

Consec.Cast # 01		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event # 149	Vessel Sta. I.D.		Instructions 15E						Sta. Designation		
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 272		Time GMT Hr. ✓ Min.	Dry Bulb ✓	Wet Bulb ✓	Bar. mb 1016.4	Vis vij	Wind Dir. ✓	Wind Sp. ✓	Cloud Type ✓	Wear W	Bottom Depth, m ✓	Sta. Name or I.D. ✓
00	15 8 38	Z 2 N	17 53 33 5	W	29 SEP 90	23 57	7 2	6 2	16 38 31 0	15 7 7 1	1 34						XVE	
CTD PMEL Type & SN 91220-A SEABIRD		Monitor Checks						Times	JD/Time	Data Location								
Press. SN 25084		on Deck			at Surface			Data on		Tape/Diskette I.D.				File Name/Header				
Temp. SN 701		Press.						at Surface						DUB2: (DATA LOG)				
Cond. SN 303		Temp.						Start Down						MF9010-001				
		Cond.						at Bottom	23:57					601-29SEP23560.scs				
		Other						Start Up										
								at Surface						Remarks				
								Data off										

Pos.	Bot.	T	Trip	Time @		Monitor Values SAL				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.
				Bot. Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		
1	B			2359	24:04	120.808	3.3367	30.453	33.115					119	3.31	33.133	4		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials LL  
✓

Consec. Cast # 002	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # 151	Vessel Sta. I.D. XVD	Instructions								Sta. Designation XVD				
Consec. Cast # ✓	Latitude Deg.	N or S Deg.	Longitude Deg.	E or W Day	Date Mo.	JD = 273 Yr.	Time Hr.	GMT Min.	Dry Bulb ✓	Wet Bulb ✓	Bar. mb 1015.0	Wind Dir. S	Wind Sp. S	Cloud Type C	Weather W	Bottom Depth, m ✓ 192	Sta. Name or I.D. ✓
0 0 2 5 8 2 7 1 2 N	1 7 5 3 5 8 2 W		3 0 S E P 9 0 0 1	2 6	7 2	6 2	1 6	3 8	3 1	0 1 2 7 6 1	2 0 9						

CTD Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303	PMEL on Deck at Surface Press. Temp. Cond. Other	Monitor Checks Times Data on _____ at Surface _____ Start Down _____ at Bottom _____ Start Up _____ at Surface _____ Data off _____	JD/Time _____	Data Location Tape/Diskette I.D. _____	File Name/Header DUB2 : (DATA LOG) MP9010-002-605 D02-30 Sep 0117.scs
				Remarks	

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	S
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1				~11:26	204.215	3.230	30.614	33.392							33.397.	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 L C

Consec.Cast # <u>003</u>		Vessel <u>MILLER FREEMAN</u>	Proj. & Leg <u>MF-90-10</u>			Event# <u>152</u>	Vessel Sta. I.D.		Instructions						Sta. Designation <u>XIV C</u>					
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = <u>273</u>	Time Hr.	Dry Bulb	Wet Bulb	Bar. mb	Sig. Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.				
	<u>03</u>	<u>58</u>	<u>21</u>	<u>31</u>	N	<u>175</u>	<u>39</u>	<u>95</u>	<u>W</u>	<u>30</u>	<u>SEP</u>	<u>90</u>	<u>02</u>	<u>30</u>	<u>79</u>	<u>b4</u>	<u>1638</u>	<u>27008771</u>	<u>1097</u>	<u>XIV C</u>
CTD Type & SN		PMEL <u>91220-A SEABIRD</u>		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.		_____		Data at Surface _____	_____	_____		<u>DUB2:(DATA LOG)</u>								
Cond. SN		<u>303</u>		Temp.		_____		Start Down _____	_____	_____		<u>003-30 Sep 0215</u>								
		_____		Cond.		_____		at Bottom <u>b2.29</u>	_____	_____		_____								
		_____		Other		_____		Start Up _____	_____	Remarks <u>w/o 400m</u>		_____								
		_____		_____		_____		at Surface _____	_____	_____		_____								
		_____		_____		_____		Data off _____	_____	_____		_____								
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.	
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw
1																<u>32.773</u>	<u>16</u>	<u>1</u>		
2																		<u>2</u>		
3																		<u>3</u>		
4																		<u>4</u>		
5																		<u>5</u>		
6																		<u>6</u>		
7																		<u>7</u>		
8																		<u>8</u>		
9																		<u>9</u>		
10																		<u>10</u>		
II																		<u>II</u>		
I2																		<u>I2</u>		

Initials VM

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Consec.Cast # 004		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Evept# 153	Vessel Sta. I.D. XLB		Instructions							Sta. Designation			
Consec. Cast # ✓	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 273		Time GMT Hr. ✓ Min.	Dry Bulb	Wet Bulb	Bar. mb 1015.8	Vis 15	Wind Dir. ↓	Wind Sp. ↓	Cloud Type ↓	W eath. ↓	Bottom Depth, m 935	Sta. Name or I.D. XLB		
004	45	81	31	7N	175	3833W	30 SEP 90	03 56	79	6816	38	270	11	581	935	XLB				
CTD Type & SN 91220-A SEABIRD		PMEL		Monitor Checks				Times	JD/Time	Data Location										
Press. SN 25084				on Deck				Data on		Tape/Diskette I.D.							File Name/Header			
Temp. SN 701				at Surface				at Surface									DUB2 : (DATA LOG)			
Cond. SN 303				Press.				Start Down	03:33								004-30Sep0332.sce			
				Temp.				at Bottom	03:56											
				Cond.				Start Up												
				Other				at Surface												
								Data off												
Pos.	Bot.	T	Trip	Time @		Monitor Values				SAV	Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	S
				Bot.	Rack	Depth	Trip	Depth	Press.		Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.			
1					11.139	7.324	33.449	32.671								32.694	12		1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials ✓  
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Consec. Cast # 005	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # 154	Vessel Sta. I.D. 15 A	Instructions	Sta. Designation									
Consec. Cast # ✓	Latitude Deg. ✓ Min.	N or S Deg. ✓	Longitude E or W Deg.	Date JD = 273 Day Mo. Yr.	Time GMT Hr. ✓ Min.	Dry Bulb ✓	Wet Bulb ✓	Bar. mb 10188	Vis ✓	Wind Dir. ✓	Wind Sp. ✓	Cloud Type ✓	Wheath. ✓	Bottom Depth, m ✓	Sta. Name or I.D.
00558	0749 N		1754307 W	30S 19900546	74	69	16	38265	1358	12850	154				
CTD PMEL Type & SN 91220-A SEABIRD				Monitor Checks on Deck at Surface			Times	JD/Time	Data Location						
Press. SN 25084				Press.			Data on		Tape/Diskette I.D.	File Name/Header					
Temp. SN 701				Temp.			at Surface			DUB2:(DATA LOG)					
Cond. SN 303				Cond.			Start Down								
				Other			at Bottom	05.46		005 - 30SEP0507					
							Start Up			Remarks					
							at Surface								
							Data off								

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Samp.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	B			05.46	0551	1505.638	2.251	31.231	34.471					1491	2.22	34.496	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 LL  
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Consec. Cast # <u>006</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10		Event # <u>158</u>	Vessel Sta. I.D. <u>14 A</u>	Instructions						Sta. Designation <u>XIV - A</u>					
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date JD = 273		Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D		
	Deg. Min.	S	Deg.	W	Day Mo. Yr.	Hr. Min.				1016.0	0.5					2917	XIV A		
0 0 6 5 8 0 8 5 8 N	1 7 5 1 0 9 4 W		3 0 S E P 9 0 0 8	3 5 0 7 0	0 6 0 1 7 3 8 2 3 5 1 6 6 8 1 2 9 1 7														
CTD PMEL Type & SN <u>91220-A SEABIRD</u>		Monitor Checks						Times	JD/Time	Data Location									
		on Deck			at Surface			Data on	<u>273/0804</u>	Tape/Diskette I.D.			File Name/Header						
Press. SN <u>25084</u>					<u>1.067</u>			at Surface	<u>0803</u>				<u>DUB2:(DATA LOG)</u>						
Temp. SN <u>701</u>					<u>-7.654</u>			Start Down	<u>0806</u>										
Cond. SN <u>303</u>					<u>33.744</u>			at Bottom	<u>0835</u>				<u>006-30SEP0758</u>						
					<u>32.684</u>			Start Up	<u>0836</u>										
								at Surface	<u>0910</u>										
								Data off	<u>0836</u>										
								Remarks	<u>30-35 m/min to 280 m</u> <u>1509m wire</u> <u>45-60 m/min 280+</u>										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	g
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1																	1		
2																	2		
3																	3		
4																	4		
5	10	-	10	0908	0909	11.391	7,710	33.812	32.699						32.723	11	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
II																	II		
I2																	I2		

Initials SDMD

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Consec. Cast # 001	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10			Event# 161	Vessel Sta. I.D. 4B	Instructions						Sta. Designation XIV-B						
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date JD = 273	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1010.4	Si ✓	Wind Dir. Sp.	Wind Cloud Type	Bottom Depth, m 1028	Sta. Name or I.D. XIV-B					
007581433N	1751095W		30SEP90	10	120800	60	1638	24012686											
CTD Type & SN PMEL 91220-A SEABIRD	Monitor Checks				Times	JD/Time	Data Location												
Press. SN 25084	on Deck				Data on	273/0945	Tape/Diskette I.D.	File Name/Header											
Temp. SN 701	at Surface				at Surface	0943		DUB2:(DATA LOG)											
Cond. SN 303					Start Down	0947		007-30SEP0944											
					at Bottom	0912													
					Start Up	0913													
					at Surface	0913													
					Data off	0913													
							Remarks	30-35 m/min to 300m											
								45-50 m/min 300+					wire at 1007						
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	S
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	10	-	MAX	1012	1013	-	-	-	1001.857	2.750	31.342	34.334		34.359.	01		1		
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials DMD

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Consec. Cast # <b>008</b>	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # <b>163</b>	Vessel Sta. I.D. <b>14 C</b>	Instructions								Sta. Designation <b>XIV-C</b>						
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD = 273	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Sig.	Wind Dir.	Wind Sp.	Cloud Type	Wearh.	Bottom Depth, m	Sta. Name or I.D.					
	Deg. ✓ Min. S	Deg. ✓ W	Day Mo Yr.	Hr. ✓ Min.	✓	✓	1016.7	✓	✓	✓	✓	✓	✓	✓					
008 58 20 30 N	175 12 85 W	30 SEP 90	11 28 06 9	05 6 1	17 38 25 0	18 68 1	377	XIV-C											
CTD PMEL Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.918 Temp. 7.495 Cond. 33.469 Other 32.537				Times JD/Time Data on 273 / 1113 at Surface 1112 Start Down 1116 at Bottom 1128 Start Up 1128 at Surface 1138 Data off 1128				Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG) 008-30SEP1111							
Remarks 30 m/min to 368 out wire at 368 m																			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Sig.
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	
1	10	—	10	1137	1137				11.380	7.494	33.472	32.537			32.560	08		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast #	Vessel	Proj. & Leg	Event #	Vessel Sta. I.D.	Instructions								Sta. Designation		
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date JD = 273	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D.
Consec. Cast #	Deg. Min.	S	Deg.	W	Day Mo., Yr.	Hr. Min.	✓	✓	1016.6	✓	✓	✓	✓	✓	✓

009 58 26 28 N 175 12 76 W 30 SEP 90 1226 06 20 50.1 1738 26014681 223 X1 VD

CTD Type & SN	PMEL 91220-A SEABIRD	Monitor Checks	Times JD/Time	Data Location
Press. SN	25084	on Deck at Surface	Data on 273 / 1218	Tape/Diskette I.D.
Temp. SN	701	Press. 1.745	at Surface 1217	File Name/Header
Cond. SN	303	Temp. 7.556	Start Down 1219	DUB2 : (DATA LOG)
		Cond. 33.555	at Bottom 1226	009_30SEP1216
		Other 32.572	Start Up 1232	
			at Surface 1229	
			Data off	
				Remarks 30m/wire out wire out 212m total

Pos.	Bot.	Rack	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	S
					Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #		
1	B	MAX			1226	1232					213.866	3.320	30.734	33.420	213	3.30	33.441	25		1
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials DMS ✓

Consec. Cast # 010	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # 165	Vessel Sta. I.D. 14 E	Instructions								Sta. Designation XIV E
Consec. Cast # ✓	Latitude Deg. ✓ Min.	N or S Deg.	Longitude E or W Deg.	Date Day Mo. Yr.	JD = 273	Time GMT Hr. ✓ Min.	Dry Bulb	Wet Bulb	Bar. mb 1016.0	Wind Dir. S 7 ✓	Wind Sp. Cloud Type Cloud Type W W	Bottom Depth, m Depth, m	Sta. Name or I.D. ✓
010583360	N		1751439	W	30 SEP 90	1339065	05	21638290	06681	498	XIV E		

CTD PMEL  
Type & SN 91220-A SEABIRD

Press. SN 25084

Temp. SN 701

Cond. SN 303

Monitor Checks  
on Deck at Surface

Times JD/Time  
Data on 273 / 1324

Data Location

Tape/Diskette I.D.

File Name/Header

DUB2 : (DATA LOG)

Φ1Φ - 30SEP1323

Press. 1.314

Temp. 7.352

Cond. 33.497

Other 32.701

at Surface 1323  
Start Down 1325  
at Bottom 1339  
Start Up 1340  
at Surface 1351  
Data off 1340

Remarks 30 m/min rate to 300 m  
45 m/min to max depth

Total Wire out 176

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Sig.
				Bot. Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.
1																			1
2																			2
3																			3
4	10	-	10	1350	1350						9.892	7.364	33.509	32.700			32.722	24	4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials DMD

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Consec. Cast #	Vessel	Proj. & Leg	Event #	Vessel Sta. I.D.	Instructions								Sta. Designation						
011	MILLER FREEMAN	MF-90-10	160	14F									XIV F						
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD = 273	Time	GMT	Dry Bulb	Wet Bulb	Bar.	Wind Dir.	Wind Sp.	Cloud Type	Wearh.	Bottom Depth, m	Sta. Name or I.D		
	Deg. ✓	Min. ✓	Deg. ✓	✓	Day	Mo. ✓ Yr.	Hr. ✓	Min. ✓	✓	✓	1018.5	✓	✓	✓	✓	✓	✓		
011	58 42	40 N	175 15	33 W	30 SEP 90	1453065052163829006681										221	XIV F		
CTD PMEL Type & SN 91220-A SEABIRD				Monitor Checks				Times	JD/Time	Data Location									
Press. SN 25084				on Deck	at Surface			Data on	273 / 1445	Tape/Diskette I.D. File Name/Header									
Temp. SN 701				Press.	0.915			at Surface	1444	DUB2 : (DATA LOG)									
Cond. SN 303				Temp.	7.528			Start Down	1446	Φ11-3ΦSEP1444									
				Cond.	33.643			at Bottom	1453										
				Other	32.694			Start Up	1454										
							at Surface	1458											
							Data off	1454											
Remarks 30m/min wire out rate wire out : 210 m																			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	
1	10		MAX	1453	1453				211.065	3.376	30.857	33.512			33.530	03		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast # 012	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # 168	Vessel Sta. I.D. 14G	Instructions							Sta. Designation XIV G						
Consec. Cast #	Latitude N or S Deg. Min. S	Longitude E or W Deg.	Date JD = 273 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. S. S. S.	Wind Dir. Wind Sp.	Cloud Type	W. W. W.	Bottom Depth, m 136	Sta. Name or I.D XIV G					
012584687 N	1751592 W	30 SEP 90	160507	3065	1539	240	15581											
CTD PMEL Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. — Temp. — Cond. — Other —			Times JD/Time Data on 273 / 1558 at Surface 1557 Start Down 1600 at Bottom 1605 Start Up 1605 at Surface 1610 Data off 1610		Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG) 012 - 30SEP1557									
Remarks rate : 30 m/min 128 meters wire out																		
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data			Sal.	Other	P.O.
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	
1	10	—	10	1609	1609				12.176	7.450	33.582	32.696			32719.	19	1	
2																	2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
II																	II	
I2																	I2	

\*\* Repeat of 12A : NO DATA WAS LOGGED ON FIRST ATTEMPT \*\*

Initials JMD  
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Consec Cast # <b>012 A</b>	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # <b>167</b>	Vessel Sta. I.D. <b>14 G</b>	Instructions <b>SEE ACCOMPANYING SHEET</b>	Sta. Designation <b>XIV G</b>								
Consec. Cast #	Latitude N or S Deg. Min. S	Longitude E or W Deg.	Date JD = 273 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D

**58 46 50 N 175 15 86 W 30 SEP 90 15 37** 138 X1 VG

CTD PMEL Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303	Monitor Checks on Deck at Surface Press. Temp. Cond. Other	Times JD/Time Data on 273 / 1532 at Surface 1531 Start Down 1533 at Bottom 1537 Start Up 1538 at Surface 1542 Data off 1538	Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG) <b>012 - 30 SEP 1531</b>
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Remarks **\*\* NO DATA LOGGED ON SCS \*\***  
**play wire out 127 m**

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	pg	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	70	-	10	1540	1521					10.348	7454	22.690	33.579					19		1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

NO SAMPLE  
RETAINED

Audio cassette recording on cast 12 has two coots for this  
station recorded on same tape, in sequence

Initials \_\_\_\_\_  
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Consec.Cast # <b>013</b>		Vessel <b>MILLER FREEMAN</b>	Proj. & Leg <b>MF-90-10</b>			Event# <b>171</b>	Vessel Sta. I.D.			Instructions <i>recovery site for current meter mooring</i>							Sta. Designation <b>BZ-3</b>		
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date JD = 273		Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Sig	Vis	Wind Dir.	Wind Sp.	Cloud Type	Sea State	Bottom Depth, m	Sta. Name or I.D	
	Deg. Min.	S	Deg.	W	Day Mo. Yr.	Hr. Min.													
0 1 3 5 8 3 3	1 0 N		1 7 5 0 3 2 1	W	3 0 SEP 90	1 8	1 2 0 7	8 0 6 9	1 6 3 9	2 4 0	1 6 8 4	1	9 6 8				BZ3		
CTD PMEL Type & SN <b>91220-A SEABIRD</b> Press. SN <b>25084</b> Temp. SN <b>701</b> Cond. SN <b>303</b>					Monitor Checks on Deck at Surface				Times JD/Time		Data Location								
					Press.	1.314			Data on <b>273 / 1745</b>	at Surface <b>1744</b>	Start Down <b>1747</b>	at Bottom <b>1812</b>	Start Up <b>1817</b>	at Surface <b>1838</b>	Data off <b>1813</b>	Tape/Diskette I.D.	File Name/Header		
					Temp.	7.577										DUB2:(DATA LOG)	<b>013-30SEP1744</b>		
					Cond.	33.658													
					Other	32.663													
Remarks <b>30 m/min to 350 meters out 45 m/min to max wire out 964 m wire</b>																			
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1	B	MAX	4812;20	1817					957.518	2.909	31.419	34.283	951	2.90	34.307	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 DMD

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Consec.Cast # 014		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10		Event# 173	Vessel Sta. I.D. BZ-2		Instructions								Sta. Designation	
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 273 Mo. / Yr.	Time Hr.	GMT Min.	Dry Bulb ✓	Wet Bulb ✓	Bar. mb 1014.0	S. S.	Wind Dir. ✓	Wind Sp. ✓	Cloud Type ✓	Bottom Depth, m ✓	Weath. ✓	Sta. Name or I.D ✓
0 1 4	5 8	3 8	5 1	N	1 7 5 0	7 4 2 W	3 0	S e p 9 0	2 1 0 4	7 6	6 7 1 6 3 7	2 3 0 2 0 8 4 2	2 3 4	B Z 2				
CTD Type & SN 91220-A SEABIRD		PMEL		Monitor Checks				Times	JD/Time	Data Location								
Press. SN 25084				on Deck		at Surface		Data on	273	Tape/Diskette I.D.				File Name/Header				
Temp. SN 701				Press.				at Surface						DUB2 : (DATA LOG)				
Cond. SN 303				Temp.				Start Down	20:57:30					014-30SEP2056				
				Cond.				at Bottom	21:04:30									
				Other				Start Up						Remarks				
								at Surface										
								Data off										

Pos.	Bot.	T	Trip	Time @		Monitor Values				Sal	Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Bot. Rack	Depth	Depth	Trip	Press.	Temp.		Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1					21:04:30	21:05:00		10.990	7.453	33.549	32.658						32.681	33	1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials \_\_\_\_\_

Consec.Cast # 015		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10		Event# 175	Vessel Sta. I.D. BZ-1		Instructions							Sta. Designation BZ-1																
Consec. Cast # ✓	Latitude Deg.		N or S	Longitude Deg.		E or W	Date Day	JD = 273	Time GMT Hr.	Dry Bulb Min.	Wet Bulb ✓	Bar. mb 1015.8	S. Vis	Wind Dir. ✓	Wind Sp.	Cloud Type ✓	Weath. ✓	Bottom Depth m ✓	Sta. Name or I.D ✓													
	15	5	8	4	8	9	5	N	175	48	16	W	35	5	E	P	99	22	43	8	0	7	1	16	37	22	9	16	84	2	148	BZ-1
CTD Type & SN PMEL 91220-A SEABIRD	Monitor Checks								Times	JD/Time		Data Location																				
Press. SN 25084	on Deck				at Surface				Data on			Tape/Diskette I.D.	File Name/Header																			
Temp. SN 701	Press.								at Surface			_____	DUB2:(DATA LOG)																			
Cond. SN 303	Temp.								Start Down			_____	015 - 34 SEP 2235, SCS																			
	Cond.								at Bottom			_____																				
	Other								Start Up			_____																				
									at Surface			Remarks																				
									Data off																							

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1						143.543	3.324	34.526	33.242							33.226	13		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
II																			II
I2																			I2

Initials LAV

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Consec. Cast # 016	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # 182	Vessel Sta. I.D. 13 H	Instructions								Sta. Designation XIII-H	
Consec. Cast # ✓	Latitude Deg. ✓ Min.	N or S Deg.	Longitude E or W Deg.	Date JD = 274 Day Mo. ✓ Yr.	Time GMT Hr. ✓ Min.	Dry Bulb ✓	Wet Bulb ✓	Bar. mb 1013.9	Wind Dir. S	Wind Sp. ✓	Cloud Type ✓	Weather ✓	Bottom Depth, m ✓	Sta. Name or I.D. ✓
0 16	58 42 93 N		174 09 99 W	01 OCT 90 0751 0770 66 14 38	21 018 - - 1	138 X I II H								
CTD Type & SN PMEL 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck Press. _____ Temp. _____ Cond. _____ Other _____	at Surface 1.803 7.330 33.430 32.649	Times Data on 274 at Surface 0744 Start Down 0747 at Bottom 0751 Start Up 0751 at Surface 0752 Data off	JD/Time 0745 0744 0747 0751 0751 0752	Data Location Tape/Diskette I.D. DUB2:(DATA LOG) 016 - 01 OCT 0736				File Name/Header		
Remarks 30m/min wire out rate Max wire out 124 m														

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	sg
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	sg
1	10	-	10	0754	0755					11.796	7.346	33.447	32.648				32.671	35	1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials DMD



