VESSEL			I _P	ROJECT & LE	:G				STATION	DESIG	NATION	
NOAAS MILLER F	REEMAN		li i	F97-04					FOX	661		
DEG 001 5 74	TITUDE MIN 3.19 N	40	DAY 0 W 3 D M		TIME (GMT) HR MIN	DRY BULB (°C)	- 1.50	SEA STATE VISIBILITY (de 3 8 3 3	WIND OND WIND SPD. Of OND (mm/s) *	O * WEATHER	155F	STA. NAME/ID
CTD		TIMES	JD/TIME				DATA LOCAT	ON	RE	EMARKS		
TYPE / SN SBE	9+ 91660	DATA ON	0620		Tape/Disk	ette ID	File N	lame/Heade	er .		4	
PRESS SN 297	72	START DOWN	0625			:	CTD	A-001				
TEMP SN 1:88	9 2:701	AT DEPTH		. 3					4	lucom	der 10,	ua scale
COND SN 1:48	30 2:303	AT SURFACE	.47							AX. DE		50 m
		PAR 4242	FLUOR /5	3 CHIAN		TAPS6	TAPS4					
			SEA-BIRD			ATA	D U		SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	4R	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 /50	150.431	3 7 904	3.7917	31.876			/		31.8956			
2												
3			-									
4							9					
5						1 1	C					
6					. 2							<u> </u>
7							V					
8												
9									2			
9							alisc	•	`			
							Misc	•				

VESS	SEL			PF	ROJECT & LL	<u>=</u> G				STATION	I DESIGI	NATION	·· -
NOA	AS MILLER I	REEMAN		Мі	F97-04						FOX6	0	
CON CAS #	DEG 2574	TITUDE MIN O-84N	LONGITUDE DEG MIN 15509.7	6 W 3 O M	ID= 89 MO YR A R 9 7	TIME (GMT) HR MIN	DRY BULB (°C)		WIN DIRN b) * * (deg	N. SPD. C	* *	(m)	STA. NAME/ID
	CTD	7	TIMES	JD/TIME				DATA LOCAT	ION	R	EMARKS	3	
TYPE	E/SN SBE	9+ 91660	DATA ON		* ,	Tape/Disk	ette ID	File I	Name/Heade	· L		w/0 2	237
PRES	SS SN 297	72 5	START DOWN	89/190	g			CTD	A-002				
TEM	P SN 1:88	9 2:701	AT DEPTH		-				,		•		
СОИ	: D SN 1:48	30 2:303	AT SURFACE	, []	_						AX. DE	PTH = 5	81 m
			PAR	FLUOR	ChIAN		TAPS6	TAPS4					
				SEA-BIRD	911PLU	S CTD D	ATA			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR .	FLUÖR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	281	284.621	4.828	4.829	32,350	26		· · ·		32 3703	3	<u> </u>	·
2			1					· · · · · · · · · · · · · · · · · · ·			<u> </u>		
3			-								-		
5						_			3		-		
6			-				<u> </u>				╢		
7		 :		- 74		,							
8					·								
9							~						
10													
11				-	Te.						 	1	
12													

VESS		EDEEMANI		1	ROJECT & LI	EG			*	STATION			igi
CONS CAS #	DEG 3 5 7 3 CTD	TITUDE MIN 8.44 N	TIMES	DATE J DAY M S W 3 O M JD/TIME		2006		(°C)		N. SPD. 7 g) (m/s) * 7 0 5 C	EMARKS	BOTTOM DEPTH (m) 252F	STA. NAME/ID OX 59
PRES	S SN 297 SN 1:88 SN 1:44	72 9 2:701 /	DATA ON START DOWN AT DEPTH AT SURFACE PAR	/95	E Chiai	Tape/Disl	TAPS6		ile Name/Heade		too clo	ow off our to so cuire of PTH = 2	wface?
	TRIP			SEA-BIRD	- 11 . 11		123	**	9	SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS. 1 2	DEPTH 245	PRESSURE	90	SEC. TEMP	32.29		AR	FLUOR	ChiAM	32.3)40	SAL.	NUTRIENT	CHLOR
3 4 5			W						Ç) =	5:			
6 7 8		2											
9 10 11			11-	0 3		15			×				
12	¥ I												4

VES				I .	ROJECT & LEG	G	38			STATION			
NOA	AS MILLER	FREEMAN		M	F97-04	- 5		F T			<i>F</i>	OX58	
CON CAS #	ST	ATITUDE	LONGITUDI DEG MIN		JD= 89 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB	* SEA STATE	N. SPD. さ	* TYPE * WEATHER	235 BOTTOM DEPTH (m)	STA. NAME/ID
00	4573	6.32 N	15500.2	20w30м		2045	4.0	1.00	43827	0130	-0		0X58
	CTD	-	TIMES	JD/TIME				DATA LOCAT	ION	RI	EMARKS	8 HS,	
TYPI	E/SN SBI	E 9+ 91660	DATA ON 203	3330 203	7 7	Tape/Diske	te ID	File N	lame/Heade	er	D.		선 선
PRE	SS SN 297	772	START DOWN	203	7			CTD	A-004				
ТЕМ	P SN 1:88	39 2:701	AT DEPTH	204	_						wlo	236	
CON	D SN 1:4	80 2:303	AT SURFACE							M	AX. DEI	PTH = 2	29 m
		3 3	PAR	FLUOR	ChIAM	T.	APS6	TAPS4		3 3			
×				SEA-BIRD	911PLUS	CTD DA	ГА			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINITY	' PAF	100	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	229	231.120	47513	4.7509	32.302	.4)		8		32.3253	8		
2					_	- 8							
3						X						3	
4							-				:		
5 6		N.					+				5		
7					- 8								
8	I a												
9													w ^{VV}
10							ŵ.						
11		En							21				
12					10	##							

