

Consec. Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF90-04 FOCI90-02		Event # 75		Vessel Sta. I.D. G0794		Instructions FOX-61		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.	
001		574200 N		1551628 W		08 MAY 90		1302		0580		058		1018.1		38		163		16		9-5		0243					
CTD Type & SN 91220-A		PMEL/SEABIRD		Monitor Checks										Times JD/Time		Data Location													
Press. SN 25084				on Deck					at Surface					Data on 1250		Tape/Diskette I.D.					File Name/Header								
Temp. SN 701				Press. 6.7					Temp. 4.930					at Surface 1252							Dub2:(data log)								
Cond. SN 303				Temp. 4.930					Cond. 31.454					Start Down 1252							SBE CTD.SCS; 2								
				Other										at Bottom 1303															
														Start Up							Remarks								
														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.			
1		20		B		60				Press. 61.0		Temp. 4.705		Cond. 32.027												16		1	
2		21				50				52.2		4.567		31.906														2	
3		22				40				40.4		4.360		31.749														3	
4		23				30				30.3		4.578		31.584														4	
5		24				20				20.3		4.596		31.533														5	
6		25				10				10.6		4.696		31.443														6	
7																												7	
8																												8	
9																												9	
10																												10	
11																												11	
12				B		1303				241.6		3.933		32.579										4.08		32.593		16 12	

Consec. Cast # <u>2</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>79</u>		Vessel Sta. I.D. <u>GOZO A+B</u>		Instructions <u>FOX 600</u>				Sta. Designation												
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD =			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																
0025	7	40	N	155	10	92	W	08	M	A	Y	90	15	24	07	0	0	6	8	27	09	50	58	75	289	

CTD Type & SN <u>91220-A</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time		Data Location			
		on Deck		at Surface		Data on		Tape/Diskette I.D.		File Name/Header			
		Press. _____		7.5		at Surface _____		_____		Dub2:(data log)			
		Temp. _____		4.855		Start Down _____		_____		SBE CTD.SCS;3			
		Cond. _____		31.389		at Bottom _____		_____		_____			
Other _____				Start Up _____		_____		Remarks <u>winout 271</u>					
Data off _____				at Surface _____		_____							

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		60			59.1	4.657	32.003										1	
2	21		50			50.7	4.673	31.955										2	
3	22		40			40.8	4.359	31.797										3	
4	23		30			29.7	4.700	31.659										4	
5	24		20			19.9	4.652	31.443										5	
6	25		10			10.1	4.831	31.398										6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12	SAK					276.9	4.769	33.026								33.031	25	12	

Consec. Cast # <u>3</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>87</u>		Vessel Sta. I.D. <u>GOZIA</u>		Instructions <u>FOX 59</u>				Sta. Designation															
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = <u>126</u>			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	ss.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.						
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.																			
003	57	38	42	N	155	04	21	W	08	M	A	Y	90	18	07	07	5	07	5		25	07	8	08	9	7	5	254	
CTD Type & SN <u>91220-A</u>				PMEL/SEABIRD				Monitor Checks				Times JD/Time				Data Location													
Press. SN <u>25084</u>				Temp. SN <u>701</u>				Cond. SN <u>303</u>				on Deck at Surface				Data on _____				Tape/Diskette I.D. _____									
								Press. <u>7.9</u>				at Surface _____				File Name/Header _____													
								Temp. <u>5.409</u>				Start Down _____				Dub2:(data log) _____													
								Cond. <u>31.249</u>				at Bottom _____				SBE CTD.SCS; <u>4</u>													
								Other _____				Start Up _____				Remarks <u>w out 233</u>													
												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	BKG		150	1812	1814	150.2 DB																							1
2	"		100	1815	1817	100.7 DB																							2
3	"		50	1819	1821	50.0 DB																							3
4																													4
5																													5
6																													6
7																													7
8																													8
9																													9
10																													10
11																													11
12	SAL					240.0	4.63	32.955																		32.964	19		12

051
100
05

Consec. Cast # <u>4</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>91</u>		Vessel Sta. I.D. <u>G022A</u>		Instructions <u>FOX58</u>		Sta. Designation													
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <u>128</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1020.1</u>	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	<u>04</u>	<u>57</u>	<u>36</u>	<u>22</u>	N	<u>155</u>	<u>00</u>	<u>75</u>	W	<u>08</u>	<u>MA</u>	<u>Y90</u>	<u>20</u>	<u>01</u>	<u>07</u>	<u>1</u>	<u>06</u>	<u>9</u>	<u>01</u>	<u>27</u>	<u>170</u>	<u>08</u>	<u>872</u>	<u>241</u>	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks										Times JD/Time		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. _____					<u>8.4</u>					at Surface _____		Start Down <u>19:53</u>		Dub2:(data log) _____							
Cond. SN <u>303</u>				Temp. _____					<u>5.804</u>					at Bottom _____		20:01		SBE CTD.SCS; <u>6</u>							
				Cond. <u>31.866</u>					Start Up <u>20:01:30</u>					at Surface _____				Remarks _____							
Other _____									Data off _____																