Consec.Cast # <u>017</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10		Event # <u>184</u>	Vessel Sta. I.D. <u>3G</u>	Instructions						Sta. Designation <u>XIII-G</u>					
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD = 274	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S.	Wind Dir.	Wind Sp.	Cloud Type	Wheath.	Bottom Depth, m	Sta. Name or I.D.					
01	17 58 35 22 N	174 22 22 W	01 OCT 90 09 07 08	2070143820022-1	10138	1438	20022	-1	145	XIIIG									
CTD PMEL Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. <u>1.864</u> Temp. <u>7.267</u> Cond. <u>33.336</u> Other <u>32.607</u>			Times JD/Time Data on <u>274 0901</u> at Surface <u>0900</u> Start Down <u>0903</u> at Bottom <u>0907</u> Start Up <u>0914</u> at Surface <u>09</u> Data off <u>0909</u>		Data Location Tape/Diskette I.D. _____ File Name/Header DUB2:(DATA LOG) <u>017-01OCT0859</u>										
Remarks 30 m/min wire out rate Max wire out = 138																			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	B	MAX	090830	091358						132.384	3407	30.534	33.132	129	340	33.156	26		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast # 018	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event# 180	Vessel Sta. I.D. 13F	Instructions								Sta. Designation XIII F						
Consec. Cast # ✓	Latitude Deg.	N or S Deg.	Longitude Deg.	E or W Day	Date JD = 274 Mo. Yr.	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1013.0	Sig. ✓	Wind Dir. ✓	Wind Sp. ✓	Cloud Type ✓	Wearth. ✓	Bottom Depth, m ✓	Sta. Name or I.D. ✓			
018582870 N	1743086 W			01 OCT 90	10 19 08 00 70 1	13 38 20 02 2 - - 1	174	X III IF											
CTD Type & SN 91220-A SEABIRD	Monitor Checks on Deck at Surface				Times Data on 274	JD/Time 1012	Data Location												
Press. SN 25084	Press.	1.047			at Surface	1010	Tape/Diskette I.D. _____	File Name/Header DUB2:(DATA LOG)											
Temp. SN 701	Temp.	7.436			Start Down	1013	_____	018-01OCT1010											
Cond. SN 303	Cond.	33.417			at Bottom	1019	_____	_____											
	Other	32.536			Start Up	1019	Remarks 30 m/min rate down	Max Wire out 165 m											
					at Surface	1025													
					Data off	1019													
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	g
	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	P	
1	10	-	10	1023	1023				10.855	7.422	33.415	32.542			32.566	15		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
II																		II	
I2																		I2	

Initials DMD

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Consec.Cast # 019		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10		Event# 187	Vessel Sta. I.D. 13E	Instructions						Sta. Designation XIIIE				
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 274	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1016	Sig. s	Wind Dir.	Wind Sp.	Cloud Type	Wearth.	Bottom Depth, m 1210	Sta. Name or I.D.	
	01 95 82 33	N	174 36 51	W	01 OCT 90	11 47 08	11 07 51	13 38 18	022	-	-	-	-	-	-	11229	XIIIE	
CTD Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.754 Temp. 7.459 Cond. 33.456 Other 32.557				Times Data on 274 / 1112 at Surface 1110 Start Down 1113 at Bottom 1147 Start Up 1148 at Surface 1215 Data off 1148				Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG) 019-01OCT1110						
												Remarks 30 m/min to 500 m out 45 m/min to max wire out						
PoS	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other
	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1	10 - MAX	1117	1148						1256.728	2.495	31.289	34.408				34.431	09	1
2																	2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
II																	II	
I2																	I2	

Initials DMD

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Consec. Cast # 020	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # 189	Vessel Sta. I.D. 13D	Instructions						Sta. Designation XIII D								
Consec. Cast #	Latitude N or S Deg. Min. S	Longitude E or W Deg.	Date JD = 274 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 0126	Si ✓	Wind Dir.	Wind Sp.	Cloud Type S	Bottom Depth, m 2000+ ✓	Sta. Name or I.D XIIID						
020581885	N	1744224	W	01 OCT 90 1342	07	2070	1227	17516											
CTD PMEL Type & SN 91220-A SEABIRD				Monitor Checks on Deck at Surface				Times	JD/Time	Data Location									
Press. SN 25084	Press.	1.512	Start Down	1303	Tape/Diskette I.D.	File Name/Header													
Temp. SN 701	Temp.	7.430	at Bottom	1342	DUB2 : (DATA LOG)	Φ2Φ - Φ1OCT1259													
Cond. SN 303	Cond.	33.357	Start Up	1342															
	Other	32.478	at Surface	1414															
			Data off	1342	Remarks	30 m/min to 300 m 45 m/min 300 - max	Wire out - 1605 m												
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	10	-	10	1412	1412				9.132	7.455	33.408	32.505			32.551	20		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast # 021	Vessel MF	Proj. & Leg MF-90-10	Event # 190	Vessel Sta. I.D. 3C	Instructions								Sta. Designation XIIIC						
Consec. Cast # ✓	Latitude Deg. ✓ Min.	N or S Deg.	Longitude E or W Deg.	Date Day Mo. ✓ Yr.	JD = 274	Time GMT Hr. ✓ Min.	Dry Bulb	Wet Bulb	Bar. mb 1011.8	Si. ✓ 15	Wind Dir. ✓	Wind Sp. ✓	Cloud Type ✓	Weath. ✓	Bottom Depth, m ✓	Sta. Name or I.D ✓			
021	581164 N		1745153 W	01 OCT 90		1556074	069	123825008	-1						1725 X I I I C				
CTD Type & SN 91220-A				Monitor Checks on Deck at Surface				Times	JD/Time	Data Location									
Press. SN 25084				Press.	2.145	Data on 274	1519	Tape/Diskette I.D.				File Name/Header							
Temp. SN 701				Temp.	7.515	at Surface	1518												
Cond. SN 303				Cond.	33.452	Start Down	1520												
				Sal. Other	32.499	at Bottom	1556												
						Start Up	1601												
						at Surface	1557												
						Data off													
Pos.	Bot.	Tack	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	-	B	MAX	1556.05	1601.05					1501.466	2.245	31.225	34.471	1487	2.23	34.507	27		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD  
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Consec. Cast # 022		Vessel MF	Proj. & Leg MF-90-10			Event # 192	Vessel Sta. I.D. 13B	Instructions								Sta. Designation XIIIB			
Consec. Cast # ✓	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. / Yr.	JD = 274	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1012.7	si g ✓	Wind Dir. ✓	Wind Sp.	Cloud Type ✓	Weath. ✓	Bottom Depth, m 1448	Sta. Name or I.D XIIIB		
022	580821	N	1745856	W	01 OCT 90	1749083	079	133827506	531										
CTD Type & SN 91220-A Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.666 Temp. 7.485 Cond. 33.589 Other 32.676				Times JD/Time Data on 274 1712 at Surface 1711 Start Down 1713 at Bottom 1749 Start Up 1749 at Surface 1820 Data off 1749				Data Location Tape/Diskette I.D. φ22 - φ1OCT17φ9 File Name/Header							
												Remarks 30 m/min rate to 260 m out 45 m/min 260 m - max wire out Wire out - 1448 m							
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	10	-	300	1813	1813					298.304	3.660	31.267	33.663		33.724	10	1		
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials DMD

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Consec. Cast #	Vessel	MF	Proj. & Leg	Event #	Vessel Sta. I.D.	Instructions								Sta. Designation					
023			MF-90-10	193	13A									XII A					
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date JD = 274	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D					
✓	Deg. Min.	Deg.	Deg.	or W	Day Mo. ✓ Yr.	Hr. ✓ Min.	✓	✓	1018.3	✓	✓	✓	✓	✓					
02 35 80 54 9 N	175 05 33 W	01 OCT 90	19 30 08 30 7 9 1 3	38 31 00 86 8	(1910)	1953													
CTD	Monitor Checks				Times	ID/Time	Data Location												
Type & SN	on Deck				Data on	274   1853	Tape/Diskette I.D. File Name/Header												
Press. SN	at Surface				at Surface	1852	φ23-Φ1OCT1851												
Temp. SN	Press.				Start Down	1854													
Cond. SN	7.473				at Bottom	1930													
	Temp.				Start Up	1931													
	Cond.				at Surface	2001													
	Other Sal				Data off	1931													
					Remarks	30 m/min to 270 m													
						45 m/min 270 m to max	Max wire out 1499												
S. 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	10	-	MAX	1930	1931					1501.732	2.173	31.177	34.488		34512	30	1		
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

when landing the bottle the winch operator dropped it  
on deck hard enough to break the niskin water sample bottle.  
WF

Initials DMD  
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Consec. Cast # 024	Vessel MF	Proj. & Leg MF-90-10	Event# 196	Vessel Sta. I.D. 12A	Instructions								Sta. Designation XII A						
Consec. Cast # ✓	Latitude Deg. ✓ Min.	N or S Deg.	Longitude E or W Deg.	Date JD = 274 Day Mo. ✓ Yr.	Time GMT Hr. ✓ Min.	Dry Bulb	Wet Bulb	Bar. mb 1014.8	Si 5	Wind Dir. ✓	Wind Sp. ✓	Cloud Type ✓	Bottom Depth, m ✓	Sta. Name or I.D ✓					
0 2 4	5 7	5 5	8 8	N 1 7 4 5 7 6 1 W 0 1 OCT 90	2 1 3 7	9 5	9 0	1 5	3 8	3 5 0	0 6 7 8 1	3 2 4 7	XII A						
CTD Type & SN 91220-A Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. Temp. Cond. Other				Times Data on _____ at Surface _____ Start Down 21:01:45 at Bottom 21:37 Start Up 21:37 at Surface _____ Data off 22:09		JD/Time				Data Location Tape/Diskette I.D. File Name/Header 024-01OCT2100					
														Remarks w/o 1500 m					
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	-	10		11.104	9.563	33.172	32.730							32.753	21		1		
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials L/H

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Consec. Cast #	Vessel	MF	Proj. & Leg	MF-90-10	Event #	199	Vessel Sta. I.D.	12B	Instructions						Sta. Designation	XLB					
Consec. Cast #	Latitude N or S	Deg. Min. ✓	Longitude E or W	Deg. ✓	Date JD =	274	Time GMT	Hr. ✓ Min.	Dry Bulb	Wet Bulb	Bar. mb	1015.2	Up	Is	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D
025	580267 N	1744206 W	01 OCT 90	2353105	90153830008571	2500	12B														
CTD Type & SN 91220-A				Monitor Checks				Times	JD/Time	Data Location											
				on Deck		at Surface		Data on	23:15	Tape/Diskette I.D.					File Name/Header						
				Press.		1.8		Data at Surface													
				Temp.		7.752		Start Down	23:16												
				Cond.				at Bottom	23:53												
				Other		32.783		Start Up	23:59												
								at Surface													
								Data off													
Pos.	Bot.	T	Trip	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			1511.344	2.227	31.218	34.476					1495	2.23	34.501	02			1			
2																		2			
3																		3			
4																		4			
5																		5			
6																		6			
7																		7			
8																		8			
9																		9			
10																		10			
11																		11			
12																		12			

Initials LAV  
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Consec. Cast # 26	Vessel MF	Proj. & Leg 90-10	Event # 200	Vessel Sta. I.D. 12C	Instructions								Sta. Designation					
Consec. Cast # ✓	Latitude N or S Deg. Min.	Longitude Deg.	E or W Day	Date Mo. Yr.	JD = 275	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1015.6 5 4	S is.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D.	
	26 5 8 0 6 7 5	17 4 3 3 5 5	0 2 0	OCT 90	0 1 4 4	7 3	6 3	1 6 3	8 3 2 0	1 2 2	6 1	1 8 0 0				12C		
CTD Type & SN 91220-A					Monitor Checks				Times	JD/Time		Data Location						
					on Deck	at Surface	Data on			Tape/Diskette I.D.	File Name/Header							
					Press.	7.9	at Surface	01:08		026-20CT0103.								
					Temp.	7.441	Start Down	01:08										
					Cond.		at Bottom	01:44										
					Other	32.720	Start Up											
						at Surface	Data off											
Pos.	Bot.	T	Trip	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			
1				10.709	7.497	33.605	32.677							32.701	33	1		
2																2		
3																3		
4																4		
5																5		
6																6		
7																7		
8																8		
9																9		
10																10		
11																11		
12																12		

Initials VAV

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Consec. Cast # 27		Vessel MF		Proj. & Leg OCSEA? 9010		Event # 201	Vessel Sta. I.D.		Instructions								Sta. Designation		
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 275	Time Hr. ✓ Min.	Dry Bulb ✓	Wet Bulb ✓	Bar. mb 1018.6	Si. 48	Vis. 7	Wind Dir. ✓	Wind Sp. ✓	Cloud Type ✓	W eath. ✓	Bottom Depth, m ✓	Sta. Name or I.D ✓	
	27 5 8 1 1 8 2		1 7 4 2 0 3 6		0 2 0	OCT 90	0 3 3 7	7 0	6 2	1 6	3 8	0 1	0 1 0 5 1 1	1 3 8 2		1 2 D			
CTD Type & SN 91220-A		Monitor Checks on Deck at Surface						Times	JD/Time	Data Location									
Press. SN 25084								Data on		Tape/Diskette I.D.									
Temp. SN 701								at Surface	03:04	File Name/Header									
Cond. SN 303								Start Down		027-20OCT0259									
								at Bottom	03:37	d27-d20OCTd300									
								Start Up	03:38	Remarks									
								at Surface		✓/o 1384									
								Data off	03:39										
Pos.	Bot.	Rack	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	P.S.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1				1349721	2.422	31.281	34.428								34.454	12	1		
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials VAN  
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Consec. Cast #	28	Vessel	MF	Proj. & Leg	OLSEAP	Event #	202	Vessel Sta. I.D.	Instructions							Sta. Designation	XLE					
Consec. Cast #	Latitude N or S		Longitude E or W	Date	JD =			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Wind Dir.	Wind Sp.	Cloud Type	Aeath.	Bottom Depth, m	Sta. Name or I.D				
	Deg.	Min.	Deg.	/	Day	Mo.	Yr.	Hr. / Min.			106.4	uj	✓	✓	✓	✓						
0 2 8	5 8	1 4	8 4	1 7 4	1 3	1 1	0 2 0	C T 9 0	0 4	4 3	7 0	5 6	1 5 3 8	3 3 5 1	0 5 1 1	1 5 6	1 2 E					
CTD Type & SN		91220-A SEABRD		Monitor Checks				Times	JD/Time		Data Location											
Press. SN		25084		on Deck at Surface				Data on			Tape/Diskette I.D.		File Name/Header									
Temp. SN		701		Press.				at Surface					028-02 OCT 0431									
Cond. SN		303		Temp.				Start Down	03:38													
				Cond.				at Bottom	04:43													
				Other				Start Up	04:43													
								at Surface														
								Data off														
Pos.	Bot.	T	Trip	Time @		Monitor Values				SAL	Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Bot. #	Other Samp.	P.S.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	5				10.287	7.557	33.393	32.393								32.416	08		1			
2																			2			
3																			3			
4																			4			
5																			5			
6																			6			
7																			7			
8																			8			
9																			9			
10																			10			
11																			11			
12																			12			

Initials MMV  
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Consec.Cast # 29		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event# 203	Vessel Sta. I.D.		Instructions							Sta. Designation <i>XIF</i>			
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 275	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	<i>1016.4</i>	<i>4</i>	<i>7</i>	Wind Dir. Sp.	Wind Cloud Type	Wearh.	Bottom Depth, m	Sta. Name or I.D		
	5 8 1 7 8 4	N	1 7 4 0 4 6 6	W	0 2 0	OCT 9 0	0 5 3 2	6 8	5 1 1	1 6 3 8 3 4 0 1 2 5 1 1				1 2 5		1 2 F				
CTD Type & SN	PMEL 91220-A SEABIRD		Monitor Checks				Times	JD/Time		Data Location										
Press. SN	25084		on Deck at Surface				Data on at Surface			Tape/Diskette I.D.	File Name/Header									
Temp. SN	701		Press.				Start Down at Bottom	05:25 ( <i>05:25</i> )			DUB2:(DATA LOG)	<i>029 - 02 OCT 05 23.8CS</i>								
Cond. SN	303		Temp.				Start Up at Surface													
	Cond.				Other				Data off			Remarks	<i>51.3 ~ 70 db recorded twice (downward, both times) (wind down to ~70, up to 51.3, then back down) w/o 115</i>							
Pos.	Bot.	T	Rack	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Sal.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	Sal.	
1	B	B		05:32:50						101.412	3.382	30.361	32.967	95	3.37	32.989	29			1
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

EDIT . GOOD FILE

Initials *MM*

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Consec.Cast # 30	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event# 204	Vessel Sta. I.D. 12G	Instructions								Sta. Designation						
Consec. Cast # ✓	Latitude N or S Deg. Min.	Longitude E or W Deg.	Date JD = Day Mo. ✓ Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1014.5	Wind Dir. ✓ S	Wind Sp. ✓ 28	Cloud Type 300	Wheath. 07511	Bottom Depth, m 119	Sta. Name or I.D 12G						
30 58 24 57 N	1735063 W	02 OCT 90 00 45	72 5 8 1	8 28 300 07511															
CTD PMEL Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.5 Temp. 7.413 Cond. Other 32.423				Times	JD/Time	Data Location									
				Start Down	06:41	Tape/Diskette I.D.	File Name/Header												
				at Bottom	06:45		DUB2:(DATA LOG)												
				Start Up	06:47		030 - 02 OCT 064D												
				at Surface		Remarks	v/o 111 m												
				Data off															
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal. Bot. #	Other Samp.	P
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1														32.453	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 VAV

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Consec.Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # <u>208</u>	Vessel Sta. I.D. <u>11G</u>	Instructions						Sta. Designation <u>XIG</u>								
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = <u>275</u>	Time GMT Hr. ✓ Min.	Dry Bulb	Wet Bulb	Bar. mb.	S <sub>i</sub> ✓	S <sub>i</sub> ✓	Wind Dir.	Wind Sp.	Cloud Type	W <sub>e</sub> ath.	Bottom Depth, m	Sta. Name or I.D.	
	0 31 58 00	2 2 N	173 32 36 W		0 2 0	OCT 9 0	0 9 1 6	0 8 4 0 7	Z 1 8 3 8 3 1 0 1 0 5 1 1	1018.5			✓				116	XIG	
CTD	PMEL	Monitor Checks						Times	JD/Time	Data Location									
Type & SN	91220-A SEABIRD	on Deck			at Surface			Data on	275 / 0911	Tape/Diskette I.D.			File Name/Header						
Press. SN	25084				Press. 1.570			at Surface	0910				DUB2:(DATA LOG)						
Temp. SN	701				Temp. 7.507			Start Down	0913				Φ31 - Φ20CT Φ910						
Cond. SN	303				Cond. 33.258			at Bottom	0916										
					Other 32.299			Start Up	0917										
								at Surface	0917				Remarks 30 m/min rate						
								Data off	0917										
Pos.	Bot.	T	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
	Rack		Depth	Depth	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #			
1	5	-	MAX	0916	0917				105.553	3.234	30.096	32.797				32.820	32		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD  
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Consec.Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event#	Vessel Sta. I.D.	Instructions	Sta. Designation													
Consec. Cast #	Latitude Deg. Min.	N or S	Longitude Deg.	E or W	Date JD = 275 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Sp.	Wind Cloud	Type W	Bottom Depth, m	Sta. Name or I.D				
032	57 54 51	N	173 51 71	W	02 OCT 90	10 34 07 8	06 6	19 3	8270	10311	133		X IF						
CTD	PMEL	Monitor Checks				Times	JD/Time	Data Location											
Type & SN	91220-A SEABIRD	on Deck		at Surface		Data on	275 / 1029	Tape/Diskette I.D.	File Name/Header										
Press. SN	25084	Press.		1.827		at Surface	1028	DUB2 : (DATA LOG)											
Temp. SN	701	Temp.		7.565		Start Down	1030	032 - 02 OCT 1028											
Cond. SN	303	Cond.		33.532		at Bottom	1034												
		Other		32.539		Start Up	1034												
						at Surface	1039												
						Data off	1035												
						Remarks 30 m/min rate													
						Max wire out 124													
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	P
				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	-	10	1038	1038				11.257	7.577	33.548	32.541			32.565	18	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

Initials DMD

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Consec. Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event #	Vessel Sta. I.D. 11E	Instructions Third attempt on station	Sta. Designation XIE									
Consec. Cast #	Latitude Deg. ✓ Min.	N or S	Longitude Deg. ✓	E or W	Date JD = 275 Day Mo. Yr.	Time GMT Hr. ✓ Min.	Dry Bulb	Wet Bulb	Bar. mb 1018.8	S. ✓	Wind Dir.	Wind Sp.	Cloud Type ✓	Bottom Depth, m ✓	Sta. Name or I.D ✓
	033 57 47 90 N		174 00 73 W	02 OCT 90	13 02 07 6 06 9	19 38 250 1221 1 1021									XIE

CTD Type & SN Press. SN Temp. SN Cond. SN	PMEL 91220-A SEABIRD 25084 701 303	Monitor Checks on Deck Press. _____ Temp. _____ Cond. _____ Other _____	Times Data on 275 at Surface 1.091 Start Down at Bottom 7.372 Start Up at Surface 33.381 Data off 32.558	JD/Time 1236 1235 1237 1302 1307 1327 1303	Data Location Tape/Diskette I.D. File Name/Header DUB2:(DATA LOG) Φ33-Φ20CT 1234
				Remarks 30 m/min to 300m 45 m/min 300m to max	
				max Wire out = 982 M	

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	MAX	1302:15	1307:35						977.315	2.887	31.414	34.290	969	2.87	34.316	04			1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials DMD

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Consec. Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event #	Vessel Sta. I.D. 11 E	Instructions								Sta. Designation JLE							
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 275	Time GMT Mo.	Dry Bulb	Wet Bulb	Bar. mb	S. Si	S. Si	V. Vis	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D	
033	574	N	17		W	02 OCT 90	12											XIE		
CTD PMEL Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck				Times Data on 275 / 1154 at Surface 1151		JD/Time		Data Location								
								Start Down		1154		Tape/Diskette I.D.		File Name/Header						
								at Bottom		—		DUB2:(DATA LOG) 033_02OCT 1151								
								Start Up *		1205		Remarks jump shear at 135 m out 11:59 * cast aborted, wait on repair before repeat								
								at Surface *		1209										
								Data off		1159										
#	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Pos.
	Rack	Depth	Trip	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	<del>B</del>	MAX															04		1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Second attempt, same result. Cast aborted when wire jumped fairlead Initials DMD ✓

