								1.	3 0							, 9.	<u> — </u>	01	
Co	nsec	.Cast	#0/	Vessel MILLE	R FRE	Pro EMAN N	j. & Leg 1F-92-04 F	Eν		Sta. I.D.	Instru	ctions				Sta. De	signatio できんし	n Sa	
Ca	nsec. st #	De		Min.	or S De	TITI	or	ate JD =	Yr. Hr.	Min.	Dry Bulb	Wet Bulb		Wind Dir.	Wind pnol		n, m	or I.D	
0		5	44=	404	NI	98378	B T W	GAPR		090	1 4	0114	775	6315	208		98c	101	a
Tvr	C: ne & S	TD SN						or Checks				D/Time	_	(5)	Data Loc		4		
						OI	n Deck	at	Surface	Dat.	a on face		1	e/Diskette l					
					Pı	ress		_			own		_		<u></u>	CASTOOL	_12 H	PR 2 35	[
Co	ond. S	N				emp					tom		_						
_					. с	ond		_			t Up face	- ·-·	Rema	arks					
					. 0	ther			· · · · · · · · · · · · · · · · · · ·	ı	a off								
SS.		T	Trip	Time Depth	e @			r Values	Sal.			Values-CT			ple Bot.E	ata	Sal.	Other Samp.	os.
			Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sai.	Therm-P	Avg Tw	Sal.	Bot. #	T	
1	38	3	8 Wy	00830	0,191	494,801	3.765	31.585	33,830						3.76	33.827	13		1
2									***			_ =		Te =					2
3				-							118								3
4			/81				=												4
5		5 1	ь =	Ŧ		= =	= =,	=	_										5
6															0				6
7																		- P. T.	7
8	N			W.												5.9			8
9												= 1	22						9
10												=							10
11				100	VV.					45									II
12									117										12
																	حاجنمنحاء	^	

Initials RT

							*	#1	77				<u> </u>			Pg.	<u>a</u>	of	
	nsec.		#	Vessel	R FREI	Pro EMAN N	oj. & Leg a MF-92-04	Eve		Sta. I.D.	Insti	ructions					esignation	n	
Co	nsec. st #	Deg	Latitu g.		N or S De	Longitud	ie E D	Date JD =	Yr. Hr.	IT	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Pao	Neath Dept		or I.D	e
0	02	54	4 4 7	05	N / 4	8310	07 W 1	F A P R	9203	58	025	018	85	38240	147	6122	a 5 P	ROT	a
Pr Te	ess. S mp. S	N 2 N 3	0661 10F 10F 50E	Y	. Te	ond	n Deck		Surface	Dat at Su Start D at Bo Star Star at Su	mes ca on rface bown ttom t Up rface ta off		Ta	pe/Diskette arks	Data Loc	File Nan	45		340
S.		Т	Trip	Tim	e @	HEET		or Values	Solinila			. Values-CT			nple Bot.[· · · · · · · · · · · · · · · · · · ·	Sal.	Other Samp.	os.
2000		120	1205 2	Depth		Press.	Temp.	Cond.	Other/	Press.	Temp.	Cond.	Sal.	Therm-P	Name III	90_51]	777.77		
1	-	B	400 m	0401:30	0406:30	399.773	3.790	31.414	33.650				Me .		3.79	33.649	07		1
2		報で表	10 MI	10			4900												2
3		100		72.0	₩ <u>.</u> #		333	\$45 (1									3		3
4	3	Į, a																	4
5																			5
6				E ST												100			6
7			6					25					HSE"						7
8						8											l le y		8
9	- 3						W					1 -		\$ 8					9
10																			10
11														e:					11
12				EX.			= 75							1	L				12
	1	l	4	1	J	·		!						-	4		Initials	mc	

					003	18 250	52							Pg.	<u>3</u>	of	
				Pro EMAN N	j. & Leg	Eve	ent# Ve	ssel Sta. I.D.	Instru	ıctions							
	Latitu	ide	N or	Longitud	le E [Date JD =	109	GMT		Wet Bulb	Bar. mb	Wind Dir.	Wind Pnol Di	Meath Dept		Sta. Nam or I.D	e
35	456	52	NIC	8363	5 W	8 A P R	922	2060	30	027	084	7060	4016	6193	000	037	B
SN_ SN_ SN_	10F		Те	ress	n Deck	at		Data of at Surfa Start Dov at Botto Start U	on ce vn~ m Jp	330732 330732			I.D.	File Nam			
	1			ther	N							Car	nnlo Bot C	Note .	I Sal	Other	
		Time Depth	e @ Trip	Press.			Other		Temp.	Cond.	Sal.				Bot. #	Samp.	Pos
					2,330	31.300	34.47					1479	2.34	34.478	18		
	15												W = 48				2
iiix		9							0 T		(4)						3
																# = T	4
											91 2 32						5
				m Ti						Kan i							6
																	7
						fi+											8
			× -		l l												9
	×.		le A									V =					10
إيار		T - 3							3					= == ×			11
			T					I I								1	12
	Do SN SN SN T	Deg. 35 4 5 6 TD SN 91220 SN 25084 SN 303 T Trip Rack Depth	Deg. Min.	Latitude	Latitude	Cast # Vesse Proj. & Leg MILLER FREEMAN MF-92-04	C.Cast # Vessel Proj. & Leg Events Events Proj. & Leg Events Proj. & Leg Events Proj. & Leg Events Proj. & Leg Proj. &	Name	Note	C.Cast # Vessel Proj. & Leg Event # Vessel Sta. I.D. Instruction Instruc	Cast # Vessel MILLER FREEMAN Proj. & Leg Event # Vessel Sta. I.D. Instructions	Cast # Vessel MILLER FREEMAN MF-92-04 FOCI LEG 1 L	Cast # Vessel MILLER FREEMAN Proj. & Leg MF-92-04 FOCI LEG 1 LEG 1	Cast # Vessel MILLER FREEMAN MF-92-04 FOCI LEG 1 Normalized Leg 1 Normalized N	Cast # Vessel Ves	Cast # Vessel Ves	Cast # Vessel N Longitude E Date JD = 109 Time Monitor Values Sta. I.D. Instructions Sta. Designation Cast Surface Sta. Vessel Sta. I.D. Instructions Sta. Designation Cast Surface Sta. Designation Cast Surface Sta. Nam Sta

Initials COFWE

				7	This post	tion in	incorrect	ps delta nt# Vessel	suld be	34°4 2	,00 N,	E. 1.	<u> 93</u>		Pg.	4	of	
Conse	Cast		Vessel MILLE	R FREEMAN	Proj. & MF-9	Leg 2-04 F0C	Ever I み5	t# Vessel	Sta. I.D.	Instru	ictions	(6 May	- 93		Sta. De	esignation A	on	
Consec Cast #		Latitu		l Lo		E Date	JD = \\		ıΤ 	Dry Bulb	Wet Bulb	Bar. mb	Wind Si Dir.	Wind Page 1	1 1	om® 3	Sta. Nam or I.D	ıe
001	5	440	00	N 1 68:	2804	W 1 9	A PR	200	54 (50	038	103	8040	103		85G	006	A
Type & Press. Temp.	TD SN_ SN_ SN_	06619 2026 0F 06	1				at Si	urface	Dat at Sui Start D at Bot Star at Su	mes a on rface tom t Up rface a off	0418	Tap			File Nam	9AP1	R0016	
S Bot	T Rack	Trip	Time Depth	@ P		Monitor V	/alues	SAL Other	Press.	onv. Mon. Temp.	Values-CTI Cond.	Sal.	San Therm-P	ple Bot.D Avg Tw	Sal.	Sal.	Other Samp.	
1		Commence and Co	XXIIIIAAAAA		0.07/ 2.				11000		20110.	34 1.	994	2.95		#02	+	ī
2			01 0101	21 070)							<u></u>			<u>G.</u>				2
3	E,		=000		13 -								2 18 _	V2				3
4																		4
5		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					=0											5
6																		6
7				1		la a		= 1						2		100		7
8																		8
9								П										9
10					5										-		П	10
II	<u> </u>															=		11
12														11				12

Initials CD BT

Pg. <u>5</u> of ____ Event# Sta. Designation Proj. & Leg Vessel Sta. I.D. Consec.Cast # Vesse Instructions MILLER FREEMAN MF-92-04 FOCI 256 GOODA 005 Longitude E Date JD = \\O Latitude N Time Wind Wind Pind Ay Sta. Name Bottom Dry Wet Consec. Bar. S. S. Vis. or W Day Mo. Yr. or **GMT** mb Depth, m or I.D Bulb Bulb Cast # Deg. Min. Deg. Hr. Min. CTD **Data Location Monitor Checks** JD/Time Times Type & SN 91220-A Tape/Diskette I.D. on Deck Data on File Name/Header at Surface Press. SN_ 25084 at Surface CASTOO5-19APRODAI Temp. SN 301 Start Down____ at Bottom 0259 Cond. SN 303 Temp. _____ Start Up_____ Cond._____ Remarks at Surface _____ Other_____ Data off_____ Sal. Other **Monitor Values** Conv. Mon. Values-CTD Sample Bot.Data Trip Time @ Bot. Rack Depth Depth Trip Bot. # Samp. Press. Temp. Cond. Sal. Therm-P Avg Tw Sal. Press. Temp. Cond. Other 33,965 3.598 492.390 31,552 3.60 33.967 500 05 2 3 4 4 5 5 6 6 7 8 9 9 10 10 11 11 12