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	T	B		02:03:30	02:08:48					205.8	4.176		32.732		4.17	32.740	30		1
2	20		60		20:13:56					61.4	3.985		32.201						2
3	21		50		20:14:23					50.3	4.506		32.208						3
4	22		40		20:15:46					41.2	4.280		32.153						4
5	23		30		20:16:56					31.7	4.970		32.152						5
6	24		20		20:18:20					19.2	5.723		31.950						6
7	25		10		20:19:58					10.0	5.809		31.823						7
8																			8
9																			9
10																			10
11																			11
12																			12

Consec. Cast # <u>06</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>97</u>		Vessel Sta. I.D.		Instructions <u>Fox 57</u>										Sta. Designation																	
Consec. Cast #	Latitude <u>N</u> or S		Longitude <u>E</u> or W		Date <u>JD = 128</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1020.5</u>	Ss	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																
	Deg.	Min.	Deg.																																		
	<u>06</u>	<u>57</u>	<u>33</u>	<u>14</u>	<u>N</u>	<u>154</u>	<u>52</u>	<u>45</u>	<u>W</u>	<u>08</u>	<u>MA</u>	<u>Y 90</u>	<u>23</u>	<u>31</u>	<u>08</u>	<u>7</u>	<u>08</u>	<u>0</u>	<u>05</u>	<u>27</u>	<u>06</u>	<u>00</u>	<u>48</u>	<u>72</u>	<u>235</u>												
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time		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. _____		<u>7.9</u>		at Surface _____		Start Down <u>23:24:10</u>		Dub2:(data log)		<u>SBE CTD.SCS; 8</u>																							
Cond. SN <u>303</u>				Temp. _____		<u>5.401</u>		at Bottom _____		Start Up _____		Remarks		<u>no mE This station</u>																							
Other _____				Cond. _____		<u>31.647 sal</u>		at Surface _____		Data off _____																											
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.							
<u>1</u>		<u>6</u>						<u>23:32:16</u>										<u>228.6</u>		<u>4.342</u>				<u>32.811</u>						<u>32.792</u>		<u>02</u>				<u>1</u>	
<u>2</u>		<u>20</u>				<u>50</u>																												<u>2</u>			
<u>3</u>		<u>21</u>				<u>50</u>																												<u>3</u>			
<u>4</u>		<u>22</u>				<u>40</u>																												<u>4</u>			
<u>5</u>		<u>23</u>				<u>30</u>																												<u>5</u>			
<u>6</u>		<u>24</u>				<u>20</u>																												<u>6</u>			
<u>7</u>		<u>25</u>				<u>10</u>																												<u>7</u>			
<u>8</u>																																		<u>8</u>			
<u>9</u>																																		<u>9</u>			
<u>10</u>																																		<u>10</u>			
<u>11</u>																																		<u>11</u>			
<u>12</u>																																		<u>12</u>			

Consec. Cast # 07		Vessel MILLER FREEMAN		Proj. & Leg MF90-04 FOCI90-02		Event # 98		Vessel Sta. I.D.		Instructions Fox 56										Sta. Designation			
Consec. Cast #	Latitude N or S		Longitude E or W	Date JD = 129			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	Ss	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	Deg.	Min.		Deg.	Day	Mo.	Yr.	Hr.													Min.		
07	5	73	0	55	N	154	46	65	W	09	MAY	90	00	14	78	75	01	27	050	148	72	201	
CTD Type & SN 91220-A		PMEL/SEABIRD		Monitor Checks						Times JD/Time				Data Location									
Press. SN 25084				on Deck			at Surface			Data on _____				Tape/Diskette I.D. _____									
Temp. SN 701				Press. _____			6.6			at Surface _____				File Name/Header _____									
Cond. SN 303				Temp. _____			5.304			Start Down 09:20				Dub2:(data log)									
				Cond. _____			31.691			at Bottom 00:15:45				SBE CTD.SCS; 9									
				Other _____						Start Up _____				Remarks _____									
										Data off _____													
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1	T	B		00:17:20	00:22:22					156.4	3.486		32.486		3.47	32.494	20		1				
2	20		60							60.4	4.583		32.248						2				
3	21		50		00:26:41					51.3	4.630		32.202						3				
4	22		40		00:28:14					41.2	4.683		32.188						4				
5	23		30		00:29:22					30.5	5.023		32.056						5				
6	24		20		00:30:23					21.0	5.165		31.840						6				
7	25		10		00:31:22					10.2	5.232		31.709						7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