Consec.Cast #	Vessel MILLER FREEMAN			Proj. & Leg MF-90-10			Event #	Vessel Sta. I.D.	Instructions							Sta. Designation			
Consec. Cast #	Latitude N or S		N	Longitude E or W		E	Date JD = 275	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S <sub>s</sub>	V <sub>v</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D
033	Deg.	Min.	S	Deg.			Day Mo. Yr.	Hr. Min.											XIE
03357			N	17			W 020 OCT 90												XIE
CTD	PMEL			Monitor Checks				Times	JD/Time		Data Location								
Type & SN	91220-A SEABIRD			on Deck				Data on	275	/ 1130	Tape/Diskette I.D.	File Name/Header							
Press. SN	25084			at Surface				at Surface		1128	DUB2:(DATA LOG)								
Temp. SN	701			Press.				Start Down		1131	<u>Φ33-Φ2OCT1128</u>								
Cond. SN	303			Temp.				at Bottom											
				Cond.				Start Up											
				Other Sal				at Surface											
								Data off	1147										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	g
	Rack		Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1		B	MAX														04		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

abort at 151m with winch problems,  
cast repeated

Initials DMD ✓

Consec. Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event #	Vessel Sta. I.D. 11D	Instructions								Sta. Designation XID							
Consec. Cast #	Latitude N or S 034 Deg.	Longitude E or W 57 46 32 N	Date JD = 275 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 10140	S. <i>4</i>	Wind Dir. <i>SW</i>	Wind Sp. <i>25</i>	Cloud Type <i>14</i>	Wear. <i>211</i>	Bottom Depth, m 213	Sta. Name or I.D XID						
034	57 46 32 N	174 09 54 W	02 OCT 90	14 11	08 0	06 9	1938	250	14211	213										
CTD PMEL Type & SN 91220-A SEABIRD Press. SN 25084 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.816 Temp. 7.201 Cond. 33.208 Other 32.531				Times Data on at Surface Start Down at Bottom Start Up at Surface Data off	JD/Time 275 / 1404 1403 1405 1411 1412 1417 1412	Data Location Tape/Diskette I.D. File Name/Header DUB2 : (DATA LOG) Φ34 - Φ2 OCT 14Φ3										
Remarks 30 m/min wire out rate Max wire out 199																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	S
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #			
1	5	-	10	1416	1416				9.752	7.196	33.206	32.530			32.554	11		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Consec.Cast # <u>035</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event# <u>213</u>	Vessel Sta. I.D. <u>IIC</u>	Instructions								Sta. Designation <u>XIC</u>					
Consec. Cast # <u>✓</u>	Latitude <u>57</u>	N or S <u>N</u>	Longitude <u>174</u>	E or W <u>W</u>	Date <u>JD = 275</u>	Time <u>GMT</u>	Dry Bulb <u>15.39</u>	Wet Bulb <u>09.07</u>	Bar. mb <u>1011.0</u>	<u>✓</u>	<u>✓</u>	Wind Dir. <u>1937</u>	Wind Sp. <u>230</u>	Cloud Type <u>185</u>	W <sup>nd</sup> Yeath. <u>-1</u>	Bottom Depth, m <u>1360</u>	Sta. Name or I.D. <u>IIC</u>					
Consec. Cast # <u>✓</u>	Deg. <u>57</u>	Min. <u>42</u>	Deg. <u>19</u>	Deg. <u>57</u>	Day <u>02</u>	Mo. <u>OCT</u>	Yr. <u>90</u>	Hr. <u>15</u>	Min. <u>39</u>													
035	57	42	99	N	174	19	57	W	02	OCT	90	15	39	09	07	5	1937	230	185	-1	1360	IIC
CTD Type & SN <u>91220-A SEABIRD</u>		PMEI		Monitor Checks				Times		JD/Time		Data Location										
Press. SN <u>25084</u>				on Deck		at Surface		Data on <u>275</u>	/ <u>1504</u>			Tape/Diskette I.D.		File Name/Header								
Temp. SN <u>701</u>				Press. <u>1.677</u>				at Surface <u>1503</u>				<u>DUB2:(DATA LOG)</u>		<u>Φ35-Φ20CT15Φ3</u>								
Cond. SN <u>303</u>				Temp. <u>7.302</u>				Start Down <u>1505</u>														
				Cond. <u>33.440</u>				at Bottom <u>15.39</u>														
				Other <u>32.687</u>				Start Up <u>1607</u>														
								Data off <u></u>														
Remarks 30 m/min to 275 m out 1381 m wire out																						
S.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #					
1	5	-	MAY							1354.80	2.419	31.281	34.430			34.456	06		1			
2																		2				
3																		3				
4																		4				
5																		5				
6																		6				
7																		7				
8																		8				
9																		9				
10																		10				
11																		11				
12																		12				

Initials DMD

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Consec.Cast # <u>Q36</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event# <u>714</u>	Vessel Sta. I.D. <u>11B</u>		Instructions							Sta. Designation <u>XIB</u>			
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date JD = <u>275</u>	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	<u>S</u>	<u>S</u>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Weather	1737 Bottom Depth, m <u>1550</u>	Sta. Name or I.D			
✓	Deg. ✓ Min.	Deg.	Deg.	Deg.	Day ✓ Mo. Yr.	Hr. ✓ Min.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
0 3 6 5 7 4 1 3 9 N	1 7 4 2 3 6 6 W	0 2 0 O C T 9 0	1 7 2 2 0 9 0	0 8 2 1 9 3 8 2 3 5 1 9 7 2 2 1 9 9 0												XIB				
CTD Type & SN <u>91220-A SEABIRD</u>		Monitor Checks				Times	JD/Time	Data Location												
Press. SN <u>25084</u>		on Deck		at Surface		Data on <u>275</u>	<u>1642</u>	Tape/Diskette I.D.		File Name/Header										
Temp. SN <u>701</u>		Press. <u>1.752</u>				at Surface <u>1641</u>				<u>DUB2:(DATA LOG)</u>										
Cond. SN <u>303</u>		Temp. <u>7.343</u>				Start Down <u>1643</u>				<u>Q36 - Q2OCT1640</u>										
		Cond. <u>33.424</u>				at Bottom <u>1722</u>														
		Other <u>Sal</u>		<u>32.631</u>		Start Up <u>1722</u>														
						at Surface <u>1755</u>														
						Data off <u>1722</u>														
Remarks 30 m/min rate out to 280m <u>45 m/MIN ↓</u> Wire out = 1565 m																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	P
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	5	—	10	1754	1755				10.786	7.320	33.415	32.640			32.663	03		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

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Consec.Cast #		Vessel MILLER FREEMAN	Proj. & Leg MF-90-10			Event #	Vessel Sta. I.D.	Instructions							Sta. Designation			
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD = 275	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S s	Wind Dir.	Wind Sp.	Cloud Type	W eath.	Bottom Depth, m	Sta. Name or I.D	
	Deg. Min.	Deg.	Deg.	Deg.	Day Mo. Yr.	Hr. Min.			1019.6	s	s							
037	57 36 34 N		174 31 42 W		02 OCT 90	19 35	8 7	8 1	20	48	22423721	2000				XIA		
CTD Type & SN		PMEL 91220-A SEABIRD		Monitor Checks				Times		JD/Time		Data Location						
Press. SN		25084		on Deck		at Surface		Data on	275	1852		Tape/Diskette I.D.	File Name/Header					
Temp. SN		701		Press.		1.728		at Surface		1850		DUB2:(DATA LOG)	Φ37-Φ2 OCT 1850					
Cond. SN		303		Temp.		7.319		Start Down		1853								
				Cond.		33.457		at Bottom		1934								
				Other		Sal 32.689		Start Up		1944								
								at Surface		1936		Remarks	30 m/min rate to 260 m out					
								Data off					Wire out : 1695					
Pos.	Bot.	T	Trip	Time @		Monitor Values			Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.			
1	B	MAX	193445	193950					1470.722	2.301	31.251	34.459	1459	2.28	34.485	25		1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Initials \_\_\_\_\_  
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Consec.Cast # 038		Vessel MILLER FREEMAN	Proj. & Leg MF-90-10			Event# 220	Vessel Sta. I.D. 10A	Instructions							Sta. Designation XA					
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 275	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1019.6	S. si	V. si	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D.		
	038571463	N	1744310	W	02 OCT 90	23 14	9 8	9 2	20	47	250	18	76	2	3600	XA				
CTD Type & SN	PMEL 91220-A SEABIRD	Monitor Checks				Times	JD/Time	Data Location												
Press. SN	25084	on Deck				Data on	275	Tape/Diskette I.D.	File Name/Header											
Temp. SN	701	at Surface				at Surface		DUB2:(DATA LOG)												
Cond. SN	303	Press.				Start Down		Φ38-Φ20CT 2227												
		Temp.				at Bottom	23:14													
		Cond.				Start Up	23:15													
		Other				at Surface		Remarks												
						Data off	w/o 1654													
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #			
1	5	-	10						12.056	7.237	33.380	32.678			32.702	24		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials VAV  
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Consec.Cast #	39	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event#	222	Vessel Sta. I.D. 10 A	Instructions						Sta. Designation 10A						
Consec. Cast #	Latitude N or Deg. Min. S		Longitude E or Deg.	Date JD =	276	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1017.6	S S	Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D			
	39	57	17	47	N	1743069 W	03 OCT 90	01 13	82	78	20	37	2601676	22999	10A				
CTD	PMEL		Monitor Checks				Times	JD/Time	Data Location										
Type & SN	91220-A SEABIRD		on Deck at Surface				Data on		Tape/Diskette I.D.	File Name/Header									
Press. SN	25084		Press.				Data at Surface		DUB2:(DATA LOG)										
Temp. SN	701		Temp.				Start Down		039_03 OCT 0020										
Cond. SN	303		Cond.				at Bottom	01:09											
Start Up																			
at Surface																			
Data off																			
Remarks w/o 1669																			
Pos.	Bot.	T	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			
1				1:09:40	1455	1472.608	2.327	31.271	34.455				1461	2.31	34.481	09		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials LAL

1170  
1829~~1170~~

2999

Consec.Cast # <u>40</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event# <u>223</u>	Vessel Sta. I.D. <u>X B</u>		Instructions						Sta. Designation				
Consec. Cast #	Latitude Deg.		N or S	Longitude Deg.		E or W	Date Day	JD = <u>276</u>	Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>1020.0</u>	<u>S</u> <u>vis</u>	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D
	40	5	7	2	1	91	N	/741215W	030CT90	0321	94	87	20	37	25014762	1530	108			
CTD	PMEL		Monitor Checks						Times	JD/Time		Data Location								
Type & SN	91220-A SEABIRD		on Deck			at Surface			Data on			Tape/Diskette I.D.	File Name/Header							
Press. SN	25084		Press.						at Surface				DUB2 : (DATA LOG)							
Temp. SN	701		Temp.						Start Down	02:45			040-03 OCT 0239							
Cond. SN	303		Cond.						at Bottom	03:21										
	Other						Start Up		at Surface			Remarks								
							Data off					w/o 1531m								
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #			
1						9.823	7.218	33.268	32.575							32.599			1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials VAV

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Consec.Cast #	41	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event #	224	Vessel Sta. I.D. <i>X C</i>	Instructions						Sta. Designation							
Consec. Cast #	Latitude N or Deg. Min. S		Longitude E or Deg. W		Date JD = 276	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S <sub>1</sub> S <sub>2</sub> S <sub>3</sub>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D					
	41 5 7 2 6 2 1	N	17 3 5 8 5 7	W	03 0 CT 9 0	0 5 0 0	8 0	7 5 2 0	1019.8	3 7	2 4 0 1 8	8 2 2	6 3 0	1 0 C						
CTD Type & SN	PMEL 91220-A SEABIRD		Monitor Checks				Times	JD/Time	Data Location											
Press. SN	25084		on Deck		at Surface		Data on		Tape/Diskette I.D.		File Name/Header									
Temp. SN	701		Press.				at Surface				DUB2:(DATA LOG)									
Cond. SN	303		Temp.				Start Down				041 - 03 OCT 0439									
			Cond.				at Bottom	276/4 :59												
			Other				Start Up	5:00												
							at Surface		Remarks		w/o 628 m									
							Data off													
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.	
			Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Other Samp.	Pos.	
1	B		050319							494.356	3.547	31.498	33.952	-187	3.54	33.976	15			1
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials WAV ✓ \_\_\_\_\_

Consec.Cast # <u>42</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event# <u>225</u>	Vessel Sta. I.D. <u>XLD</u>		Instructions							Sta. Designation <u>ED</u>									
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>276</u>			Time GMT	Dry Bulb	Wet Bulb	Bar. mb <u>1020.1</u>	<u>S.</u>	<u>Vis.</u>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D							
	Deg.	Min.	S	Deg.	W	Day	Mo.	Hr. Min.																		
	<u>42</u>	<u>5</u>	<u>7</u>	<u>2</u>	<u>8</u>	<u>0</u>	<u>3</u>	<u>N</u>	<u>1734991</u>	<u>W</u>	<u>03</u>	<u>0</u>	<u>C</u>	<u>T</u>	<u>9</u>	<u>0</u>	<u>06</u>	<u>11</u>	<u>78</u>	<u>73</u>	<u>20</u>	<u>37</u>	<u>240</u>	<u>18822</u>	<u>133</u>	<u>10</u>
CTD	PMEL				Monitor Checks				Times		Data Location															
Type & SN	91220-A SEABIRD				on Deck				JD/Time		Tape/Diskette I.D.		File Name/Header													
Press. SN	25084				at Surface								DUB2:(DATA LOG)													
Temp. SN	701				Press.								<u>042 - 03 OCT 0602</u>													
Cond. SN	303				Temp.																					
					Cond.																					
					Other																					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.						
	Rack		Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.								
1	<u>5</u>									<u>10.373</u>	<u>7.216</u>	<u>33.153</u>	<u>32.453</u>				<u>32.476</u>	<u>35</u>		1						
2																				2						
3	.																			3						
4																				4						
5																				5						
6																				6						
7																				7						
8																				8						
9																				9						
10																				10						
II																				II						
12																				12						

Initials VAV

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Consec.Cast # <u>43</u>		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event# <u>226</u>	Vessel Sta. I.D. <u>EE</u>	Instructions							Sta. Designation <u>10 E</u>			
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD =	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S <sub>wi</sub>	S <sub>si</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D				
	Deg. Min. S	Deg.	Day Mo. Yr.	Hr. Min.															
0 4 3 5	7 3 1	9 3 N	1 7 3 3 2	9 0 W	0 3 0 C T 9 0	0 7 2 1	9 8	8 2	2 0	3 7 2 3 7 1 5	- - 2	1 2 3	1 0 E						
CTD PMEL Type & SN <u>91220-A SEABIRD</u>		Monitor Checks				Times	JD/Time		Data Location										
		on Deck		at Surface		Data on			Tape/Diskette I.D.	File Name/Header									
Press. SN <u>25084</u>		Press.				at Surface			<u>DUB2 : (DATA LOG)</u>	<u>043-03 OCT 0710</u>									
Temp. SN <u>701</u>		Temp.				Start Down													
Cond. SN <u>303</u>		Cond.				at Bottom	<u>07:21</u>												
		Other				Start Up			Remarks	<u>w/o 119 m</u>									
Time @				Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.	
Pos.	Bot.	T	Trip	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	Pos.
1										120.158	3.671	30.632	32.987			33.012	10		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials VAV

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Consec. Cast #	4	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event #	230	Vessel Sta. I.D. 18E	Instructions						Sta. Designation AVII E					
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD = 276	Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.	S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D			
	Deg. Min. S	Deg. W	Day Mo. Yr.	Hr.	Min.			1014.6	N	S								
0 4 4 5 7 0 5 3 0 N	1 7 3 2 5 9 0 W	0 3 0 O C T 9 0	1 0 1 3 6 8 0	0 7	2 2 0	3 7	1 9 0 2 0	- - -	-	-	1 8 8		1 8 E					
CTD PMEL Type & SN 91220-A SEABIRD				Monitor Checks				Times		JD/Time		Data Location						
Press. SN 25084				on Deck		at Surface		Data on	276	/ 1004		Tape/Diskette I.D.	File Name/Header					
Temp. SN 701				Press.		1.491		at Surface	1003			DUB2 : (DATA LOG)						
Cond. SN 303				Temp.		7.253		Start Down	1006			Φ44-Φ3 OCT ΦΦ3						
				Cond.		33.170		at Bottom	1013									
				Other		32.441		Start Up	1013									
								at Surface	1019			Remarks 30 m/min rate						
								Data off	1013									
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data			Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	10	1018	1018				12.389	7.256	33.180	32.443			32.467	12		1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Initials DMD

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Consec.Cast #		Vessel MILLER FREEMAN	Proj. & Leg MF-90-10			Event #	Vessel Sta. I.D. 18C	Instructions							Sta. Designation <del>XVIII</del> C					
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 276	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1018.0	S S	Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D			
	045	565809	N	1734929	W	030CT90	1219080	080	1837200208-2				755	18C						
CTD Type & SN	PMEL 91220-A SEABIRD			Monitor Checks				Times		ID/Time		Data Location								
Press. SN	25084			on Deck		at Surface		Data on	276	/ 1155	Tape/Diskette I.D.	File Name/Header								
Temp. SN	701			Press.	1.672			at Surface		1153		DUB2:(DATA LOG)								
Cond. SN	303			Temp.	7.305			Start Down		1156		<del>18C-030CT1153</del>								
				Cond.	33.275			at Bottom		1219										
				Other	Sal		32.505	Start Up		1224										
								at Surface		1242										
								Data off		1219										
											Remarks	30m/min rate to 270m								
											45°/min to max		Max wire out 914							
Pos	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	B	MAX	1219:20	12:24:36					696.441	3.285	31.513	34.138	687	3.27	34.162	26			1	
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Not at stable  
sample depth

Consec.Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event.#	Vessel Sta. I.D. 18B	Instructions								Sta. Designation XVIII B						
Consec. Cast #	Latitude N or Deg. Min. S	Longitude E or Deg. W	Date JD = 276 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1016.6	S S S	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D						
046	56 54 85 N	17 35 89 3 W	03 OCT 90	14 19 07 8	07 8	17	17	17	17	17	17	1668	18B						
CTD	PMEL	Monitor Checks				Times	ID/Time	Data Location											
Type & SN	91220-A SEABIRD	on Deck	at Surface	Data on	276	1339	Tape/Diskette I.D.	File Name/Header											
Press. SN	25084	Press.	1.124	at Surface		1337		DUB2: (DATA LOG)											
Temp. SN	701	Temp.	7.612	Start Down		1340		Φ46 - Φ3 OCT 1337											
Cond. SN	303	Cond.	33.886	at Bottom		1419													
		Other <u>Sal</u>	32.875	Start Up		1420													
				at Surface		1453	Remarks	30 m/min to 250 m											
				Data off		1420		45 m/min 250 - max out											
Pos.	Bot.	T	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos.
	Rack		Depth	Depth	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Other Samp.		
1	5		10	452	1452				9.638	7.134	33.275	32.663				32.687	32		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec.Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event.# 238	Vessel Sta. I.D. BS-3	Instructions recovery site current mooring BS-3	500 m cast at current mooring BS-3	Sta. Designation BS-3												
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date JD = 276 Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S S S S	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D				
047	56 40 44	N	173 16 75	W	03 OCT 90	18 07	80781	34616525956	680						BS-3				
CTD Type & SN	PMEL 91220-A SEABIRD	on Deck	Monitor Checks			Times	JD/Time	Data Location											
Press. SN	25084		at Surface			Data on	276 / 1750	Tape/Diskette I.D.	File Name/Header										
Temp. SN	701	Press.	1.832			at Surface	1749	DUB2:(DATA LOG)											
Cond. SN	303	Temp.	7.417			Start Down	1751	Φ47-Φ30CT 1749											
		Cond.	33.674			at Bottom	1807												
		Other	32.831			Start Up	1807												
						at Surface	1807	Remarks 30m/min rate wire out to 260 m 45 m/min rate 260 - max depth											
						Data off	1807	Wire out max = 544											
P. s. Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal. Bot. #	Other Samp.	P. s.
			Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	5	- MAX						499.475	3.549	31.531	33.987			34.010	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 DMD

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Consec. Cast #	Vessel MILLER FREEMAN	Proj. & Leg MF-90-10	Event # 239	Vessel Sta. I.D.	Instructions								Sta. Designation						
Consec. Cast #	Latitude N or S Deg. Min. S	Longitude E or W Deg.	Date JD = Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb mb	Bar. mb	S <sub>1</sub>	V <sub>1</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D				
048	564172 N	1731553 W	03 OCT 90	2203	79	7908	1008.0			46160209	-6	218	BS2						
CTD PMEL Type & SN 91220-A SEABIRD				Monitor Checks on Deck at Surface				Times	JD/Time	Data Location									
Press. SN 25084	Temp. SN 701	Cond. SN 303		Press.	Start Down	21:55	Tape/Diskette I.D. File Name/Header												
				Temp.	at Bottom	22:03	DUB2:(DATA LOG) 048-Φ30CT2154												
				Cond.	Start Up		Remarks v/u 227m												
				Other	Data off														
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1										10.126	7.116	33.386	32.801		32.825	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 VXV

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Consec.Cast # 49		Vessel MILLER FREEMAN	Proj. & Leg MF-90-10			Event# 242	Vessel Sta. I.D. IX 4	Instructions							Sta. Designation		
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 277	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Weath.	Depth, m	Sta. Name or I.D
	Deg. Min.	S	Deg.	W	Day Mo. Yr.	Hr. Min.			1006.6	Si	Vis						
	49 56 22 76	N	17 30 52 2	W	04 OCT 90	02 29	89	87	07	57	20	53	09 66	20 00		9A	
CTD	PMEL		Monitor Checks					Times	JD/Time			Data Location					
Type & SN	91220-A SEABIRD		on Deck at Surface					Data on				Tape/Diskette I.D.	File Name/Header				
Press. SN	25084							at Surface					DUB2:(DATA LOG)				
Temp. SN	701							Start Down	1:54				049 - 04 OCT 0148				
Cond. SN	303							at Bottom	02:30								
											Start Up						
											at Surface						
											Data off						
												Remarks ✓/o 1508					

Pos	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot.Data			Pos		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		
1	B			02:30	02:35					1498.591	2.250	31.227	34.470	1484	2.23	34.495	04	1
2																	2	
3																	3	
4																	4	
5																	5	
6																	6	
7																	7	
8																	8	
9																	9	
10																	10	
11																	11	
12																	12	

Prior To This cast Soaked Conductivity Cell  
For 15 min. In Triton x100 non ionic Detergent

Initials LAV ✓

Consec.Cast # 50		Vessel MILLER FREEMAN			Proj. & Leg MF-90-10			Event# 244	Vessel Sta. I.D. IX-B		Instructions							Sta. Designation		
Consec. Cast #		Latitude	N or S	Longitude	E or W	Date	JD = 277		Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S	S	Wind Dir.	Wind Sp.	Cloud Type	Wheath.	Bottom Depth, m	Sta. Name or I.D
Deg.	Min.	Deg.	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.				1000	1000	1000	1000	1000	1000	1000	1000	1000
50	56	24	16	N	172	59	30	W	04	OCT	90	04	21	10	00	9	1	065721028755~	1700	9B
CTD	PMEL				Monitor Checks					Times		JD/Time		Data Location						
Type & SN	91220-A SEABIRD				on Deck			at Surface						Tape/Diskette I.D.	File Name/Header					
Press. SN	25084				Press.									DUB2:(DATA LOG)						
Temp. SN	701				Temp.									050-04 OCT 0340						
Cond. SN	303				Cond.															
						Other									Remarks w/o 1521					
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values					Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	pg
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1										10.750	7.007	33.274	32.782				32.805	6	1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
II																			II	
12																			12	

Initials LAV

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Consec. Cast #		Vessel MILLER FREEMAN		Proj. & Leg MF-90-10			Event # <u>245</u>	Vessel Sta. I.D. <u>IXC</u>		Instructions							Sta. Designation						
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD =		Time GMT		Dry Bulb	Wet Bulb	Bar. mb <u>1005.6</u>	S <sub>1</sub>	V <sub>is</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D			
Deg.	Min.	S	Deg.	W	Day	Mo.	Yr.	Hr.	Min.														
51	56	30	47	N	172	55	99	W	04	OCT	90	06	12	80	88	06	57	19	03	33	41	1700	7K
CTD Type & SN PMEL 91220-A SEABIRD				Monitor Checks on Deck                            at Surface						Times		JD/Time		Data Location									
Press. SN 25084				Press.						Data on				Tape/Diskette I.D.		File Name/Header							
Temp. SN 701				Temp.						at Surface						DUB2 : (DATA LOG) 051 - 04 OCT 0532							
Cond. SN 303				Cond.						Start Down		613											
				Other						at Bottom													
										Start Up													
										at Surface													
										Data off													
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.				
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw	Sal.		
1	B								1507.942	2.245	31.229	34.473	1491	2.24	34.497	18			1				
2																			2				
3																			3				
4																			4				
5																			5				
6																			6				
7																			7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