Pg. <u>┙</u> of ___ Event# Sta. Designation Consec.Cast # Vessel Proj. & Leg Vessel Sta. I.D. Instructions BOSOR 006 MILLER FREEMAN MF-92-04 FOCI 259 Longitude E Date JD = \\O Latitude N Weath. Time Bottom Sta. Name Dry Wind Wet Bar. Consec. **GMT** or S. S. Cast # Deg. Depth, m or I.D Dir. Bulb Bulb mb Min. Deg. W Day Mo. Yr. Hr. Min. 006543055 NA **Data Location Monitor Checks** JD/Time Times Type & SN 91220-A Tape/Diskette I.D. Data on_____ on Deck at Surface File Name/Header Press. SN_25084 at Surface_____ CASTOOK-19APRO427 Press. ______ Temp. SN 301 Start Down____ Cond. SN 303 at Bottom_____ Temp. _____ Start Up_____ Cond._____ Remarks at Surface_____ Other _____ Data off____ Conv. Mon. Values-CTD **Monitor Values** Sample Bot.Data Sal. Other Trip Time @ SAL Bot. Rack Depth Depth Trip Bot. # Samp. Temp. Therm-P Avg Tw Press. Temp. Cond. Other Press. Cond. Sal. 352,770 3.776 31.495 3.77 33,788 350 052400 053400 33.784 2 3 4 5 5 6 6 7 7 8 8 9 9 10 10 11 11 12 12

Initials _	
✓_	

Pg. 4 of ____ Sta. Designation Consec.Cast # Vessel Proj. & Leg Event# Vessel Sta. I.D. Instructions APIOS MILLER FREEMAN MF-92-04 FOCI 262 FOO Longitude E Date ID=\\O Latitude N Wind Wind Pinol Cloud Sb. Cloud Sb. Cloud Sp. Time Bottom Sta. Name Dry Wet Consec. Bar. S. S. Vis. or **GMT** or I.D Depth, m mb Bulb Bulb Cast # Deg. Min. S Deg. W Day Mo. Yr. Hr. Min. CTD Type & SN <u>91220-8</u> **Monitor Checks Data Location** D/Time Times Tape/Diskette I.D. File Name/Header on Deck Data on____ at Surface Press. SN_25084 at Surface____ CASTOOT_19APRO636 8E20 Temp. SN 301 Start Down____ at Bottom 070622 Cond. SN _____ 303 Temp. _____ Start Up_____ Cond._____ Remarks at Surface Other_____ Data off_____ Sample Bot. Data Other Conv. Mon. Values-CTD Pos. Monitor Values Sal. Trip Time @ SAL Bot. # Samp. Bot. Rack Depth | Depth | Trip Therm-P Avg Tw Temp. Cond. Sal. Sal. Cond. Other Press. Press. Temp. 3,803 3.79 33.623 31,311 30 33,618 200 072455 072955 202,015 3 5 5 6 6 7 8 8 9 9 10 10 11 П 12 12

Initials	
√	

Pg. Sta. Designation

Consec		#	Vesse	ER FRE	Pro	j. & Leg IF-92-04	FOCT Z	ent# Vesse	Sta. I.D.	Instru	ictions				Sta. D	esignation		
Consec. Cast #		Latit	_	N or S De	Longitud	e E D or	ate JD =	110 Tin	1T	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Page 10 10 10 10 10 10 10 10 10 10 10 10 10	Meath Dept	tom	Sta. Nan or I.D	١.
008	5	413	89	N /	7546	6 W,	9 A P R	9209	040	4 9	028	143	8 290			83 G	010	AC
Type & S				_	or	Moni Deck	tor Checks	Surface	Date	a on 170	D/Time 0&あり	Тар	e/Diskette	Data Local.D.	ation File Nar			
Press. S		<u> </u>		- Pi	ess					face own		-			CASTOOR	<u> 1991</u>	2R083	33
Cond. S				Te	mp				at Bot	tom	0908						J	
			<u>.</u>	_ c	ond			36		: Up face		Rema	arks					
		Trip			ther		r Values			a off	Values-CT		San	nple Bot.D)ata	Sal.	Other	
o Bot.	Rack	Depth	Depth	ie @ Trip	Press.	Temp.	Cond.	Sal. Other	Press.	Temp.	Cond.	Sal.	Therm-P			Sal. Bot. #	Samp.	Pos
1 38	B	100	093250	093750	103.425	3.000	30,264	33.240						2.98	33,238	01		1
2	2-87	h							, , , , , , , , , , , , , , , , , , ,			N.	- = =			ŧ #.		2
3					84.0-	- 3 - 3												3
4					5	7				()			- ×	12 = 2 ³			100.8	4
5				-				fer all	73 ±8								_==	5
6			V =			91												6
7		1																7
8							, , -			_w								8
9								iii ee)		0	2.5				III 30		9
10																		10
11		=:																11
12													1					12

<u>CD</u>

Pg. <u>9</u> of ____ Sta. Designation

Consec. Cast	#	Vessel MILLER	FDFFN	Pro	j. & Leg IF-92-04		ent# V	essel Sta. I.D.	Instru	ctions					Designation		
Consec. Cast # Deg	Latitu g. l			Longitud	e E D	ate JD =	111	Time GMT Ir. Min.	Dry Bulb	Wet Bulb	Bar. mb vi	Wind is Dir.	Wind pnol Sp. Sp. Sp.	Meath.	ttom pth, m	Sta. Nam or I.D	
	500	641	16	8188	3 W a	OA PR	921	4010	31	020	183	7250	0069-		886	038	SA
Type & SN _				or	Mon Deck	itor Checks at	Surface		nes j	D/Time	Tap	e/Diskette	Data Loc a I.D.		ame/Head	ler	
Press. SN Temp. SN			Pre	ss					face					LASTOD	9-20F	PR135	6
Cond. SN				5076			-	at Bot	tom								
				nd ner				at Sur	Up face a off		CHLO		PROTOR SAMPLE		EM. TRA	CERS	>
S Bot. Rack	Trip	Time (@	Press.	Monitor Temp.	or Values Cond.	Other		onv. Mon. Temp.	Values-CT Cond.	D Sal.	Sar	nple Bot.D Avg Tw	ata Sal.	Sal.	Other Samp.	181
1 30	60		0358		temp.	Cond.	Other			29.853					, , , , , ,		T
2 22	50 [*]		0506							SPF.PG							2
3 29	40		8000						100	29756					J		3
4 26	30	14	16701	33						29:709		Q1	CUCK	4			4
5 27	20	14	10824				W. 12		10 ¹⁵ 10 co 11	29.579							5
6 28	10	14	Z6P0,				ķ.	10.104	F18.6	29.391	32.386	E - III					6
7 a5	Q	12	41015					5.335	2.840	29.375	32.375					320	7
8 rw																	8
9 86R						N _X											9
10 BLAN									1 _ 1								10
11 34	90							90.816	3.440	30485	32.703				06		11
0.4	70				 			10.0.0			1	4	1				12

Pg. <u>10</u> of ____ Event# Consec.Cast # Vessel Proj. & Leg Vessel Sta. I.D. Sta. Designation Instructions MF-92-04 FOCI G038A MILLER FREEMAN 321 010 Longitude E Date JD = \\\ Latitude N Time Cloud Dui Weath. Sta. Name Bottom Consec. Dry Wind Wet Bar. or **GMT** S. S. or I.D Cast # Depth, m Bulb mb Bulb Dir. Deg. Min. S Deg. W Day Mo. Yr. Hr. Min. CTD **Data Location Monitor Checks** Times JD/Time Type & SN 91220-A Tape/Diskette I.D. at Surface Data on____ File Name/Header on Deck Press. SN_25084 at Surface____ CASTOID-20APRISIO Temp. SN______ Start Down____ 151055 at Bottom 151402 Cond. SN____303 Temp. _____ Start Up_____ Remarks SAMPLES FOR J. MCDONALD/UA Cond._____ at Surface PROTOZDANS, CHLOROPHYLLS CHEM TRACERS Other_____ Data off____ **Monitor Values** Sample Bot.Data Other Conv. Mon. Values-CTD Sal. Pos. Trip Time @ Bot. Rack Depth Depth Trip Temp. Bot. # Samp. Sal. Therm-P Avg Tw Sal. Press. Press. Cond. Temp. Cond. Other 1 20 151720 50 49.968 3.085 29.761 32.571 22 151830 40 40.203 3.052 29.712 32.552 3 29 151915 30.097 3.083 29.723 32.539 30 152015 26 20.210 2.757 29.380 32.456 DIDN'T CLICK 20 5 27 10 152115 10.107 2.823 29.365 32.378 6 6 28 15 2320 4.678 2.825 29.365 32.377 7 25 8 rw 8 9 PER 10 BLANK 10 11 21 151430 11 90 33.712 06 SIF.65 FIG.05 824.6 ROP.1P 12 26 51555 OF 69.816 3.315 30.024 32647