Consec. Cast # <u>8</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>102</u>		Vessel Sta. I.D.		Instructions <u>Fox 55</u>										Sta. Designation																						
Consec. Cast #	Latitude <u>N</u> Deg. Min.		Longitude <u>E</u> Deg.		Date <u>JD = 129</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1020.3</u>	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.																					
<u>08</u>	<u>5</u>	<u>7</u>	<u>2</u>	<u>8</u>	<u>4</u>	<u>8</u>	<u>N</u>	<u>15</u>	<u>4</u>	<u>4</u>	<u>2</u>	<u>6</u>	<u>8</u>	<u>W</u>	<u>09</u>	<u>M</u>	<u>A</u>	<u>Y</u>	<u>9</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>2</u>	<u>5</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>5</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>7</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>8</u>	<u>7</u>	<u>2</u>	<u>7</u>	<u>0</u>
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks								Times JD/Time				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. <u>7.0</u>								at Surface								Dub2: (data log)																						
Cond. SN <u>303</u>				Temp. <u>5.296</u>								Start Down <u>02:24:25</u>								SBE CTD.SCS; 11																						
				Cond. <u>31.763 sal</u>								at Bottom <u>02:26:30</u>																														
				Other								Start Up								Remarks <u>did this cast twice, rosette tripper mis-fired.</u>																						
												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	6				26:34					63.8	4.248	32.220				32.229	10		1
2	20	60	60		27:40					59.9	4.283	32.222							2
3	21		50		29:08					50.3	4.316	32.164							3
4	22		40		30:17					40.1	4.419	32.118							4
5	23		30		31:19					30.4	4.604	32.050							5
6	24		20		32:26					21.2	4.820	31.983							6
7	25		10		33:29					10.0	5.350	31.707							7
8																			8
9																			9
10																			10
11																			11
12																			12

Consec. Cast # <u>09</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>148</u>		Vessel Sta. I.D.		Instructions <u>F23</u>										Sta. Designation									
Consec. Cast #	Latitude Deg. Min.		<input checked="" type="radio"/> N or <input type="radio"/> S	Longitude Deg. Min.		<input type="radio"/> E or <input checked="" type="radio"/> W	Date JD = <u>129</u> Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1020.5</u>	<input type="radio"/> S or <input type="radio"/> N	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.								
	<u>09</u>	<u>56</u>	<u>55</u>	<u>10</u>	<u>N</u>	<u>155</u>	<u>39</u>	<u>8</u>	<u>1</u>	<u>W</u>	<u>09</u>	<u>MA</u>	<u>Y90</u>	<u>23</u>	<u>21</u>	<u>6</u>	<u>8</u>	<u>6</u>	<u>9</u>	<u>20</u>	<u>3</u>	<u>4</u>	<u>1</u>	<u>20</u>	<u>10</u>	<u>8</u>	<u>24</u>	<u>29</u>	<u>1</u>

CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time		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. <u>6.7</u>				at Surface <u>23:18:20</u>				Dub2:(data log)	
Cond. SN <u>303</u>				Temp. <u>5.363</u>				Start Down <u>23:22:15</u>				SBE CTD.SCS; 12	
				Cond. <u>31.617</u>				Start Up				Remarks	
				Other				at Surface					
								Data off					

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
1	6		108		23:22:30							108.4	4.373		32.317			32.327	12		1
2	20		60		23:24:15							60.8	4.380		32.138						2
3	21		50		23:25:22							50.7	4.429		32.080						3
4	22		40		23:26:26							41.7	4.379		31.951						4
5	23		30		23:27:29							30.6	4.267		31.882						5
6	24		20		23:28:28							20.7	4.459		31.818						6
7	25		10		23:29:23							11.0	5.232		31.638						7
8																					8
9																					9
10																					10
11																					11
12																					12

Consec. Cast # <u>10</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event# <u>153</u>		Vessel Sta. I.D.		Instructions <u>mooring 90-26-27</u>				Sta. Designation												
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg. Min.		E or W	Date JD = <u>130</u> Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1020.0</u>	Si	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.				
	<u>10</u>	<u>56</u>	<u>46</u>	<u>85</u>	N	<u>155</u>	<u>29</u>	<u>59</u>	W	<u>10</u>	MAY	<u>90</u>	<u>01</u>	<u>51</u>		<u>73</u>		<u>71</u>	<u>00</u>	<u>34</u>	<u>130</u>	<u>108</u>	<u>90</u>	<u>4</u>	<u>251</u>	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time				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. <u>6.9</u>				at Surface		<u>01:44:55</u>				Dub2:(data log)												
Cond. SN <u>303</u>				Temp. <u>5.771</u>				Start Down		<u>01:52:42</u>				SBE CTD.SCS;13												
				Cond. <u>31.838 sal</u>				at Bottom																		
				Other <u>1</u>				Start Up																		
								at Surface																		
								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.										
<u>1</u>	<u>T</u>	<u>B</u>	<u>230</u>	<u>01:53:40</u>	<u>01:58:51</u>					<u>229.7</u>	<u>4.902</u>	<u>33.132</u>			<u>4.70</u>	<u>33.131</u>	<u>03</u>		<u>1</u>							
2																			2							
3																			3							
4																			4							
5																			5							
6																			6							
7																			7							
8																			8							
9																			9							
10																			10							
11																			11							
12																			12							