Initials LAV  
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Consec.Cast #	52	Vessel	MF	Proj. & Leg	90-10	Event#	24b	Vessel Sta. I.D.	TXD	Instructions								Sta. Designation	XD	
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 277	Time	GMT	Dry	Wet	Bar.			Wind	Wind	Bottom	Sta. Name			
	Deg.	Min.	Deg.		Day	Mo. Yr.	Hr. Min.	Bulb	Bulb	mb	1005.5	Si	Vis	Dir.	Sp.	Cloud	Type	Depth, m	or I.D	
	52	56	34	81	N	172 47 63 W	04 OCT 90	07 40	98	90	06	57	203	28641	151	151	90			
CTD					Monitor Checks		Times	JD/Time		Data Location										
Type & SN	91220-A		PMEL SEABIRD		on Deck	at Surface	Data on	277		Tape/Diskette I.D.	File Name/Header									
Press. SN	25084		Press.	Start Down						052-04 OCT 0731										
Temp. SN	701		Temp.	at Bottom	7:40															
Cond. SN	303		Cond.	Start Up																
			Other	at Surface																
				Data off																
Pos	Bot.	T	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Pos	
	Rack		Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	5	-	10							9.930	7.530	33.533	32.569				32.593	03		1
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials LAV  
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Consec. Cast # 053		Vessel MF		Proj. & Leg OCSEAP MF-90-10		Event # 217	Vessel Sta. I.D. 9E	Instructions						Sta. Designation IXE					
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 277		Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1004.8	S vi	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
053	Deg.	Min.	Deg.		Day Mo. Yr.											130	IXE		
053564165N		1723644W		04 OCT 90	08 50	095	089	0557	10826641										
CTD Type & SN 91220A		Monitor Checks				Times	JD/Time		Data Location										
Press. SN 25084		on Deck		at Surface		Data on 277	0844		Tape/Diskette I.D.	File Name/Header									
Temp. SN 701		Press.		1.558		at Surface	0842												
Cond. SN 303		Temp.		6.849		Start Down	0846												
		Cond.		32.777		at Bottom	0850												
		Other		32.392		Start Up	0855												
						at Surface	0858												
						Data off	0851												
						Remarks 30m/min rate wire out													
												May wire out : 116							
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	MAX	085020	085510						114.516	4.074	31.079	33.114	113	4.070	33.127	25		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	251	Vessel Sta. I.D.	16H	Instructions						Sta. Designation	XVI H						
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD = 277	Time	GMT	Dry	Wet	Bar.	Si	Si	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D			
	Deg. Min.		Deg.		Day Mo. Yr.	Hr. Min.		Bulb	Bulb	mb	1013.7											
054	56	47	80	N	171	34	34	W	04	OCT	90	12	26	09	50	04	57	210	30	041	114	16H
CTD Type & SN				Monitor Checks					Times	JD/Time	Data Location											
91220 A				on Deck	at Surface	Data on	277	1221	Tape/Diskette I.D.	File Name/Header												
Press. SN 25084				Press.	1.209	at Surface		1219														
Temp. SN 701				Temp.	6.922	Start Down		1222														
Cond. SN 303				Cond.	32.754	at Bottom		1226														
				Other	32.298	Start Up		1227														
						at Surface		1230	Remarks 30 m/min rate out													
						Data off		1227														
Pos	Bot.	T	Rack	Trip Depth	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Pos		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.				
1	5	-	10	1229	1229					8.484	6.934	32.769	32.301				32.324	02		1		
2																				2		
3																				3		
4																				4		
5																				5		
6																				6		
7																				7		
8																				8		
9																				9		
10																				10		
11																				11		
12																				12		

CTD made hard landing on retrieval

Initials DMV ✓

Consec. Cast # <b>055</b>		Vessel <b>MF</b>		Proj. & Leg OCSEAP MF-90-10		Event # <b>252</b>	Vessel Sta. I.D. <b>16G</b>	Instructions							Sta. Designation <b>XIV G</b>					
Consec. Cast #	Latitude Deg.		N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 277	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1003.1	S. S. >	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
	Deg.	Min.		Deg.																
055	56	42	36N	171	39	57W	04 OCT 90	1338	089	085	036	721	030	641		116	16G			
CTD Type & SN <u>91220 A</u>		Monitor Checks on Deck				Times at Surface		JD/Time		Data Location										
Press. SN <u>25084</u>						Data on at Surface		277	1333	Tape/Diskette I.D. <u>055-040CT 1332</u>										
Temp. SN <u>701</u>		Press.				1331		File Name/Header												
Cond. SN <u>303</u>		Temp.				Start Down		1334												
		Cond.				at Bottom		1338												
		Other				Start Up		1339												
						at Surface		1338												
						Data off		1338												
										Remarks 30m/min rate										
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	5	-	MAX						101.470	3.996	31.005	33.112			33.138	11		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD  
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Consec. Cast #	Vessel	Proj. & Leg	DCSEAP	Event #	Vessel Sta. I.D.	Instructions						Sta. Designation								
056	MF	MF - 90-10	254		16F							XII F								
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	Si. si.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D			
056	56 36 32 N		171 44 71 W		04 OCT 90	14	47	0 90	0 86	1003.0	>					126	16F			
CTD Type & SN 91220 A				Monitor Checks				Times		JD/Time		Data Location								
				on Deck		at Surface		Data on	277	1442		Tape/Diskette I.D.		File Name/Header						
				Press.		2.474		at Surface		1441				056-04OCT1441						
				Temp.		7.648		Start Down		1443										
				Cond.		33.576		at Bottom		1447										
				Other		32.508		Start Up		1447										
								at Surface		1453										
								Data off		1447										
Remarks 30 m/min rate out Max wire out: 108 m																				
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	P#
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	5	-	10	1450	1450					9.091	7.656	33.584	32.506			32.530	33		1	
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Consec. Cast #	Vessel	MF	Proj. & Leg OCSEAP MF - 90 - 10			Event #	254	Vessel Sta. I.D.	16E	Instructions						Sta. Designation	XVI E			
Consec. Cast #	Latitude N or S	Deg.	Longitude E or W	Deg.	Date JD = 277			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S <sub>1</sub>	V <sub>1</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
057	56 30 33 N		171 50 86 W		04 OCT 90			Hr. Min.											178	16E
CTD Type & SN 91220 A				Monitor Checks				Times	JD/Time	Data Location										
Press. SN 25084				on Deck		at Surface		Data on	277 / 1556	Tape/Diskette I.D.				File Name/Header						
Temp. SN 701				Press.		2.173		at Surface	1554											
Cond. SN 303				Temp.		7.472		Start Down	1557											
				Cond.		33.395		at Bottom	1604											
				Other		32.479		Start Up	1604											
								at Surface	1613											
								Data off	1604											
Remarks 30 m/min wire out rate																				
May wire out ~ 168																				
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Fg
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	B	MAX	160515	161000					157.309	3.713	31.021	33.390	155	3.70	33.413	30			1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials DMD

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Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP	Event #	Vessel Sta. I.D.	Instructions	Sta. Designation								
058			MF-90-10	255		16D		XID								
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date JD = 277	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	Deg. Min.		Deg.		Day Mo. Yr.	Hr. Min.			100/4						6 3 7	

058 56 27 21 N	171 53 26 W	04 OCT 90	17 04 08 8	08 8	01 56 20 5	27 - 5	646	16D					
CTD		Monitor Checks			Times	JD/Time	Data Location						
Type & SN	91220A	on Deck	at Surface		Data on	277 / 1646	Tape/Diskette I.D.	File Name/Header					
Press. SN	25084				at Surface	1644							
Temp. SN	701	Press.	2.577		Start Down	1647							
Cond. SN	303	Temp.	7.398		at Bottom	1704							
		Cond.	33.301		Start Up	1705							
		Other	32.446		at Surface	17	Remarks	30 m/min wire out rate to 250 m depth					
					Data off	1704		45 m/min from 250 m to max					
													Max wire out: 630 m

Pos.	Bot.	T Rack	Trip	Time @		Monitor Values			Conv. Mon. Values-CTD			Sample Bot. Data			Sal. Bot. #	Other Samp.	P.S.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	310	1712	1712					310.503	3.655	31.216	33.601			33.623	21	1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

Initials DND  
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Consec.Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	256	Vessel Sta. I.D.	16C	Instructions								Sta. Designation	XVII C		
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD = 277	Time	GMT	Dry	Wet	Bar.	S.	Wind	Wind	Cloud	Type	Bottom	Sta. Name		
	Deg. Min.		Deg.		Day Mo. Yr.	Hr. Min.	Bulb	Bulb	mb	vis	Dir.	Sp.	30	655	Weath.	Depth, m	or I.D			
059	5621	50N	17157	84W	04 OCT 90	1844	090	0900	156200		30	655	1800		16C					
CTD Type & SN 91220 A			Monitor Checks					Times	JD/Time	Data Location										
			on Deck		at Surface			Data on	277   1806	Tape/Diskette I.D.		File Name/Header								
			Press.		6.194			at Surface	1804											
			Temp.		7.359			Start Down	1807			059-04OCT1801								
			Cond.		33.454			at Bottom	1844											
			Other		32.647			Start Up	1845											
								at Surface	1916											
								Data off	1845											
Remarks 30 m/min rate wire out to 250m depth 45 m/min 250 m to 1500 m																				
Max wire out 1502 m																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	P.S.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5		MAX	1844	1845					1502.39	2.263	31.237	34.467			34.493	16		1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

rosette pranged ship on retrieval

Initials DMD

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Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	258	Vessel Sta. I.D.	16B	Instructions						Sta. Designation	XLB			
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 277	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb 1000.4	S vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
	0 6 0 5 6 1 5 5 7 N		1 7 2 0 3 4 5 W		0 4	OCT 90	2 0	4 3	9 0	9 0	0 1	5 6	2 1 5	2 9	8 6 2	2 6 7 0	16B		
CTD Type & SN		Monitor Checks						Times	JD/Time	Data Location									
91220A		on Deck			at Surface			Data on	277	Tape/Diskette I.D.			File Name/Header						
Press. SN		Press.						at Surface											
Temp. SN		Temp.						Start Down								960-04OCT1958			
Cond. SN		Cond.						at Bottom											
		Other						Start Up											
								at Surface											
								Data off											
Pos.	Bot.	T	Trip	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									10.735	7.668	33.776	32.700			32.723	01		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials LAV  
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Consec. Cast #	061	Vessel	MF	Proj. & Leg OCSEAP MF-90-10	Event # 260	Vessel Sta. I.D.	16A	Instructions								Sta. Designation	XVI A
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 277	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1000.7	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	Deg.	Deg.	Day Mo. Yr.												
061	56	1006N	17210	22W	04 OCT 90	2238	88	88	01	56	21030	862	2700		16A		
CTD Type & SN	91220 A				Monitor Checks				Times	JD/Time		Data Location					
Press. SN	25084				on Deck at Surface				Data on			Tape/Diskette I.D.	File Name/Header				
Temp. SN	701				Press.				at Surface								
Cond. SN	303				Temp.				Start Down								
					Cond.				at Bottom	22:38							
					Other				Start Up								
									at Surface			Remarks					
									Data off								

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data				Sal. Bot. #	Other Samp.	P.S.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	B			38.30						1492.59	22.242	31.220	34.472	1476	2.23	34.497	04		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
II																		II	
I2																		I2	

Initials LAV  
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Consec. Cast # <u>62</u>	Vessel <u>MF</u>	Proj. & Leg <u>90-10</u>	Event # <u>264</u>	Vessel Sta. I.D. <u>XIIIA</u>	Instructions										Sta. Designation														
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = <u>278</u>	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb <sub>1000.7</sub>	<u>5</u>	<u>5</u>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D										
	<u>62</u>	<u>56</u>	<u>05</u>	<u>23</u>	<u>N</u>	<u>171</u>	<u>27</u>	<u>65</u>	<u>W</u>	<u>05</u>	<u>04</u>	<u>90</u>	<u>02</u>	<u>11</u>	<u>9</u>	<u>8</u>	<u>9</u>	<u>5</u>	<u>0</u>	<u>1</u>	<u>56</u>	<u>200</u>	<u>28</u>	<u>8</u>	<u>62</u>	<u>2100</u>	<u>84</u>		
CTD Type & SN <u>91220 A</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>					Monitor Checks on Deck                    at Surface					Times Data on _____ at Surface _____					JD/Time Start Down _____ at Bottom <u>02:11</u>					Data Location Tape/Diskette I.D. _____ File Name/Header _____									
										Press. _____					Temp. _____					Start Up _____ at Surface _____					Remarks _____				
										Cond. _____					Other _____														
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.										
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.													
1	5									9.056	7.725	33.444	32.292				32.315	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 LAR

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Consec. Cast #	Vessel	<i>MF</i>	Proj. & Leg	<i>MF 9010</i>	Event #	<i>265</i>	Vessel Sta. I.D.	<i>TW B</i>	Instructions								Sta. Designation					
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD =	Time		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Bottom Depth, m	Sta. Name or I.D		
	Deg.	Min.		Deg.		Day	Mo. Yr.	Hr. Min.				1000.7										
	63	56	08	12		17	12	18	4	05	00	10	04	15	87	87	70	156	210	32778	2025	8B
CTD				Monitor Checks								Times	JD/Time		Data Location							
Type & SN <u>SBE 91220 A</u>				on Deck				at Surface				Data on			Tape/Diskette I.D.				File Name/Header			
Press. SN <u>25084</u>				Press.								at Surface										
Temp. SN <u>701</u>				Temp.								Start Down							<u>063-05 OCT 0335</u>			
Cond. SN <u>303</u>				Cond.								at Bottom	<u>04:15</u>									
				Other								Start Up										
												at Surface										
												Data off										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Pos.		
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.	Bot. #
1		B							1489.38	2.265	31.233	34.465	1476	2.26	34.491	10			1			
2																			2			
3																			3			
4																			4			
5																			5			
6																			6			
7																			7			
8																			8			
9																			9			
10																			10			
11																			11			
12																			12			

Initials LAR  
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Consec.Cast # <u>64</u>		Vessel <u>MF</u>		Proj. & Leg <u>9010</u>			Event# <u>2100</u>	Vessel Sta. I.D. <u>VILL C</u>	Instructions								Sta. Designation			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date Day Mo. Yr.	JD = <u>278</u>	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb <u>999.8</u>	Si <u>5</u>	Vis <u>5</u>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.		Deg.															<u>1052</u>	<u>80</u>
64	56	12	66	171	14	49	050	OCT 90	06 09	85	85	00	56	20026	-2					
CTD Type & SN <u>SBE 91220 A</u>				Monitor Checks				Times		JD/Time		Data Location								
				on Deck		at Surface		Data on _____ at Surface _____		Data on _____ at Surface _____		Tape/Diskette I.D.				File Name/Header				
				Press.				Start Down _____ at Bottom _____		06:09						<u>064-05 OCT 0529</u>				
				Temp.				Start Up _____ at Surface _____				Remarks w/o 1000m								
				Cond.				Data off _____				unable to get good depth reading; stopped @ 988m								
				Other																
Pos.	Bot.	T Rack	Trip	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	5									10.748	7.518	33.463	32.505				32.526	27	1	
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials VAV

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952 lost frames, again  
(see cast 63)

Consec. Cast #	65	Vessel	MF	Proj. & Leg MF90-10			Event #	267	Vessel Sta. I.D.	Instructions						Sta. Designation						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD =	Time	Dry	Wet	Bar.	mb	Si	Vis	Wind	Wind	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	GMT Hr.	Min.	Bulb	Bulb	999.9	53	21	024	-8	139	82				
	65	56	16	95	n	171	10	82	w	05	Oct	90	07	20	90	90	005	32	1024	-8	139	82
CTD Type & SN				SBE 91220 A								Monitor Checks			Times	JD/Time	Data Location					
Press. SN				25084								on Deck			Data on		Tape/Diskette I.D.			File Name/Header		
Temp. SN				701								at Surface			at Surface							
Cond. SN				303								Press.			Start Down							
												Temp.			at Bottom	7:20						
												Cond.			Start Up							
												Other			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.	Sal.		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.						
1	5									110.713	3.844	31.057	33.323	110	3.84	33.346	32			1		
2																				2		
3																				3		
4																				4		
5																				5		
6																				6		
7																				7		
8																				8		
9																				9		
10																				10		
11																				11		
12																				12		

Initials LL  
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Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	269	Vessel Sta. I.D.	8E	Instructions								Sta. Designation	VIIIE		
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD = 278	Time	GMT	Dry	Wet	Bar.	S.	Wind	Wind	Cloud	Type	Bottom Depth, m	Sta. Name or I.D		
	Deg. Min.		Deg.		Day Mo. Yr.	Hr. Min.	Bulb	Bulb	mb	vis	Dir.	Sp.	Cloud	Weath.						
	0 66 56 22 85 N		171 02 07 W	0 50	OCT 90	0 8 32	0 9 1	0 9 3	0 0 5	6200	24	-8	100	8 E						
CTD Type & SN	91220 A				Monitor Checks				Times	JD/Time	Data Location									
Press. SN	25084				on Deck	at Surface	Data on	278 / 0827	Tape/Diskette I.D.	File Name/Header										
Temp. SN	701				Press.	1.442	at Surface	0825									066 - 05OCT 0824			
Cond. SN	303				Temp.	7.880	Start Down	0828												
					Cond.	33.472	at Bottom	0832												
					Other	Sal	Start Up	0832												
						32.183	at Surface	0832	Remarks	30m/min wire out rate										
							Data off	0832												
Pos.	Bot.	T Rack	Trip Depth	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	5	-	10	0836	0836					10.816	7.878	33.478	32.186				32.210	35		1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials DMD  
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Consec. Cast #	067	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	274	Vessel Sta. I.D.	7G	Instructions								Sta. Designation	III G			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 278	Time		GMT	Dry Bulb	Wet Bulb	Bar. mb	S. s.	V. v.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Weath.	Depth, m	Sta. Name or I.D
	Deg.	Min.		Deg.			Day	Mo.	Hr.	Min.			1000.0									
067	56	24	N	169	54	52	W	05	OCT	90	12	32	10	09	7	5	82	20	20	-2	96	7G
CTD Type & SN 91220-A				Monitor Checks						Times		JD/Time		Data Location								
				on Deck			at Surface			Data on		278	1227	Tape/Diskette I.D.				File Name/Header				
				Press.			1.669			at Surface			1226									
				Temp.			7.826			Start Down			1228									
				Cond.			33.370			at Bottom			1232									
				Other			32.123			Start Up			1233									
										at Surface			1235									
										Data off			1233									
Remarks 30 m/min rate wire out Max wire out 83 m																						

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	5	-	MAX	1232	1232					85.027	3.902	30.482	32.596				32.620	08	1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials DMD

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Consec. Cast # 068		Vessel MF	Proj. & Leg OCSEAP MF-90-10			Event # 275	Vessel Sta. I.D. 7F	Instructions								Sta. Designation VII F	
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 278		Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	Si	Si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	Deg.		Day	Mo.	Yr.			1000.0							
06 8 56 15 74 N	169 59 68 W	05 0 CT 90	14 05	92	90	00	05622026	-2	111							7F	
CTD Type & SN 91220 A	Monitor Checks						Times	JD/Time		Data Location							
Press. SN 25084	on Deck			at Surface			Data on	278 / 1401		Tape/Diskette I.D.	File Name/Header						
Temp. SN 701	Press.			1.242			at Surface	1355		MF DAP:: DUB2:	+ local time/date system stamp on MF DAP *						
Cond. SN 303	Temp.			7.927			Start Down	1402			068-05OCT0601						
	Cond.			33.491			at Bottom	1405									
	Other			32.159			Start Up	1405									
							at Surface	1409		Remarks 30 m/min wire out rate							
							Data off	1405			Max wire out 100 m						

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot. Data			Sal. Bot. #	Other Samp.	Sg
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.		
1	5	-	10	1407	1408					8.975	7936	33.505	32.162			32.187	27	1
2																		2
3																		3
4																		4
5																		5
6																		6
7																		7
8																		8
9																		9
10																		10
11																		11
12																		12

MFACQ failed to reboot after shutdown prior to this cast. MF DAP assumed acquisition function beginning with this cast. System clock not reset to GMT/UTC and is ~2 min ahead of zone time. Lost frame message decreased to 0 after 952 on previous casts. SEABIRD.CAL updated on this system. Initials DMD ✓

Consec. Cast #	069	Vessel	MF	Proj. & Leg	OCSEAP	Event #	MF-90-10	278	Vessel Sta. I.D.	7E	Instructions						Sta. Designation	JIE		
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 278	Time	GMT	Dry	Wet	Bar.	Si	Wind	Wind	Cloud	Bottom	Sta. Name	
	Deg.	Min.	Deg.	Deg.		Day	Mo.	Yr.	Hr.	Min.	Bulb	Bulb	mb	vis	Dir.	Sp.	Type	Depth, m	or I.D	
	069	560845N		1700378W		05	OCT	90	15	14	90	90	01	56	21	026	-2	118	7E	
CTD Type & SN	91220-A				Monitor Checks				Times	JD/Time	Data Location									
Press. SN	250B4				on Deck				Data on	278 / 1509	Tape/Diskette I.D.	File Name/Header								
Temp. SN	701				at Surface				at Surface	1507	MFDAP DUB2:	* Local Time/Date Stamp *								
Cond. SN	303				Press.	1.653			Start Down	1510		069-05OCT0710								
					Temp.	7.810			at Bottom	1514										
					Cond.	33.354			Start Up	1519										
					Other	32.120			at Surface	1521										
									Data off	1515										
Remarks 30m/min wire out rate										May wire out 106 m										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Sig.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	B	MAX	1514:25	1519:10					106.969	3.819	30.811	33.076	105	3.88	33.094	10		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Consec. Cast #	070	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	277	Vessel Sta. I.D.	7D	Instructions						Sta. Designation	VILD					
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 278		Time	GMT	Dry	Wet	Bar.			Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr.	Min.	Bulb	Bulb	mb	1010.5	S	vi	Si				3.5		
070	56	01	89	N	170	06	34	W	05	OCT	90	16	26	90	89	01	56	209	26	--8	135	7D
CTD Type & SN 91220 A				Monitor Checks						Times	JD/Time	Data Location										
Press. SN 25084				on Deck	at Surface		Data on	278 / 1620	Tape/Diskette I.D.	File Name/Header												
Temp. SN 701				Press.	2.436		at Surface	1617	MFDAP:::DVB2:	* Time/date stamp is local time *												
Cond. SN 303				Temp.	7.765		Start Down	1621		070-05OCT0821												
				Cond.	33.532		at Bottom	1626														
				Other	32.352		Start Up	1626														
							at Surface	1630	Remarks	30 m/min rate wire out												
							Data off	1626														
										Max wire out 120 m												
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	S		
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.	Bot. #
1	5	-	10	1629	1629				10.241	7.762	33.536	32.355				32.379	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 DMD

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Consec. Cast #	071	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	278	Vessel Sta. I.D.	7C	Instructions								Sta. Designation	VII C		
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 278	Time	GMT	Dry	Wet	Bar.	<i>Si</i>	<i>Si</i>	Wind	Wind	Cloud	Type	Bottom	Sta. Name
	Deg.	Min.	Deg.	Deg.		Day	Mo.	Yr.	Hr. Min.	Bulb	Bulb	mb			Dir.	Sp.		Weath.	Depth, m	or I.D	
071	55	56	71N	170	09	83W	05	OCT 90	1742	090	086	01	56	238	339	28	865		7C		
CTD	Type & SN		91220 A	Monitor Checks								Times	JD/Time	Data Location							
	Press. SN		25084	on Deck				at Surface				Data on	278 / 1719	Tape/Diskette I.D.	File Name/Header						
	Temp. SN		701									at Surface	1717	MFDAP:::DUB2:	+ Date/time stamp is local (zone) time +						
	Cond. SN		303	Press.				1.145				Start Down	1720		\$71_05 OCT 0919						
				Temp.				7.438				at Bottom	1742								
				Cond.				33.517				Start Up	1743								
				Other				32.642				at Surface	1803	Remarks	30 m/min to 230 m depth						
												Data off	1743		45 m/min rate to max depth						
															Wire out 865 m						
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #				
1	5	-	MAX	1742	1743					853.827	3.096	31.476	34.209		34.234	20		1			
2																		2			
3																		3			
4																		4			
5																		5			
6																		6			
7																		7			
8																		8			
9																		9			
10																		10			
11																		11			
12																		12			

Cast Start : 55°56.66' @ 850 m.  
170° 09.25'

