Designation Fox 153		67													
Consec. Cast #		Latitude Deg. Min. N or S			Longitude Deg. E or W			Date JD = 127 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		55 54 40 N			156 12 37 W			07 MAY 93			18 03		6 0		5 0		0 7		3 7		2 6		5 0		4 2		4 1		20 5		67				
CTD Type & SN 91220-				Press. SN 25084				Temp. SN 701				Cond. SN 303				Monitor Checks on Deck at Surface								Times JD/Time Data on 1756 at Surface 127 / 1751 Start Down 1756 at Bottom 1803 Start Up 1803 at Surface Data off				Data Location Tape/Diskette I.D. File Name/Header CAST024-07 MAY 1755							
								Press.																Remarks FOX sta ID: 153 may wire out: 194 max cast depth: 195 m											
S. No.		Bot. Rack		Trip Depth		Time @ Depth Trip		Monitor Values Press. Temp. Cond. Other				Conv. Mon. Values-CTD Press. Temp. Cond. Sal.				Sample Bot. Data Therm-P Avg Tw Sal.				Sal. Bot. #		Other Samp.		Pos.											
1		25		175 MAX		1804						175.2 4.821 32.552										N		1											
2		5.0		125		180545 1811						125.8 5.348 32.254				32.2583				03		N		2											
3		5.0		75		1813						75.9 5.316 32.225										N		3											
4		25		60		1814						61.2 5.316 32.220										N		4											
5		20		50		1815						51.2 5.301 32.210										N		5											
6		2		40		1816						40.1 5.269 32.202										N		6											
7		22		30		1817						30.9 5.239 32.183										N		7											
8		23		20		1818						20.8 5.046 32.117										N		8											
9		28		10		181835						10.4 4.940 32.071										N		9											
10		21		0		181925						0.7 5.054 31.987										N		10											
11																								11											
12																								12											

Initials JMD

Consec. Cast # 25		Vessel MF		Proj. & Leg MF-93-06		Event# 349		Vessel Sta. I.D.		Instructions 1007.8										Sta. Designation FOX 154		68																	
Consec. Cast #		Latitude N or S			Longitude E or W			Date JD = 127 Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.						
025		555545N			1561570W			07 MAY 93			1937		68		55		08		38		260		6		24		1		220		68								
CTD Type & SN 91220-				Press. SN 25084				Temp. SN 701				Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____								Times JD/Time Data on _____ at Surface 127 / 1927 Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____								Data Location Tape/Diskette I.D. _____ File Name/Header CAST025-07MAY1928 Remarks FOX Sta #154 213 w/o max cast depth 210m							
St. No.		Bot.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.													
1		2		✓		200				Press. Temp. Cond. Other				Press. Temp. Cond. Sal.				Therm-P Avg Tw Sal.				35		N		1													
2		5				175								175.8 4.765 32.495										N		2													
3						125								125.0 4.555 32.181										N		3													
4						75								74.7 4.737 32.102										N		4													
5		25				60								60.0 4.820 32.108										chl MZ		5													
6		20				50								49.6 4.863 32.092										N chl MZ		6													
7		27				40								39.4 4.883 32.031										N chl MZ		7													
8		26				30								29.8 4.951 31.969										N chl MZ		8													
9		23				20								19.8 5.153 31.905										N chl MZ		9													
10		28				10								9.6 5.372 31.800										N chl MZ		10													
11		30				0								0.3 5.483 31.782										N chl MZ		11													
12																										1													