VESS	SEL		<u> </u>	Pi	ROJECT & LE	 ≣G				STATION	DESIGI	NATION	
NOA	AS MILLER	FREEMAN_	. <u> </u>	м	F97-04					1 . :		FOX 5	7
CON CAS	ST LA	TITUDE	LONGITUDE	 		TIME (GMT)	DRY BULB	WET BULB	SEA STATE VISIBILITY DO NO	N. SPD. ರ			STA. NAME/ID
	DEG	MIN	DEG MIN		MO YR	HR MIN	(°C)		o) * * (de		* *	(m)	
00		3.00N			A R 9 7	21/38	-0.5		63829	0 120	- 0	229F	OX 57
l	CTD		TIMES	JD/TIME				DATA LOCAT	ON	RE	EMARKS	3	
TYPE	E/SN SB	E 9+ 91660	DATA ON	7/2130	<u> </u>	Tape/Disk	cette ID	File N	lame/Heade	r	*	-3	
PRES	SS SN 297	772	START DOWN					CTD	A 2005				
TEM	P SN 1:88	39 2:701	AT DEPTH				44				uire	out 2	24
СОИ	D SN 1:4	80 2:303	AT SURFACE	,							AX. DE	PTH =	m
			PAR	FLUOR	VICHAN	л П	TAPS6	TAPS4					
				SEA-BIRD	911PLU	S CTD D	АТА			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	220	221.754	4.7017	4.7018	32.281	2	100			32.3045	28		
2													
3			<u> </u>			-				·		 	
5			,			2						-	
6				- 60								 	
7						*						<u> </u>	,
8												 	
9													,
10										OX.			
11		·											
12										,			

VESSEL			P	ROJECT & LI	EG		As		STATION			
NOAAS MILLER	FREEMAN		M	F97-04				<u> </u>		FOX	56	
CONSC CAST # DEG	ATITUDE MIN	LONGITUDI DEG MIN	DAY	JD= 84 MO YR	TIME (GMT) HR MIN 2 2 2 2	DRY BULB (°C)	WET BULB &	WIN WIBILITY WING CO 3 WING CO 4 WING CO	N. SPD. <mark> </mark>	* *	(m)	STA. NAME/ID
СТД	, - 1 , - 1	TIMES	JD/TIME	1111111111	~ ~ ~		DATA LOCAT			MARKS		
TYPE / SN SBI	E 9+ 91660	DATA ON	2212		Tape/Disl	cette ID	File N	lame/Heade	r 📗	,		
PRESS SN 297	772	START DOWN	2216	· 	=			A-006	_			
TEMP SN 1:88		AT DEPTH	2223	_				-	\(\omega \)	IRE	out 2	09
COND SN 1:4	80 2:303	AT SURFACE							M	AX. DEI	PTH = 2 O	6 m
		X PAR	X FLUOR	ChiA	и П	TAPS6	TAPS4					
			SEA-BIRD	911PLU	S CTD D	ATA	74		SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 206	208.40	3 4.7529	4.78/8	32.319	$\overline{}$				323428			. —
3											`	
4					- 							
5									/4			
6							,			-		
8	23							<u>-</u>				
9												v
10								132				
11												
12			*									

VESS	 SEL			IPR	OJECT & LEG	ì		**				STATIO	N DESIG	INATION	-
NOA/	AS MILLER	FREEMAN			97-04	•						1 7	OX5		
CONS CAS #	DEG LA	TITUDE MIN 8.62 N	LONGITUDE DEG MIN	7	10 YR H	TIME (GMT) IR MIN	DRY BULB (°C)	WET BULB (°C)	PHESSURE		WIND DIRN. (deg)	(m/s) '	리티볼	BOTTOM DEPTH (m)	STA. NAME/ID
	CTD	7.	TIMES	JD/TIME	<u> </u>			DATA LO	10 ,02		<u> </u>		REMARK		+
ł			DATA ON	2256	_ Та	ape/Disk					eader				
PRES	SS SN 297	772	START DOWN	2759					TDA	-0	07	_ [
TEMP	SN 1:88	39 2:701	AT DEPTH	2301		B-1					•		WIRE	aut 2	59
CONE	O SN 1:4	80 2:303	AT SURFACE										MAX. DE	PTH =	O m
7			Y PAR	FLUOR	CHIAM		TAPS6	TAI	P\$4			,			
				SEA-BIRD	911PLUS	CTD DA	ATA					SAMPLE BOTTLE DATA		IPLE BOTTL	E NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	P/	VR	FLUOR		ChlA	м	SALINITY	/ SAL	. NUTRIEN	T CHLOR
1	60	60.543	4.5466	4.5469	32 245	7						32.2684	20		
2									-	-			4		
3									_						
5					<u> </u>				+					-	
6		<u> </u>							\dashv				- 139	10	
7			1						+				6		
8									\top						
9														,	
10															
11									\perp						
12															

VESSEL			PR	ROJECT & LE	G						STATI			NATION	
NOAAS MILLER	FREEMAN		MF	97-04						*		10	NO	[
CONSC CAST # LA	TITUDE MIN	LONGITUDE DEG MIN			TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (C	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	* CLOUD (amt)	* INPE * WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	0.87 N	16140.7			0645		+ -	13	46	000	44	1-1	B 7	86	9-2
СТД		TIMES	JD/TIME				ATA LO	CATIO	N			RE	MARK	8	
TYPE / SN SBI	∃ 9+ 91660	DATA ON	91/003	9	Tape/Disl	cette ID	F	ile Na	me/H	eader		Pu	mp	on off waves o	at surface
PRESS SN 297		START DOWN AT DEPTH	91/004	2				TDA	-00	8	-			g condi	
				_									V DE	DTIL	70
COND SN 1:4	80 2:303	AT SURFACE										MA	X. DE	PTH =	78 m
		PAR	FLUOR		1	TAPS6	TA	PS4							
122			SEA-BIR	D 9/11+ (CTD DA	TA					SAMPL BOTTL DATA	Ε∥	SAM	PLE BOTTI	.E NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR	FLUOR		ChiA	м	SALINIT	Υ	SAL.	NUTRIEN	IT CHLOR
1 78	78.878	3 1:5/33	1.5135	31.602	5			1		, III /			15		-
2															
3 7	-			-					•						
4					-							_			
5		<u> </u>		· · · · · ·				-			-	_			
6	·			· · ·	_										
8								\dashv				ᅦ			
9								\dashv		,		\dashv		4	
10	_											1		-	
11			·				,					╗			
12															