Initials DMD  
✓ \_\_\_\_\_

Consec.Cast #	Vessel	MF	Proj. & Leg	OCSEAP	Event #	Vessel Sta. I.D.	Instructions						Sta. Designation							
072			MF-90-10			7B							VII B							
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 278	Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb 1002.8	S si	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D			
072	55 51	N	170 10 58	W	05	OCT 90	19 22	8 9	8 9	0 3	5 5	23 6	3 4	9 2 8	1 3 9 0	7B				
CTD Type & SN				Monitor Checks				Times				ID/Time				Data Location				
91220 A				on Deck				Data on				278 / 1846				Tape/Diskette I.D.			File Name/Header	
Press. SN 25084				at Surface				at Surface				1844				MFDAP::DUB2:			* Date/Time Stamp is Local (Zon) time *	
Temp. SN 701				Press.				Start Down				1847							\$72 - 05OCT1044	
Cond. SN 303				2.249				at Bottom				1922								
				Temp.				Start Up				1923				Remarks 30 m/min rate wire out to 250 m depth 45 m/min 250 m to max depth				
				Cond.				at Surface				1923								
				Other				Data off				1923								
Os. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Bot. #	P S #
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	5	-	10							10.058	7.334	33.653	32.653			32.677	01		1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Start Cast 55° 51' A1 1426 m  
170° 09.99

Initials DMD  
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Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF 90-10	Event #	281	Vessel Sta. I.D.	7A	Instructions								Sta. Designation	VII A		
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD =	Time	GMT	Dry	Wet	Bar.	Si	Si	Wind	Wind	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	Deg.		Day	Mo. Yr.	Hr.	Min.	Bulb	Bulb	mb	1000-0	Vis.	Dir.	Sp.	Cloud	Type	Weath.		
073	55	46	71	N	170	11 33 W	05	OCT 90	21 06	9 3	9 3	04	55	235	24	826	1906	1906	7A	
CTD Type & SN			SBE 91220 A			Monitor Checks				Times	JD/Time	Data Location								
Press. SN			25084			on Deck		at Surface		Data on		Tape/Diskette I.D.				File Name/Header				
Temp. SN			701			Press.				at Surface										
Cond. SN			303			Temp.				Start Down	20:32					673-05OCT1227 (Local time)				
						Cond.				at Bottom	21:05									
						Other				Start Up										
										at Surface		Remarks								
										Data off		v10 1499m								

Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Sig.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	-	B	MAX	20847						1507.054	2.301	31.262	34.455	1492	2.27	34.481	04			1
2																				2
3																				3
4																				4
5																				5
6																				6
7																				7
8																				8
9																				9
10																				10
11																				11
12																				12

Initials LAV  
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Consec.Cast #	074	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	284	Vessel Sta. I.D.	6A	Instructions								Sta. Designation	VI A						
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD = 278	Time	GMT	Dry	Wet	Bar.		Wind	Wind	Cloud	Type	Bottom	Sta. Name						
	Deg.	Min.		Deg.		Day	Mo. Yr.	Hr. Min.	Bulb	Bulb	mb 1005.6	Si -5	Dir.	Sp.		Weath.	Depth, m	or I.D							
074	55	46	N	169	48	19	W	05	OCT	90	23	31	10	3	10	1	06	46	23	0	20	8	-5	24004	6A
CTD Type & SN				SBE 91220 A								Monitor Checks				Times		JD/Time		Data Location					
												on Deck		at Surface		Data on		Tape/Diskette I.D.		File Name/Header					
												Press.				at Surface						074-05 OCT 1458			
												Temp.				Start Down						(Local time)			
												Cond.				at Bottom		23:30							
												Other				Start Up									
																at Surface									
																Data off									
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Samp.	Sg				
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw					Sal.			
1	5	-	10						10.236	7.457	33.537	32.642			32.667	15				1					
2																				2					
3																				3					
4																				4					
5																				5					
6																				6					
7																				7					
8																				8					
9																				9					
10																				10					
11																				11					
12																				12					

Initials LAV  
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Consec.Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	286	Vessel Sta. I.D.	6B	Instructions						Sta. Designation						
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date	JD = 279	Time GMT		Dry Bulb	Wet Bulb	Bar. mb 1000.6	S vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D			
07 55 55 55 43 N	169 42 98 W		06 OCT 90	01	44	9 5	9 2	0 7	4 6	2 4 0	2 4 8	-4	1 4 9 7		6B						
CTD Type & SN SBE 91220A				Monitor Checks				Times	JD/Time	Data Location											
				on Deck	at Surface	Data on		Tape/Diskette I.D.	File Name/Header												
				Press.		at Surface			075-05091659 (local time)												
				Temp.		Start Down	01:00														
				Cond.		at Bottom															
				Other		Start Up															
						at Surface		Remarks													
						Data off	w/o 1534m														
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Samp.	P
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				
1	B			0.49.21					1455.964	2.314	31.247	34.448	1441	2.30	34.473	16				1	
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials LAV  
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Consec. Cast #	Vessel	Proj. & Leg MF 9110	Event #	Vessel Sta. I.D. <u>76 0</u>	Instructions								Sta. Designation							
Consec. Cast #	Latitude N or S Deg. Min.	Longitude E or W Deg.	Date JD = Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb /1000	Si Si	Wind Dir.	Wind Sp.	Cloud Type	Wheath.	Bottom Depth, m	Sta. Name or I.D						
	76 56 00 60 N	169 39 11 W	06 OCT 90	03 11 87	8 8	0 6 46	250	188 82	268											
CTD Type & SN <u>SBE 912204</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>				Monitor Checks on Deck at Surface				Times	JD/Time	Data Location										
				Press.	Data on _____ at Surface _____	Start Down _____ at Bottom <u>13 11 08</u>	Tape/Diskette I.D.	File Name/Header												
				Temp.	Start Up _____ at Surface _____	Data off _____														
				Cond.	Remarks															
				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	5															32.251	33	1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials LAV ✓ \_\_\_\_\_

Consec. Cast #	077	Vessel	MF	Proj. & Leg	90 10	Event #	288	Vessel Sta. I.D.	AID	Instructions						Sta. Designation						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD =	279	Time	GMT	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D			
	Deg.	Min.		Deg.			Day	Mo.	Yr.	Hr. Min.			1000.4	S	VIS							
	77	56	06	77	N	169	37	45	W	0600	CET	90	04	11	95	80	06	45	24	119978	164	60
CTD Type & SN _____				Monitor Checks					Times		JD/Time		Data Location									
				on Deck			at Surface						Tape/Diskette I.D.			File Name/Header						
				Press.																		
				Temp.																		
				Cond.																		
				Other																		
									Data on													
									at Surface													
									Start Down													
									at Bottom		04:11											
									Start Up													
									at Surface													
									Data off													
													Remarks									
													w/o 169									
Pos.	Bot.	T Rack	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal. Bot. #	Other Samp.	Samp.		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.						
1										129.307	3.987	31.044	33.153	129	3.99	31.226	11		1			
2																		2				
3																		3				
4																		4				
5																		5				
6																		6				
7																		7				
8																		8				
9																		9				
10																		10				
11																		11				
12																		12				

Initials LAV

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(Local time)

Consec.Cast # <u>18</u>			Vessel		Proj. & Leg			Event# <u>289</u>	Vessel Sta. I.D. <u>VI E</u>		Instructions							Sta. Designation				
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>279</u>	Time GMT	Dry Bulb	Wet Bulb	Bar. mb <u>1006.6</u>	S. <u>&gt;</u> W. <u>&lt;</u>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D						
	Deg.	Min.	Deg.		Day Mo. Yr.	Hr. Min.																
	<u>18</u>	<u>56</u>	<u>12</u>	<u>29</u>	<u>N</u>	<u>16935</u>	<u>19</u>	<u>W</u>	<u>060</u>	<u>OCT</u>	<u>90</u>	<u>05</u>	<u>17</u>	<u>93</u>	<u>80</u>	<u>07</u>	<u>45</u>	<u>233</u>	<u>16</u>	<u>978</u>	<u>407</u>	<u>6E</u>
CTD Type & SN _____				Monitor Checks					Times	JD/Time	Data Location											
Press. SN _____				on Deck at Surface					Data on _____	at Surface _____	Tape/Diskette I.D.			File Name/Header								
Temp. SN _____				Press. _____					Start Down _____	at Bottom _____	<u>078-05OCT2052</u>			(Local time)								
Cond. SN _____				Temp. _____					Start Up _____	at Surface _____												
				Cond. _____					Data off _____		Remarks											
				Other _____							<u>10409</u>											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal. Bot. #	Other Samp.	P.S.		
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.	
1									<u>11.045</u>	<u>8.135</u>	<u>33.63</u>	<u>32.113</u>			<u>32.137</u>	<u>6</u>		<u>1</u>				
2																		<u>2</u>				
3																		<u>3</u>				
4																		<u>4</u>				
5																		<u>5</u>				
6																		<u>6</u>				
7																		<u>7</u>				
8																		<u>8</u>				
9																		<u>9</u>				
10																		<u>10</u>				
11																		<u>11</u>				
12																		<u>12</u>				

Initials LAV  
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Consec. Cast #	79	Vessel	MF	Proj. & Leg	90-10	Event #	290	Vessel Sta. I.D.	ILF	Instructions								Sta. Designation			
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD =			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S <sub>1</sub>	S <sub>2</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.		80	80	1004.5	/	/					298	6F	
79 56 14 98 N				169 33 28 W 06 OCT 90 06 04																	
CTD				Monitor Checks				Times	JD/Time	Data Location											
Type & SN _____				on Deck at Surface				Data on _____	_____	Tape/Diskette I.D.				File Name/Header							
Press. SN _____				Press. _____				Data at Surface _____	_____	_____				_____							
Temp. SN _____				Temp. _____				Start Down _____	_____	079_05OCT2146				(Local time)							
Cond. SN _____				Cond. _____				at Bottom _____	06:04	_____				_____							
				Other _____				Start Up _____	at Surface _____	Remarks				_____							
								Data off _____	_____	_____				_____							
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	S <sub>3</sub>	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
1	5									294.228	3.565	31.213	33.699				33.694	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 LAV  
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Consec. Cast # <u>80</u>		Vessel <u>MF</u>	Proj. & Leg <u>90-10</u>		Event # <u>291</u>	Vessel Sta. I.D.	Instructions						Sta. Designation											
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>279</u>	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb <u>1007.3</u>	S. <u>si</u>	S. <u>si</u>	Wind Dir.	Wind Sp.	Cloud Type <u>19972</u>	Bottom Depth, m <u>129</u>	Sta. Name or I.D <u>6G</u>								
	Deg.	Min.	Deg.		Day Mo. Yr.																			
	<u>80</u>	<u>56</u>	<u>22</u>	<u>18</u>	<u>N</u>	<u>169</u>	<u>32</u>	<u>36</u>	<u>W</u>	<u>06</u>	<u>04</u>	<u>T</u>	<u>90</u>	<u>07</u>	<u>04</u>	<u>80</u>	<u>80</u>	<u>07</u>	<u>47</u>	<u>22</u>	<u>81</u>	<u>9972</u>	<u>129</u>	<u>6G</u>
CTD Type & SN _____					Monitor Checks on Deck at Surface					Times		JD/Time		Data Location										
										Data on _____ at Surface _____		Tape/Diskette I.D. _____		File Name/Header _____										
										Start Down _____ at Bottom <u>07:04</u>		_____		<u>080-05 Oct 2300</u>										
										Start Up _____ at Surface _____		_____		_____										
										Data off _____		Remarks <u>w/o 122m</u>		_____										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.				
				Bot. Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.			
1									<u>9.109</u>	<u>7.877</u>	<u>33.263</u>	<u>31.959</u>			<u>31.983</u>	<u>03</u>		<u>1</u>						
2																		<u>2</u>						
3																		<u>3</u>						
4																		<u>4</u>						
5																		<u>5</u>						
6																		<u>6</u>						
7																		<u>7</u>						
8																		<u>8</u>						
9																		<u>9</u>						
10																		<u>10</u>						
11																		<u>11</u>						
12																		<u>12</u>						

Initials LAV ✓ \_\_\_\_\_

Consec. Cast #	81	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	292	Vessel Sta. I.D.	6H	Instructions								Sta. Designation	JL H					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 279	Time	GMT	Dry	Wet	Bar.			Wind	Wind	Cloud	Bottom	Sta. Name or I.D				
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr. Min.	Bulb	Bulb	mb	si	si	Dir.	Sp.	Type	Depth, m						
	81	56	27	14	N	169	28	81	W	06	OCT	90	07	55	08	0	08	0	07	47	220	209-2	97	6H
CTD Type & SN				SBE 91220 A								Monitor Checks				Times	JD/Time	Data Location						
Press. SN				25084								on Deck	at Surface	Data on	279/0751	Tape/Diskette I.D.				File Name/Header				
Temp. SN				701								Press.	1.439	at Surface	0748	MFDAP::DUB2:				* Time/Date stamp is local Time +				
Cond. SN				303								Temp.	7.881	Start Down	0752					081-05OCT2352				
												Cond.	33.371	at Bottom	0755									
												Other	32.074	Start Up	0801	Remarks 30 m/min wire out rate								
														at Surface	0804									
														Data off	0756									
Pos.	Bot.	T	Rack	Trip Depth	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other Samp.	Pos.				
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.						
1	B	MAX		075550	080055					84.484	3.813	30.334	32.510	85	3.81	32.534	21			1				
2																				2				
3																				3				
4																				4				
5																				5				
6																				6				
7																				7				
8																				8				
9																				9				
10																				10				
11																				11				
12																				12				

Initials DMD

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Consec.Cast # 082		Vessel MF	Proj. & Leg OCSEAP MF-90-10			Event # 294	Vessel Sta. I.D. 5F	Instructions								Sta. Designation JF					
Consec. Cast #	Latitude Deg.		N or S	Longitude Deg.	E or W	Date Day	JD = 279	Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb 1007.4	S si	S si	Wind Dir.	Wind Sp.	Cloud Type	W eath.	Bottom Depth, m	Sta. Name or I.D		
	082	56	23	6	3	16	9 09 6 8 W	06	OCT 90	09	17	10	209	Z 074	7	230	169-1	113	5F		
CTD Type & SN SBE 91220 A				Monitor Checks					Times		JD/Time		Data Location								
				on Deck		at Surface			Data on	279	0912	Tape/Diskette I.D.		File Name/Header							
				Press.		2.587			at Surface	0910				* Time / Date stamp is local time *							
				Temp.		7.735			Start Down	0913				082 - 06OCT 0112							
				Cond.		33.079			at Bottom	0917											
				Other		31.896			Start Up	0918											
									at Surface	0922											
									Data off	0918											
Remarks 30 m/min wire out rate																					
May wire out 105																					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	Samp.	P
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				
1	5	-	10	0921	0921				12.303	7.731	33.081	31.897			31.922	26			I		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials JMD

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Consec. Cast #	083	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	295	Vessel Sta. I.D.	SE	Instructions								Sta. Designation	JE		
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 279	Time	GMT	Dry	Wet	Bar.	S	S	Wind	Wind	Cloud	Type	Bottom	Sta. Name or I.D
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr. Min.	Bulb	Bulb	mb	10072	10072	Dir.	Sp.	Cloud	Wearth.	Depth, m		
083	56	16	65N	169	11	18W	06	OCT 90	10	13	89	83	01	47	230	189	-1	148	5E		
CTD Type & SN				SBE 91220 A				Monitor Checks				Times		JD/Time		Data Location					
Press. SN				25084				on Deck		at Surface		Data on	279	1007	Tape/Diskette I.D.	File Name/Header					
Temp. SN				701				Press.		1.310		at Surface	1005	1005	* Time/date stamp is local time *						
Cond. SN				303				Temp.		8.168		Start Down	1008	1008	083 - 06OCT0207						
								Cond.		33.603		at Bottom	1013	1013							
								Other		32.057		Start Up	1013	1013							
												at Surface	1013	1013							
												Data off	1013	1013							
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	P.S.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.					
1	5	-	MAX	1013	1013					143.530	3.137	30.844	33.161		33.186	09			1		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials DMD

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Consec. Cast #	084	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	2910	Vessel Sta. I.D.	SD	Instructions								Sta. Designation	ID	
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 279	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	Si	Si	>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Weath.	Depth, m	Sta. Name or I.D	
084	56 11	60 N	169 14	35 W	06 OCT 90	11 10	90	8 9	0 8	1007.6								670	5D	
CTD Type & SN SBE 91220A				Monitor Checks on Deck at Surface				Times JD/Time				Data Location								
Press. SN	25084	Press.					Data on	279	1053	Tape/Diskette I.D. File Name/Header										
Temp. SN	701	Temp.					at Surface		1051	*Time/Date stamp is local Time*										
Cond. SN	303	Cond.					Start Down		1054	<u>Φ84-Φ60CTΦ25.3</u>										
		Other					at Bottom		1110											
							Start Up		1110											
							at Surface		1126											
							Data off		1110											
Remarks 30 m/min wire out rate to 235 m depth 45 m/min 235 - to bottom																		Wire out max 646		
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	S
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sai.	Therm-P	Avg Tw			
1	5	-	10	1124	1125				10.373	8.214	33.696	32.109			32.133	19		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Display shows aberrant pattern for unmixed layer

Initials DMD  
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Consec. Cast #	085	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	297	Vessel Sta. I.D.	5C	Instructions								Sta. Designation	I C	
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 279			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr. Min.			1007.8	S	S	>						
	085	5604	91	N	169	15	10	W	060	OCT	90	1221	90	87	0837	230	159	-1	522	5C
CTD Type & SN <u>SBE 91220 A</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>				Monitor Checks on Deck at Surface Press. <u>1.908</u> Temp. <u>8.107</u> Cond. <u>33.708</u> Other <u>32.223</u>				Times JD/Time Data on <u>279</u> / <u>1207</u> at Surface <u>1205</u> Start Down <u>1208</u> at Bottom <u>1221</u> Start Up <u>1222</u> at Surface <u>1222</u> Data off <u>1222</u>				Data Location Tape/Diskette I.D. <u>085-06OCT0405</u> File Name/Header + Date/time stamp is local Time *								
Remarks 30 m/min wire out rate to 250m depth 45 m/min from 250m to bottom May wire out 510																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pg.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	B	460	122335	122830					453.533	3.466	31.327	33.854	448	3.46	33.878	30			1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials DMD

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Consec. Cast #		Vessel	MF	Proj. & Leg		OCSEAP MF-90-10	Event #	298	Vessel Sta. I.D.		5B	Instructions						Sta. Designation					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 279	Time		GMT	Dry Bulb	Wet Bulb	Bar. mb	S. vi	Wind Dir.	Wind Sp.	Cloud Type	Bottom Weath.	Depth, m	Sta. Name or I.D		
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr.	Min.		1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7	1007.7		
086	55	58	N	169	16	49	W	06 OCT 90	13	44		90	90	0837	245	129-1	1041			5B			
CTD Type & SN				SBE 91220 A								Monitor Checks		Times		JD/Time		Data Location					
Press. SN				25084								on Deck		at Surface		Data on		279	1317	Tape/Diskette I.D.		File Name/Header	
Temp. SN				701								Press.		2.270		at Surface			1316			086-06 OCT 0513	
Cond. SN				303								Temp.		8.141		Start Down			1318			* Date/time stamp is Local Time *	
												Cond.		33.749		at Bottom			1344			Remarks 30 m/min rate wire out to 240 m depth	
												Other		32.236		Start Up			1345			45 m/min 240 m to bottom	
												Sal		Data off		at Surface			1407			May wire out 1029	
																Data off			1344				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Bot. #	Other Samp.	S. vi		
				Bot.	Rack	Trip Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P					Avg Tw	Sal.
1	5	-	10	1405	1405					9.949	8.150	33.755	32.231			32.254	13			1			
2																				2			
3																				3			
4																				4			
5																				5			
6																				6			
7																				7			
8																				8			
9																				9			
10																				10			
11																				11			
12																				12			

Initials DMD

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Consec. Cast #	087	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	299	Vessel Sta. I.D.	5A	Instructions								Sta. Designation	J A	
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 279			Time GMT		Dry Bulb	Wet Bulb	Bar. mb	S.S.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr. Min.				1007.8	S.S.							
087	55	54	33	N	169	22	13	W	06 OCT 90	1522	83	83		37	235	189-1	12170	5A		
CTD Type & SN SBE 91220A				Monitor Checks				Times		JD/Time		Data Location								
				on Deck		at Surface		Data on	279	1444		Tape/Diskette I.D.		File Name/Header						
				Press.		1.586		at Surface		1443				*Date/Time Stamp is Local Time*						
				Temp.		7.998		Start Down		1445				Φ87-Φ6OCTΦ641						
				Cond.		33.688		at Bottom		1522										
				Other		32.303		Start Up		1522										
								at Surface		1555										
								Data off		1522										
Remarks 30 m/min rate to 250 m depth 45 m/min 250 to 1500 m																				
Wireout: 1558																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	MAX	1522	1522				1499.753	2.203	31.194	34.478			34.499	05		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Start Cast: 55 54.04  
169 21.46 +293 m -1523

Bottom Depth  
calculated from pinger trace

Initials DMD  
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Consec.Cast # 088		Vessel MF	Proj. & Leg OCSEAP MF-90-10			Event # 300	Vessel Sta. I.D.		Instructions Recovery site of current Mooring BP-3								Sta. Designation BP-3			
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 219		Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S <sub>si</sub>	S <sub>si</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
	Deg.	Min.	Deg.		Day	Mo.	Hr. Min.				>									
088	56	07	16	23	W	060CT	90	1732	0820	0800	837	23416711	947				BP3			
CTD Type & SN SBE 91220 A					Monitor Checks				Times		JD/Time		Data Location							
					on Deck		at Surface		Data on	219	1716		Tape/Diskette I.D.		File Name/Header					
									at Surface		1715				+ Date/Time Stamp is Local Time*					
					Press.		2.847		Start Down		1717				\$88-060CT0915					
					Temp.		8.070		at Bottom		1732									
					Cond.		33.595		Start Up		1732									
					Other		32.138		at Surface		1746									
									Data off		1732									
Remarks 30 m/min rate wire out to 230 m depth 45 m/min to 550 m																				
Wire out 567 m																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	S <sub>so</sub>
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	10	1744	1744				9.699	8.069	33.589	32.129			32.152	12		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Consec. Cast # 089		Vessel MF	Proj. & Leg OCSEAP MF-90-10			Event # 304	Vessel Sta. I.D.		Instructions Mooring BP-2						Sta. Designation				
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 279	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1007.4	S. vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D				
	Deg.	Min.	Deg.		Day Mo. Yr.														
089	56	13	80	N	16 9 41 8 8 W	06 OCT 90 21 13	80	7507	3621019871					280	BP2				
CTD Type & SN SBE 91220 A				Monitor Checks on Deck at Surface				Times	JD/Time	Data Location									
				Press.	Temp.	Cond.	Other	Data on		Tape/Diskette I.D.	File Name/Header								
				Press.	Temp.	Cond.	Other	at Surface											
				Start Down	at Bottom	21:13	Other	Start Up	at Surface										
				Other	Other	Other	Other	Data off	Remarks	089 - 06 OCT 1300									
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Bot.	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.			
1	B	MAX								—	—	—	—		—	—	25	1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

7.070 7.994 33.397 31.496

Initials \_\_\_\_\_  
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Consec. Cast #	<u>090</u>	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	305	Vessel Sta. I.D.	<u>BP 1</u>	Instructions	<u>Current meter mooring BP-1</u>				Sta. Designation					
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD =			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S <sub>1</sub>	S <sub>2</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.			1006.40	>								
	090	56	15	89	N	16	94	788	W	06 OCT 90	22	54	80	80	07	38	22010261	136	BP 1	
CTD				Monitor Checks				Times		JD/Time		Data Location								
Type & SN <u>SBE 91220 A</u>				on Deck at Surface				Data on _____ at Surface _____				Tape/Diskette I.D.			File Name/Header					
Press. SN <u>25084</u>				Press. _____				Start Down _____ at Bottom <u>22:54</u>							<u>090 - 06 OCT 1451</u>					
Temp. SN <u>701</u>				Temp. _____				Start Up _____ at Surface _____				Remarks								
Cond. SN <u>303</u>				Cond. _____				Data off _____												
Other _____				Other _____																
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	P <sub>50</sub>
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	10	22 55:15	23:0				111.308	3.888	30.559	32.687	111	3.82	32.710	17		1		
2																	2			
3																	3			
4																	4			
5																	5			
6																	6			
7																	7			
8																	8			
9																	9			
10																	10			
11																	11			
12																	12			