Initials JMD/MC

Consec. Cast # <u>26</u>		Vessel <u>MF</u>		Proj. & Leg <u>MF-93-06</u>		Event# <u>352</u>		Vessel Sta. I.D.		Instructions <u>1008.0</u>		Sta. Designation <u>FOX 155</u>		<u>69</u>																																	
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = <u>127</u>		Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																									
<u>026</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>6</u>	<u>2</u>	<u>0</u>	<u>N</u>	<u>1</u>	<u>5</u>	<u>6</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>W</u>	<u>0</u>	<u>7</u>	<u>M</u>	<u>A</u>	<u>Y</u>	<u>9</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>9</u>	<u>2</u>	<u>6</u>	<u>2</u>	<u>0</u>	<u>8</u>	<u>2</u>	<u>8</u>	<u>2</u>	<u>8</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>3</u>	<u>6</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>8</u>	<u>6</u>	<u>9</u>
CTD Type & SN <u>91220-</u>				Monitor Checks				Times JD/Time				Data Location																																			
Press. SN <u>25084</u>				on Deck				Data on				Tape/Diskette I.D.																																			
Temp. SN <u>701</u>				at Surface				at Surface				File Name/Header																																			
Cond. SN <u>303</u>				Press. _____				Start Down _____				<u>CAST026_07MAY2041</u>																																			
_____				Temp. _____				at Bottom _____				_____																																			
_____				Cond. _____				Start Up _____				Remarks <u>FOX Sta 155</u>																																			
_____				Other _____				at Surface _____				_____																																			
_____				Data off _____				_____				_____																																			
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						200			0.123	201.169	4.902	31.440	32.666																																		
2						175			0.119	176.021	4.765	31.174	32.507																																		
3						125			0.183	123.942	4.683	30.809	32.191			32.1873	18																														
4						75			0.250	71.633	4.813	30.777	32.053																																		
5						60			0.311	60.198	4.804	30.714	31.996																																		
6						50			0.509	50.291	4.850	30.724	31.969																																		
7						40			1.198	39.689	4.915	30.743	31.933																																		
8						30			0.868	30.063	4.671	30.475	31.864																																		
9						20			0.411	19.861	4.484	30.260	31.799																																		
10						10			1.026	9.882	5.247	30.867	31.773																																		
11						0			0.496	0.319	5.306	30.907	31.766																																		
12																																															

Initials AJH

Consec. Cast # 027		Vessel MF		Proj. & Leg MF-93-06		Event # 355		Vessel Sta. I.D.		Instructions 1008.4										Sta. Designation FOX 156		70																											
Consec. Cast #		Latitude Deg. Min. S			Longitude Deg. E or W			Date JD = 127 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 207		Sta. Name or I.D. 70																
027		55 56 93 N			156 26 08 W			07 MAY 93			22 14		12 1		9 6		08		28		34		50		26		61		207		70																		
CTD Type & SN 91220-					Press. SN 25084					Temp. SN 701					Cond. SN 303					Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____										Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____										Data Location max dep 195 w/o 196 Tape/Diskette I.D. _____ File Name/Header CAST027-07MAY2157.Log Remarks FOX Sta 156									
St. Q		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										195				195.029 4.857 31.344 32.604												1																							
2										175				174.656 4.695 30.987 32.360												2																							
3				✓		17:10 22:10				125				125.210 4.591 30.716 32.172								32.179		15		3																							
4										75				74.508 4.643 30.648 32.069												4																							
5										60				60.891 4.869 30.828 32.065												5																							
6										50				50.542 4.866 30.787 32.025												6																							
7										40				40.005 4.892 30.762 31.977												7																							
8										30				30.271 4.983 30.824 31.966												8																							
9										20				20.851 5.251 30.972 31.882												9																							
10										10				10.509 5.325 30.959 31.803												10																							
11										0				0.688 5.479 31.059 31.775												11																							
12																										12																							