VESSEL			PF	ROJECT & LI	EG				·		STATI	ON DE	SIGN	IATION	
NOAAS MILLEF	RFREEMAN		М	97-04							177		_		
DEG	ATITUDE MIN	LONGITUDE DEG MIN	DAY	D= 92 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	3 PPESSURE		(deg) (kts)	* *	*	682 BOTTOM DEPTH (m)	STA. NAME/ID
CTD A - F			2 W 0 2 A	P R 9 7	00100		-5 .6	25		32	0 18	86	3 1 1 DVC	181	12-1
CID A - F	ort Side	TIMES	JD / TIME				DATA LOC					KENA	KNO		· Inc.
TYPE / SN SE	3E 9+ 91660	DATA ON	2348	_	Tape/Disl	kette ID	Fi	ie Na	ıme/H	leader		Sa	<u>1 /</u>	nalf	inction
PRESS SN 29	9772	START DOWN	2353				C	TDA	_a	39		duc	te	+ree	ZINO
TEMP SN 1:8	389 2:701	AT DEPTH		16 18	15- 2 00 1	Yan XV	IME S	8 6		- P	_	, ,		tas	U
COND SN 1:		AT SURFACE	# E \$# 5 T		911 ==					x V	_	MAX.			7/ m
		PAR	FLUOR	Chial		TAPS6	ТАГ	20/			9			V	17
2			Hes for 1	Debbie	(egg ii	ncu bat					SAMPL	E			
a Tour			SEA-BIR	D 9/11+	CID DA	IA	· .			15	DATA	1	AM	TE BOTTI	E NUMBER
POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y F	AR	FLUOR		Chl	AM_	SALINIT	y s	AL.	NUTRIEN	IT CHLOR
1 105	- 2				Harries .	29 H		- 8	8	8		2.5	<u> </u>		
2 105	1		de l'	9					71			3.7			
3 165							-31			8					
4 1/5		A.		000	M III	255			6.11			2.150		200	
5 100		The state of the s		-20	975	-) (A) (A)				=" =				\$
6 165				TF .				3	(i) (ii)					<u> </u>	
7 105					111										
8 105		W. T. T.			W =							la.			
9 105		00=	= 15		3 1										
10 105		1	毒量	4	w _m e =										
11 105		E				Y			E			$\perp \mid \perp$			
12 105			× II	1 4			22			M					

VESS				Р	ROJECT & L	EG				ė.		STATIO	ON DE	SIGN	NATION	
NOA	AS MILLER	FREEMAN		[N	IF97-04	+	,									
CON CAS	ST	TITUDE	LONGITUDE	DATE	JD= 92	TIME (GMT)	DRY BULB	WET BULB	PPESSURE	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG MIN	DAY	MO YR	HR MIN	· (°C)	(°C)	(mb)		(deg)	(kts)	* *	*	(m)	
01	0544	7.68 N	16526.	W 0 2 A	P R 9 7	4 100	-5.0	-5.6	25	47	3 2 5	18	76	3	180	12-2
(CTD A - Po	ort Side	TIMES	JD / TIME	=			DATA LOC	OITAC	N			REMA	ARKS	3	
TYPE	E/SN SBE	9+ 91660	DATA ON		<u></u>	Tape/Disk	kette ID	Fi	le Na	me/H	eader		10	Ca	ist o-	pco
PRES	SS SN 297	772	START DOWN					<u>c</u>	TDA	-01	0	_	Fr	o Z (an Sc	d
TEM	P SN 1:88	39 2:701	AT DEPTH	*										-		
CON	D SN 1:4	80 2:303	AT SURFACE									- II.	MAX.	DEF	PTH = \]	7-2 m
			PAR	K FLUOR	V ChiAi	и	TAPS6	TAF	PS4				-		- 00	
. 7. 5				SEA-BIF	RD 9/11+	CTD DA	TA					SAMPLE BOTTLE DATA	≣	SAME	PLE BOTTL	E NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR		ChIA	м	SALINIT	Y S	SAL.	NUTRIEN	T CHLOR
1									1							i
2		57		- 13		,			+				4		^	
3			_					9	+	/						
5			200								la l		╁			
6							,		\top				1			
7																
8			,													
9		· · · · · · · · · · · · · · · · · · ·									-					
10		! 					,	NI.		-		,				
11				-					_	-						
12		,		<u></u>		4		•							<u>ļ. </u>	

	VESS	SEL AS MILLER I	FREEMAN			ROJECT & L =97-04	EG				30	STATION	N DESIG	NATION 4 -	
	CON CAS #	ST	TITUDE MIN	LONGITUDE DEG MIN		D= 93 MO YR	1927	DRY BULB (°C)	(°C)	O 3 PRESSURE O © O, * SEASTATE	ALTIBISIA (deg	ا. SPD. 5	4 TYPE * WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
		CTD B - Sta		TIMES	JD / TIME	· · · · · · ·	ZOII NO		DATA LOC	(5)	18	R	EMARK	S	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	TYP	E/SN SBE	E 9+ 92067	DATA ON	93/200	<u> </u>	Tape/Disl	kette ID	Fil	le Name	e/Heade	r 🗏	Fluore	omeler: o	- 10 Mg sc
	PRE	SS SN 300	066	START DOWN	201	0			c	TDB_	011				
	ТЕМ	PSN 884		AT DEPTH			L= 81				73; 1-1				
	CON	D SN 530		AT SURFACE						16	51	N	IAX. DE	PTH = /	58 m
		500		PAR	FLUOR	ChIA	м	TAPS6	TAF	PS4					
					SEA-BIR	D 9/11+	CTD DA	TA				SAMPLE BOTTLE DATA	SAM	MPLE BOTTLE	NUMBER
	POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY P	AR	FLUOR	C	hIAM	SALINITY	SAL	NUTRIENT	CHLOR
29	1	100 /	540												
32	2	50/	l									20	┨——		-
31	3	40.69/											1		
36 22	5	25 /					-						8	90	50 1
33		12.25				7	ection	1							
28	7	10 /				6	ect		1						
23	8	6.131			2:		1						3.2		
21	9	51					1								
6	10	0										3-6	1		■ ⁽¹⁾
14	11												╂—	000	
	12				2										