Initials coloco

																	P. 77	<u> </u>	
Co	nsec.	Cast	#	Vesse	ER FRE		j. & Leg 1F-92-04		ent# Vess	el Sta. I.D.	Instr	uctions					Designatio	on	
Cor		Deg	Latitu g.		N or S De	Longitud	e E [Date JD =	\\\ T i	me MT Min.	Dry Bulb	Wet Bulb	Bar. mb	Wind Si Si Dir.	Wind Pio	Weath.	ottom Septh, m	Sta. Nam or I.D	e
0	1	5	500	86	NIE	8182	a Wa	O A PR	9215	530	0 2 3	FIO	173	7265	1385	5219	9000	038	A
Тур	C7 e & S	D 0	17330	-A				itor Checks				JD/Time	Tar	e/Diskette	Data Loc		lame/Head	lor	
Pre	ess. S	N	2508	<u>,4</u>	- _		n Deck		Surface	1	ta on irface		'ª\	Je/ Diskette			1-20 ASB		
	-		10F		- [ess mp					Down ottom							<u> </u>	
	nu. J		3 83			ond				Sta	rt Up		Rema	arks SAMP	LES FOR	2. W.C	DONALI	DUA	\dashv
						ther					rface ta off								
Š		Т	Trip	Tim	1e @		Monit	or Values				. Values-CT			nple Bot.D		Sal.	Other	S.
9	Bot.	Rack	1 rip Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Samp.	
1	20		50	Ě	155717	FPF.00	3.157	29.843	32.598										
2	22		40		155819	88F.0H	FEI.E	29.812	32.586										2
3	29		30		155924	30.802	3.054	29,713	33,555	-									3
4	26		20		160040	19.984	2.904	29.529	32.491										4
5	75		0		160148	9,936	F08.6	29.366	32.394										5
6	38		10			5.031	2.805	29.356	32.387										6
7	25								0										7
8	ΓW													25					8
_	PG																		9
		UK										-							10
Ш	21	=	90		155400	90.555	3.508	30.268	32734				4						11
E 1	26		70			FGE.OF								N.					12
		<u> </u>	- 10														1 24 1	coli	~

Initials Coluf

Pg. 12 of ____ Vessel Proj. & Leg
MILLER FREEMAN MF-92-04 FOCI Sta. Designation Consec.Cast # Event# Vessel Sta. I.D. Instructions 324 G038A 012 Longitude E Date JD = \\\ N Latitude Time Sta. Name Bottom Consec. Dry Wet Bar. or GMT Depth, m or I.D Bulb Bulb mb Cast # Deg. W Day Mo. Yr. Hr. Min. Min. Deg. CTD **Data Location Monitor Checks** 1D/Time Times Type & SN 91220 A Tape/Diskette I.D. Data on..... File Name/Header on Deck at Surface Press. SN 25084 at Surface_____ CASTO12_20APR1616 Press. ______ Start Down at Bottom Cond. SN _____ 303 Temp. _____ Start Up_____ Cond._____ Remarks SAMPLES FOR I MCDONALD UA at Surface_____ Other_____ Data off Sal. Other Sonp. Oc. Sample Bot. Data **Monitor Values** Conv. Mon. Values-CTD Trip Time @ Bot. Rack Depth Depth Trip Press. Temp. Cond. Sal. Therm-P Avg Tw Cond. Other Press. Temp. 162340 50944 3.353 30.049 32.649 50 20 162439 40 40.116 3.218 29.900 32.610 22 3 162529 29.852 32.580 29 FP1.E 8EE, 0E 162618 20,431 3,123 29,738 32,522 126 27 162715 10.543 2.903 29.464 32.416 5.551 2,903 29,459 32,414 6 28 7 25 8 rw 9 PGT 9 10 BLANK 10 111/21 162025 90 89.937 3.496 30,249 46F.GE 162158 12 12 26 OF 69.552 3.471 30.202 32.703

Initials <u>ColuF</u>

Pg. 13 of ____

C	onsec.		#	Vessel MILLER	FREEM		j. & Leg F-92-0	4 FOCI	Even	t#	Vessel Sta. I.D.	Instru	uctions					esignation	on 	
i i	onsec. ast #	I	Latitu g.			Longitud)D = //		Time GMT Hr. Min.	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Book	Botto		Sta. Nam or I.D	
0	13	5	500	921	N 16	8187	3 W	201	A PR9	2	16440	125	017	173		107	1111	20 G	038	AE
T.,	C 3 8 C	TD Q	11330	A				nitor	Checks		1		JD/Time	_	(D) 1	Data Loc	•	4	ī	
			<u> </u>				n Deck		at Su	urface	1	ta on		lap	e/Diskette		File Nam			,
	emp. S					ss							16412	<u> </u>				- 0.071		
C	ond. S	N	<u> 30:</u>	3		np nd					Sta	ttom rt Up		Rema	rks SAMP	I.E. FOR	J. MCDON	JALD.	AU	
		1. I			1	ner					1	ırface ta off			iks chrifts					
S.		Т	Trip	Time Depth	@		,	itor V				Conv. Mon	. Values-CT			nple Bot.D		Sal.	Other Samp.	
A P	- 100-1	Каск		Depth	Trip	Press.	Temp). (Cond.	Oth	er Press.	Temp. 3.273	Cond.	Sal.		Avg Tw	Sal.	BOL. #	Jamp.	1
-	20		50	3 3								E ERS		32.626			TTRIP			2
2	0/0/		40				N T	2		_	40.145				BOTTLE	, DIDN.	TRIP			2
3	29	* =	30		_						30,483	3.130		32.548				100		
4	26		30								20.653	13969	39.588	32.496	=1		<u> </u>			4
5	27	17	10				X				10.35	2.873	39.449	32.430		(b) (b)		1 8		5
6	28		5								5.78F	2.844	29,406	32.408		= 2				6
7							_ =								. 98					7
8	ru	1		- R												=				8
9	PG:	W.				6								53						9
	0 B/		,)))		<u> </u>					3	10
	ı _{al}		90	\	164				2		90.53	1 3.511	30.282	FHF.GE	BOTTL	ICIC 3.	TRIF	-		11
- 1	2 al	1	70								70,67	3,498	30.22	BOE GE	POTTL	1010 S	197 TRI	F		12

Pg. 14 of ____ Consec.Cast # Event# Vessel Sta. I.D. Sta. Designation Vessel Proj. & Leg Instructions MF-92-04 FOCI 326 G038A MILLER FREEMAN OIL Longitude E Date JD = \\\ Latitude N Weath. Time Sta. Name Bottom Wet Wind Consec. Dry Bar. **GMT** or S. S. or i.D Bulb mb Dir. Depth, m Cast # Bulb Deg. Min. W Day Mo. Yr. S Deg. Hr. Min. 8 CTD Type & SN_91220 A **Monitor Checks ID/Time Data Location** Times Tape/Diskette I.D. on Deck at Surface Data on_____ File Name/Header Press, SN 25084 at Surface_____ CASTO14 _ 20 Apr 1700 Press. __________ Start Down____ at Bottom_____ Cond. SN 303 Temp. _____ Start Up_____ Remarks SAMPLES FOR J. MCDOWALD U.A. Cond._____ at Surface Other_____ Data off____ Other 5 Sample Bot.Data **Monitor Values** Sal. Conv. Mon. Values-CTD Trip Time @ Bot. Rack Depth Depth Trip Bot. # Samp. Therm-P Avg Tw Sal. Other Temp. Cond. Sal. Press. Cond. Press. Temp. 1 20 2 22 3 29 89.369 3.511 30.284 32.751 90 4 26 30,250 32,712 69.630 3:519 OF 5 5 FE 50 51.166 3.371 30.067 30.651 40 6 6 28 40.004 3.183 29.863 32.601 7 25 8 8 rw 9 9-PGR 10 10 BLANK 11 21 11 12 12 26

Pg. <u>15</u> of ____

	Sec. (5 \ ?	Last #		Vessel MILLER	FREE		oj. & Leg MF-92-0		Event:		el Sta. I.D.	Insti	ructions					Sta. Design <u>このろ</u>		n 	
Conse Cast	ec.		Latitud M	de N or lin. S	4	Longitud	de E or W		JD = \\\ Mo. Yr	G	ime MT Min.	Dry Bulb	Wet Bulb	Bar. mb	Wind Si Dir.	Wind P	l ype Weath.	Bottom Depth, m		ta. Nam or I.D	ie
01	5	55	00	95	116	8180	WF	20	A PR9	1 3	220	2 7	FIO	183	727C	1671	01	1900	G	038	, A
	CT	D	330		,		Me	onitor	Checks			mes	JD/Time		(D: 1	Data Loc			Щ		
Pres	s. S1	1_9	508	4			n Deck		at Sur	ace		a on face		Tap	e/Diskette			le Name/F 1015_20			
1 '	•		10F 505			ess mp						own tom	E <i>IPIFI</i>	-							
Conc	u. Si	<u> </u>	700			ond					Star	t Up		Rema	rks SAMP	LES FOR	-22	IRHOGA	70	NA	\dashv
						her						face a off					W=0.				
SO B	OT I	T	Trip	Time Depth	@	Press.	Mor Tem	itor V		ther	Press.	onv. Mor Temp.	. Values-CT Cond.	D Sai.	Sar Therm-P	nple Bot.D Avg Tw			al.	Other Samp.	Pos.
			at 191	Рер тп	rrip	riess.	rein	,	Cond. C	ulei						AAR 144		odi.	υ. π	Sump.	
	10	8113	00										30.163								2
0	53		10								40.091		39.856	- 200		0 = 1					
100	9	3	06			2					30.621	3.119	29.782	32.573							3
4 2	ط(- 6	50			VT=1 /				-	20.636	3.104	75. PS	32.528							4
5	FS		10				10	10-11	_ ===		10.675	2.778	29.370	32.428			- PA				5
6	28		5								4.921	2796	29.364	32.406						3/4	6
7 3	15		-		=,=w=										w =					- 4	7
	m																	81 6			8
9 4					8 1		1	16				7									9
10 3											1 11										10
11 6			20		72241	7					90.809	3.528	3 30.304	32756					0.2		11
			70		10/00																12
12 2	ひん		OF								70.096	3.52	7 30.264	167.66	<u>. </u>		1			Colv	