Initials A5H

Consec. Cast # 028		Vessel MF		Proj. & Leg MF-93-06		Event # 358		Vessel Sta. I.D.		Instructions 1008.8		Sta. Designation FOX 157		71																
Consec. Cast #	Latitude Deg. Min. N or S		Longitude Deg. E or W		Date JD = 127 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 196	Sta. Name or I.D.									
028	55	57	34	N	156	31	01	W	07	M	A	Y	93	23	28	10	5	9	0	09	28	18	0	02	6	8	1	19	8	71
CTD Type & SN 91220-			Press. SN 25084			Temp. SN 701			Cond. SN 303			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 CAST028_07MAY2311				Remarks FOX sta 157						
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	%											
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.														
1						190			.114	188.113	4.800	31.227	32.528						1											
2						175			.111	174.427	4.754	31.116	32.452				32.4521	24	2											
3						125			.115	125.007	4.632	30.766	32.191						3											
4						75			.191	74.798	4.714	30.756	32.124						4											
5						60			.202	60.842	4.729	30.727	32.083						5											
6						50			.241	50.173	4.671	30.641	32.046						6											
7						40			.263	40.175	4.700	30.639	32.020						7											
8						30			.291	30.475	4.672	30.595	32.001						8											
9						20			.402	20.007	4.706	30.587	31.965						9											
10						10			.744	10.088	4.970	30.764	31.919						10											
11						0			.518	-0.035	5.574	31.164	31.804						11											
12																			12											

Initials ASH

Consec. Cast # 029		Vessel MF		Proj. & Leg MF-93-06		Event# 361		Vessel Sta. I.D.		Instructions 1008.8		Sta. Designation FOX 158		72													
Consec. Cast #	Latitude Deg. Min. S		N or S	Longitude Deg. W		E or W	Date JD = 128 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.						
029	55	57	83	N	156	37	47	W	08	MAY	93	01	05	9	8	8	0	09	28	240	0268	1	193	72			
CTD Type & SN 91220-			Press. SN 25084			Temp. SN 701			Cond. SN 303			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 Max dp 187 w/o 186 Tape/Diskette I.D. _____ File Name/Header CAST029 - 08MAY0058				Remarks FOX Sta 158 Closed log file after upcast to 175m			
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						186			.135	186.247	4.647	30.801	32.186						1								
2		✓	175	06:45	11:45	175			.134	176.249	4.630	30.790	32.194				32.1987	9	2								
3						125			.269	125.444	4.985	30.997	32.114						3								
4						75			.365	75.156	4.643	30.501	31.898						4								
5						50			.365	50.586	4.643	30.490	31.897						5								
6						30			.402	30.779	4.700	30.511	31.877						6								
7						20			2.181	20.396	5.063	30.810	31.878						7								
8						10			4.230	9.162	5.207	30.865	31.808						8								
9						10			4.441	9.218	5.232	30.881	31.803						9								
10						10			3.470	9.219	5.249	30.892	31.800						10								
11						0			0.874	0.910	5.436	31.011	31.761						11								
12																			12								

Initials AJH

✓

Consec. Cast # 030		Vessel MF		Proj. & Leg MF-93-06		Event # 372		Vessel Sta. I.D.		Instructions 1009.0										Sta. Designation FOX 147		75																	
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		S.S.		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.						
030		56 18 13 N			156 47 72 W			08 MAY 93			05 36		50		50		09 38		315		1468		1		1107				75										
CTD Type & SN 91220-				Press. SN 25084				Temp. SN 701				Cond. SN 303				Monitor Checks on Deck at Surface Press. _____ Temp. _____ Cond. _____ Other _____										Times JD/Time Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____				Data Location max dep 98 670 Tape/Diskette I.D. _____ File Name/Header CAST030 08MAY0530 Remarks FOX Sta 147									
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						85			.172	85.599	4.453	30.394	31.952					1																					
2						75			.172	75.251	4.454	30.390	31.951			31.965	4	2																					
3						60			.174	60.728	4.456	30.382	31.948					3																					
4						50			.244	49.831	4.469	30.339	31.890					4																					
5						40			.439	39.590	4.581	30.363	31.816					5																					
6						30			.756	29.773	4.791	30.520	31.800					6																					
7						20			1.052	19.739	4.854	30.568	31.800					7																					
8						10			1.424	9.765	5.144	30.788	31.781					8																					
9						0			1.754	0.538	5.563	31.127	31.772					9																					
10																		10																					
11																		11																					
12																		12																					