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Consec.Cast #		Vessel		Proj. & Leg		Event #	Vessel Sta. I.D.		Instructions								Sta. Designation								
091		MF		OCSEAP	MF-90-10	317	A																		
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 280	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	SS	Si	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D							
Deg.	Deg.	Min.	S	Deg.	Day	Mo. Yr.	Hr. Min.				>														
091	55	50	89	N	169	23	42	W	07	OCT	90	06	37	6	5	6	5	06	37	315	09	-	8	2268	4A
CTD Type & SN <u>SBE 91220 A</u>					Monitor Checks					Times		JD/Time		Data Location											
					on Deck		at Surface			Data on				Tape/Diskette I.D.		File Name/Header									
					Press.					at Surface															
					Temp.					Start Down															
					Cond.					at Bottom		06:36		Start Up											
					Other					at Surface				Remarks											
										Data off				w/o 1513											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal. Bot. #	Other Samp.	S					
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.				
1	5	-	MAX	06:36:30	06:42					1496.612	2.294	31.252	34.454	1481	2-29	34.479	34		1						
2																		2							
3																		3							
4																		4							
5																		5							
6																		6							
7																		7							
8																		8							
9																		9							
10																		10							
11																		11							
12																		12							

Initials \_\_\_\_\_  
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Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	319	Vessel Sta. I.D.	AB	Instructions						Sta. Designation	IV B				
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date	JD = 280	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si si	Wind Dir.	Wind Sp.	Cloud Type	Weath. Type	Bottom Depth, m	Sta. Name or I.D			
092	55 57	N	169 10	89 W	07 00	7900 854	0700	0700	07	1006.6	38	305	18	-1	1555	4B				
CTD Type & SN				SBE 91220 A				Monitor Checks				Times JD/Time				Data Location				
								on Deck		at Surface		Data on 280		0816		Tape/Diskette I.D.		File Name/Header		
								Press.		0.860		at Surface		0814						
								Temp.		8.007		Start Down		0817						
								Cond.		33.647		at Bottom		0854						
								Other		32.252		Start Up		0855						
												at Surface		0929						
												Data off		0855						
												Remarks 30 m/min to 230 m depth 45 m/min 230 to 1500 m				May wire out 1581				
Pos. #	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal. Bot. #	Other Samp.	S o
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	5	-	10	0927	0928					11.016	7.998	33.669	32.279			32.302	23	1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Cast Start at 55° 57.76  
169° 11.70 1456 m depth

Initials JMD  
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Consec. Cast #	Vessel	Proj. & Leg	Event #	Vessel Sta. I.D.	Instructions								Sta. Designation							
093	MF	OCSEAP MF-90-10	321	AC									IV C							
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD = 280	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Si	Wind Dir.	Wind Sp.	Cloud Type	Wheath.	Bottom Depth, m	Sta. Name or I.D					
	Deg. Min.	Deg.	Day Mo. Yr.	Hr. Min.			106.4													
093	56 03' S	169 02' W	70 OCT 90	105 10 70	0 0 6	38 33 0	19	-	-	1	1420			4C						
CTD Type & SN SBE 91220 A				Monitor Checks				Times JD/Time				Data Location								
				on Deck	at Surface	Data on	280	/	1016	Tape/Diskette I.D.	File Name/Header									
				Press.	1.720	at Surface			1014		* Date/Time stamp is Local Time *									
				Temp.	8.267	Start Down			1017		<u>Φ93-Φ7OCTΦ216</u>									
				Cond.	33.753	at Bottom			1051											
				Other	32.125	Start Up			1056											
						at Surface			1052											
						Data off														
Remarks 30m/min rate wire out to 250m depth 45m/min 250 to max cast depth												Wire out max 1422								
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	-	B	MAX	105107	105600					1411.678	2.377	31,262	34,422	1401	2.37	34.445	14		1	
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Start cast 56°03'.61  
169°03.25

1413 m

Initials DMD  
✓

Consec. Cast # 094	Vessel MF	Proj. & Leg OCSEAP MF-90-10	Event # 322	Vessel Sta. I.D. AD	Instructions								Sta. Designation IV D							
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 280	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S <sub>i</sub>	S <sub>w</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
094	56 09 69 N		168 56 24 W		070 CT 90	12 29	60	60	0748	1007.0	>		350	239	1	284	4 D			
CTD Type & SN 91220 A SBE					Monitor Checks				Times JD/Time				Data Location							
					on Deck	at Surface	Data on	280 / 1219					Tape/Diskette I.D.	File Name/Header						
					Press.	2.458	at Surface	1218					MFDAP::	+ Date/Time stamp is local Time *						
					Temp.	8.177	Start Down	1220					094_07OCT0420							
					Cond.	33.724	at Bottom	1229												
					Other	32.176	Start Up	1229												
						Data off	1237													
							1229													
Remarks 30m/min wire out rate May wire out : 270 m																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other Samp.	S <sub>o</sub>
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	10	1235	1235				10 333	8.178	33.724	32.172			32.196	28		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD  
✓ \_\_\_\_\_

Consec. Cast # 095		Vessel MF	Proj. & Leg OCSEAP MF - 90 - 10			Event # 324	Vessel Sta. I.D. AE	Instructions								Sta. Designation JCE			
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 280	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1008.5	Si si >	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
	095561501N		1685025W		07 OCT 90	14 18	6 3	5	10947340309-2										
CTD Type & SN SBE 91220 A				Monitor Checks				Times		JD/Time		Data Location							
				on Deck		at Surface		Data on	280	1412		Tape/Diskette I.D.		File Name/Header					
				Press.		2.526		at Surface		1410				* Date/Time is Local Time +					
				Temp.		8.123		Start Down		1413				Φ95-Φ7OCTΦ611					
				Cond.		33.549		at Bottom		1418									
				Other		32.040		Start Up		1418									
								at Surface		1418									
								Data off		1418									
Remarks 30 m/min wire out rate																Max wire out 135			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	
1	5	-	MAX	1418	1418				131.795	3.728	30.793	33.113			33.141	02		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast #	Vessel	Proj. & Leg	OCSEAP	Event #	Vessel Sta. I.D.	Instructions	Sta. Designation												
096	MF	MF-90-10	325		4F		IV F												
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD = 280	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Si	Wind Dir.	Wind Sp.	Cloud Type	Wheath.	Bottom Depth, m	Sta. Name or I.D				
096	56 21 26 N	168 40 16 W	07 OCT 90	15 23	05 00	48	1009.0							118	4F				
CTD Type & SN SBE 91220 A Press. SN 25094 Temp. SN 701 Cond. SN 303				Monitor Checks on Deck at Surface Press. 1.579 Temp. 8.166 Cond. 33.657 Other Sal 32.116				Times JD/Time Data on 280/1519 at Surface 1517 Start Down 1520 at Bottom 1523 Start Up 1524 at Surface 1528 Data off 1524				Data Location Tape/Diskette I.D. 096-070CT0717 File Name/Header							
												Remarks 30 m/min rate out Max wire out: 111 m							
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	S
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	5	-	10	1526	1527					9.677	8.168	33.659	32.112			32.848	24		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials JMD

✓

Sol bottle  
321  
then reused  
98?  
on

Consec. Cast #	Vessel	Proj. & Leg	OCSEAP	Event #	Vessel Sta. I.D.	Instructions	Sta. Designation													
097	MF	MF-90-10	326	AG			IV G													
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 280	Time Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1007.5	Si si >	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D			
0 9 7	5 6	2 7	4 5	N	1 6 8 3 1 3 7 W	0 7 0 C T 9 0	1 6 3 0 0 5 0 0 4 8			4	7 3 2 6 3 5 7 1 1		1 1 0		4 G					
CTD Type & SN SBE 91220 A				Monitor Checks				Times	JD/Time	Data Location										
				on Deck		at Surface		Data on	280   1625	Tape/Diskette I.D. File Name/Header										
				Press.		1.590		at Surface	1624											
				Temp.		8.105		Start Down	1626											
				Cond.		33.534		at Bottom	1630											
				Other		32.042		Start Up	1631											
								at Surface	1639											
								Data off	1631											
Remarks 30 m/min rate																				
Mot wine out 108 m																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
				Bot.	Rack	Trip Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	-	B	100	163145	163640					99.090	4.727	31.384	32.826	98	4.72		32		1	
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD



Consec. Cast #	098	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	329	Vessel Sta. I.D.	3I	Instructions								Sta. Designation	III 1				
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 280	Time	GMT	Dry Bulb	Wet Bulb	Bar. mb	S	I	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D				
	Deg.	Min.	Deg.		Day	Mo. Yr.	Hr. Min.				1010.4												
098	56	25	57	N	167	57	90	W	07	OCT	90	18	38	05	1	04	2	58	320	28	681	123	3I
CTD Type & SN SBE 91220 A					Monitor Checks					Times		JD/Time		Data Location									
					on Deck		at Surface			Data on	280	/	1833	Tape/Diskette I.D.		File Name/Header							
					Press.		2.107			at Surface	1830				*Dak/time stamp is Local Time *								
					Temp.		8.065			Start Down	1834				698 - 07OCT1034								
					Cond.		33.463			at Bottom	1838												
					Other Sel		32.003			Start Up	1838		Remarks										
										at Surface	1842		30 m/min wire out rate										
										Data off	1838		Wire out 118 m										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal. Bot. #	Other Samp.	S				
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw	Sal.		
1	5	-	10	1840	1841				10.771	8.056	33.458	32.002				32.026	32	1					
2																		2					
3																		3					
4																		4					
5																		5					
6																		6					
7																		7					
8																		8					
9																		9					
10																		10					
11																		11					
12																		12					

Initials DMD  
✓

revised  
bottle 32  
before processed

Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	331	Vessel Sta. I.D.	3H	Instructions						Sta. Designation				
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date	JD = 280	Time GMT		Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D.			
099	561738 N		1681080 W		07 OCT 90	1958	65	60	124832021681		1012.0	146	146	3H					
CTD Type & SN SBE 91220 A				Monitor Checks on Deck at Surface				Times	ID/Time	Data Location									
Press. SN 25084								Data on	280 /	Tape/Diskette I.D.			File Name/Header						
Temp. SN 701								at Surface											
Cond. SN 303								Start Down											
								at Bottom	19:57										
								Start Up											
								at Surface											
								Data off		Remarks									
										w/o 143m									
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	5	-	MAX						145.304	3.933	30.865	32.986			33.010	07		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials LAL  
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Consec. Cast #	100	Vessel	MF	Proj. & Leg OCSEAP MF-90-10	Event # 332	Vessel Sta. I.D.	Instructions								Sta. Designation			
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date JD = Day Mo. Yr.	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 1012.8	S vis.	Wind Dir.	Wind Sp.	Cloud Type Weath.	Bottom Depth, m	Sta. Name or I.D			
	100 5 4 1 2 4 7 N		168 2 3 1 5 W	0 7	OCT 90	2 1 0 0	6 8	6 0 1	3 4 8	3 2 0	2 4 6	8 1	172	3G				
CTD Type & SN <u>SBE 91220 A</u>				Monitor Checks				Times	JD/Time	Data Location								
				on Deck at Surface				Data on		Tape/Diskette I.D.			File Name/Header					
				Press.				at Surface					<u>100-07 OCT 1255</u>					
				Temp.				Start Down	<u>20:54</u>									
				Cond.				at Bottom	<u>20:59</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.	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5		10						11.345	8.016	33.536	32.121		32.146	13	1		
2																2		
3																3		
4																4		
5																5		
6																6		
7																7		
8																8		
9																9		
10																10		
11																11		
12																12		

Initials JAL  
✓

Consec. Cast #	101	Vessel	MF	Proj. & Leg	9010	Event #	334	Vessel Sta. I.D.	Instructions								Sta. Designation	III F		
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 280	Time	GMT	Dry	Wet	Bar.			Wind	Wind	Cloud	Bottom	Sta. Name
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr. Min.	Bulb	Bulb	mb	1013.6	Si	Si	Dir.	Sp.	Type	Depth, m	or I.D
101	56	07	N	168	32	51	W	07 OCT 90	22 04	91	76	1448	33024	78	1	397		3F		
CTD Type & SN <u>see 91120 A</u>				Monitor Checks					Times	JD/Time	Data Location									
				on Deck			at Surface		Data on		Tape/Diskette I.D.				File Name/Header					
				Press.					at Surface											
				Temp.					Start Down											
				Cond.					at Bottom	22:04										
				Other					Start Up											
									at Surface											
									Data off		Remarks									
Pos.	Bot.	T	Trip	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	Max	270010						345.441	3.551	31.274	33.759	343	3.54	33.781	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 C.L.H.  
✓ \_\_\_\_\_

Consec.Cast # 102		Vessel MF		Proj. & Leg 90-10		Event# 336	Vessel Sta. I.D.		Instructions							Sta. Designation III E				
Consec. Cast #	Latitude N or S	Deg.	Min.	Longitude E or W	Deg.	Date JD = 280		Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
						Day Mo. Yr.	Hr. Min.				1014.7									
102560232N	1684143W	0702T	902324	79	62	154834026882	685	3E												
CTD Type & SN SBE 91220A				Monitor Checks				Times	JD/Time		Data Location									
				on Deck	at Surface			Data on			Tape/Diskette I.D.	File Name/Header								
				Press.				at Surface												
				Temp.				Start Down												
				Cond.				at Bottom	23.24											
				Other				Start Up												
							at Surface													
							Data off													
											Remarks n/a 686m									
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	5		10							10.417	7.944	33.601	32.256			32.280	26		1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials Lgt  
✓

Consec. Cast # <u>103</u>		Vessel <u>NOAA Ship MILLER FREEMAN</u>	Proj. & Leg <u>ME-90-10</u>		Event # <u>338</u>	Vessel Sta. I.D. <u>TII-D</u>	Instructions							Sta. Designation <u>III D</u>									
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>281</u>	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S.S.	Vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D							
	Deg.	Min.	Deg.		Day Mo. Yr.																		
<u>103</u>	<u>55</u>	<u>57</u>	<u>40</u>	<u>N</u>	<u>168</u>	<u>50</u>	<u>78</u>	<u>W</u>	<u>080</u>	<u>OCT</u>	<u>90</u>	<u>00</u>	<u>53</u>	<u>07</u>	<u>05</u>	<u>81</u>	<u>54</u>	<u>83</u>	<u>10</u>	<u>19</u>	<u>882</u>	<u>674</u>	<u>3D</u>
CTD		Monitor Checks										Times	JD/Time	Data Location									
Type & SN <u>SBE 91220A</u>	on Deck	at Surface	Data on _____	Press/Diskette I.D. _____	File Name/Header _____																		
Press. SN <u>250 84</u>	Press. _____	Press. _____	at Surface _____	_____	_____																		
Temp. SN <u>701</u>	Temp. _____	Temp. _____	Start Down _____	_____	_____																		
Cond. SN <u>303</u>	Cond. _____	Cond. _____	at Bottom <u>005301</u>	_____	_____																		
_____	Other _____	Other _____	Start Up _____	Remarks _____	_____																		
Other _____	Other _____	Other _____	at Surface _____	_____	_____																		
Other _____	Other _____	Other _____	Data off _____	_____	_____																		
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal. Bot. #	Other Samp.	Pos.				
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw	Sal.		
1	5		Max			663.779	3.292	31.470	34.094							34.130	17		1				
2																			2				
3																			3				
4																			4				
5																			5				
6																			6				
7																			7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

Initials BSF  
✓

Consec.Cast # <u>104</u>		Vessel <u>MF</u>		Proj. & Leg <u>ORSEAD</u> <u>MF - 90-10</u>		Event# <u>339</u>	Vessel Sta. I.D. <u>III C</u>		Instructions							Sta. Designation <u>III C</u>												
Consec. Cast #	Latitude Deg.		N or S	Longitude Deg.		E or W	Date Day Mo. Yr.	JD = <u>281</u>	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D									
	10	4	5	5	5	3	1	2	N	168	59	47	W	08	00	OCT	90	02	10	60	55	16	48	340	21	882	720	3C
CTD Type & SN		<u>SBE 91220A</u>		Monitor Checks				on Deck	at Surface	Times	JD/Time	Data Location																
Press. SN		<u>25084</u>		Press.						Data on _____ at Surface _____	Tape/Diskette I.D.	File Name/Header																
Temp. SN		<u>701</u>		Temp.						Start Down _____ at Bottom <u>02:10</u>	<u>104 - 07 OCT 1737</u>																	
Cond. SN		<u>303</u>		Cond.						Start Up _____ at Surface _____	Remarks																	
		Other _____								Data off _____	<u>W/O 734m</u>																	
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Bot. #	Other Samp.	Pos.							
				Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.											
1	5		10						8.996	7.844	33.568	32.315			32.339	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 LAL  
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Consec.Cast # 105		Vessel MF	Proj. & Leg 90-10			Event# 340	Vessel Sta. I.D.		Instructions								Sta. Designation III B			
Consec. Cast #	Latitude Deg.		N or S	Longitude Deg.	E or W	Date Day	JD = 281	Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb	S. vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D			
	55	55	0	81	N	1690647W	080ct90	0335	60	50	1758	295	20	882	1790	3B				
CTD Type & SN SBE 91220A 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.	Data on _____ at Surface _____	Start Down _____ at Bottom 03:35	Start Up _____ at Surface _____	Data off _____		105-D70CT1848									
					Temp.					Remarks										
					Cond.					w/o 1531										
					Other															
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD			Sample Bot.Data				Sal.	Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				
1	B		03:35:20						1497.526	2.214	31.202	34,478	1479	2-20	34.502	25				1
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials LA ✓

Consec. Cast # <u>106</u>		Vessel <u>MF</u>		Proj. & Leg <u>90-10</u>		Event # <u>341</u>	Vessel Sta. I.D. <u>III A</u>		Instructions								Sta. Designation <u>IIIA</u>			
Consec. Cast #	Latitude <u>N</u>		N or S	Longitude <u>E</u>		or W	Date <u>JD = 281</u>	Time <u>GMT</u>		Dry Bulb	Wet Bulb	Bar. mb <u>1018.6</u>	<u>S</u>	<u>V</u>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.												
	10 6	5 5	4 6	9 1	N	16 9	13 8	3 W	0 8 0	OCT 90	0 5 3 3	6 0	7 5	1 9	4 8	3 2 0	2 5	2 1 2	2 5 1 2	3 A
CTD Type & SN <u>SBE 91220A</u>				Monitor Checks						Times		JD/Time		Data Location						
				on Deck			at Surface							Tape/Diskette I.D.			File Name/Header			
				Press.													<u>106-07OCT2049</u>			
				Temp.																
				Cond.																
				Other										Remarks			<u>w/o 1537m</u>			

Pos.	Bot.	T	Trip	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	5		10							10,626	7.434	33.441	32.560			32.584	30		1
2																			2
3																			3
4																			4
5																			5
6																			6
7																			7
8																			8
9																			9
10																			10
11																			11
12																			12

Initials LJN  
✓

Consec. Cast # 107	Vessel MF	Proj. & Leg 90-10	Event # 342	Vessel Sta. I.D. III A'	Instructions								Sta. Designation						
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 281	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb 1019.6	Si vi	Vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
107	55 42 69 N		169 20 79 W	08	OCT	90	07	32	58	38	20	48	31	529	-2	2600	3A'		
CTD Type & SN <u>SBE 91220 A</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>					Monitor Checks on Deck                    at Surface				Times	JD/Time	Data Location								
					Press.				Data on		Tape/Diskette I.D.								
					Temp.				at Surface		File Name/Header								
					Cond.				Start Down										
					Other				at Bottom	07:32									
									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.
1	5		Max		Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	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 LAL

Consec. Cast #	108	Vessel	MF	Proj. & Leg	OCSEAP	Event #	345	Vessel Sta. I.D.	II A'	Instructions								Sta. Designation	II A'					
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 281	Time	GMT	Dry	Wet	Bar.	$\frac{S}{S}$	$\frac{S}{S}$	Wind	Wind	Cloud	Type	Bottom	Sta. Name			
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr. Min.	Bulb	Bulb	mb			Dir.	Sp.		Weath.	Depth, m	or I.D				
	108	55	33	52	N	169	07	92	W	080	OCT	90	100	706	8	05	1	22	48	320	189	-1	1807	241
CTD Type & SN				SBE 91220 A				Monitor Checks				Times				JD/Time				Data Location				
								on Deck		at Surface		Data on		281		0928		Tape/Diskette I.D.		File Name/Header				
								Press.		D. 989		at Surface		0926		0926				108-08OCT0126				
								Temp.		7.745		Start Down		0929		1007								
								Cond.		33.270		at Bottom		1008		1042								
								Other		32.092		Start Up		1008		1008								
												at Surface		1042		Data off		1008						
$\frac{S}{S}$	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	$\frac{S}{S}$				
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.	Bot. #	Samp.	
1	5	-	250	1035	1035				251.182	3.742	31.229	33.558				33.580	27		1					
2																			2					
3																			3					
4																			4					
5																			5					
6																			6					
7																			7					
8																			8					
9																			9					
10																			10					
11																			11					
12																			12					

Start east: 55° 32.88  
169° 07.28 1915 m depth

Initials DMD  
✓

Consec. Cast #	109	Vessel	MF	Proj. & Leg	OCSEAP	Event #	346	Vessel Sta. I.D.	2A	Instructions								Sta. Designation	II A		
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 281		Time	GMT	Dry	Wet	Bar.	Si	Wind	Wind	Cloud	Bottom	Sta. Name or I.D			
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr. Min.	Bulb	Bulb	mb	vi	Dir.	Sp.	Type	Depth, m					
	109	55	36	33	N	169	03	49	W	08	OCT	90	1147	06	00	50	234831017	-1	1660	2A	
CTD Type & SN SBE 91220 A				Monitor Checks				Times JD/Time				Data Location									
				on Deck		at Surface		Data on		281	1105	Tape/Diskette I.D.				File Name/Header					
				Press.		1.196		at Surface		1104						* Date/time stamp is Local Time *					
				Temp.		7.753		Start Down		1106						109-08OCT0304					
				Cond.		33.271		at Bottom		1147											
				Other		32.460		Start Up		1152											
								at Surface		1147		Remarks 30 m/min wire out rate to 250 m depth									
								Data off								45 m/min rate to 1500 m					
																Max wire out 17					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Samp.	P
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				
1	B	1500	1147:00	1152:05					1481.938	2.295	31.251	34.460	1468	2.28	34.485	33				1	
2																				2	
3																				3	
4																				4	
5																				5	
6																				6	
7																				7	
8																				8	
9																				9	
10																				10	
11																				11	
12																				12	

Jelly fish in Niskin bottle

Start cast : 55° 35.54

169° 03.06

Initials DMD

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Consec. Cast #	110	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	S47	Vessel Sta. I.D.	2B	Instructions								Sta. Designation	II B	
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 281	Time		Dry Bulb	Wet Bulb	Bar. mb	Si	vi	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr. Min.			1022A	3	8	290	159 - 1	975	2B		
110	55	38	89N	168	55	78W	08	OCT 90	13 22	59	48	23	38	290	159 - 1	975	2B			
CTD Type & SN				SBE 91220A				Monitor Checks				Times		JD/Time		Data Location				
Press. SN				25084				on Deck		at Surface		Data on	281	1256		Tape/Diskette I.D.		File Name/Header		
Temp. SN				701				Press.		2.954		at Surface		1255				*Date/time stamp is local time		
Cond. SN				303				Temp.		7.786		Start Down		1258				110-08OCT0454		
								Cond.		33.360		at Bottom		1322						
								Other		32.150		Start Up		1323						
												at Surface		1344						
												Data off		1323						
Remarks 30 m/min wire out to 250m 45 m/min 250 - bottom																				
May wire out 1020																				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other Samp.	Pos.
				Bot. Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	30	1343	1343				30.116	7.831	33.615	32.367			32.390	06		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Start Cast : 55° 39.00  
168 56.00 1020 m depth