Pg. <u>\\o_</u> of ____ Sta. Designation VesselProj. & LegEvent#MILLER FREEMANMF-92-04 FOCI370 Event# Vessel Sta. I.D. Instructions Consec.Cast # 0110 Latitude N Longitude E Date ID = 1/2 Time Weath. Bottom Sta. Name Wind Wet Dry Bar. Consec. GMT S. S. or I.D Depth, m mb Dir. Bulb Bulb Cast # Deg. Min. Deg. W Day Mo. Yr. Hr. Min. **Data Location Monitor Checks** ID/Time CTD Times Type & SN 91220A Tape/Diskette I.D. File Name/Header on Deck Data on.... at Surface Press. SN <u>25084</u> at Surface____ CASTOIG - 21APRISAG Press. _____ 1827 Start Down_____ at Bottom 1830 Cond. SN 303 Temp. _____ Start Up_____ Remarks SAMPLES FOR J. MCDOWALD UA Cond._____ at Surface_____ Other_____ Data off_____ Sample Bot.Data Sal. Other So Samp. Monitor Values Conv. Mon. Values-CTD Trip Time @ Bot. Rack Depth Depth Trip Therm-P Avg Tw Sal. Cond. Other Temp. Sal. Press. Temp. Cond. Press. 49.995 3.119 30.329 33.225 50 30 183440 39,627 3,120 30,325 33,224 22 40 3 MES. EE EEE. 05 122 30.322 33.224 29 30 19.873 3,122 30,318 33,224 20 5 27 9,877 3,123 30.314 33.225 6 28 4.770 3.123 30.311 33.224 25 8 1 9 9 PGR 10 10 BLANK 11 33,232 11 3/ 80 855.58 185.08 3.098 30.331 33.228 00 12 12 26 JEE. CE 165.05 POI. 5 PFE. OF BEES1 70

Pg. <u>\7</u> of ___

Со		Cast	#	Vesse	I ER FRE	Proj	j. & Leg F-92-04 f		ent# Vessel	Sta. I.D.	Instru	ctions				Sta.	o: <u></u> Designatio	n	
•	nsec. st #	Deg		ide Min.	N or S D		e E Da	ate JD =		T Min.	Dry Bulb	Wet Bulb		1 1 1	Wind BOOK	Meath De	pth, m	ta. Nan or I.D	
Typ Pro Tei	ess. S mp. S	N_3 N_3 N	350 802 802 802 701 303	Я (4.	- - - - -	on Press Temp Cond) Deck		Surface	Tin Data at Sur Start Do at Bott Start at Sur Data	a on face own tom : Up face a off		Ta	pe/Diskette	LES 178	File Na	ame/Head	CD 1) 19 UA
Pos.	Rot	T	Trip		e @	Press.		r Values Cond.	Other	Press.	onv. Mon. Temp.	Values-CT Cond.	D Sal.	San Therm-P	nple Bot.D	ata Sal.	Sal. Bot. #	Other Samp.	1 0
_ _	W/TERS	Nack	es a Transmitte	Depth	Trip	-	Temp.	30.315	1750	11633.	remp.	Cond.	Jai.	THEITH	7.18	Jai.			ı
2	30 30		50			50.000		30.312											2
	39		30			100-00-00-00-00	tia XX	30.310								8	11 11 11		3
	26	160	30					30.303	(X)										4
5	FS	01	10		e	9.833	3.115	30.307	33,224										5
6	38		15)			たった。チ	3,122	30.311	33.224					WILL I					6
7	25																		7
	ru																		8
9	PQ.	R							3 11								1 N X		9
100	1	AMK																	10
4	31		90			89,770	3.095	30.329	33.229				=						11
	91	-	7		-	31111	200 10	6210041				+		-	1	†···			

Pg. \S of ____

Conse			#	Vessel		Pro	j. & Leg	Eve							Sta. I	sta. Designation						
Conse Cast #		LatitudeN or Deg.LongitudeE or 								Wind Pio	Meath Del	ttom oth, m	Sta. Nan or I.D	- 1								
01	8	53	350	25 1	V 1 =	1327	9 W2	\ A P R	922	016	049	038	223	37235	109	1432	60 G	046	A			
Type 8	CTI & SN	0 0	320. //330	AC		on	Deck	tor Checks at			Times Data on Surface		Та	pe/Diskette		File Na	ime/Head					
Temp. SN Start Down													CASTOIR_21APR3306									
Cond	Cond. SN Temp										Bottom art Up						A - B					
-	at Surf												Rem	arks SAMPL	ES FOR	2. W.C.	DONINE.	DI UK	,			
		- T	Trip			her		r Values		<u> </u>	Conv. Mon	. Values-CT		San	nple Bot.D	ata	Sal.	Other	<u></u>			
S Bo	t. R	ack	Depth	Time (⊕ Trip	Press.	Temp.	Cond.	Other	Press			Sai.		Avg Tw	Sal.		Samp.	P. O			
1 2		SAE	50		- ×	50.285	3,100	30,313	33,325	5							18		ı			
2 2	A		40					30.309										+	2			
			<u> </u>					30.306		1									3			
			30																4			
3,	6		20	E				30,310				-						-	+-			
5 a	7		10			10.032	3.152	30,338	33.22	3									5			
6 29	8		5			5.082	3.174	30.353	33,222	L.							1		6			
7 2	5			1															7			
	77			E 10															8			
9 8					-									¥		Ī			9			
																			10			
10 3	I	1141				04 50 11		2 - 221							-				11			
11 3			90			117.08		166.06										Š	12			
12 ₂	0		OF			69.746	3,099	30,322	33.22	0		W					Initials		14			

Pg. 19 of ____ Sta. Designation Consec.Cast # Vessel Proj. & Leg Event# Vessel Sta. I.D. Instructions G042A MILLER FREEMAN MF-92-04 FOCI 379 019 Latitude Longitude E Date ID = 1/2 Weath. Time Bottom Sta. Name Consec. Dry Wind Wet Bar. **GMT** S. S. Depth, m or I.D Dir. Bulb mb Cast # Bulb Deg. Min. Deg. W Day Mo. Yr. Hr. Min. CTD **Data Location** JD/Time **Monitor Checks** Times Type & SN 91230 A Tape/Diskette I.D. at Surface Data on File Name/Header on Deck Press. SN 25084 at Surface_____ CASTOI9-21ATR 2330 Press. ______ Start Down____ Cond. SN____303 at Bottom_____ Temp. _____ Start Up_____ Remarks SAMPLES FOR J. MCDONALDI WA Cond._____ at Surface _____ Other_____ Data off____ Other Samp. Conv. Mon. Values-CTD **Monitor Values** Sample Bot.Data Sal. Trip Time @ Bot. Rack Depth | Depth | Trip Bot. # Samp. Temp. Therm-P Avg Tw Cond. Sal. Other Press. Press. Temp. Cond. 90 50 50.425 3.099 30.312 33.225 40 455.5E 805.0E 001.5 689.8E 22 29 30.121 3.101 30.304 33.224 30 HEE.EE HOE.OE FOI.E 020.06 20 5 5 10 10.058 3.155 30.339 33.222 FE 6 6 4.878 3.181 30.360 33.223 28 7 25 8 8 1-W 9 9 POR 10 10 BLENK 11 31 11 FLG. EE 156.05 FPO. 5 88F.0P 90 12 26 12 BEG. ES LEE. 05 FPO. 5 F36.0F

Initials _	
V _	

Pg. <u>30</u> of ____ Event# Vessel Sta. I.D. Sta. Designation Consec.Cast # Proj. & Leg Vessel Instructions MILLER FREEMAN MF-92-04 FOCI 383 020 Longitude E Date |D = 1/3|Latitude N Wind Wind Pind Sp. Sp. Sp. Time Bottom Sta. Name Consec. Dry Wet Bar. or or GMT Depth, m or I.D Bulb Bulb mb Cast # Deg. Min. S Deg. W Day Mo. Yr. Hr. Min. **Data Location** CTD **Monitor Checks** ID/Time Times Type & SN 91220 A Tape/Diskette I.D. on Deck Data on____ File Name/Header at Surface Press. SN 25084 at Surface_____ PSIOFFRES-OSOTORS Start Down 013035 Temp. SN 301 at Bottom 013349 Cond. SN ___ 30.3 Temp. _____ Start Up_____ Remarks SAMPLES FOR J. MCDONALD ! U.A. Cond._____ at Surface Other______ Data off____ Sal. Other **Monitor Values** Conv. Mon. Values-CTD Sample Bot.Data Trip Time @ Trip Time @
Bot. Rack Depth Depth Trip Bot. # Samp. Temp. Sal. Therm-P Avg Tw Cond. Press. Temp. Cond. Other Press. 50.069 3.121 30.330 33.224 50 20 22 40 40,236 3.122 30.325 33.223 30,251 3.125 30.325 33.224 29 30 20,131 3.136 30.328 33.223 20 5 10.180 3.184 30.366 33.224 FG 6 5.126 3.255 30.424 33.224 28 7 25 8 8 100 9 PGR 9 10 BLANK 10 11 37 013407 П 90 89,357 3,110 30,340 33,226 23600 12 12 26