Initials AJH

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Consec. Cast # 31		Vessel MF		Proj. & Leg MF-93-06		Event # 374		Vessel Sta. I.D.		Instructions 1010.0		Sta. Designation FOX 148 76													
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 128		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.					
031	56	21	63	N	156	52	18	W	08	M	A	Y	93	06	39	55	45	10	38	30	51	86	81	131	76
CTD Type & SN 91220-				Monitor Checks				Times JD/Time				Data Location													
Press. SN 25084				on Deck				Data on				Tape/Diskette I.D.													
Temp. SN 701				at Surface				at Surface				File Name/Header													
Cond. SN 303				Press.				Start Down				CAST031_08MAY0633													
				Temp.				at Bottom																	
				Cond.				Start Up				Remarks FOX Sta 148													
				Other				at Surface																	
								Data off																	
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.						
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.									
1						85			.192	85.011	4.494	30.370	31.885					1							
2				41:10	46:10	75			.204	74.775	4.490	30.351	31.872			31.8820	33	2							
3						60			.349	60.398	4.586	30.373	31.813					3							
4						50			.397	50.005	4.610	30.380	31.802					4							
5						40			.528	40.373	4.680	30.419	31.786					5							
6						30			.675	30.166	4.715	30.433	31.773					6							
7						20			.849	20.283	4.751	30.449	31.762					7							
8						10			1.390	10.330	5.167	30.778	31.748					8							
9						0			1.429	0.077	5.192	30.795	31.748					9							
10																		10							
11																		11							
12																		12							

Initials

HJH

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Consec. Cast # 32		Vessel MF		Proj. & Leg MF-93-06		Event # 377		Vessel Sta. I.D.		Instructions										Sta. Designation Fox 149 77					
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 128			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.				
032	56	24	19	N	156	54	88	W	08	MAY	93	07	44	04	5	03	7	1010.2	28	310	18	761	119	77	
CTD Type & SN 91220-		Press. SN 25084		Temp. SN 701		Cond. SN 303		Monitor Checks				Times JD/Time		Data Location											
								on Deck		at Surface		Data on		Tape/Diskette I.D.		File Name/Header									
								Press.				at Surface				CAST032 - 08MAY0737									
								Temp.				Start Down													
								Cond.				at Bottom													
								Other				Start Up													
												at Surface				Remarks Fox Sta 149									
												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						85			.250	85.212	4.509	30.317	31.809					1							
2						75			.312	75.317	4.519	30.294	31.777					2							
3						60			.331	61.265	4.514	30.271	31.762					3							
4						50			.661	50.450	4.692	30.401	31.748					4							
5						40			1.316	40.549	4.839	30.517	31.746					5							
6						30			1.969	30.185	5.047	30.679	31.738					6							
7						20			2.703	19.991	5.224	30.819	31.735					7							
8						10			2.603	10.452	5.372	30.933	31.729					8							
9						0			2.513	-0.123	5.406	30.922	31.690				31.7471	66	9						
10																		10							
11																		11							
12																		12							

Initials A.J.H.

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Consec. Cast #						Vessel						Proj. & Leg						Event#						Vessel Sta. I.D.						Instructions										Sta. Designation																																																							
33						MF						MF-93-06						380																						FOX 150																																																							
Consec. Cast #						Latitude N or S						Longitude E or W						Date JD = 128						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.					
033						562664N						1565685W						08MAY93						0845						050						030						113						8320						22761						105						78																													
CTD Type & SN 91220-												Monitor Checks												Times JD/Time												Data Location																																																											
Press. SN 25084												on Deck at Surface												Data on 0841												Tape/Diskette I.D. File Name/Header																																																											
Temp. SN 701												Press. _____												at Surface 128 / 0840												CAST 033 - 08MAY0840																																																											
Cond. SN 303												Temp. _____												Start Down 0842																																																																							
												Cond. _____												at Bottom 0845																																																																							
												Other _____												Start Up _____												Remarks FOX STA 150																																																											
																								Data off _____												max depth 99m wireout 99																																																											
Sigsbee												Trip												Time @												Monitor Values												Conv. Mon. Values-CTD												Sample Bot.Data												Sal. Other Pos.																							
Bot. Rack												Depth												Depth Trip												Press. Temp. Cond. Other												Press. Temp. Cond. Sal.												Therm-P Avg Tw Sal.												Bot. # Samp.																							
1 25L												85																								84.7 4.485 31.767																																																											
2 50L ✓												75 084710 085200																								75.95 4.501 30.257 31.752												31.7622 76												MZ N 2																																			
3 25												60																								60.7 4.615 31.755																								MZ N 3																																			
4 20												50																								50.2 4.623 31.749																								MZ N 4																																			
5 27												40																								40.4 4.879 31.736																								MZ N 5																																			
6 26												30																								29.9 4.940 31.719																								MZ N 6																																			
7 23												20																								20.2 4.967 31.718																								MZ N 7																																			
8 28												10																								10.1 4.963 31.713																								MZ N 8																																			
9 5												0																								0.6 4.965 31.714																								chk N 9																																			
10																																																																																															
11																																																																																															
12																																																																																															