Consec. Cast # 11		Vessel MILLER FREEMAN		Proj. & Leg MF90-04 FOCI90-02		Event # 163		Vessel Sta. I.D.		Instructions								Sta. Designation H 21			
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = 130 Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb 10200	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
011	56	40	84 N	155	38	31 W	10	MAY	90	08	41	05	60	56		35	160	08	9-6	246	
CTD Type & SN 91220-A			PMEL/SEABIRD			Monitor Checks				Times JD/Time				Data Location							
Press. SN 25084						on Deck at Surface				Data on				Tape/Diskette I.D.				File Name/Header			
Temp. SN 701						Press. 6.6				at Surface								Dub2: (data log)			
Cond. SN 303						Temp. 5.211				Start Down								SBE CTD.SCS; 14			
						Cond. 31.639				at Bottom											
						Other				Start Up								Remarks up 95			
										at Surface											
										Data off											
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
1	20		60			59.7	4.079	31.929											1		
2	21		50			50.3	4.273	31.857											2		
3	22		40			41.2	4.276	31.834											3		
4	23		30			30.6	4.405	31.738											4		
5	24		20			21.2	4.683	31.646											5		
6	25		10			11.4	5.327	31.643											6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12						99.9	3.967	32.168										32.176	09	12	

Initials

AM

Consec. Cast # <u>12</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>172</u>		Vessel Sta. I.D.		Instructions								Sta. Designation <u>F21</u>					
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.	
012	56	47	74	N	155	51	81	W	10	MAY	90	11	26	05	50	55	1019.8	36	160	109	-2	307	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time				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. <u>6.4</u>				at Surface						Dub2: (data log)									
Cond. SN <u>303</u>				Temp. <u>5.252</u>				Start Down						SBE CTD.SCS; <u>15</u>									
				Cond. <u>31.633</u>				at Bottom															
				Other				Start Up						Remarks <u>wo 95</u>									
								at Surface															
								Data off															

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	20		60			62.2	4.607	31.971										1	
2	21		50			50.6	4.767	31.964										2	
3	22		40			40.5	4.817	31.944										3	
4	23		30			30.9	4.744	31.860										4	
5	24		20			19.9	5.042	31.687										5	
6	25		10			10.7	5.265	31.637										6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12	SAR					180.8	4.383	32.102									32.083	33	12

Consec. Cast # <u>13</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>204</u>		Vessel Sta. I.D.		Instructions										Sta. Designation <u>G20</u>			
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>131</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>013</u>	<u>56</u>	<u>40</u>	<u>16</u>	<u>N</u>	<u>155</u>	<u>51</u>	<u>96</u>	<u>W</u>	<u>11</u>	<u>MAY</u>	<u>90</u>	<u>00</u>	<u>49</u>	<u>64</u>	<u>54</u>	<u>05</u>	<u>37</u>	<u>20</u>	<u>51</u>	<u>19</u>	<u>72</u>	<u>284</u>	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time				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. <u>9.3</u>				at Surface						Dub2:(data log)									
Cond. SN <u>303</u>				Temp. <u>4.937</u>				Start Down		<u>00:44:25</u>				<u>SBE CTD.SCS; 16</u>									
				Cond. <u>31.629</u>		<u>sd</u>		at Bottom		<u>00:47:40</u>													
				Other				Start Up						Remarks									
								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.							
<u>1</u>	<u>T</u>	<u>8</u>		<u>00:47:40</u>	<u>00:52:52</u>					<u>103.6</u>	<u>4.481</u>		<u>32.101</u>		<u>4.41</u>	<u>32.101</u>	<u>13</u>		<u>1</u>				
<u>2</u>	<u>20</u>	<u>60</u>	<u>60</u>		<u>54:49</u>					<u>61.6</u>	<u>4.258</u>		<u>31.806</u>						<u>2</u>				
<u>3</u>	<u>21</u>		<u>50</u>		<u>55:39</u>					<u>50.6</u>	<u>3.866</u>		<u>31.728</u>						<u>3</u>				
<u>4</u>	<u>22</u>		<u>40</u>		<u>56:38</u>					<u>39.9</u>	<u>4.049</u>		<u>31.714</u>						<u>4</u>				
<u>5</u>	<u>23</u>		<u>30</u>		<u>57:45</u>					<u>30.8</u>	<u>4.140</u>		<u>31.643</u>						<u>5</u>				
<u>6</u>	<u>24</u>		<u>20</u>		<u>58:44</u>					<u>20.8</u>	<u>4.871</u>		<u>31.616</u>						<u>6</u>				
<u>7</u>	<u>25</u>		<u>10</u>		<u>00:59:44</u>					<u>11.2</u>	<u>4.947</u>		<u>31.617</u>						<u>7</u>				
<u>8</u>																			<u>8</u>				
<u>9</u>																			<u>9</u>				
<u>10</u>																			<u>10</u>				
<u>11</u>																			<u>11</u>				
<u>12</u>																			<u>12</u>				