VESSEL		REEMAN			ROJECT & LI =97-04	EG				STATION	DESIGN	IATION	- 2
CONSC CAST #	LA ⁻ DEG	TITUDE MIN	LONGITUDE DEG MIN	DATE J	D= 93 MO YR		DRY BULB (°C)	WET SHE SHE		I. SPD. こ) (kts) *	* TYPE * WEATHER TO	SOTTOM DEPTH (m)	STA. NAME/ID
012 CT	[60]3] [DA-Po	1 .43N	1 7 8 1 3 . 2 TIMES	O W O 3 A JD/TIME	P R 9 7	2052	2.5	OATA LOCATI	, , , , ,	0 / 8 H	MARKS		141-2
			DATA ON	=	•	Tape/Disk			lame/Headei				
PRESS	SN 297	72	START DOWN	2046	- '		1.3	CTD	A_ 012			ļ	
TEMP S	SN 1:88	9 2:701	AT DEPTH	1							W	0 160	
COND	SN 1:48	30 2:303	AT SURFACE							M	AX. DÉF	PTH = 15	-9 m
,*			PAR	FLUOR	ChlAl	и 📙	TAPS6	TAPS4	,				
				SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS. I	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	TY P	AR	FLUOR	ChIAM	SALINITY		NUTRIENT	CHLOR
1											17		
3											mv *		
4	St.							, S					<u> </u>
5			- ,										
6								• • •	,				
8													
9													
10								7					
11								27					
12												1	

VESSE	 L	:				PROJECT & L	EG						STATI	ON D	ESIG	NATION	<u> </u>
NOAAS	S MILLER F	REEMAN				MF97-04										/	5-1
CONSC CAST #	LA	TITUDE MIN	LON DEG	IGITUDE M I N	DATE	E JD= 93 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	HESSURE (qu)	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	* CLOUD (amt)	X	BOTTOM DEPTH (m)	STA. NAME/ID
013		284N		281.2	7 7 7				().5	02		200		48	, ,	203	15-1
<u> </u>	FD B - Sta		TIMES	10115	JD / TIM		4 < < >		DATA LO	<u> </u>		X 10 C		REA	ARKS	100000	
TYPE /	SN SBE	9+ 92067	DATA ON	l	2212		 Tape/Disl	kette ID	F	ile Na	me/H	eader		W	5 - 2	212 n	า
PRESS	S SN 300	66	START DO	NWC	2215				C	TDB	_01	3			, ,		
TEMP :	SN 884		AT DEPTH	- ·	III-		· · ·		5			ž.	_				
COND	SN 530		AT SURFA	_			" = 1						<u> </u>	MAX	X. DE	PTH =	96 m
	2 - 3	· .	U PAR		FLUOR	V ChIA	м	TAPS6	TAI	PS4			*			. 24	1
			1 2 2		SEA-B	IRD 9/11+	CTD DA	TA					SAMPL BOTTL DATA	E	SAM	PLE BOTT	LE NUMBER
POS.	TRIP -	PRESSURE	PRI.1	TEMP	SEC. TEMP	SALINIT	TY F	AR	FLUOR	*	ChlA	M	SALINIT	Υ	SAL.	NUTRIE	VT CHLOR
1	1001					W	= =	, .	•		,			4		· ·	
2	50 V				* .	* ,	•	. *				-	_	╬		<u> </u>	
3 4	251									+	-	-		╁			, ,
5	5 V	-				979											
6	0 1													4			
7		· · · · · · · · · · · · · · · · · · ·												+		<u> </u>	
8												-		-		1	
10												-+		╁		 	-
11									,								
12	199		·						·					Š	28		

VESS	SEL AS MILLER	FREEMAN	-		ROJECT & LI F97-04	EG .		`		STATION	DESIGN	NATION /	5-2
CONS CAS #	SC ST LA	TITUDE MIN 2.89N	LONGITUDE DEG MIN	E DATE J	ID= 93	TIME (GMT) HR MIN 2254	DRY BULB (°C)		b) (de	N. SPD. o g) (kts) *	* *	SOTTOM DEPTH (m)	STA. NAME/ID
,(CTD A - Po	ort Side	TIMES	JD/TIME			. [DATA LOCAT	ION	RE	EMARKS		
TYPE	E/SN SBE	E 9+ 91660	DATA ON	2248		Tape/Dist	kette ID		Name/Heade	or <u>C</u>	70_	198	
PRES	SS SN 297	72	START DOWN	2250	_			_ CTD	A_014	_			
TEM	PSN 1:88	39 2:701	AT DEPTH	2254								-	12
CONI	D SN 1:4	80 2:303	AT SURFACE)		,	М	AX. DEI	PTH = 1q	5 m
		r	PAR	FLUOR	ChlAi	и 📙	TAPS6	TAPS4					
				SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	'AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	22			· 							20		
2						•							
3	-				_								-
4						-			,		-		
5 6					- 1				····			 	
7													
8										Ė			
9													
10		,		1									
11													
12									· 	<u> </u>			