Initials DMD  
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Consec.Cast #	111	Vessel	MF	Proj. & Leg	OCSEAP	Event #	MF-90-10	348	Vessel Sta. I.D.	2C	Instructions						Sta. Designation	IIC				
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD = 281		Time	GMT	Dry	Wet	Bar.			Wind	Wind	Cloud	Bottom	Sta. Name		
	Deg.	Min.		Deg.		Day	Mo.	Yr.	Hr.	Min.	Bulb	Bulb	mb	1025.2	Si	Dir.	Sp.	Type	Depth, m	or I.D		
111	15	54	34	0N	168	50	16	W	08	OCT	90	14	31	05	80	47	23	338	275	149-1	253	2C
CTD Type & SN				SBE 91220 A				Monitor Checks				Times		JD/Time		Data Location						
Press. SN				25084				on Deck		at Surface		Data on	281	1423	Tape/Diskette I.D.	File Name/Header						
Temp. SN				701				Press.		1.900		at Surface		1421	* Date/Time is Local Time *							
Cond. SN				303				Temp.		7.814		Start Down		1424			111-ΦBOCTΦ624					
								Cond.		33.230		at Bottom		1431								
								Other		31.984		Start Up		1432								
												at Surface		1432	Remarks 30 m/min rate wire out							
												Data off		1432			May wire out 249					
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal. Bot. #	Other Samp.	P.S.		
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.						
1	5	-	MAP		1432					248.466	3.705	31.125	33.473				33.499	11		1		
2																				2		
3																				3		
4																				4		
5																				5		
6																				6		
7																				7		
8																				8		
9																				9		
10																				10		
11																				11		
12																				12		

Loran Cycle Indicator on at marked position

Initials JMD



Consec. Cast #	112	Vessel	MF	Proj. & Leg	OCSEAP MF - 90-10	Event #	349	Vessel Sta. I.D.	2D	Instructions								Sta. Designation	ID				
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 281	Time		Dry Bulb	Wet Bulb	Bar. mb	S <sub>s</sub>	S <sub>i</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr.	Min.													
	112	55	46	26	N	168	42	86	W	08	OCT	90	15	14	05	50	45	24	38	250	088-1	137	2D
CTD Type & SN	SBE 91220 A		Monitor Checks								Times	JD/Time	Data Location										
Press. SN	25084		on Deck				at Surface				Data on	281 / 1509	Tape/Diskette I.D.	File Name/Header									
Temp. SN	701		Press.				1.410				at Surface	1507											
Cond. SN	303		Temp.				7.762				Start Down	1510											
			Cond.				33.157				at Bottom	1514											
			Other				31.955				Start Up	1514											
											at Surface												
											Data off	1514											
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	5	-	10	1517	1517						9.487	7.855	33.595	32.333				32.357	03	1			
2																			2				
3																			3				
4																			4				
5																			5				
6																			6				
7																			7				
8																			8				
9																			9				
10																			10				
11																			11				
12																			12				

Loran display indicates cycle error condition at mark time

Initials DMD  
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Consec. Cast #	113	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	350	Vessel Sta. I.D.	2E	Instructions								Sta. Designation	II E
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 281		Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb	Si si	Si si	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
113	55 52	N	168 33	8	8	W	08 OCT 90	16	130 60	0	10230	123	338	283	20631	139	2E		
CTD Type & SN SBE 91220 A				Monitor Checks				Times	JD/Time	Data Location									
				on Deck		at Surface		Data on	281 / 1607	Tape/Diskette I.D.		File Name/Header							
				Press.		1.786		at Surface	1605			* Date/Time stamp is Local Time +							
				Temp.		7.521		Start Down	1608			113-Φ80CTΦ8Φ3							
				Cond.		32.819		at Bottom	1613										
				Other		31.813		Start Up	1618										
								at Surface	1622										
								Data off	1613										
								Remarks 30m/min wire out rate											
										Wire out max 134									
Pos.	Bot.	T	Trip	Time @		Monitor Values			Conv. Mon. Values-CTD			Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.		
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.				Sal.	Therm-P
1	B	MAX	161315	161815					131.037	4.025	31.121	33.204	126	4.04	33.228	20	1		
2																2			
3																3			
4																4			
5																5			
6																6			
7																7			
8																8			
9																9			
10																10			
11																11			
12																12			

Initials DMD

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Consec.Cast #	114	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	352	Vessel Sta. I.D.	2F	Instructions								Sta. Designation	IIF		
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD = 281	Time	GMT	Dry	Wet	Bar.	Wind	Wind	Cloud	Bottom	Sta. Name				
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	Hr.	Min.	Bulb	Bulb	mb	Dir.	Sp.	Type	Depth, m	or I.D				
	114	55	58	37N	168	22	40W	08	00CT90	17	18	060	05	1	2	3	3325510682	152	2F		
CTD Type & SN SBE 91220 A				Monitor Checks				Times JD/Time				Data Location									
				on Deck		at Surface		Data on		281	1712	Tape/Diskette I.D.		File Name/Header							
				Press.		1.665		at Surface		1710				* Date/Time Stamp is Local Time *							
				Temp.		7.882		Start Down		1713				114-080CT0908							
				Cond.		33.289		at Bottom		1718											
				Other		31.986		Start Up		1718											
								at Surface		1718											
								Data off		1718											
Remarks 30 m/min rate wire out																					
Wire out 145 m																					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				
1	5	-	15	1721	1722					15.296	7.902	33.561	32.251			32.275	09		1		
2																		2			
3																		3			
4																		4			
5																		5			
6																		6			
7																		7			
8																		8			
9																		9			
10																		10			
11																		11			
12																		12			

Initials DMD

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Consec. Cast #	115	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	353	Vessel Sta. I.D.	2G	Instructions								Sta. Designation	I G				
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 281		Time	GMT	Dry	Wet	Bar.			Wind	Wind	Cloud	Bottom	Sta. Name				
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr. Min.	Bulb	Bulb	mb	10230	S	S	Dir.	Sp.	Type	Depth, m	or I.D				
	115	56	03	01	N	168	13	03	W	08	OCT	90	18	10	06	60	53	23	38	245	45682	146	2G
CTD Type & SN				SBE 91220 A				Monitor Checks				Times JD/Time				Data Location							
								on Deck		at Surface		Data on	281	1805	Tape/Diskette I.D.	File Name/Header							
								Press.		2.165		at Surface		1802		* Date/Time Stamp is Local Time							
								Temp.		7.778		Start Down		1806									
								Cond.		33.239		at Bottom		1810									
								Other		32.026		Start Up		1811									
												at Surface		1811	Remarks	30 m/min wire out rate							
												Data off			Wire out max	138							
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.			
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.	Bot. #	
1	5	-	MA	1810	1811					139.688	3.844	33.168	33.168				33.194	15		1			
2																				2			
3																				3			
4																				4			
5																				5			
6																				6			
7																				7			
8																				8			
9																				9			
10																				10			
11																				11			
12																				12			

Initials DMD

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Consec. Cast #	116	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	353	Vessel Sta. I.D.	2H	Instructions								Sta. Designation	I H		
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 281	Time	GMT	Dry	Wet	Bar.	Si	Vis	Wind	Wind	Cloud	Type	Bottom	Sta. Name or I.D
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr. Min.	Bulb	Bulb	mb	1023.0			Dir.	Sp.		Weath.	Depth, m	
	116	5609	79N	168	01	77W	080	OCT 90	19	10	68	56	23	38	254	15682	138		2H		
CTD Type & SN				SBE 91220 A				Monitor Checks				Times		JD/Time		Data Location					
								on Deck		at Surface		Data on	281	/	1905	Tape/Diskette I.D.		File Name/Header			
								Press.		1.374		at Surface	1903				* Date / Time Stamp is Local Time *				
								Temp.		7.872		Start Down	1906				116 - 08OCT1106				
								Cond.		33.050		at Bottom	1910								
								Other		31.740		Start Up	1911								
												at Surface	1916								
												Data off	1911								
Remarks 30 m/min wire out rate																					
Max wire out 133 m																					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Samp.	S
				Bot.	Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				
1	5	-	15	1913	1914					14.261	7.910	33.456	32.133			32.159	12		1		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials DND

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Consec. Cast # <u>117</u>		Vessel <u>MF</u>	Proj. & Leg OCSEAP MF-90-10			Event # <u>355</u>	Vessel Sta. I.D. <u>21</u>	Instructions								Sta. Designation <u>I 1</u>			
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 281	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S. S.	V. si	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
	Deg.	Min.	Deg.		Day Mo. Yr.	Hr. Min.													
<u>117</u>	<u>56</u>	<u>16</u>	<u>88</u>	<u>N</u>	<u>1674963</u>	<u>W</u>	<u>080CT902015</u>	<u>70</u>	<u>6023</u>	<u>38</u>	<u>25020781</u>					<u>135</u>	<u>21</u>		
CTD Type & SN <u>SBE 91220 A</u>				Monitor Checks				Times	JD/Time				Data Location						
				on Deck		at Surface		Data on	<u>281</u>				Tape/Diskette I.D.	File Name/Header					
				Press.				at Surface											
				Temp.				Start Down						<u>117-08 OCT 1158</u>					
				Cond.				at Bottom	<u>20:15</u>										
				Other				Start Up											
								at Surface					Remarks						
								Data off					w/o 128						
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	B	MAX	<u>201420</u>						<u>110.457</u>	<u>4.253</u>	<u>31.043</u>	<u>32.894</u>	<u>109</u>	<u>4.22</u>	<u>32.875</u>	<u>21</u>		<u>1</u>	
2																	<u>2</u>		
3																	<u>3</u>		
4																	<u>4</u>		
5																	<u>5</u>		
6																	<u>6</u>		
7																	<u>7</u>		
8																	<u>8</u>		
9																	<u>9</u>		
10																	<u>10</u>		
11																	<u>11</u>		
12																	<u>12</u>		

Initials VAT  
✓

Consec. Cast # <u>118</u>		Vessel <u>MF</u>	Proj. & Leg OCSEAP MF-90-10			Event # <u>358</u>	Vessel Sta. I.D. <u>VXII G</u>		Instructions								Sta. Designation		
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = <u>281</u>	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb <u>1023.3</u>	<u>S</u>	<u>S</u>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D			
	Deg.	Min.	Deg.	Deg.	Day Mo. Yr.														
<u>118</u>	56	46	36	W	08 OCT 90	22	32	91	7	7	23	3	8	250	16681	129	176		
CTD Type & SN <u>SBE 91220A</u>				Monitor Checks on Deck at Surface				Times	JD/Time		Data Location								
Press. SN <u>25084</u>				Press.				Data on			Tape/Diskette I.D.				File Name/Header				
Temp. SN <u>701</u>				Temp.				at Surface							<u>018 - 08 OCT 1417</u>				
Cond. SN <u>303</u>				Cond.				Start Down											
				Other				at Bottom	<u>22.31</u>										
								Start Up											
								at Surface											
								Data off			Remarks								
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	5	-	10						11.366	7.863	33.360	32.073				*		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

\* rosette misfired. No water sample.

Initials LH  
✓

Consec. Cast #	119	Vessel	MF	Proj. & Leg	OCSEAP ME-90-10	Event #	360	Vessel Sta. I.D.	XVII F	Instructions								Sta. Designation			
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 281		Time	GMT	Dry	Wet	Bar.	Wind	Wind	Cloud	Bottom	Sta. Name				
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr. Min.	Bulb	Bulb	mb	Dir.	Sp.	Type	Depth, m	or I.D					
119	55	58	79	N	16	72	44	21	08	OCT	90	23	45	87	68	23	38	240	03681	1132	17F
CTD Type & SN SBE 91220 A					Monitor Checks					Times	JD/Time	Data Location									
					on Deck	at Surface	Data on		Tape/Diskette I.D.	File Name/Header											
					Press.		at Surface														
					Temp.		Start Down												019-08 OCT 1535		
					Cond.		at Bottom	2342													
					Other		Start Up														
							at Surface		Remarks												
							Data off	w/o 125 m													
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.	
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.
1	5		10						126.512	4.077	30.892	32.885				32.906	35		1		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials LAL

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Consec. Cast # 120		Vessel MF		Proj. & Leg 90-10			Event # 361	Vessel Sta. I.D. XVII E		Instructions								Sta. Designation		
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 282		Time GMT	Dry Bulb	Wet Bulb	Bar. mb 1022.6	S. vis.	Wind Dir.	Wind Sp.	Cloud Type	W. Weath.	Bottom Depth, m	Sta. Name or I.D		
Deg.	Deg.	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.													
120	55	51	14	N	16	73	58	W	090	C T 90	0058	83	67	23	38	20022882	130	17E		
CTD				Monitor Checks						Times		JD/Time		Data Location						
Type & SN SBE 91220A				on Deck			at Surface			Data on at Surface				Tape/Diskette I.D.		File Name/Header				
Press. SN 25084				Press.						Start Down at Bottom		284/00:58				120-080ct1645				
Temp. SN 701				Temp.						Start Up at Surface										
Cond. SN 303				Cond.						Data off				Remarks						
				Other																
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				
1									9.161	8.064	33.501	32.041			32.066				1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials LAL  
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Consec.Cast # <u>121</u>		Vessel		Proj. & Leg		Event# <u>364</u>	Vessel Sta. I.D. <u>XVII C</u>	Instructions								Sta. Designation			
Consec. Cast #	Latitude N or S	Longitude E or W	Date JD = <u>282</u>	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D						
	Deg. Min.	Deg.	Day Mo. Yr.	Hr. Min.			<u>1001.5</u>	<u>us</u>											
<u>121</u>	<u>55 34</u>	<u>34 4 N</u>	<u>16 807 35</u>	<u>09 0 CT 90 0 3 25</u>	<u>6 8</u>	<u>5 0</u>	<u>22</u>	<u>38</u>	<u>200</u>	<u>26</u>	<u>8 82</u>	<u>136</u>	<u>17C</u>						
CTD Type & SN <u>SBE 91220A</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u> _____ _____				Monitor Checks on Deck      at Surface Press. Temp. Cond. Other				Times		JD/Time	Data Location								
								Data on _____	at Surface _____	Tape/Diskette I.D.	File Name/Header								
								Start Down _____	at Bottom <u>03:25</u>	_____	<u>121 - 08 OCT 1908</u>								
								Start Up _____	at Surface _____	Remarks									
								Data off _____	w/o 128 m										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal. Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	B		<u>115</u>						<u>116.824</u>	<u>3,980</u>	<u>31.059</u>	<u>33.185</u>	<u>118</u>	<u>3.97</u>	<u>33.207</u>	<u>19</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 LAL  
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Consec. Cast # 122		Vessel MF		Proj. & Leg 90-10			Event # 369	Vessel Sta. I.D. 17A	Instructions								Sta. Designation XVII A			
Consec. Cast #		Latitude	N or S	Longitude	E or W	Date	JD = 282	Time	GMT	Dry Bulb	Wet Bulb	Bar. mb	vis	vis	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
122		55	17 45 N	168 35	59 W	090	CT 90	06	44	6 5	5	1019.5							1860	17A
CTD				Monitor Checks				Times		JD/Time		Data Location								
Type & SN SBE 91220A				on Deck at Surface				Data on _____				Tape/Diskette I.D. File Name/Header								
Press. SN 25084				Press.				at Surface _____				[DATA-LOG] "real time" 122-Φ8OCT2156.SCS; 1								
Temp. SN 701				Temp.				Start Down _____				★ [DATA-LOG] "tape" 122-Φ8OCT2156.SCS; 2								
Cond. SN 303				Cond.				at Bottom 06:44				[CTD-ACQ] 122-Φ8OCT2156.LOG; 1								
				Other _____				Start Up _____				Remarks w/o 1524 meters								
Data off _____																				

Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.	
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	5		10								11.941	7,423	33.396	32.520				32.542	06	1
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

 CAST RECONSTRUCTED FROM CASSETTE BACK UP - SCS MADE HEADERS ONLY ON 1ST ATTEMPT

Initials Lav ✓

497 Blocks  
3386 Blocks  
1 Block

Consec. Cast #	123	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	376	Vessel Sta. I.D.	ii	Instructions						Sta. Designation				
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD = 282	Time	GMT	Dry Bulb	Wet Bulb	Bar. mb	Si	Vis	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	Hr.	Min.			101.70	Si	Vis						
	123	55	35	05 N	16	709	70 W	09	OCT 90	12	100 85	07	77	1	748	185	259-2	127	11	
CTD					Monitor Checks				Times	JD/Time	Data Location									
Type & SN	SBE 91220 A				on Deck	at Surface			Data on	282 / 1205	Tape/Diskette I.D.	File Name/Header								
Press. SN	25084				Press.	1.296			at Surface	1203		*Data/Time stamp is Local Time*								
Temp. SN	701				Temp.	7.829			Start Down	1206										
Cond. SN	303				Cond.	32.417			at Bottom	1210										
					Other	31.106			Start Up	1211										
									at Surface	1210	Remarks	30 m/min rate wire out								
									Data off	1210										
Pos.	Bot.	T	Trip	Time @	Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	Pos.	
	Rack		Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.		
1	5	-	MAX	1210	1210					121.766	4.201	31.206	33.125				33.152	24		1
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials DMD

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Consec. Cast # 124		Vessel MF	Proj. & Leg OCSEAP MF-90-10			Event # 377	Vessel Sta. I.D. 1H	Instructions								Sta. Designation IH			
Consec. Cast #		Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 282	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	S. vis.	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
124	55 29 34 N	167 21 93 W		090 CT 90	13 35 06 2	06 2 16 4 7 1 8 0 35 9 - 2	129												
CTD Type & SN SBE 91220 A				Monitor Checks				Times	JD/Time	Data Location									
				on Deck		at Surface		Data on	282   1330	Tape/Diskette I.D. File Name/Header									
				Press.		1.631		at Surface	1329	* Date/Time stamp is Local Time *									
				Temp.		7.820		Start Down	1331	124 - 90CT 0531									
				Cond.		33.247		at Bottom	1335										
				Other		31.998		Start Up	1335										
								at Surface	1340	Remarks 30m/min rate wire out									
								Data off	1335										
								Max wire out 130 m											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	5	-	12	1338	1338				12.970	7.844	33.474	32.212			32.236	27		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast # <u>125</u>		Vessel <u>MF</u>	Proj. & Leg <u>MF-90-10</u>			Event # <u>378</u>	Vessel Sta. I.D. <u>IG</u>	Instructions								Sta. Designation <u>IG</u>			
Consec. Cast #	Latitude <u>N</u> <u>Deg.</u> <u>Min.</u>		Longitude <u>E</u> <u>Deg.</u>	<u>or W</u>	Date <u>JD = 282</u>	Hr. <u>Time</u> <u>Min.</u>	Dry Bulb	Wet Bulb	Bar. mb	<u>Si</u>	<u>Vis</u>	Wind Dir.	Wind Sp.	Cloud Type	Weather	Bottom Depth, m	Sta. Name or I.D		
	<u>125 55 24 32 N</u>		<u>167 31 21 W</u>		<u>09 OCT 90</u>	<u>15 00 06</u>	<u>60661</u>	<u>547</u>	<u>180349 - 2</u>			<u>133</u>							
CTD Type & SN <u>SBE 91220 A</u>		Monitor Checks						Times	JD/Time	Data Location									
Press. SN <u>25084</u>		on Deck			at Surface			Data on	<u>282 / 1455</u>	Tape/Diskette I.D. File Name/Header <u>*Date/Time stamp is local Time*</u>									
Temp. SN <u>701</u>		Press.			<u>1.192</u>			at Surface	<u>1454</u>	<u>125-Φ90CTΦ649</u>									
Cond. SN <u>303</u>		Temp.			<u>7.754</u>			Start Down	<u>1456</u>										
		Cond.			<u>33.245</u>			at Bottom	<u>1500</u>										
		Other			<u>32.056</u>			Start Up	<u>1506</u>										
								at Surface	<u>1501</u>										
								Data off	<u>1501</u>										
								Remarks <u>30 m/min rate wire out</u>											
								<u>Max wire out 127 m</u>											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	B	MAX	<u>150045</u>	<u>1506</u>					<u>116.934</u>	<u>3.944</u>	<u>30.999</u>	<u>33.145</u>	<u>113</u>	<u>3.94</u>	<u>33.167</u>	<u>B</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 DMD  
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Consec. Cast #	126	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	379	Vessel Sta. I.D.	1F	Instructions								Sta. Designation	1F					
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 282			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S	S	Wind Dir.	Wind Sp.	Cloud Type	W.	Bottom Depth, m	Sta. Name or I.D					
	Deg.	Min.	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.				ss	ss											
126	55	20	20	N	167	39	30	W	09	OCT	90	16	19	07	0	07	0	14	47	179	26	9 - 8	147	1F
CTD Type & SN				Monitor Checks								Times		JD/Time		Data Location								
SBE 912Z0 A				on Deck				at Surface				Data on	282	1613	Tape/Diskette I.D.	File Name/Header								
Press. SN				Press.				1.768				at Surface		1611	*Date/Time stamp is Local Time #									
Temp. SN				Temp.				7.131				Start Down		1614	126-90CT0814									
Cond. SN				Cond.				33.110				at Bottom		1619										
				Other				32.490				Start Up		1619										
												at Surface		1624										
												Data off		1619										
Remarks 30 m/min rate wire out																		Max wire out	140	M				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal. Bot. #	Other Samp.	P.S.					
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw	Sal.			
1	5	-	10	1622	1623				10.557	7.114	33.228	32.630				32.655	02	1						
2																		2						
3																		3						
4																		4						
5																		5						
6																		6						
7																		7						
8																		8						
9																		9						
10																		10						
11																		11						
12																		12						