Consec. Cast # <u>14</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>211</u>		Vessel Sta. I.D.		Instructions <u>H17</u>										Sta. Designation											
Consec. Cast #		Latitude <u>N</u> Deg. Min.		Longitude <u>E</u> Deg.		Date <u>JD = 131</u> Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb		Wet Bulb		Bar. mb <u>1021.0</u>		SS <u>37</u>		Vis. <u>23</u>		Wind Dir. <u>18</u>		Wind Sp. <u>9</u>		Cloud Type <u>72</u>		Weath. <u>259</u>		Bottom Depth, m		Sta. Name or I.D.	
14		562502 N		1560530 W		11 MAY 90		0347		65		65		10		37		23		18		9		72		259					
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time				Data Location																			
Press. SN <u>25084</u>				on Deck at Surface				Data on _____				Tape/Diskette I.D. _____																			
Temp. SN <u>701</u>				Press. <u>7.3</u>				at Surface _____				File Name/Header _____																			
Cond. SN <u>303</u>				Temp. <u>5.206</u>				Start Down <u>03:44:51</u>				Dub2:(data log) _____																			
				Cond. <u>31.697</u>				at Bottom <u>03:48:32</u>				SBE CTD.SCS; <u>17</u>																			
				Other _____				Start Up _____				Remarks <u>no fire on tripper at 60m</u>																			
								at Surface _____				<u>SEE cont #14A</u>																			
								Data off _____																							
Pos.		Bot.		T Rack		Trip Depth		Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #		Other Samp.		Pos.					
1		6				104		03:48:49						104.2 3.736 32.207								32.208 06				1					
2		20		60										60.2 4.063 32.101												2					
3		21		50		52:07								50.6 4.152 32.046												3					
4		22		40		53:09								39.8 4.302 31.969												4					
5		23		30		54:19								30.8 4.653 31.845												5					
6		24		20		55:16								20.3 4.488 31.689												6					
7		25		10		56:29								10.6 5.355 31.697												7					
8																										8					
9																										9					
10																										10					
11																										11					
12																										12					

Consec. Cast # <u>14A</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>213</u>		Vessel Sta. I.D.		Instructions										Sta. Designation		
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>131</u>			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
<u>14A</u>	<u>56</u>	<u>24</u>	<u>95</u>	<u>N</u>	<u>156</u>	<u>05</u>	<u>21</u>	<u>W</u>	<u>11</u>	<u>MAY</u>	<u>90</u>	<u>04</u>	<u>30</u>	<u>65</u>	<u>65</u>	<u>10</u>	<u>37</u>	<u>23</u>	<u>81</u>	<u>89</u>	<u>72</u>	<u>259</u>
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time				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. <u>7.1</u>				Start Down <u>04:29:16</u>				Dub2:(data log)										
Cond. SN <u>303</u>				Temp. <u>5.324</u>				at Bottom <u>04:31:23</u>				SBE CTD.SCS; 18										
				Cond. <u>31.691</u>				Start Up _____				Remarks <u>cont to 60m to pick up the 60m micro 300 Sample, misfire on cast #14</u>										
				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.						
<u>1</u>	<u>20</u>		<u>60m</u>		<u>04:31:37</u>	<u>61.3</u>				<u>61.3</u>	<u>4.149</u>		<u>32.101</u>				<u>none</u>		<u>1</u>			
<u>2</u>																			<u>2</u>			
<u>3</u>																			<u>3</u>			
<u>4</u>																			<u>4</u>			
<u>5</u>																			<u>5</u>			
<u>6</u>																			<u>6</u>			
<u>7</u>																			<u>7</u>			
<u>8</u>																			<u>8</u>			
<u>9</u>																			<u>9</u>			
<u>10</u>																			<u>10</u>			
<u>11</u>																			<u>11</u>			
<u>12</u>																			<u>12</u>			

processed as
Case # 110

Consec. Cast # <u>15</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>243</u>		Vessel Sta. I.D. <u>D17</u>		Instructions				Sta. Designation													
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <u>131</u> Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1020.9</u>	SS	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.						
<u>015</u>	<u>56</u>	<u>38</u>	<u>83</u>	<u>N</u>	<u>156</u>	<u>34</u>	<u>83</u>	<u>W</u>	<u>11</u>	<u>M</u>	<u>A</u>	<u>Y</u>	<u>90</u>	<u>18</u>	<u>35</u>	<u>05</u>	<u>1</u>	<u>04</u>	<u>7</u>	<u>28</u>	<u>30</u>	<u>71</u>	<u>49</u>	<u>72</u>	<u>160</u>		
CTD Type & SN <u>91220-A</u>				PMEL/SEABIRD				Monitor Checks				Times JD/Time				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. <u>60.1</u>				Temp. <u>5.094</u>				Start Down				Dub2: (data log)				SBE CTD.SCS; <u>19</u>							
Cond. SN <u>303</u>				Temp. <u>31.624</u>				Start Up				at Surface				Remarks <u>WO 94</u>											
Other								Data off																			
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.								
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.											
1	20		60			60.1	4.323	31.852										1									
2	21		50			49.6	4.427	31.759										2									
3	22		40			40.4	4.500	31.701										3									
4	23		30			29.4	4.800	31.661										4									
5	24		20			19.4	5.078	31.623										5									
6	25		10			10.2	5.098	31.623										6									
7																		7									
8																		8									
9																		9									
10																		10									
11																		11									
12		SAV				101.3	4.135	32.240								32.260	26	12									