Pg. <u>al</u> of __ Sta. Designation Cloud Dui Weath. Sta. Name Bottom Depth, m or I.D **Data Location** Tape/Diskette I.D. File Name/Header

Temp. S	N	25084 701 303		Te	ess mp ond	n Deck		at Surface C Start Down C at Bottom Start Up Remarks SAMPLES FOR T							CASTORI DONALE		PRO156	
6 000	T	Trip	Tim Depth	e @	Press,		r Values	0.1	Press.		Values-CT Cond.	D Sai.		nple Bot.D			Other Samp.	
, BOL	Nack		Depth	Trip	Press.	Temp.	Cond.	Other					inerm-P	Avg Tw	Şal.	BOL. #	Samp.	
Sene		50	S86						49.605	2.123	166.06	33.224						Ŀ
2		40	G =						784.98	3.124	30.327	33.224	9 99					2
3		30			IKC -				29.798	3.126	30.325	33.224					XX	3
4		20	1	8	100		=		19.841	3.139	30.332	33,224	**			21 _{II}		4
5	MENN!	10	_			= 1		- 1-8	9.536	3,213	30.390	33.224						5
5		5									30.450							6
7																		7
8											ŀ							8
9						13			18									9
10											_ 0.		3					10
11		90				4			90.028	3,103	30,738	FEE. EE						11
12		70							1	1	30.335							12
	<u> </u>						•	- · · · · · · · · · · · · · · · · · · ·	-							Initials		

Event# Vessel Sta. I.D.

Time

GMT

Hr. Min.

Instructions

Wet

Bulb

JD/Time

Bar.

mb

S. S. Vis.

Wind

Dir.

Dry

Bulb

Times

Data on_

Proj. & Leg

on Deck

Longitude

MF-92-04 FOCI

Date JD = \\3

at Surface

W Day Mo. Yr.

Monitor Checks

Consec.Cast #

Deg.

Consec.

Cast #

Vessel

Latitude

CTD Type & SN 91220-A SEABIRD

Min.

MILLER FREEMAN

Deg.

Ν

or

Pg. <u>aa</u> of ____ Sta. Designation Weath. Sta. Name Bottom or I.D Depth, m **Data Location** Tape/Diskette I.D. File Name/Header BROUGHT

Press. SN <u>25084</u> Temp. SN <u>701</u> Cond. SN <u>303</u>					ess mp ond	n Deck			at Sur Start D at Bot Start at Sur	face own tom t Up face	30403 20403	2 =	e/Diskette		File Name	3_32AT	FR303	
Š	T	Trip	Tim	e @	Monitor Values						Values-CTI)	San	nple Bot.)ata	Sal.	Other	Š
& Bo	Rack	Depth	Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Sal. Bot. #	Samp.	12
1 38	B	500	204020						504.543	3,865	31.653	33.803			33,797	04		1
2																		2
3		Ţ.							0									3
4			2	12.		852	=											4
5	8									IIV.								5
6	×				*													6
7																	E .	7
8																		8
9																		9
10																		10
11					3													11
12					s.													12
	-										==3,, ,, ,, ,,		.=			Initials		

Vessel Sta. I.D.

Time

GMT

406

Hr. Min.

Instructions

Wet

Bulb

JD/Time

26

Bar.

mb

3

S.S.

S.

Wind

Dir.

Dry

Bulb

Times

Data on_

Event#

at Surface

421

Date JD = 113

W Day Mo. Yr.

Monitor Checks

Consec.Cast #

CTD

Consec.

Cast #

099

Deg.

Vessel

Latitude

Type & SN 91220-A SEABIRD

Min.

MILLER FREEMAN

S Deg.

or

Proj. & Leg

on Deck

Longitude

MF-92-04 FOCI

Initials _

Pg. <u>a3</u> of ____ Proj. & Leg Event # Vessel Sta. 1.D.

MILLER FREEMAN MF-92-04 FOCI 422 Consec.Cast # Sta. Designation Vessel Instructions 033 Dry Consec. Wet Bar. Consec. or Cast # Deg. Min. S Deg. or GMT W Day Mo. Yr. Hr. Min. Bulb Bulb mb CTD **Data Location Monitor Checks** JD/Time Times Type & SN 91220-A SEABIRD on Deck Data on_____ Tape/Diskette I.D. at Surface File Name/Header Press. SN 25084 at Surface_____ FEIGRAREE - EGOTERS Temp. SN _________ Press. _____ Start Down_____ Cond. SN 303 at Bottom_____ Start Up 214350 Cond._____ Remarks Omulator Page at Surface _____ Other______ Data off _____ Sample Bot.Data **Monitor Values** Conv. Mon. Values-CTD Sal. Other T Trip Time @ T Irip Time @

Bot. Rack Depth Depth Trip Press. Temp. Cond. Bot. # Samp. Therm-P Avg Tw Cond. Temp. Sal. Press. Other 380 214605 33.896 03 396.966 3.649 31.498 33.898 5 5 6 6 7 8 8 9 9 10 10 11 П 12 12

Initials _	
	1.2

Pg. <u>24</u> of ____ Consec.Cast # Vessel Sta. Designation Proj. & Leg Event# Vessel Sta. 1.D. Instructions MILLER FREEMAN MF-92-04 FOCI 433 024 Latitude N Longitude E Date D=\\3 Time Wind Wind Book Bottom Sta. Nam OF I.D Sta. Name Consec. Dry Wet Bar. Consec. or Cast # Deg. Min. S Deg. or GMT W Day Mo. Yr. Hr. Min. S. S. Vis. Bulb Bulb mb CTD **Data Location Monitor Checks** Times ID/Time Type & SN 91220-A SEABIRD on Deck Tape/Diskette I.D. at Surface Data on_____ File Name/Header Press. SN 25084 at Surface____ CASTORY_22AP R2231 Press. ______ Cond. SN 303 at Bottom_____ Temp. _____ Remarks lange wire ongle near bottom; whip circled to by and correct ongle Start Up_____ Cond._____ at Surface_____ Other____ Sample Bot. Data Sal. Other Samp. C Data off_____ **Monitor Values** Conv. Mon. Values-CTD Trip Time @ Bot. Rack Depth | Depth | Trip Therm-P Avg Tw Sal. Bot. # Samp. Press. Press. Temp. Temp. Cond. Cond. Sal. Other 201.388 3.727 31.276 33.656 33 650 2 4 5 6 6 7 8 8 9 10 10 11 II 12

Initials	
/	

Pg. <u>25</u> of ____ Consec.Cast # Sta. Designation Vessel Proj. & Leg Event# Vessel Sta. I.D. Instructions 025 MILLER FREEMAN MF-92-04 FOCI Hay Latitude N Longitude E Date ID = \\3 Time Wind Wind Bottom Sta. Nam
Sp. OD Bottom Or I.D Sta. Name Consec. Dry Wet Bar. Consec.
Cast # Deg. Min. S Deg. or GMT W Day Mo. Yr. Hr. Min. Bulb mb Bulb 025522263N1715729W22APR922347042033224715020812 CTD **Data Location Monitor Checks** Times ID/Time **Monitor Ch** on Deck Type & SN 91220-A SEABIRD Tape/Diskette I.D. at Surface Data on_____ File Name/Header Press. SN ___25084 at Surface_____ CASTOAS_AAAPRA3335 Press. Start Down Cond. SN ___ 303 at Bottom_____ Temp. _____ Start Up 2348 Cond. Remarks Omwitten Foos at Surface_____ Other _______ Data off_____ Sal. Other s Sample Bot.Data **Monitor Values** Conv. Mon. Values-CTD Trip Time @ Bot. # Samp. Bot. Rack Depth Depth Trip Therm-P Avg Tw Sal. Press. Temp. Cond. Press. Temp. Sal. Cond. Other 101 335345 235854 3.75 33.355 24 102.620 3.750 31.004 33.360 3 4 5 6 6 8 8 9 10 10 11 12 12

Initials	
V	

Pg. 26 of ____ MILLER FREEMAN MF-92-04 FOCI Event# Vessel Sta. I.D.

e N Longitude Consec.Cast # Sta. Designation Vessel Instructions Latitude N Longitude E Date JD = 114 Time Wind Wind Bottom Sp. Op. Depth, m Consec. Sta. Name Dry Wet Bar. Cast # Deg. Min. or GMT W Day Mo. Yr. Hr. Min. or S Deg. or I.D Bulb Bulb CTD **Data Location Monitor Checks** JD/Time Times Type & SN 91220-A SEABIRD on Deck Data on____ Tape/Diskette I.D. at Surface File Name/Header Press. SN ___25084 at Surface_____ CAST_026_23APROD31 Press. ______ Start Down 003245 Cond. SN 303 Temp. at Bottom 004445 Start Up 004516 Remarks amultion Fore Sample Bot. Data