Initials: DMD / MC

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Consec. Cast # 34		Vessel MF		Proj. & Leg MF-93-06		Event#		Vessel Sta. I.D.		Instructions 1005.8										Sta. Designation FOX056 135				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 132			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.														
034	57	31	N	154	46	01	W	12	M	A	Y	93	00	03	65	60	06	36	08	01	86	66	211	135
CTD Type & SN 91220-			Monitor Checks						Times JD/Time						Data Location									
Press. SN 25084			on Deck at Surface						Data on at Surface						Tape/Diskette I.D. File Name/Header									
Temp. SN 701			Press. _____						Start Down _____						_____									
Cond. SN 303			Temp. _____						at Bottom _____						_____									
_____			Cond. _____						Start Up _____						_____									
_____			Other _____						at Surface _____						Remarks Fox Sta 56									
_____			_____						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						200 (bottom)			0.118	200.059	4.711	31.039	32.392					1	
2						150			0.122	150.100	4.662	30.744	32.124					2	
3						100			0.141	100.858	4.591	30.603	32.054					3	
4						60			0.213	61.219	4.726	30.621	31.963					4	
5						50			0.857	49.908	4.905	30.744	31.938					5	
6						40			4.651	39.906	5.373	31.118	31.923					6	
7						30			4.837	29.752	5.394	31.131	31.923					7	
8						20			4.803	19.745	5.398	31.127	31.920					8	
9						10			5.397	9.544	5.414	31.133	31.917					9	
10						0			5.499	0.731	5.474	31.176	31.912					10	
11																		11	
12																		12	

Consec. Cast # 35		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions 1006.0										Sta. Designation FOX057 136			
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	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
035	57	33	N	154	52	W	12	M	A	Y	93	01	34	80	72	06	37	075	04	86	S	228	136
CTD Type & SN 91220-			Monitor Checks									Times JD/Time			Data Location								
Press. SN 25084			on Deck at Surface									Data on _____			? max w/o max dep 228 Tape/Diskette I.D. File Name/Header								
Temp. SN 701			Press. _____									at Surface _____			CAST035-12 MAY 0124								
Cond. SN 303			Temp. _____									Start Down _____			_____								
_____			Cond. _____									at Bottom _____			_____								
_____			Other _____									Start Up _____			_____								
_____			_____									Data off _____			Remarks Fox Sta 57 : line 8								

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						Bottom			0.126	219.577	4.882	31.365	32.590					1	
2				0:35:50	41:10	200			0.106	199.338	4.751	31.095	32.417			32.4261	2	2	
3						150			0.107	179.564	4.588	30.819	32.282					3	
4						100			0.119	99.624	4.459	30.571	32.145					4	
5						60			0.156	60.985	4.466	30.456	32.024					5	
6						50			0.464	51.003	4.808	30.671	31.947					6	
7						40			0.921	40.017	4.951	30.772	31.932					7	
8						30			3.978	29.866	5.303	31.068	31.938					8	
9						20			2.644	19.649	5.278	31.006	31.896					9	
10						10			3.927	9.904	5.367	31.673	31.893					10	
11						0			3.958	0.708	5.405	31.099	31.890					11	
12																		12	