Initials DMJ

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Consec. Cast #	<u>127</u>	Vessel	MF	Proj. & Leg	OCSEAP	Event #	<u>380</u>	Vessel Sta. I.D.	<u>I E</u>	Instructions								Sta. Designation	<u>I E</u>	
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 282			Time GMT	Dry Bulb	Wet Bulb	Bar. mb	S	S	Wind Dir.	Wind Sp.	Cloud Type	Bottom Depth, m	Sta. Name or I.D		
	Deg.	Min.	Deg.		Day	Mo.	Yr.	Hr. Min.			1011.6	1011.6	1011.6							
	127	55	17	34	N	16	74	614	W	09 OCT 90	17	17	07	0	1247	178	36928	203		
CTD			Monitor Checks						Times	JD/Time		Data Location								
Type & SN	<u>SBE 91220 A</u>		on Deck			at Surface			Data on	282	1709	Tape/Diskette I.D.		File Name/Header						
Press. SN	<u>25084</u>								at Surface	1707				+ Time/Date Stamp is Local Time						
Temp. SN	<u>701</u>		Press.			1.785			Start Down	1710				<u>127-090CT0907</u>						
Cond. SN	<u>303</u>		Temp.			7.027			at Bottom	1717										
			Cond.			33.114			Start Up	1718										
			Other			32.593			at Surface	1718										
									Data off	1718										
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other Samp.	S
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5	-	MAX	1717	1717				194.840	3.805	31.099	33.369			33.394	25		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Consec. Cast #	128	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	381	Vessel Sta. I.D.	ID	Instructions								Sta. Designation	ID
Consec. Cast #	Latitude N or S		Longitude E or W		Date	JD = 282	Time GMT		Dry Bulb	Wet Bulb	Bar. mb	Si	Si	Wind Dir.	Wind Sp.	Cloud Type	Weather.	Bottom Depth, m	Sta. Name or I.D
	Deg.	Min.	Deg.		Day	Mo. Yr.	Hr.	Min.			1010.7								
128	55	15	62	N	16	75	21	17	W	09	OCT	90	18	14	70	70	5717537958	327	1D
CTD Type & SN				SBE 91220 A				Monitor Checks				Times JD/Time				Data Location			
								on Deck		at Surface		Data on	282	1801	Tape/Diskette I.D.	File Name/Header			
								Press.		1.154		at Surface		1800		*Date/Time Stamp is local Time *			
								Temp.		6.940		Start Down		1802		128-490CT1000			
								Cond.		33.157		at Bottom		1814					
								Other		32.723		Start Up		1815					
												at Surface		1814	Remarks 30m/min rate wire out				
												Data off		1814					
															Max wire out 321				
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Si
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	
1	5	-	10	1821	1821				9.706	6.928	33.253	32.835				32.859	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 JMD  
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Consec. Cast # 129		Vessel MF	Proj. & Leg OCSEAP MF-90-10		Event # 382	Vessel Sta. I.D. IC	Instructions								Sta. Designation IC						
Consec. Cast #		Latitude N or S	Longitude E or W	Date JD	Day	Mo.	Yr.	Time GMT Hr.	Min.	Dry Bulb	Wet Bulb	Bar. mb	Si. visi.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D		
129	55	12 82 N	167 55 50 W	09 OCT 90	19	14	07	0	07	0	10	056	18	140956	499			IC			
CTD Type & SN SBE 91220A				Monitor Checks				Times JD/Time				Data Location									
				on Deck		at Surface		Data on	282 / 1900					Tape/Diskette I.D.				File Name/Header			
				Press.		1.850		at Surface	1858									*Date/Time stamp is Local Time +			
				Temp.		7.211		Start Down	1901									129 - 09 OCT 1955			
				Cond.		33.357		at Bottom	1914												
				Other		32.683		Start Up	1919												
								at Surface	1930												
								Data off	1915												
Remarks 30 m/min wire out to 210 m depth 45 m/min 210 to max																Max wire out 488 m					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal. Bot. #	Other Samp.	Pos.	
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.
1	B	MAX	1914:20	1919					487.638	3.479	31447	33.965			33.988	26			1		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials DMD  
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Consec.Cast #	130	Vessel	MF	Proj. & Leg	OCSEAP MF-90-10	Event #	384	Vessel Sta. I.D.	1B	Instructions								Sta. Designation	I B		
Consec. Cast #	Latitude N or Deg. Min. S		Longitude E or Deg. Deg.		Date	JD = 282		Time GMT		Dry Bulb		Wet Bulb		Bar. mb	S si	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
	130	5	50	8	7	3N	168024	7W	090CT90	21	02	65	65	0856	180359	-6	1558		1B		
CTD Type & SN				SBE 91220 A				Monitor Checks				Times		JD/Time		Data Location					
								on Deck		at Surface		Data on		282		Tape/Diskette I.D.		File Name/Header			
								Press.				at Surface									
								Temp.				Start Down						130-090CT1228			
								Cond.				at Bottom		2401							
								Other				Start Up									
												at Surface				Remarks					
												Data off				w/o 1503 ~					
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.	
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.
1	5	-	10						11.013	7.297	33.556	32.814				32.836	07		1		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials JAL  
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Consec. Cast #	Vessel	MF	Proj. & Leg OCSEAP MF-90-10			Event #	385	Vessel Sta. I.D.	IA	Instructions								Sta. Designation	IA	
Consec. Cast #	Latitude N or S		Longitude E or W		Date JD = 283	Time GMT	Dry Bulb	Wet Bulb	Bar. mb	Si. vis.	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D				
	Deg.	Min.	Deg.	Deg.	Day Mo. Yr.	Hr. Min.														
131	55	03	77	N	168 07 45 W	09 0 CT 90	22 54	63	63	06	55	170	369	-6	1560	IA				
CTD Type & SN <u>SBE 91220 A</u>				Monitor Checks				Times	JD/Time	Data Location										
				on Deck		at Surface		Data on		Tape/Diskette I.D.				File Name/Header						
				Press.				at Surface												
				Start Down																
				Temp.		at Bottom		22:54												
				Cond.				Start Up												
				Other				at Surface												
								Data off		Remarks										
Pos.	Bot.	T	Trip	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	5	-	MAX	:41					1506.317	2.229	31.217	34.476	1492	2.21	34.500	30		1		
2																	2			
3																	3			
4																	4			
5																	5			
6																	6			
7																	7			
8																	8			
9																	9			
10																	10			
11																	11			
12																	12			

Initials LAL

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Consec. Cast #	132	Vessel	MF	Proj. & Leg OCSEAP MF-90-10	Event #	386	Vessel Sta. I.D.	Instructions							Sta. Designation					
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD = 283	Time	GMT	Dry	Wet	Bar.	Si	Wind	Wind	Cloud	Type	Bottom	Sta. Name	
	Deg.	Min.		Deg.		Day	Mo. Yr.	Hr.	Min.	Bulb	Bulb	mb	vis	Dir.	Sp.		Weath.	Depth, m	or I.D	
	132	550	891	N	1480332	W	10 OCT 90	00	36	773	720	3551	75328	-6	1580			IB		
CTD Type & SN <u>SBE 91220 A</u>				Monitor Checks				Times	JD/Time	Data Location										
				on Deck	at Surface	Data on		Tape/Diskette I.D.	File Name/Header											
				Press.		at Surface														
				Temp.		Start Down														
				Cond.		at Bottom	<u>00:36:30</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									8.411	7.008	33.270	32.777				32.799	16		1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials I AL

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Consec.Cast #			Vessel	Proj. & Leg OCSEAP MF - 90 - 10			Event #	Vessel Sta. I.D.		Instructions								Sta. Designation	
Consec. Cast #	Latitude Deg.	N or S	MF	Longitude Deg.	E or W	Date Day Mo. Yr.	JD = 283	Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb 999.0	S <sub>i</sub> S <sub>s</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
133	55 08 71	N	168 02 87 W	10 OCT 90	00 22 8	65	6599	65	165	38978	1580								
CTD Type & SN SBE 91220A			Monitor Checks				Times	JD/Time		Data Location									
Press. SN 25084			on Deck	at Surface	Data on _____ at Surface _____	Tape/Diskette I.D.	File Name/Header												
Temp. SN 701			Press.	Press.	Start Down _____ at Bottom 02:28			133-09 OCT 1757											
Cond. SN 303			Temp.	Temp.	Start Up _____ at Surface _____	Remarks													
			Cond.	Cond.	Data off _____														
			Other	Other															
Pos.	Bot.	T	Trip	Time @		Monitor Values			Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other Samp.	Pos.	
				Rack	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw
1	B		:51						10/0.287	2.821	31.390	34.313	1001	2.81	34.337	18		1	
2																	2		
3																	3		
4																	4		
5																	5		
6																	6		
7																	7		
8																	8		
9																	9		
10																	10		
11																	11		
12																	12		

CTD banged into side of ship on retrieval  
(not very hard, though)

Initials LAV ✓

Consec. Cast # <u>134</u>		Vessel <u>MF</u>		Proj. & Leg <u>90-10</u>			Event # <u>398</u>	Vessel Sta. I.D. <u>I-B</u>	Instructions								Sta. Designation	
Consec. Cast #	Latitude <u>N</u> Deg. Min. S		Longitude <u>E</u> Deg. Deg.		Date <u>JD = 282</u> Day Mo. Yr.	Time <u>GMT</u> Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb <u>1015.4</u>	S. <u>5</u>	S. <u>5</u>	Wind Dir.	Wind Sp.	Cloud Type <u>B</u>	Bottom Depth, m	Sta. Name or I.D.		
	134	55	08	79	N	16 80 27 1 W	10 00 CT 90	04 30	70	70	95	65	150309 - 81	1583	IB			
CTD Type & SN <u>SBE 91220A</u>				Monitor Checks on Deck at Surface				Times	JD/Time		Data Location							
Press. SN <u>25084</u>				Press.	Data on _____ at Surface _____	Tape/Diskette I.D.	File Name/Header											
Temp. SN <u>701</u>				Temp.	Start Down _____ at Bottom <u>04:29</u>	<u>134_090CT2000</u>												
Cond. SN <u>303</u>				Cond.	Start Up _____ at Surface _____	Remarks <u>w/o 1003 m</u>												
				Other	Data off _____													
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values			Conv. Mon. Values-CTD			Sample Bot. Data			Sal. Bot. #	Other Samp.	S. P.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw
1									11.208	7.186	33.399	32.748		32.771	32	1		
2																2		
3																3		
4																4		
5																5		
6																6		
7																7		
8																8		
9																9		
10																10		
11																11		
12																12		

Initials VAV  
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Consec.Cast #	135	Vessel	MF	Proj. & Leg 90-10			Event #	389	Vessel Sta. I.D.		Instructions							Sta. Designation			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD =	Time		Dry	Wet	Bar.	Si.	Vis.	Wind	Wind	Cloud	Type	Bottom	Sta. Name
	Deg.	Min.		Deg.			Day	Mo. Yr.	GMT	Bulb	Bulb	mb	990.7			Dir.	Sp.	Cloud	Weath.	Depth, m	or I.D
135	55	09	N	168	02	63	10	OCT 90	06	30	72	72	91	16	51	135	25	9-8	14	14	18
CTD				Monitor Checks						Times		JD/Time		Data Location							
Type & SN				on Deck						Data on				Tape/Diskette I.D.				File Name/Header			
Press. SN				at Surface						at Surface											
Temp. SN				Press.						Start Down											
Cond. SN				Temp.						at Bottom		06:29									
				Cond.						Start Up											
				Other						at Surface											
										Data off				Remarks				~1009 m			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other	P.S.	
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw				Sal.
1									1008.125	2.823	31.389	34.311	1003	2.81	34.335	01			1		
2																			2		
3																			3		
4																			4		
5																			5		
6																			6		
7																			7		
8																			8		
9																			9		
10																			10		
11																			11		
12																			12		

Initials VAV  
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Consec. Cast #	136	Vessel	MF	Proj. & Leg	90-10	Event #	390	Vessel Sta. I.D.	1B	Instructions						Sta. Designation	IB			
Consec. Cast #	Latitude N or S		Longitude E or W		Date Day	JD = 283	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	S <sub>1</sub>	S <sub>2</sub>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.	Deg.	Deg.	Mo.	Yr.														
136	55	09	48	N	168	02	20	W	100CT90	0827	074	07	38	855	14020	9-5	1372		1B	
CTD Type & SN SBE 91220A					Monitor Checks					Times		JD/Time		Data Location						
					on Deck		at Surface			Data on	283	/	0802	Tape/Diskette I.D.		File Name/Header				
					Press.		0.825			at Surface	0800					* Date/Time stamp is Local Time *				
					Temp.		7.256			Start Down	0803					136-10OCT0001				
					Cond.		30.138			at Bottom	0827									
					Other		29.376			Start Up	0828									
										at Surface	0851									
										Data off	0827									
Remarks 30m/min wireout rate to 250 m depth 45 m/min 250-1000 m Max wire out 1014 m																				
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal. Bot. #	Other Samp.	S <sub>2</sub>
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.				
1	5	-	10	0848	0849					12.287	7.266	33.491	32.771			32.794	14		1	
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Consec. Cast #	Vessel	MF	Proj. & Leg	OCSEAP	Event #	Vessel Sta. I.D.	Instructions								Sta. Designation					
	137		MF-90-10	392		1B									IB					
Consec. Cast #	Latitude	N or S	Longitude	E or W	Date	JD = 283	Time	Dry	Wet	Bar.	Si	Vis	Wind	Wind	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg. Min.		Deg.		Day Mo. Yr.	GMT Hr. Min.	Bulb	Bulb	mb	9842	vi	vis	Dir.	Sp.	Cloud	Type	Weath.			
137	55 09	95 N	168 02 09	W	10 OCT 90	10 32 08	Z	08	Z	86	45	280	149	--	1474		IB			
CTD Type & SN <u>SBE 91220 A</u>				Monitor Checks					Times	JD/Time	Data Location									
				on Deck		at Surface			Data on	283 / 1005	Tape/Diskette I.D. File Name/Header									
				Press.		1.996			at Surface	100.3	* Date/Time Stamp is Local Time +									
				Temp.		7.270			Start Down	1006	<u>137-10 OCT 0206</u>									
				Cond.		33476			at Bottom	1032										
				Other		32.756			Start Up	1037										
									at Surface	1101	Remarks 30 m/min rate wire out to 250 m depth									
									Data off	1033	45 m/min rate 250 to 1000 m									
											Mof wire out 1106									
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	MAX	1032:30	1037					963,210	2.891	31.411	34.290	954	2.88	34.312	OS		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

Initials DMD

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Consec. Cast #	138	Vessel	MF	Proj. & Leg OCSEAP MF-90-10	Event #	393	Vessel Sta. I.D.	1B	Instructions								Sta. Designation	1B	
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD = 283	Time	GMT	Dry	Wet	Bar.	Wind	Wind	Cloud	Bottom	Sta. Name		
	Deg.	Min.		Deg.		Day	Mo.	Hr.	Min.	Bulb	Bulb	mb	Dir.	Sp.	Type	Depth, m	or I.D		
	138	55	09	50	N	168	02	30	W	10	OCT	90	1237	07	9	8745	290	249-21380	1B
CTD Type & SN				SBE 91220 A				Monitor Checks				Times	ID/Time	Data Location					
								on Deck	at Surface	Data on	283 / 1210	Tape/Diskette I.D.	File Name/Header						
								Press.	1.227	at Surface	1205						1.38 - 10 OCT 0411		
								Temp.	7.266	Start Down	1211								
								Cond.	33.432	at Bottom	1237								
								Other	32.713	Start Up	1237								
										at Surface	1237	Remarks	30m/min rate wire out to 250m depth						
										Data off	1237		45 m/min rate 250m - 1000 m						
																	May wire out 1031		
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.			
1	5	-	10	1258	125					9.650	7.251	33.433	32.723		32.746	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 DMD

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Consec. Cast #	139	Vessel	MF	Proj. & Leg	OCSEAP	Event #	394	Vessel Sta. I.D.	13	Instructions						Sta. Designation	IB				
Consec. Cast #	Latitude		N or S	Longitude	E or W	Date	JD = 283	Time	GMT	Dry	Wet	Bar.		Wind	Wind	Bottom	Sta. Name				
	Deg.	Min.		Deg.		Day	Mo.	Hr.	Min.	Bulb	Bulb	mb/s	s	Dir.	Sp.	Cloud	Type	or I.D			
	139	55	09	47	N	16	80	22	0	W	100	OCT	90	14	35	06	8	6669	245290289-2	1370	IB
CTD Type & SN				SBE 91220 A				Monitor Checks				Times	JD/Time	Data Location							
								on Deck	at Surface	Data on	283 / 1408	Tape/Diskette I.D.	File Name/Header								
								Press.	2.614	at Surface	1403	* Date - Time stamp is Local Time *									
								Temp.	7.264	Start Down	1409										
								Cond.	33.419	at Bottom	1435										
								Other	32.700	Start Up	1437										
										at Surface	1458										
										Data off	1437										
Remarks 30 m/min rate wire out to 250 m depth 45 m/min rate 250-1000 m																		Wire out max = 1073			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other	Pos.		
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P				Avg Tw	Sal.
1	5	-	MAX	1435	1436				995.677	2.792	31.364	34.320			34.342	06		1			
2																		2			
3																		3			
4																		4			
5																		5			
6																		6			
7																		7			
8																		8			
9																		9			
10																		10			
11																		11			
12																		12			

Initials DMD  
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Consec. Cast #	140	Vessel	MF	Proj. & Leg	OCSEAP MF - 90-10	Event #	395	Vessel Sta. I.D.	IB	Instructions						Sta. Designation	IB		
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD = 283	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	Si us	Vis	Wind Dir.	Wind Sp.	Cloud Type	W eath.	Bottom Depth, m	Sta. Name or I.D
	140 55 09	11 N	168 02 68 W		10 OCT 90	16	31	070	065	93	46	28	0279	-8	1429				
				Monitor Checks				Times				Data Location							
				on Deck		at Surface		Data on		JD/Time	Tape/Diskette I.D.		File Name/Header		*Date - Time stamp is local Time + 140-10OCT0801				
				Press. -		1.789		at Surface		1602									
				Temp. -		7.254		Start Down		1604									
				Cond. -		33.429		at Bottom		1631									
				Other -		32.721		Start Up		1631									
								at Surface		1654									
								Data off		1631									
								Remarks 30 m/min rate out to 250 m 45 m/min rate 250-1000								Wire out mat 1033			
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data			Sal.	Other	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P			
1	5	-	10	1652	1653				10.291	7.246	33.457	32.755			32.778	08		1	
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials DMD

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Consec. Cast #	141	Vessel	MF	Proj. & Leg	OCSEAP MF - 90 - 10	Event #	396	Vessel Sta. I.D.	I B	Instructions						Sta. Designation	I B						
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date	JD = 283	Time	GMT	Dry	Wet	Bar.	Si	Vis.	Wind Dir.	Wind Sp.	Cloud	Type	Weath.	Bottom Depth, m	Sta. Name or I.D	
	Deg.	Min.		Deg.			Day	Mo. Yr.	Hr.	Min.	Bulb	Bulb	mb	997.8									
141	15	50	89	7	N	168	02	73	W	100	OCT	90	18	36	07	50	67	95	47	278	25481	1454	I B
CTD Type & SN				SBE 91220A				Monitor Checks				Times		JD/Time		Data Location							
Press. SN				25084				on Deck		at Surface		Data on	283	/	1810	Tape/Diskette I.D.		File Name/Header					
Temp. SN				701				Press.		2670		at Surface			1801			*Date-Time Stamp is Local Time					
Cond. SN				303				Temp.		7241		Start Down			1810			141-10OCT1011					
								Cond.		33.470		at Bottom			1836								
								Other		32.777		Start Up			1842								
												at Surface			1836								
												Data off											
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data				Sal.	Other	%			
	Rack	Depth	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.					
1	-	B	MAX	1836	1841					1001.952	2.818	31.383	34.313	998	2.80	34.336	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 DMD

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Consec.Cast # <u>142</u>				Vessel <u>MF</u>	Proj. & Leg <u>90 - 10</u>			Event# <u>397</u>	Vessel Sta. I.D.			Instructions						Sta. Designation <u>I B</u>			
Consec. Cast #	Latitude		N or S	Longitude		E or W	Date Day	JD = <u>283</u>	Time GMT Hr. Min.		Dry Bulb	Wet Bulb	Bar. mb <u>996.2</u>	S. <u>s</u>	V. <u>s</u>	Wind Dir.	Wind Sp.	Cloud Type	Bottom Weath.	Depth, m	Sta. Name or I.D
<u>142</u>	Deg. <u>55</u>	Min. <u>09</u>	N	Deg. <u>168</u>	Deg. <u>02</u>	W	<u>10</u>	<u>Oct</u>	<u>90</u>	<u>20</u>	<u>27</u>	<u>7</u>	<u>6</u>	<u>9</u>	<u>96</u>	<u>47</u>	<u>270</u>	<u>2558</u>	<u>1</u>	<u>1426</u>	<u>I B</u>
CTD Type & SN <u>SBE 91220A</u>				Monitor Checks on Deck at Surface						Times	JD/Time		Data Location								
Press. SN <u>25084</u>				Press.							Data on			Tape/Diskette I.D.	File Name/Header						
Temp. SN <u>701</u>				Temp.							at Surface			<u>142 - 10 Oct 1203</u>							
Cond. SN <u>303</u>				Cond.							Start Down			Remarks							
				Other							at Bottom	<u>20:27</u>									
											Start Up										
											at Surface										
											Data off										
Pos.	Bot.	T Rack	Trip Depth	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.	
				Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #				
1									10.723	7.225	33.477	32.796			32.819	23		1			
2																		2			
3																		3			
4																		4			
5																		5			
6																		6			
7																		7			
8																		8			
9																		9			
10																		10			
11																		11			
12																		12			

Initials VAV  
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Consec. Cast #	143	Vessel	MF	Proj. & Leg	90-10	Event #	398	Vessel Sta. I.D.	13	Instructions						Sta. Designation			
Consec. Cast #	Latitude Deg.	N or S	Longitude Deg.	E or W	Date Day	JD =	Time Hr.	GMT Min.	Dry Bulb	Wet Bulb	Bar. mb	Si us	Vis	Wind Dir.	Wind Sp.	Cloud Type	W eath.	Bottom Depth, m	Sta. Name or I.D
143	55 09	N	168 02 32	W	10	283	22	26	41	619	997.8							1391	1B
CTD				Monitor Checks					Times	JD/Time	Data Location								
Type & SN SBE 91220A				on Deck at Surface					Data on		Tape/Diskette I.D.				File Name/Header				
Press. SN 25084				Press.					at Surface										
Temp. SN 701				Temp.					Start Down										
Cond. SN 303				Cond.					at Bottom	22:25									
				Other					Start Up										
									at Surface										
									Data off										
S.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot. Data			Sal.	Other Samp.	Pos.
				Bot.	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.			
1	B	MAX								993.713	2.878	31.416	34.294	985	2.87	34.318	21		1
2																		2	
3																		3	
4																		4	
5																		5	
6																		6	
7																		7	
8																		8	
9																		9	
10																		10	
11																		11	
12																		12	

Initials \_\_\_\_\_  
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Consec.Cast # <u>144</u>		Vessel <u>MF</u>		Proj. & Leg <u>9010</u>		Event# <u>379</u>	Vessel Sta. I.D. <u>1 B</u>		Instructions								Sta. Designation			
Consec. Cast #	Latitude Deg.		N or S	Longitude Deg.		E or W	Date Day	JD = <u>284</u>	Time GMT Hr.	Dry Bulb	Wet Bulb	Bar. mb <u>799.6</u>	Si. <u>5</u>	Visi. <u>7</u>	Wind Dir.	Wind Sp.	Cloud Type	Weath.	Bottom Depth, m	Sta. Name or I.D
	55	09	N	16	80	23	8	W	10	0	28	80	69	00	57275	20	36	1	456	1B
CTD Type & SN <u>SOE 91220A</u> Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>				Monitor Checks on Deck      at Surface				Times Data on _____ at Surface _____				Data Location Tape/Diskette I.D. <u>144-10 ac 71555</u> File Name/Header _____								
								Start Down _____ at Bottom <u>00:28</u>								Remarks				
								Start Up _____ at Surface _____												
								Data off _____												
Pos.	Bot.	T	Trip	Time @		Monitor Values				Conv. Mon. Values-CTD				Sample Bot.Data				Sal.	Other Samp.	Pos.
				Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw			
1	5								9.629	7.241	33.484	32.788			32.811	09		1		
2																		2		
3																		3		
4																		4		
5																		5		
6																		6		
7																		7		
8																		8		
9																		9		
10																		10		
11																		11		
12																		12		

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Consec. Cast #		Vessel		Proj. & Leg			Event #	Vessel Sta. I.D.	Instructions								Sta. Designation			
Consec. Cast #		Latitude	N or S	Longitude	E or W	Date	JD =		Time	Dry	Wet	Bar.	Vis.	Wind	Wind	Cloud	Type	Bottom	Sta. Name or I.D	
Deg.	Min.	Deg.	Deg.	Deg.	Day	Mo.	Yr.	Hr. Min.	Bulb	Bulb	mb /1000.0	vis	Dir.	Sp.	Cloud	Type	Depth, m			
145	55 09	18	N	168 02 20	W	11	OCT 90	02 30	83	70	006726528361							1392	1B	
CTD Type & SN		Monitor Checks						Times	JD/Time		Data Location									
SBE 91220A		on Deck			at Surface			Data on			Tape/Diskette I.D.				File Name/Header					
Press. SN 25084		Press.						at Surface							145-10 OCT 1802					
Temp. SN 701		Temp.						Start Down	87											
Cond. SN 303		Cond.						at Bottom	2:29											
		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	B		:07						1004.520	2.851	31.404	34.303	993	2.83	34.327	35			1	
2																			2	
3																			3	
4																			4	
5																			5	
6																			6	
7																			7	
8																			8	
9																			9	
10																			10	
11																			11	
12																			12	

Initials LAS  
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