Sample Bot. Data

Sal. Other Some Sal. Bot. # Samp. Cond._____ at Surface_____ Other_____ Data off _____ **Monitor Values** Conv. Mon. Values-CTD Trip Time @ Bot. Rack Depth Depth Trip Press. Press. Temp. Cond. Cond. Other Temp. 50 005310 005732 3.94 33.335 FEE-EE 411.15 86P.E 846.13 3 4 5 6 6 8 8 9 9 10 10 H 11 12 12

Initials _	
1	

Pg. <u>27</u> of ____ Vessel Proj. & Leg Event# Vessel Sta. I.D. Sta. Designation Instructions MILLER FREEMAN MF-92-04 FOCI 426 Latitude N Longitude E Date JD = \\\ Time Wind Wind Bottom Sp. Sp. Sp. Sp. Depth, m Sta. Name Dry Wet Bar. or S Deg. or GMT W Day Mo. Yr. Hr. Min. Cast # Deg. Min. Bulb mb or I.D Bulb CTD Type & SN 91220-A SEABIRD **Monitor Checks Data Location** Times ID/Time on Deck Tape/Diskette I.D. at Surface Data on_ File Name/Header Press. SN ___ 25084 013028 at Surface_____ **CASTOA7_23APRO12**9 Press. ______ Start Down 013045 at Bottom_____ Cond. SN 303 Temp. _____ Start Up_____ Cond._____ Remarks amulated Pouss at Surface_____ Other_____ Data off_____ Sal. Other si Sample Bot.Data **Monitor Values** Conv. Mon. Values-CTD Time @ Bot. Rack Depth Depth Trip Press. Temp. Therm-P Avg Tw Sal. Press. Temp. Cond. Sal. Cond. Other € 014720 33.305 3.21 51.043 3.191 30.460 33,309 8 9 10 11 12

Consec.Cast #

T Trip

Consec.

2

3

4

5

6

8

9

10

11

12

027

Initials	
V	

Pg. <u>28</u> of ____

Consec.Cast # Vessel Proj. & Leg Event# Ve									/essel Sta. I.I	O. Insti	ructions Class					esignation		
	8CC	Latit				F-92-04					laall	war th	Joan 1	Variet)	Ja I			
Consec		Latit		N or	Longitud	de c D	ate JD =	114	Time GMT	Dry	Wet	Bar.	Wind	Wind 3	e te Bott	om S	Sta. Nam	1
Cast #	De	g.	Min.	S De	g.		ay Mo.	Yr.		Bulb	Bulb	mb v	Wind S Dir.	Sp. S	Type Weath Debt	h, m	or I.D	
02'	8 5	221	36	N 1 F	1118	39 W 2	3 A P R	9 2	602	043	035	243		5208		02		Ц
Type &	TD SN	91220-	-A SEAE	BIRD			tor Checks			Times	JD/Time			Data Lo				
Press, SIN 20084															File Nam			
Temp. SN 701 Press Start Down													PROSM	1/3				
Cond.	SN	303		Те	mp					Bottom								
				. C	ond	· · · · · · · · · · · · · · · · · · ·	_		S	tart Up Surface		Rema	irks Com	f vatura	Dea-Bird	toole		
				Ot	her					Data off		100	Munon	to not	To Set &	Socol 1	thin le	no
SO BO	T	Trip	Time Depth	e @	Danes		r Values	0.1	D		n. Values-CT						Other	Pos.
. 500	I Vack	Depth			Press.	Temp.	Cond.	Othe				Sal.				1	Samp.	
			260705	Opyly	***				301.6	00 3.631	31.280	33.706		3.64	33.706	13		Ш
2										*								2
3			ijξ		G.			1										3
4																		4
5		W.						8								8		5
6																		6
7												14	=					7
8																		8
9				_ '=													×	9
10		ř.					, w			,								10
11															73			11
12																		12
											104					Initials	00	

																				Pg.	<u> 29</u>	of	
Consec.		#	Vesse			Proj. & L	_		ent#	Vessel	Sta. I.D.	Instr	uctions			-		0.4	St	a. Des	ignatio	n	
0	<u> </u>	1 -414				MF-92-			136		<u> </u>	100	L. ristan	SONT	l	1 [17 ' - 1	1 1 I				
Consec.		Latit	uae	N or	Longi		t Dat	e JD =	114	Tim GM		Dry	Wet	Bar		\ \	Vind	Wind	ath .	Bottor		ta. Nan	
Cast #	Deg	₫.	Min.		eg.			Mo.	Yr.			Bulb	Bulb	mb	S	<u> </u>	Oir.	Wind Pao	ا ﴿ الْحُالِمُ	Depth,	m	or I.D	
029	5	216	, 43	N	3 1 0 8	66	w a 3	APR	9 2	0 7	180	042	035	2 1	43	1 F	35	208	42	83	6		
CT Type & SI	D	91220	-A SEA	BIRD				r Checks			1		JD/Time					Data Lo					
Press. SI						on Dec	k	at	Surfac	e	1	a on face			Tap	e/Disk	ette l	.D.			/Head		
Temp. SI	'— N—	701		_ P	ress								CF730	-			N		CRSTO	29-2	TTAES	30656	,
Cond. SI		303		_ T	emp	*					at Bot	tom											
			W	1								Up		— F	}ema	rks							
				_ c	other							face a off											
s l	ΤI	Trip	Tim				onitor	Values					. Values-CT	D			Sam	ple Bot.	Data		Sal.	Other Samp.	Š.
S Bot.	Rack	Depth	Depth	Trip	Press	. Te	mp.	Cond.	Ot	her	Press.	Temp.	Cond.	Sa	1.	Therr	n-P	Avg Tw	Sal	.	Bot. #	Samp.	l a
J,	iran		071940	07194L						8	PE8.60	2.685	31.262	34.4	111			2.91	34.	to7	90		1
2			E -				-						127										2
3					i§ ∀					- 2						399	18	HE FIRST	v T		102.7		3
4			1												7/								4
5			18							ě						-922		T VE			Ľ,	, y	5
6						280										Tin			8	M			6
7	100									=34												Ī	7
8										- X												=	8
9																							9
10																							1
11																							Ī
12	10.	L H						EE W						100		0							l
		3	100,1		II VI							•								I	nitials		

Pg. <u>30</u> of ____ Consec.Cast # Vessel Proj. & Leg Event# Vessel Sta. I.D. Instructions Atom Transity Atom 3 Sta. Designation MILLER FREEMAN MF-92-04 FOCI 437 030 Latitude Longitude E Date JD = \\\\ Wind Wind Pool Bottom Sta. Name Sp. Op Sp. Depth, m or I.D Time Consec. Dry Wet Bar. GMT Cast # Deg. Min. Bulb mb Bulb W Day Mo. Yr. Hr. Min. S Deg. 035 CTD
Type & SN 91220-A SEABIRD **Monitor Checks Data Location** Times ID/Time on Deck Tape/Diskette I.D. at Surface Data on_____ File Name/Header Press. SN 25084 at Surface CASTO30_23APR 0828 - 0-1182m Start Down_____ CASTO30-23APROPOH- 1178-1476m Cond. SN ___ 303 at Bottom____ Temp. _____ Start Up_____ Remarks Sear Bird gross went to M2K@ 30-40 m Par started cost - stopped @ 1182 m - scale only went to
1200 m - Restrution cost @ 1178 m Cond. at Surface _____ Other____ Data off_____ Sal. Therm-P Avg Tw Sal. Bot. # Samp. **Monitor Values** T Trip Conv. Mon. Values-CTD Time @ Bot. Rack Depth | Depth | Trip Press. Temp. Press. Cond. Cond. Temp. Other 04940 757.25 FO8.05 185.4 FEF.06 4.37 32.528 12 oblistion had stych algress * 2 and I loan 4 5 5 6 7 8 8 9 9 10 10 11 11 12 12

Initials	
1	

Pg. 31 of ____ Consec.Cast # Event# Vessel Sta. I.D. Instructions Atragan Transcrit Sta. Designation Vessel Proj. & Leg 150 MILLER FREEMAN MF-92-04 FOCI Latitude N Longitude E Date JD = 114 Wind Wind B Bottom S Depth, m Time Sta. Name Consec. Dry = Wet Bar. Cast # Deg. Min. S Deg. or GMT W Day Mo. Yr. Hr. Min. S. S. Vis. or I.D Bulb Bulb mb 20430382547 CTD **Data Location Monitor Checks** Times JD/Time on Deck Type & SN 91220-A SEABIRD Tape/Diskette I.D. at Surface Data on____ File Name/Header Press. SN 25084 1037408 at Surface_____ CAST<u>031_23ATR 1036</u> Press. _____ Start Down 103720 Cond. SN 303 Temp. _____ at Bottom 111220 Start Up 111305 Cond. Remarks at Surface _____ Other_____ Data off _____ Sample Bot.Data **Monitor Values** Conv. Mon. Values-CTD Sal. Other Trip Time @ Bot. Rack Depth | Depth | Trip Therm-P Avg Tw Sal. Bot. # Samp. Press. Temp. Press. Temp. Cond. Cond. Other Sal. 113330 3.04 34.339 07 996.503 3.029 31.587 34.340 5 6 6 8 8 9 9 10 10 11 11 12 12