Initials **AJH**

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Consec. Cast # 36		Vessel MF		Proj. & Leg MF-93-06		Event#		Vessel Sta. I.D.		Instructions 1006.8										Sta. Designation FOX 058		137									
Consec. Cast #		Latitude N or S		Longitude E or W		Date JD = 132		Time GMT		Dry Bulb		Wet Bulb		Bar. mb		SS		Vis.		Wind Dir.		Wind Sp.		Cloud Type		Weath.		Bottom Depth, m		Sta. Name or I.D.	
036		573653N		1550013W		12 MAY 93		0315		72		68		06		37		0900		88		65		234		137					
CTD Type & SN 91220-				Monitor Checks				Times JD/Time				Data Location																			
Press. SN 25084				on Deck at Surface				Data on _____				max w/o max dep 234 Tape/Diskette I.D. File Name/Header																			
Temp. SN 701				Press. _____				at Surface _____				CAST036_12MAY0302																			
Cond. SN 303				Temp. _____				Start Down _____				_____																			
_____				Cond. _____				at Bottom _____				_____																			
_____				Other _____				Start Up _____				Remarks Fluorometer went bad at ~120m																			
_____				_____				at Surface _____				(other instruments OK)																			
_____				_____				Data off _____				_____																			
Pos.		Bot. Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.							
						Depth Trip		Press. Temp. Cond. Other		Press. Temp. Cond. Sal.		Therm-P Avg Tw Sal.																			
1								Bot		0.141		227.421 4.947 31.461 32.634						32.6444		19		1									
2								200		0.122		199.928 4.821 31.150 32.412										2									
3								150		0.132		150.241 4.921 31.146 32.335										3									
4								100		3.398		100.654 4.988 31.101 32.244										4									
5								60		3.389		61.160 5.016 31.027 32.152										5									
6								50		3.389		51.149 4.902 30.852 32.065										6									
7								40		3.385		40.338 5.160 31.024 32.019										7									
8								30		3.384		29.908 5.263 31.074 31.984										8									
9								20		3.384		20.009 5.358 31.139 31.971										9									
10								10		3.384		10.188 5.434 31.187 31.958										10									
11								0		3.384		1.132 5.529 31.100 31.775										11									
12																						12									

Initials AJH

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Consec. Cast # 37		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions		Sta. Designation FOX059		138																				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = 132			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.																								
037	57	38	66	N	155	04	08	N	12	M	A	Y	93	04	56		7	0		7	0	0	8	3	7	0	9	0	0	8	6	5	244	138
CTD Type & SN <u>91220-</u>			Monitor Checks			Times			JD/Time			Data Location																						
Press. SN <u>25084</u>			on Deck			at Surface			Data on			w/o 243 max dep 244 Tape/Diskette I.D.																						
Temp. SN <u>701</u>			Press. _____			_____			at Surface			File Name/Header																						
Cond. SN <u>303</u>			Temp. _____			_____			Start Down			<u>CAST037-12MAY0445</u>																						
			Cond. _____			_____			at Bottom			_____																						
			Other _____			_____			Start Up			_____																						
									at Surface			_____																						
									Data off			_____																						
Remarks <u>Fluorometer now OK again</u>																																		

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						Bot			0.151	243.250	4.920	31.457	32.648					1	
2		✓		58:20	03:20	200			0.127	200.622	4.878	31.229	32.447			32.4539	10	2	
3						150			0.133	150.691	4.912	31.086	32.275					3	
4						100			0.163	101.065	5.102	31.135	32.172					4	
5						60			0.607	60.393	5.191	31.084	32.048					5	
6						50			3.177	50.640	5.284	31.108	31.991					6	
7						40			3.985	39.988	5.289	31.105	31.988					7	
8						30			4.116	30.111	5.323	31.128	31.987					8	
9						20			5.131	19.683	5.404	31.165	31.957					9	
10						10			5.725	10.181	5.534	31.232	31.914					10	
11						0			5.431	0.822	5.571	31.251	31.905					11	
12																		12	