VESS				l r	PROJECT & LI		1					STATI)ESIG	NATION	
1	AS MILLER F	REEMAN			/F97-04	EG							1	6	4	
CON CAS	SC ST	TITUDE	LONGITUE			TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	WING DIRN		CLOUD (amt)	MEATHER	BOTTOM DEPTH	STA. NAME/ID
		MIN	DEG MII		MO YR		(°C)	(°C)	(mb)		(deg) (kts)	* *		(m)	10 111212
01	1 /1 1	11 1	17850.	<i>2</i>			2.0	0.0	02			100	1/4	31	330	16-
1.3	CTD A - Po	1 1 1	TIMES	JD / TIMI		1		OATA LOC				1	RE	MARK	S	
TYPE	E/SN SBE	9+ 91660	DATA ON	(DHg		Tape/Disk	cette ID	Fil	e Na	me/l	Header		W	10	337	
PRES	SS SN 297	72	START DOWN	<u>12050</u>				<u>C</u>	TDA	_0	5	_			•	
TEM	P SN 1:88	9 2:701	AT DEPTH	0059				<u></u>				_				
CON	D SN 1:48	30 2:303	AT SURFACE								1		МА	X. DE	PTH = 3	25 m
			PAR	FLUOR	ChiAi	м 📗	TAPS6	TAP	S 4							
				SEA-BI	 RD 9/11+	CTD DA	TA					SAMPL BOTTL DATA	.E	SAM	IPLE BOTTL	E NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	TY P.	AR	FLUOR		Chl	AM	SALINIT	ΓΥ	SAL.	NUTRIEN	T CHLOR
1	150			,										10		
2						<u> </u>		 -	+				\dashv			
3			-						+				╢		+	_
5			il.						+				1			-
6							2									
7				· un				· · · · · · · · · · · · · · · · · · ·				`				3
8																
9				_					\perp				_		<u> </u>	
10													\dashv	_		
11					+				+				\dashv		-	
12								-					l			

VESS		DECLARA			ROJECT & LI	EG				STATION	I DESIGI	NATION	17-1
NOAA	AS MILLER F	-KEEMAN			F97-04					12	, 		17-1
CONS CAS	T LA	TITUDE	LONGITUDI			TIME (GMT)	DRY BULB		SEASTATE VISIBILITY	N. SPD. C		BOTTOM DEPTH	STA. NAME/ID
01	DEG 6000	MIN N	DEG MIN		MO YR P R 9 7	0230	(°C) 3.q		(mb) + + (deg		83	(m) 526	1-7-1
0	CTD B - Sta	arboard	TIMES	JD / TIME	257		C	ATA LOC	ATION	R	EMARKS	3	
TYPE	/SN SBE	9+ 92067	DATA ON	0232		Tape/Disk	cette ID	File	Name/Heade	r (NO	328	
PRES	SS SN 300	66	START DOWN					СТ	TDB_ 016				
TEMF	SN 884		AT DEPTH					1E	17				
CONE	SN 530	5	AT SURFACE		_	118				N	IAX. DE	PTH = 3	m Oc
. 27		3	X PAR	X FLUOR	X Chiai	м	TAPS6	TAPS	64				
				SEA-BIF	RD 9/11+	CTD DA	TA	44		SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIEN	CHLOR
1	3000√		W II	EE W	0.00	#		XX = #			7		
2	100 V	<i>3</i>	8 1		24				1			1.0	125
3	501										 	**	3
5	25 V		39			~					-		
6	5 1												- 6
7	0												1
8						ĩã				•			
9		W.		47						9			
10			k)							4			
11											711	ļ	
12													

VESSEL	10			PF	ROJECT & L	EG				STATION	DESIGN		
NOAAS	MILLER F	REEMAN		М	F97-04					8		17-	2
CONSC CAST #	LAT DEG	TITUDE MIN Q.76N	LONGITUDI DEG MIN		MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB &	ANSIBILITY SEA STATE OIN OIN OIN OIN OIN OIN OIN OI	N. SPD. ご g) (kts) *	* TPE	SOTTOM DEPTH 1 (m)	STA. NAME/ID
СТ	D A - Po	rt Side	TIMES	JD / TIME				ATA LOCATI	ON	' RE	MARKS		
TYPE /	SN SBE	9+ 91660	DATA ON			Tape/Disl	kette ID	File N	lame/Heade	r (NIO	524	
PRESS	SN 297	72	START DOWN	15	25-0	H1 30		CTD	A_017				
TEMP S	SN 1:88	9 2:701	AT DEPTH			84							
COND	SN 1:48	0 2:303	AT SURFACE			W			334	M	AX. DEF	РН= ЦФ	6 m
-72			PAR	FLUOR	ChIA	м	TAPS6	TAPS4					87
				SEA-BIF	RD 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAME	PLEBOTTLE	NUMBER
	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY F	'AR	FLUOR_	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
2	195		72		6						<u> </u>		
3				1	- "			- 5					
4			1										P c
5		-83				- 65	Ş		. 8	!	The state of		
6			4.5								-	<u> </u>	
7							-	33					III 1/1
8					16		-					111	
9				S	100					12		 -	V v
10	-					6			-		133		*
12				/				9"				- 5	1

VESS	SEL .		· <u></u>	PR	OJECT & LI	EG		¥.	·	STATION	DESIGN		
NOA	AS MILLER I	FREEMAN		MF	97-04							18-1	
CON CAS	DEG LA	TITUDE M I N	LONGITUDE DEG MIN	' 	D= 94	TIME (GMT) HR MIN	DRY BULB (°C)	WET HE BULB (°C) (mb	AIM SEASTATE VISIBILITY (dec	v. SPD. ご	* TYPE * WEATHER	BOTTOM DEPTH I	STA. NAME/ID
1	8595	8.5 N	17906.9	b W O 4 A	P R 9 7	0416	1.9	11-603	34717	5 167	6 11	010	18-11
(CTD B - Sta	arboard	TIMES	JD / TIME			Ē	DATA LOCATION	ON	RE	MARKS		
TYPE	E / SN SBE	9+ 92067	DATA ON	0416	, , , , , , , , , , , , , , , , , , ,	Tape/Disk	cette ID		ame/Heade	r	N/0	103	
PRE	SS SN 300)66	START DOWN	0419				CTD	3_018_	_			
TEM	PSN 884		AT DEPTH						7	10			
CON	D SN 530		AT SURFACE			F -			· ·	M	AX. DEI	PTH = \02	m
			PAR	FLUOR	ChiAi	и	TAPS6	TAPS4			,		
				SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER_
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	100										18		
2	ico	í											
3	50	_							***			-	·
4	25												
5	0			-								1	
6	5											,	
8	0					-							
9								1	-				
10			<u> </u>					<u> </u>				20 23	
11													
12									-				