Processed
as
cast

17

Consec. Cast # <u>16</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event# <u>255</u>		Vessel Sta. I.D.		Instructions										Sta. Designation				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date JD = <u>132</u>			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	SS	Vis	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
	Deg.	Min.		Deg.	Day		Mo.	Yr.	Hr.	Min.														
	<u>16</u>	<u>56</u>	<u>27</u>	<u>64</u>	<u>N</u>	<u>156</u>	<u>58</u>	<u>29</u>	<u>W</u>	<u>12</u>	<u>MA</u>	<u>Y</u>	<u>90</u>	<u>00</u>	<u>22</u>	<u>51</u>	<u>49</u>	<u>99</u>	<u>37</u>	<u>155</u>	<u>59</u>	<u>72</u>	<u>75</u>	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks								Times JD/Time				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. _____				<u>7.5</u>				at Surface _____				Start Down <u>00:20:42</u>				Dub2:(data log)				
Cond. SN <u>303</u>				Temp. _____				<u>4.162</u>				at Bottom <u>00:22:50</u>				Start Up _____				SBE CTD.SCS; <u>20</u>				
				Cond. _____				<u>31.793 sal</u>				at Surface _____				Remarks								
Other _____												Data off _____												
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.					
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.								
<u>1</u>	<u>T</u>	<u>B</u>		<u>00:23:40</u>	<u>00:28:46</u>					<u>57.1</u>	<u>3.900</u>		<u>31.853</u>		<u>3.88</u>	<u>31.958</u>	<u>21</u>		<u>1</u>					
<u>2</u>																			<u>2</u>					
<u>3</u>																			<u>3</u>					
<u>4</u>																			<u>4</u>					
<u>5</u>																			<u>5</u>					
<u>6</u>																			<u>6</u>					
<u>7</u>																			<u>7</u>					
<u>8</u>																			<u>8</u>					
<u>9</u>																			<u>9</u>					
<u>10</u>																			<u>10</u>					
<u>11</u>																			<u>11</u>					
<u>12</u>	<u>6</u>	<u>80</u>																	<u>12</u>					

Consec. Cast # <u>17</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>258</u>		Vessel Sta. I.D.		Instructions										Sta. Designation					
Consec. Cast #	Latitude Deg. Min.		N or S	Longitude Deg.		E or W	Date JD = <u>132</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1018.5</u>	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.			
	<u>17</u>	<u>56</u>	<u>21</u>	<u>82</u>	N	<u>156</u>	<u>54</u>	<u>66</u>	W	<u>12</u>	MAY	<u>90</u>	<u>01</u>	<u>50</u>		<u>47</u>		<u>47</u>	<u>95</u>	<u>36</u>	<u>128</u>	<u>159</u>	<u>74</u>	<u>134</u>	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks								Times JD/Time		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. _____				<u>5.9</u>				at Surface _____				Dub2: (data log)									
Cond. SN <u>303</u>				Temp. _____				<u>4.470</u>				Start Down <u>01:46:19</u>				SBE CTD.SCS; 21									
				Cond. _____				<u>31.817 sal</u>				at Bottom <u>01:50:30</u>													
				Other _____								Start Up _____													
												at Surface _____													
												Data off _____				Remarks									
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Log						
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.									
1	6				<u>01:50:57</u>							<u>131.1</u>	<u>3.320</u>		<u>31.935</u>			<u>32.010</u>	<u>22</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 WF

Consec. Cast # <u>18A</u>				Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>277</u>		Vessel Sta. I.D.		Instructions								Sta. Designation											
Consec. Cast #		Latitude		N or S	Longitude		E or W	Date JD = <u>132</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.	
018		5638		47 N	15602		31 W	12 MAY 90			134207		0070		0070		10208		35	180	14		--		4		304				
CTD Type & SN <u>91220-A</u>				PMEL/SEABIRD		Monitor Checks						Times JD/Time				Data Location															
Press. SN <u>25084</u>						on Deck						at Surface				Data on <u>13131</u>				Tape/Diskette I.D.				File Name/Header							
Temp. SN <u>701</u>						Press. <u>6.6</u>						Start Down								Dub2: (data log)											
Cond. SN <u>303</u>						Temp. <u>49.72</u>						at Bottom								SBE CTD.SCS; 22											
						Cond. <u>31.617</u>						Start Up								Remarks <u>W0289</u>											
Other												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	20		200			201.0	3.869	32.402										1	
2	21		150			150.1	4.071	32.203										2	
3	22		100			100.8	4.281	32.025										3	
4	23		80			80.1	4.229	31.905										4	
5	24		60			60.5	4.124	31.818										5	
6	25		50			49.9	4.479	31.827										6	
7	26		40			40.7	4.193	31.758										7	
8	27		30			30.4	4.093	31.648										8	
9	28		20			20.1	4.929	31.611										9	
10	29		10			10.1	4.951	31.614										10	
11																		11	
12	SAL					290.2	4.783	33.136									33.236 15	12	