Initials AJH

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Consec. Cast # 38		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions 1008.9		Sta. Designation FOX 060 139															
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 132		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.							
38	57	40	69	N	155	09	55	W	12	M	A	Y	93	06	24	7	0	6	9	09	36	135	10	86	S	284	139
CTD Type & SN 91220-		Press. SN 25084		Temp. SN 701		Cond. SN 303		Monitor Checks		Times JD/Time		Data Location															
								on Deck		at Surface		Data on		Tape/Diskette I.D.		File Name/Header											
								Press.				at Surface		Cast file = CAST038-12 MAY 0612													
								Temp.				Start Down		log file = CAST038-12 MAY 0632													
								Cond.				at Bottom															
								Other				Start Up															
												at Surface															
												Data off						Remarks Log file for 250 m is missing (See notes on back of this form)									

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			0.117	199.981	4.874	31.116	32.322					2	
3						150			0.134	150.639	4.737	30.881	32.208					3	
4						100			0.206	100.924	5.058	31.096	32.170			32.1902	32	4	
5						60			1.332	60.330	5.188	31.074	32.041					5	
6						50			5.361	50.499	5.518	31.307	31.994					6	
7						40			5.765	40.102	5.493	31.234	31.940					7	
8						30			4.946	30.787	5.432	31.109	31.862					8	
9						20			3.436	20.088	5.515	31.057	31.730					9	
10						10			4.997	10.702	5.547	31.049	31.695					10	
11						0			4.698	0.812	5.550	31.038	31.684					11	
12																		12	

Initials AJH

Consec. Cast # 39		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions										Sta. Designation FOX 061		140			
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	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
39	57	43	03 N	155	15	63 W	12	M	A	Y	93	08	45									220	140		
CTD Type & SN 91220-			Monitor Checks			Times JD/Time			Data Location																
Press. SN 25084			on Deck			at Surface			Data on 0837			Tape/Diskette I.D.											File Name/Header		
Temp. SN 701			Press. _____			_____			at Surface 132/ 0835			_____											CAST039-12 MAY 0836		
Cond. SN 303			Temp. _____			_____			Start Down 0838			_____											_____		
_____			Cond. _____			_____			at Bottom 0845			_____											_____		
_____			Other _____			_____			Start Up 0846			Remarks FOX Sta 061 : Line B											_____		
_____			_____			_____			at Surface 0854			max wire out: 211 m											max cast depth: 211 m		
Data off 0848			_____			_____			_____														_____		

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	258		MAX		0846					211.8	4.661		32.284			32.2901	21		1
2	258		200		0847					199.9	4.664		32.272					N	2
3	508		150		0848					150.1	4.620		32.181					N	3
4	30		100		0849					100.4	5.353		32.168					N	4
5	25		60		0851					60.6	5.370		31.949					NZ	5
6	20		50		0851					50.7	5.346		31.802					NZ N	6
7	27		40		0852					40.3	5.419		31.556					NZ N	7
8	26		30		0852					30.5	5.420		31.555					NZ N	8
9	23		20		0853					20.1	5.422		31.552					NZ	9
10	28		10		0853					10.1	5.317		31.527					NZ	10
11	5		0		0854					-0.5	5.362		31.524					Chl N	11
12																			12

Initials **DMD / MC**

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1947
1952

Consec. Cast # 40		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions 1019.0										Sta. Designation 170																															
Consec. Cast #		Latitude		N or S		Longitude		E or W		Date JD = 133		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.																	
040		56		36		89		N		156		24		04		W		13		M		A		Y		93		19		45		60		58		19		27		11		51		78		64		202		170	
CTD Type & SN 91220-		Press. SN 25084		Temp. SN 701		Cond. SN 303		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															
								Press.																										Cast 040 - 13 May 1937																	
								Temp.																																											
								Cond.																																											
								Other																																											
S. No.		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		B		✓		160m										160						0.138		159.885		4.612		30.859		32.300								32.3074		05				1							
2																																														2					
3																																												3							
4																																												4							
5																																												5							
6																																												6							
7																																												7							
8																																												8							
9																																												9							
10																																												10							
11																																												11							
12																																												12							