Initials	
V	

Consec.Cast # Sta. Designation Vessel Proj. & Leg Event# Vessel Sta. I.D. Instructions Strange Transact MILLER FREEMAN MF-92-04 FOCI 440 0.32 Latitude N Longitude E Date JD = \\\\ Time Dry Wet Bar. Consec. Cast # Deg. Min. or S Deg. or GMT W Day Mo. Yr. Hr. Min. Bulb mb Bulb CTD **Data Location Monitor Checks** Times JD/Time Type & SN 91220-A SEABIRD on Deck Tape/Diskette I.D. Data on____ File Name/Header at Surface Press. SN ___25084 at Surface 122730 CASTOBO _23APRIBAR Start Down 1227 45 at Bottom_____130420 Cond. SN ____ 303 Temp. _____ Start Up_____at Surface_____ Cond._____ Remarks Other_____ Data off _____ Sal. Other so Bot. # Samp. Sample Bot.Data **Monitor Values** Conv. Mon. Values-CTD T Trip Time @ Bot. Rack Depth | Depth | Trip Press. Temp. Cond. Therm-P Avg Tw Sal. Cond. Sal. Temp. Press. Other 2.41 34.482 #15 130430 1524.328 2.405 31.382 34.482 3 5 6 7 8 8 9 9 10 10 11 11 12 initials _____

Pg. <u>33</u> of ____ Consec.Cast # Vessel Proj. & Leg Event# Vessel Sta. I.D. Sta. Designation Instructions MILLER FREEMAN MF-92-04 FOCI Latitude N Longitude E Date |D = 1/5 Time Wind Wind Pno Depth, m Sta. Name Dry Consec. Wet Bar. or GMT W Day Mo. Yr. Hr. Min. S Deg. Cast # Deg. or I.D Bulb mb Bulb Min. CTD
Type & SN 91220-A SEABIRD **Data Location Monitor Checks** JD/Time **Times** on Deck Tape/Diskette I.D. at Surface Data on__ File Name/Header Press. SN 25084 224055 at Surface_ CASTO33 _ 24A7R2239 Start Down____ 224105 at Bottom 2244 Cond. SN 303 Temp. _____ Start Up_____at Surface_____ Cond._____ Remarks SAMPLES FOR J. MCDONALD U.A. Other____ Data off_____ Sal. Other of Sample Bot.Data Trip **Monitor Values** Conv. Mon. Values-CTD Time @ Bot. Rack Depth Depth Trip Bot. # Samp. Press. Temp. Cond. Therm-P Avg Tw Temp. Other Sal. Sal. Press. Cond. 1 27 89.861 3.443 30.346 32.893 90 2 29 69.501 3770 30.543 32.809 OF 3 25 59.863 3.600 30.289 32.683 32.719 4 28 829.68 FFG.08 919.8 EEF.PH 50 5 20 39.578 3.038 29.699 32,550 40 6 38.539 2956 29.600 32,519 30 19.673 3.017 29.598 32.460 20 8 23 8 9.687 3.476 29.785 32.230 9 20 9 5,135 3.612 29.851 32.177 10 |7 10 П H 12

Pg. <u>34</u> of ____ Consec.Cast # Sta. Designation Vessel Event# Vessel Sta. I.D. Proj. & Leg Instructions MILLER FREEMAN MF-92-04 FOCI 500 034 Latitude N Longitude E Date JD = \\\\(\(\c) Time Wind Wind P S Bottom S Depth, m Sta. Name Dry Wet Bar. or S Deg. GMT Cast # Deg. Min. or I.D Bulb Bulb mb W Day Mo. Yr. Hr. Min. 042 **Data Location Monitor Checks** JD/Time Times Type & SN 91220-A SEABIRD on Deck Tape/Diskette I.D. at Surface Data on File Name/Header Press. SN 25084 at Surface_____ CASTO34_25APRO045 Press. ______ Start Down____ Cond. SN ____ 303 at Bottom_____ Start Up_____ Cond._____ Remarks SAMPLES FOR J. MCDONALD ILA at Surface Other_______ Data off_____ Sample Bot.Data **Monitor Values** Conv. Mon. Values-CTD Sal. Other Trip Time @ Bot. Rack Depth Depth Trip Bot. # Samp. Press. Temp. Cond. Therm-P Avg Tw Temp. Cond. Other Press. 90 89.831 3.693 30.602 32.746 488,55 FEE.05 FFJ.5 EEO.Pd OF 33.224 20 59.355 3.673 30.480 32.836 50 49.332 3.668 30.460 32.823 5 40 F18, SE F84.05 SIF. 5 FP1.04 30,298 3.802 30,551 32.807 19.983 3,900 30.568 32.734 20 8 10.040 3.561 29.962 32.357 4,930 3.565 29,930 32.305 10 н 12

Consec.

FS

29

3 25

4 28

5 20

8 23

9 20

10 /1

11

12

Initials	
√	

Pg. <u>35</u> of ___ Sta. Designation

<u></u>	nsec	Cast	#	Vess	ام			roj. & Le		Ever		Vessel S	ta ID	Instru	uctions						<u>යට</u> signatio		=-
		35	77	1		FREE		MF-92-0			"#	4 C 3 3 C 1 3	ota. 1.D.	1115010	ictions					J. (a. D.)	aigi iacic	···	
	nsec. st #		Latit		N or S		Longit	ude E	Date	JD = 1 \	1	Time GMT Hr.	-	Dry Bulb	Wet Bulb	Bar. mb	Wind ≝ Dir.		Cloud Type Weath.	Botto Depth		Sta. Nam or I.D	
0	35	5	046	2 =	t N	16	857	681	25	APRS	2	011	180	3 5	030	253	8116		862		13		
Tvr	CT se & S	ΓD N	91220-	-A SE	ABIR	D				Checks			Tin	-	JD/Time				ocation				
Pr	ess. S	N	25084					on Deck		at Su	ırface	e		on ace			e/Diskette				e/Head		
						Pre	ss								011505		122		CASTO	<u>35_2</u>	5APRC	7/1/2	
Co	ond. S	N	303		-	Ten	np	Ĭs.	46		_			om						2			
-					-						800		at Sur	op face		Rema	rks5Am71	es for	J.MC	AMOC	NICT	A.	
			T :				ner			14			Data	off				1.0			<u> </u>	Orbon	
Pos.	Bot.	T Rack	Trip Depth	Tin Depth	ne @	rip	Press.	Ten	nitor V		Oth	er	Press.	Temp.	Values-CT Cond.	D Sal.	Therm-P	mple Bot Avg Tv		al.	Sal. Bot. #	Other Samp.	Pos.
	FS		90									-			30.441								ı
2	29		70	1					34 s			71	EF8.0	3,715	30,575	32,902	Y III	= =					2
3	25	-18	60			<u> </u>						6	0.358	3.698	30.492	32.826			32.	858	25	1830	3
4	28	¥	50									5	0.138	3.861	30.611	32.808							4
5	90	211	40	12 28								3	9989	3.960	30.647	32757	4						5
6	6	X	30									3	111.0	3.406	30,010	32.560							6
7	91		20						- T			19	138.8	3.297	28:43	32.413							7
8	23		10		188			X [= 1		"			10.155	3,516	29.878	32.302							8
9	ಎಂ		15										4.957	3,530	29.849	32.292			s= <u>*</u>				9
10	$\lceil u \rceil$															1 (2)							10
II							96		Ā			TV I		fix									11
12	88 <u> </u>				3				잗														12
								W							974						Initials		

Pg. 36 of ____ Sta. Designation Instructions Weath. Sta. Name Wind Bottom Wet Bar. Wind Depth, m or I.D Vis. Bulb mb Dir. اندا 5 **Data Location** ID/Time Tape/Diskette I.D. File Name/Header CASTO36_25APRO307 Start Down 030830 Remarks SAMPLES FOR J. MCDONALD UA Sal. Other Conv. Mon. Values-CTD Sample Bot.Data Sal. Other Sonp. Cond. Sal. Therm-P Avg Tw Sal.

			F01.0P	5.337	30.382	33.045	. J			1
			69.556	3.55%	30496	39.968				2
			61.066	3.571	30.483	32.942		31.129	34	3
			49.818	3.443	30.290	F18.68				4
			39.866	3.656	30.455	33.835				5
			29.861	3.799	30.562	33.833				6
							. 74			7
			9.654	3.823	FJ5.05	32.578				8
			4.688	3.836	30.338	32.534				9
			i X							10
										11
	u I									12
					14	8		*	Initials	

Consec.Cast #

CTD

Press. SN 25084

Cond. SN ____303

Consec.

Cast #

1 27

3 25

28

21

23

20

LM

2 29

5 90

6

8

10

11

12

036

Deg.

Vessel

or

Time @

S Deg.

Latitude

Type & SN 91220-A SEABIRD

Trip

90

OF

60

50

40

30

90

10

Bot. Rack Depth Depth Trip

Min.

Proj. & Leg

on Deck

Temp. _____

Temp.

Cond._____

MILLER FREEMAN MF-92-04 FOCI

Longitude

Press. _____

Press.

Other_

Event# Vessel Sta. I.D.

Time

GMT

Hr. Min.

Dry

Bulb

Times

at Surface_

Data on___

at Bottom_____ Start Up_____

at Surface _____

Temp.