VESS	SEL					PROJECT & L	EG				STATION	DESIGN		8.
NOA	AS MILLER	FREEMAN			,	MF97-04							187-	2
CON: CAS	ST	TITUDE M I N	DE	LONGITUDE	E DATE	JD= 94 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)		PRESSIFE * (qui) * VISIBILITY NISIBILITY	l. SPD. ರ	* TYPE * WEATHER #	OTTOM DEPTH (m)	STA. NAME/ID
		7.99 N		1 / / /	, , , , , , , , , , , , , , , , , , , 	A P R 9 7		1.8	- /	024817	5 126		982	18-2
'	CTD A - Po	ort Side	TIME	ES	JD / TIM	E	,		DATA LOC	ATION	RI	EMARKS		
TYPE	E/SN SBE	E 9+ 91660	DAT	A ON	0445		Tape/Disk	ette ID	File	e Name/Header		W10	992	,
PRES	SS SN 297	772	STA	RT DOWN	0448				<u>C1</u>	DA_019	_	25	\ \ \	
TEM	SN 1:88	39 2:701	AT C	DEPTH	0512	,					`			
СОИ	D SN 1:4	80 2:303	AT S	SURFACE		ž.					М	AX. DEF	TH = 97	t m
ν,				PAR	FLUOR	ChiA	м	TAPS6	TAP	S4				
					SEA-BI	 RD 9/11+	CTD DA	TA .			SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS.	TRIP DEPTH ,	PRESSURE	<u> </u>	PRI. TEMP	SEC. TEMP	SALINI	TY P.	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	700 Y	5	\perp		-		· I					13		
2	400													
3			+		-									
5			+									<u> </u>		
6		1	\top											
7	46													
8				, <u> </u>										
9		,												
10	J					28								
1.1.			\perp											
12												<u> </u>		

VESSEL NOAAS MILLER	FREEMAN			ROJECT & LI F97-04	EG	•			STATION	DESIGN	ATION	
CONSC CAST # LA	TITUDE MIN	LONGITUDE DEG MIN	E DATE J	ID= 94 MO YR		DRY BULB (°C)	WET BOTTER (C.C.) (W.	(Geographical Approximation of the control of the c	l. SPD. こ) (kts) *	TYPE WEATHER _ @	OTTOM DEPTH (m)	STA. NAME/ID
CTD A - Po	+	TIMES	JD / TIME			5 .	OATA LOCAT			EMARKS	190	
TYPE / SN SB	E 9+ 91660	DATA ON	0614		Tape/Disk	cette ID	File 1	Name/Header	.	NO	103	2_1
PRESS SN 297	772	START DOWN	0015	,			СТС	A_ 020				
TEMP SN 1:88	39 2:701	AT DEPTH			-						-	
COND SN 1:4	80 2:303	AT SURFACE							М	AX. DEP	TH = 97	7 m
		PAR	FLUOR	ChiAi	и 📗	TAPS6	TAPS4				\ -1	
			SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMP	LE BOTTLE	NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	<u>ry P.</u>	AR T	FLUOR	ChIAM	SALINITY	1	NUTRIENT	CHLOR
1 977										3		
3									,	 		
4					10		.	,		~		
5		, , ,										
6							-			<u> </u>		
7												
8										 		
10							-:-					
11												
12							-					

VESS		FREEMAN			ROJECT & LI F97-04	EG				STATION		NATION 9-2	
CONS CAS #	т	ATITUDE	LONGITUDE		CAL	TIME (GMT)	DRY BULB	WET SHE	SEA STATE VISIBILITY IQ &			воттом	STA. NAME/ID
02	DEG 1 5 9 5	MIN 5.77N	DEG MIN		MO YR P R 9 7		(°C)	(°C) (m) (kts) *	63	(m)	\a-2
	CTD A - P		TIMES '	JD/TIME		12	E	ATA LOCAT	10N	R	EMARKS	Redo	of 0.20
TYPE	S SN SB	E 9+ 91660	DATA ON			Tape/Disk	ette ID	File I	Name/Heade				poshallou
PRES	S SN 29	772	START DOWN	61	0			CTE	A_021			1563	<u> </u>
TEMF	SN 1:8	89 2:701	AT DEPTH		71. 15							(00)	18"
		80 2:303	AT SURFACE		W		1 1	3.3	11 1		IAX. DE	PTH = 157	O m
		+	PAR	FLUOR	ChiAi	v N	TAPS6	TAPS4				15) (0
				SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	TY P	AR	FLUOR	ChiAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500				-5.					8	1		
	1000	2	<u> </u>	1									17
3	500		. "			0				32	 	-	15
5	3001		50						T.		-		
6					===		=						-
7				=							 		Ш
8	-							75					20
9						199							
10		=											
11			R.			U.							
12													