Initials AJH

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Consec. Cast # 41		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions 1018.0		Sta. Designation 172									
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 133 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.
041	56	35	37 N	156	26	46 W	13	MAY	93	23	07	63	60	18	28	135	14	86	2	201	172
CTD Type & SN 91220-			Monitor Checks			Times JD/Time			Data Location												
Press. SN 25084			on Deck			at Surface			Data on			w/o 201 Max dep 197 Tape/Diskette I.D. File Name/Header									
Temp. SN 701			Press.						at Surface			CAST041-13MAY2254									
Cond. SN 303			Temp.						Start Down												
			Cond.						at Bottom												
			Other						Start Up												
									at Surface												
									Data off			Remarks									
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						bottom					196.502						26			1	
2						60			3.378		59.369	5.286	31.064	31.935			31.9409	26		2	
3									Bad value											3	
4																				4	
5																				5	
6																				6	
7																				7	
8																				8	
9																				9	
10																				10	
11																				11	
12																				12	

Consec. Cast # 42		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions 1017.5		Sta. Designation 174																				
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 134		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.												
42	56	34	82	N	156	26	95	W	14	M	A	Y	93	01	52	6	4	6	0	1	8	3	6	1	40	18	8	7	2	20	1	174
CTD Type & SN 91220-				Monitor Checks				Times JD/Time				Data Location																				
Press. SN 25084				on Deck at Surface				Data on _____				w/o 200 max dep 197 Tape/Diskette I.D.																				
Temp. SN 701				Press. _____				at Surface _____				File Name/Header																				
Cond. SN 303				Temp. _____				Start Down _____				CAST042_14MAY0143																				
				Cond. _____				at Bottom _____				Remarks																				
				Other _____				Start Up _____																								
								at Surface _____																								
								Data off _____																								

No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		
1				01:56	02:01	200 or bottom			.167	197.509	4.721	31.050	32.396					
2	B	✓		01:56	02:01	100			.255	100.042	4.933	30.899	32.065			32.0736	7	
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
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Consec. Cast # 43		Vessel MF		Proj. & Leg MF-93-06		Event #		Vessel Sta. I.D.		Instructions 1017.0		Sta. Designation 175													
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	SS	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.				
43	56	34	62	N	156	25	81	W	14	M	A	Y	93	04	56	62	59	17	46	14	51	78	72	205	175
CTD Type & SN 91220-				Monitor Checks				Times JD/Time				max dep 200.97 Data Location													
Press. SN 25084				on Deck at Surface				Data on				Tape/Diskette I.D.													
Temp. SN 701				Press. _____				at Surface _____				File Name/Header													
Cond. SN 303				Temp. _____				Start Down _____				CAST043-14MAY0444													
				Cond. _____				at Bottom _____																	
				Other _____				Start Up _____				Remarks													
								Data off _____																	

Qos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		
1						Bottom			0.182	200.968	4.776	31.157	32.464			32.4707	27	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Initials

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Consec. Cast # 45		Vessel MF		Proj. & Leg MF-93-06		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.																													
45				N				W		M A Y 93																																																					
CTD Type & SN 91220-				Press. SN 25084				Temp. SN 701				Cond. SN 303				Monitor Checks on Deck				at Surface				Times JD/Time				Data Location				Tape/Diskette I.D.				File Name/Header																											
																Press. _____				Temp. _____				Cond. _____				Other _____				Data on _____				at Surface _____				Start Down _____				at Bottom _____				Start Up _____				at Surface _____				Data off _____				Remarks CTD Cast # 44 was taken with Seacat Profiler - no log sheet recorded See Richard D. for excuses!			
Pos.		Bot.		T Rack		Trip Depth		Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.																																							
1										Press. Temp. Cond. Other				Press. Temp. Cond. Sal.				Therm-P Avg Tw Sal.																																													
2																																																															
3																																																															
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