Data off___

Press.

1503

at Surface

Other

E | Date | D = 116 |

W Day Mo. Yr.

Monitor Checks

Monitor Values

Cond.

		ast #	Ves	sel		Proj.	& Leg		Eve	nt#	Vessel S	ta. I.D.	Instru	uctions				Sta. L	esignation (าก	ļ	
	<u>၁၃</u>		<u> </u>	LLER	FREEMAN	ME=	92-04	FOCI		04		1	1				 -	- 	1	-	\dashv	
Conse Cast :		La: Deg.	titude Min.	N or S	Lor Deg.	ngitude	or	Date Day		Yr.	Time GMT Hr.		Dry Bulb	Wet Bulb	Bar. mb si	Wind গ্র Dir.	Wind B	Meath.	tom S th, m	or I.D	e	
03	75	544	60	\ N	1685	3	1 W	25/	A P R	9 2	033	340	45	036	233	8110		6220	22043			
	CTE	0100	00 4 6	CADIO			Мо	nitor (Checks			Tin	nes	JD/Time			Data Loc	ation				
Type 8			20-A S	<u>CAB</u> IR	U	on [Deck		at S	Surfac	:e			<u> </u>	Тар	e/Diskette	I.D.	File Na	me/Head	ler		
Press		701	34		Press								face					FEOTER.	_25APF	FOE OF		
Temp		303		_									own									
Cond	. 31 V												Up								\dashv	
			-	-					- yo			at Sur	face	<u> </u>	Rema	rks						
												1	a off			So.	amla Dat D	-4-	l Cal	Other		
S BC	r R	T Tri	p T i	ime @	rio Pr	ess.	Temp	itor Va	alues Cond.	Ot	her	Press.	Temp.	Values-CT Cond.	Sal.		nple Bot.D Avg Tw		Bot. #	Other Samp.	Pos	
				11 1	Пр	ess.	Terrip	, ,	Jona,	0.0			TEM2- 53		9	THEITH		Jai.		3)		
1 2	7	90			(D# E			16		12.	80	1,650	3.537	30.542	53.033		∞ = =1 =\	***************************************	200		-	
2 3		F				-0.0					6	476.6	3.567	30.493	32,955						2	
3 a	5	60								ke T	ما	0.148	3.409	30.292	7F8.5E	··		31.188	2	8 =	3	
4 2	8	50	3	9							5	124	3.510	30.335	32.833						4	
5 2	0	40									3	88F.P	3.728	30.513	32.831			V			5	
6	0	30				_ 3					?	008.90	3,805	30.561	32.816						6	
7 2	1	90	5 8								\	9.683	3.960	30.665	32.789		\https://www.air.com			83	7	
8 2		10)								١	FE0.0	3.897	30.494	33.655					1 84	8	
9 2	0	1 5	S						α			4.825	3.848	30.356	32.543						9	
10	-6-			- 83 - 1														*		8	10	
11			=												_3 =			2			11	
12		1	8																		12	

Initials	
1	
V	

Pg. <u>A=</u> of ___

Pg. _/_ of _/_ Sta. Designation Event# Vessel Sta. I.D. Consec.Cast # Vessel Proj. & Leg Instructions Test Cost \$1 MILLER FREEMAN MF-92-05 FOCI Wind Wind Dir. Sp. Old Acath. Latitude Longitude E Date ID = Time Sta. Name Bottom Consec. Dry Bar. Wet GMT or I.D Depth, m Bulb Bulb mb Cast # Deg. Min. S Deg. W Day Mo. Yr. Hr. Min. **Data Location** CTD Monitor Checks ID/Time Times Type & SN 91220-A SEABIRD Tape/Diskette I.D. File Name/Header on Deck at Surface Data on____ Press. SN 25084 at Surface____ Start Down Cond. SN ____ 303 at Bottom_____ Start Up_____ Cond._____ Remarks Sal check _27 Apr 1816 at Surface Other____ Data off_____ Sample Bot.Data Sal. Other Conv. Mon. Values-CTD **Monitor Values** Trip Time @ Bot. Rack Depth Depth Trip Bot. # Samp. Therm-P Avg Tw Sal. Cond. Sal. Press. Temp. Cond. Press. Temp. Other 32.9554 200.573 5.136 31.808 200 32.860 2 31.614 32.768 175 495 5.616 31.269 32,562 3 150.374 4.834 150 m 32.07Wb 16 51.941 4.158 30,233 32.067 50m 5 25 -26.906 4.217 30.218 32.005 6 7 8 8 9 9 10 10 11 H 12

												•			Pg.	1	of	_
Conse		t #	Vessel		Pro	j. & Leg 🛝	LEG 1 Ev	ent# Vess	el Sta. I.D.	Instr	uctions	, 1		600		esignatio	on	
	701	Latit			EMAN MI					Kel	and this	to sth	CMI.	4 June S	5 2 9	105	<u> </u>	
Conse Cast :			Ć	N or S De		or	Date JD =	G	me MT Min.	Dry Bulb	Wet Bulb	Bar. mb	Wind Dir.	Wind Pno	Bott Dept	1	Sta. Nam or I.D	ie
00		621	20	NVE	5 6 5 5 N	16 W 1	3 A P R	9217	180	33	026	991	OF OF	886	57 13	389	105	
Type 8	CTD SN	91220	-A SEAB	IRD			itor Checks	3	Ti	mes	JD/Time			Data Loc	ation			
		25084			or	ı Deck	at	Surface		a on		Та	pe/Diskette	I.D.	File Nam	ie/Head	l er	
Temp	SN	701		Pr	ess					rface	41FI		15	MF	9203			
Cond	. SN	303		Te	emp						PIFI	— —						
					ond			4			1719				<u>CASTOOL</u>			_
				70	ther				at Su	rface a off		Rem	arks CAST RECOVE	try	om ot	ORIN	Ġ	
os.	T	Trip	Time	@	W	Monito	or Values				. Values-CT	D	Sar	nple Bot.D	ata	Sal.	Other	Š
g Ro	t. Kack	Depth	Time Depth	Trip	Press.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.	Therm-P	Avg Tw	Sal.	Bot. #	Other Samp.	8
1			171950		118.533	2.990	29.064	P8F:16						2.99	31,789			ı
2			- 2		68,525	3.054	29.075	31,765		.00					31.766	5)	-61	2
3	į.		ā		29.092	3.295	29.235	8EF.1E	4						31.738	69		3
4													9					4
5				1					······		-			-				5
6	-	2		W.	N							8						6
7					ļ	<u>.</u>					.77.		<u> </u>	22				7
8	-							_										8
9		ļ					ļ											9
10							<u> </u>						16 :					10
11	_					- ::						CC.						11
12	<u>]</u>			-				774.70		W						<u> </u>		12
											2.00						- 1	

Initials LIF CON

0 0 Z	Deg	Latitu	Vessel MILLER ude N or Min. S	·	Proj. MF. ngitude		EG Eve FOCI Date JD =	ent# Vesse	Sta. I.D.	Instru	ictions are Wi	4. 4	CN2:	6 pe 4 June 93	Sta. De	signatio	of n	
Cast #	5 5	<u>.</u>	ide N or	Lo						I Kou	T/ 2 a	*. ~T	/ A1'1	and the second of the second o		14/		
Cast #	5 5	<u>.</u>	or	·	ingicude	י בוַט		^ S —		1	the MI	1 015	11			9140		
CTI	5 5	544		Deg.		or W [Day Mo.	l GM		Dry Bulb	Wet Bulb	Bar. mb	Wind	Wind P	Botte Dept	om S h, m	ita. Nam or I.D	e
СП	_		4 4 _N	158	334	5 W 1	HAPR	9201	180	4 9	039	94	17070	208	7700	73	914	ε
Type & SN	У <u>—</u>	91220-	A SEABI	RD			itor Checks			-	D/Time			Data Loc				
Press. SN		25084		ł	on	Deck	at:	Surface		a on		Тар	e/Diskette	I.D.	File Nam	e/Head	er	
Temp. SN		701		Press						face own		—	47	MF	9203		<u> 1400</u> 0	
Cond. SN		303		Temp					1	tom					CA5100Z_141	105 OIII		
		_		Cond.					Start	Up		— Rema	arks all.			301		_
			==	Other_	_				N N	face a off			PRIOR TO					
<u>ن</u>	T	Trip	Time (<u> </u>		Monite	or Values	T I			Values-CT		Sar	nple Bot.D	ata	Sal.	Other	
은 Bot. R	lack	Depth	Depth	Trip Pr	ess.	Temp.	Cond.	Other	Press.	Temp.	Cond.	Sal.		Avg Tw		Bot. #	Other Samp.	۵
1				8:	5.605	3.691	29.821	32.022	DNC	TRIPPER	Did Not C	-1CK			32.021	6		
2	_		1199	49	983	3,236	29,298	31.864				40			31.860	3		2
3			5	16,	315	3,038	29,072	31.804			ļ				31.80+	12		:
4			<u>u</u>			-			*				<u> </u>			ļ		Ľ
5								11:				_			15	_	ļ	
6							ļ		11								ļ	
7		-				36.			- -					÷		ļ	ļ	ľ
8	_						ļ											
9	4					<u> </u>												
10	_					<u>.</u>												
11	_																	$oxed{1}$
12								-1-1						ä				

Initials WF