VESSEL				PB	OJECT & LI	EG		-		ISTATIO	N DESIGN	NATION	
400		REEMAN	-		97-04						19-3		
CONSC CAST #	LA1	TITUDE MIN 5.58N	LONGITUDE DEG MIN 179111.	DATE JI	D= 94	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C) (m	MINIMINITY (dec	I. SPD. (kts)		воттом	STA. NAME/ID
СТ	D B - Sta	rboard	TIMES	JD / TIME				ATA LOCAT	TION	33	REMARKS	,	
TYPE /	SN SBE	9+ 92067	DATA ON	94/085	7	Tape/Disk	cette ID	File	Name/Heade	.	WO	104	
PRESS	SN 300	66	START DOWN	085				СТЕ	DB _022		starb	oand f	irst
TEMP S	SN 884	40	AT DEPTH	090		4EE 800					port	secon	d
COND	SN 530		AT SURFACE	0907						ı	MAX. DE	PTH = /(⊃2 m
			PAR	FLUOR	ChIA	м	TAPS6	TAPS4			The state of the s	it	-
		-		SEA-BIRI	 D 9/11+	CTD DA	TA	2.	e o	SAMPLE BOTTLE DATA	I	PLE BOTTLE	NUMBER
POS. [TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	100 /		"= "20 1		-			= 1			9		
2	100/		_ =								-		
3	50/	,										 	<u> </u>
4	25/						-	_	_		-	 	
5	5/		= 777		<u> </u>						┨	+	
7	0						2.5	· · -			╁──	 	
8											 	1	
9								<u> </u>				1	
10								<u> </u>					i(i)
11			8										
12													

VESSEL			PF	OJECT & L	 EG			<u> </u>			STATI	ON D	ESIG	NATION	
NOAAS MILLER	FREEMAN			97-04			565							20	0-1
CONSC CAST # LA	TITUDE	LONGITUDE	E DATE J	D= 94	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD.	LOUD (amt)	VEATHER	BOTTOM DEPTH	STA. NAME/ID
DEG	MIN	DEG MIN		IO YR		(℃)	(°C)	(mb)		(deg)	(kts)	* *		(m)	NAME
023594	2. 11N	179341-		P R 9 7		2.0	0.2	02	48	160	1 1	\vdash	+	3046	20-1
CTD B - St	arboard	TIMES	JD / TIME		40 a		ATA LO	CATIO	N	721.00			IARKS		
TYPE / SN SBE	9+ 92067	DATA ON	94/1104	_	Tape/Disk	cette ID	Fi	le Na	me/H	eader		u	10	112	
PRESS SN 300	066	START DOWN	1105		22	à.	_ <u>c</u>	TDB	_02	23	_		1		
TEMP SN 884		AT DEPTH	1108	3_	7.5	i	1 :		<u>.</u>	72	_	10			
COND SN 530		AT SURFACE		<u> </u>			<u> </u>		- K	¥ Y		MAX	K. DE	PTH =	105 m
		PAR	FLUOR	Chiai	и	TAPS6	TAI	PS4						575	
			SEA-BIR	D 9/11+	CTD DA	TA -		71	ш		SAMPL BOTTL DATA	E ∥ੰ	SAM	PLE BOTTI	_E NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P.	AR	FLUOR	ļ,	ChiA	м	SALINIT	$_{\mathbf{Y}}$	SAL.	NUTRIE	T CHLOR
1 /00 /	1 3		17.00		w 🖺	112							<u>35</u>		
2 100 /	33				- 4		10 3	×		1		4			
3 50 1					70		1					\dashv			
4 25 \/ 5 10 \/								+				-			+
5 10 \/ 6 5 \/												╌╟╴			
7 0	-							-				_			
8	26	5													
9		850				-									
10	<u> </u>											_	š		
11		1		 .				\bot				_ -			200
12										H	<u></u>	IL			

VESS	EL AS MILLER F	REFMAN			OJECT & LI	EG				STATION	DESIGN	NATION 20	-2
CONS CAS #	SC LA	IITUDE MIN 2.07N	LONGITUDE DEG MIN 17936.7	E DATE JI		TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB E	WIN VISIBILITY VISIBILITY VICE SEA STATE (Ge	ID WIND ON SPD.		BOTTOM DEPTH (m)	STA. NAME/ID
	CTD A - Po	rt Side	TIMES	JŅ / TIME		. 35	E	ATA LOCA	TION	Ri	MARKS		
TYPE	SN SBE	9+ 91660	DATA ON	93/1125	-	Tape/Disl	cette ID	File	Name/Heade	r	WO	1645	
PRES	SS SN 297	72	START DOWN	1126				СТІ	DA_ 024		No.		
TEME	P SN 1:88	9 2:701	AT DEPTH	1205			1		16 00				
CONI	O SN 1:48	30 2:303	AT SURFACE		_	. W.				м	AX. DEI	PTH = /5	03 m
			PAR	FLUOR	ChiAi	и	TAPS6	TAPS4	1/ 8		-		
		5		SEA-BIRI	D 9/11+	CTD DA	TA		×	SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500									SI	24		
2	10001												
3	6001												
4	300./	. VAI		iii iii									
5 6										7.0		*8	
7				ō	••••			55					
8					§5			Ŷ					
9						-							
10		0	25 =			W							
11			N ₁				83			8			
12								· · · · · · · · · · · · · · · · · · ·					