Consec. Cast # <u>18B</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		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.	
			N			W																	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time				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. _____				_____				at Surface		_____								Dub2: (data log)	
Cond. SN <u>303</u>				Temp. _____				_____				Start Down		_____								SBE CTD.SCS; <u>23</u>	
				Cond. _____				_____				at Bottom		_____									
				Other _____				_____				Start Up		_____								Remarks <u>WO 30</u>	
												at Surface		_____									
												Data off		_____									
Pos.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.							
1				30		30.9	4.157	31.682											1				
2																			2				
3																			3				
4																			4				
5																			5				
6																			6				
7																			7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

This cast only to get the 30m sample
 missed on 18A due to open bottom on
 bottle #27 This file not backed up
 on 11/4/01

Consec. Cast # <u>19</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>302</u>		Vessel Sta. I.D.		Instructions										Sta. Designation									
Consec. Cast #	Latitude Deg. Min. S		Longitude Deg. E or W		Date JD = <u>133</u> Day Mo. Yr.			Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1021.2</u>	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.									
<u>019</u>	<u>55</u>	<u>46</u>	<u>80</u>	<u>N</u>	<u>156</u>	<u>16</u>	<u>87</u>	<u>W</u>	<u>13</u>	<u>M</u>	<u>A</u>	<u>Y</u>	<u>90</u>	<u>03</u>	<u>07</u>	<u>70</u>	<u>70</u>	<u>12</u>	<u>38</u>	<u>17</u>	<u>21</u>	<u>05</u>	<u>71</u>	<u>24</u>	<u>7</u>				
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time		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. <u>7.7</u>				at Surface		Start Down <u>02:59:26</u>		Dub2: (data log)																	
Cond. SN <u>303</u>				Temp. <u>5.129</u>				at Bottom <u>03:03:11</u>		Start Up		SBE CTD.SCS; <u>24</u>																	
				Cond. <u>31.743 Sal</u>				at Surface		Remarks <u>To 100m only</u>																			
				Other				Data off				<u>micro Zoo</u>																	

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	1	8		03:08:11	03:08:16					106.6	4.517		32.477		4.50	32.554	35		1
2	20	60	03:09:50							59.6	3.795		32.168						2
3	21	50	03:10:49							52.1	3.618		32.099						3
4	22	40	03:11:59							38.8	3.392		32.018						4
5	23	30	03:13:03							30.3	3.940		31.965						5
6	24	20	03:14:08							20.4	4.846		31.901						6
7	25	10	03:15:10							10.0	5.302		31.728						7
8																			8
9																			9
10																			10
11																			11
12																			12

Consec. Cast # <u>20</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event# <u>318</u>		Vessel Sta. I.D.		Instructions				Sta. Designation <u>2010A</u>					
Consec. Cast #	Latitude Deg. Min. N or S		Longitude Deg. E or W		Date JD = <u>133</u> Day Mo. Yr.		Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1021.0</u>	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.
<u>020516</u>	<u>23</u>	<u>99</u> N	<u>15727</u>	<u>91</u> W	<u>13</u> MAY 90	<u>11</u>	<u>13</u>	<u>04</u>	<u>7</u>	<u>04</u>	<u>9</u>		<u>38</u>	<u>17</u>	<u>51</u>	<u>09</u>	<u>-1</u>		
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time				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. <u>5.3</u>				at Surface						Dub2:(data log)					
Cond. SN <u>303</u>				Temp. <u>3.757</u>				Start Down						SBE CTD.SCS; <u>25</u>					
				Cond. <u>31.788</u>				at Bottom											
				Other				Start Up											
								at Surface											
								Data off						Remarks <u>W096</u>					
Pos.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
<u>1</u>	<u>20</u>		<u>60</u>			<u>60.5</u>	<u>3.477</u>	<u>31.827</u>									<u>23</u>		<u>1</u>
<u>2</u>	<u>21</u>		<u>50</u>			<u>50.4</u>	<u>3.479</u>	<u>31.828</u>											<u>2</u>
<u>3</u>	<u>22</u>		<u>40</u>			<u>40.4</u>	<u>3.517</u>	<u>31.828</u>											<u>3</u>
<u>4</u>	<u>23</u>		<u>30</u>			<u>29.6</u>	<u>3.520</u>	<u>31.823</u>											<u>4</u>
<u>5</u>	<u>24</u>		<u>20</u>			<u>20.7</u>	<u>3.572</u>	<u>31.816</u>											<u>5</u>
<u>6</u>	<u>25</u>		<u>10</u>			<u>10.4</u>	<u>3.683</u>	<u>31.797</u>											<u>6</u>
<u>7</u>																			<u>7</u>
<u>8</u>																			<u>8</u>
<u>9</u>																			<u>9</u>
<u>10</u>																			<u>10</u>
<u>11</u>																			<u>11</u>
<u>12</u>	<u>6</u>					<u>101.7</u>	<u>3.264</u>	<u>31.829</u>									<u>31.918</u>	<u>23</u>	<u>12</u>

Consec. Cast # <u>20A</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		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.
<u>20A</u>																					
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks				Times JD/Time		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. _____		_____		at Surface _____		_____		Dub2:(data log)									
Cond. SN <u>303</u>				Temp. _____		_____		Start Down _____		_____		SBE CTD.SCS; <u>26</u>									
				Cond. _____		_____		at Bottom _____		_____		Remarks <u>WO 94</u>									
				Other _____		_____		Start Up _____		_____											
								at Surface _____		_____											
								Data off _____		_____											

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

Consec. Cast # <u>21</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event# <u>413</u>		Vessel Sta. I.D.		Instructions		Sta. Designation <u>M 89-31</u>							
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 <u>1022.0</u>	SS	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
<u>021</u>	<u>59</u> <u>02</u> <u>24</u>	<u>N</u>	<u>152</u> <u>04</u> <u>00</u>	<u>W</u>	<u>15</u> <u>M</u> <u>A</u> <u>Y</u> <u>90</u>	<u>08</u> <u>07</u>	<u>09</u> <u>20</u> <u>90</u>			<u>38</u>	<u>110</u>	<u>149</u>	<u>-2</u>			<u>188</u>	<u>M 8931</u>		
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks		Times JD/Time		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. <u>8.2</u>				at Surface				Dub2:(data log)							
Cond. SN <u>303</u>				Temp. <u>5.679</u>				Start Down				SBE CTD.SCS; <u>27</u>							
				Cond. <u>32.033</u>				at Bottom				Remarks <u>W 0170</u>							
				Other				Start Up											
								at Surface											
								Data off											
Pos.	Bot.	T Rack	Trip Depth	Time @ Depth Trip		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
						Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
<u>1</u>	<u>20</u>		<u>60</u>																<u>1</u>
<u>2</u>	<u>21</u>		<u>50</u>																<u>2</u>
<u>3</u>	<u>22</u>		<u>40</u>																<u>3</u>
<u>4</u>	<u>23</u>		<u>30</u>																<u>4</u>
<u>5</u>	<u>24</u>		<u>20</u>																<u>5</u>
<u>6</u>	<u>25</u>		<u>10</u>			<u>10.2</u>	<u>5.707</u>	<u>32.034</u>											<u>6</u>
<u>7</u>																			<u>7</u>
<u>8</u>																			<u>8</u>
<u>9</u>																			<u>9</u>
<u>10</u>																			<u>10</u>
<u>11</u>																			<u>11</u>
<u>12</u>	<u>B</u>			<u>0809</u>	<u>0814</u>	<u>171.2</u>	<u>5.337</u>	<u>32.209</u>							<u>5.34</u>	<u>32.292</u>	<u>16</u>		<u>12</u>

Consec. Cast # <u>22</u>		Vessel <u>MILLER FREEMAN</u>		Proj. & Leg <u>MF90-04 FOCI90-02</u>		Event # <u>416</u>		Vessel Sta. I.D.		Instructions										Sta. Designation <u>G0784</u>				
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 <u>1022.0</u>	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	<u>22</u>	<u>59</u>	<u>02</u>	<u>31</u>	<u>N</u>	<u>152</u>	<u>18</u>	<u>05</u>	<u>W</u>	<u>16</u>	<u>MAY</u>	<u>90</u>	<u>09</u>	<u>51</u>	<u>07</u>	<u>0</u>	<u>07</u>	<u>3</u>	<u>35</u>	<u>125</u>	<u>149</u>	<u>-4</u>	<u>124</u>	
CTD Type & SN <u>91220-A</u>		PMEL/SEABIRD		Monitor Checks								Times JD/Time		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. _____				<u>7.7</u>				at Surface _____							Dub2:(data log)					
Cond. SN <u>303</u>				Temp. _____				<u>5.960</u>				Start Down _____							SBE CTD.SCS; 28					
				Cond. _____				<u>31.857</u>				at Bottom _____												
				Other _____								Start Up _____							Remarks <u>W093</u>					
												Data off _____												
Stn. No.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Stn. No.					
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.								
1	20		60			60.5	5.443	31.931														1		
2	21		50			49.9	5.440	31.922														2		
3	22		40			40.4	5.443	31.918														3		
4	23		30			30.5	5.473	31.911														4		
5	24		20			20.0	5.738	31.863														5		
6	25		10			10.3	5.969	31.858														6		
7																						7		
8																						8		
9																						9		
10																						10		
11																						11		
12	SAL					101.3	5.433	32.005													32.080	30	12	