VESSEL			PR	OJECT & LE	G						STATI	ON D	ESIGI	VATION	201
NOAAS MILLER	FREEMAN		МЕ	97-04								<u> </u>		21-	1
CONSC CAST # LA	ATITUDE MIN	LONGITUDE DEG MIN			TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	3 PRESSURE	SEA STATE VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	* CLOUD (amt)	* WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
025592	20.17N	17946.7	10	P R 9 7	1617	1.5	0.4	99	47	155	15	7 7	2 3	3338	21-
CTD A - P	ort Side 1	TMES	JD / TIME	T			ATA LCC	CATIC	ON	A.E.	72	REN	IARK	3	
TYPE / SN SB	E 9+ 91660	DATA ON	94/1538	3	Tape/Disk	ette ID	Fi	le Na	ame/H	eader		1	olo	= 155 9	
PRESS SN 29	772	START DOWN	153	8			C	TDA	_ 02	25			/		
TEMP SN 1:8	89 2:701	AT DEPTH	1615		9.	88	TEX.	7.3		1.1					
COND SN 1:4	180 2:303 A	AT SURFACE			169							MA	K. DE	PTH = /	502 n
		PAR	FLUOR	ChIAN		TAPS6	TAI	PS4		<u> </u>		1		a. II	
			SEA-BIR	D 9/11+	CTD DA	ГА		i ii	3		SAMPL BOTTL DATA	Ε	SAM	PLE BOTTLI	E NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	A R	FLUOR		ChlA	м	SALINIT	$_{\gamma}$	SAL.	NUTRIEN	r CHLOR
1 /500/							Ģ.						4		
2 1000/	1				83			\downarrow					£		
3 600 /	1											4			
4 300			la .						Ŷ.			\dashv			_
6			81					2			407	╢			
7		+	2				\$	+		-	V.	╢			-
8								311	886			\dashv			
9	Na .						oke	23						1.1	
10							Statistics.								
4.4					1		(29								
11	 	 	-		- 0.			-				──╟		<u> </u>	

VESS	 EL		*	Ţ,	PROJECT & L	EG						STAT	ION E	DESIG	NATION	
NOA	AS MILLER I	FREEMAN			MF97-04									3	21-2	2
CONS CAS	T	TITUDE M I N	LONGITUD DEG MIN		JD= 94 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)		RESSURE	* SEA STATE * VISIBILITY	(deg	I. SPD.	* CLOUD (amt)	$\overline{}$	1111	STA. NAME/ID
02	0 - 7 7	9.97 N	1794818		A P R 9 7	1721	2.5	1.1	00	417	15	8 1 2	87		3300	21-
0	CTD B - Sta	arboard	TIMES	JD / TIM	E W			DATA LOC	ATIO	N			REF	MARK	S	
TYPE	SN SBE	9+ 92067	DATA ON	94/17	16	Tape/Disł	cette ID	Fil	le Na	me/ŀ	Header			W	0 103	
PRES	SS SN 300	66	START DOWN	רו '	17			_ <u>C</u>	TDB	_ 0	126					
TEMF	PSN 884		AT DEPTH	17:	20							- W			<u>()</u>	
CON	O SN 530	II.	AT SURFACE	n 9		- W	9 8				1		МА	X. DE	EPTH =	100 r
		3 8	PAR	FLUOR	Chia	м	TAPS6	TAF	PS4							
		0)		SEA-BI	RD 9/11+	CTD DA	TA		E .			SAMPL BOTTL DATA	Ε	SAN	MPLE BOTT	LE NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry P	AR .	FLUOR		Chl	AM	SALINIT	ry	SAL	. . NUTRIEI	VT CHLOR
1	100/	100			C E		5							27	8	
2	1001					i i	= 4	183		17.71		7				
3	50/														25	
4	251			ļ												
5	10 /										e "	= 1		>	72	
6	5/								\perp			1)		3.5		15
7	01		92						+		11) 314					-
8								8	+				\dashv			-
9									120				╫			
10				20			1	7								
12		*5				+	2		+				\dashv	39		
			- 11						- 1			9 94	- 11			

VESS				PF	ROJECT & L	EG				STATION	DESIGN		
NOA	AS MILLER	FREEMAN		Мі	F97-04	1 1				- " =		22	~
CON CAS	ST	TITUDE	LONGITUDE	E DATE J	D= 94	TIME (GMT)	DRY BULB	WET BULB	SEA STATE VISIBILITY JU S		TYPE WEATHER m	BOTTOM DEPTH 1	STA. NAME/ID
02	DEG 7585	MIN 6.80 N	DEG MIN	E DAY !	MO YR P R 9 7	HR MIN	(°C)	(°C) (m	b) * * (de	g/ \/ 	 	(m)	22-1
	CTD B - St		TIMES 203600	· · · · · · · · · · · · · · · · · · ·			[DATA LOCAT	. , , , ,		EMARKS	, ,	, , , , ,
TYPE	E/SN SBE	E 9+ 92067	DATA ON			Tape/Disk	ette ID	File N	lame/Heade	r (N/O	107	
PRES	SS SN 300)66	START DOWN	2	<u> </u>			CTD	B_ 027	-8			
TEM	PSN 884		AT DEPTH		111				- # H				
CON	D SN 530	F B	AT SURFACE				-			М	AX. DEF	PTH = 100) m
			PAR	FLUOR	ChiAi	м 📗	TAPS6	TAPS4	1	H			
				SEA-BIR	D 9/11+	CTD DA	ГΑ		24	SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	ΓY P/	VR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	100										33		
2	66°			18 1	#	0			+0 20				
3	50'		320						œ.		 	ļ	
4	33 ^v 25 ^v					¥a .)(
5 6	20°								VS.				
7	10 V	··· - ·			-						<u> </u>		
8	107			-									
9	5 v		0. 50		154								
10	0												
11									-	¥-1			
12										71			

VESSEL.		PROJEC		G				STATIO	N DESIGN		1
NOAAS MILLER FREEMAN	<u> </u>	MF97-0) <u>4</u>							- 2	
CONSC CAST # LATITUDE	LONGITUDE	DATE JD= C	14	TIME (GMT)	DRY BULB	WET HE	SEA STATE VISIBILITY DID S		CLOUD (amt) TYPE WEATHER	SOTTOM DEPTH I	STA. NAME/ID
0285856.41N	DEG MIN	DAY MO		HR MIN 2 45	(°C)	165	q 48 12	i) (kts) *	* *	(m)	12-2
CTD A - Port Side	TIMES	JD / TIME	1	191	0	ATA LOCA			REMARKS		
TYPE / SN SBE 9+ 91660	DATA ON	8:	ľ	Tape/Disk	ette ID	File	Name/Heade	,	WO 1	55 1	
PRESS SN 29772	START DOWN		=			CTI	DA_028	_		<u> </u>	
TEMP SN 1:889 2:701	AT DEPTH			S 10	W IXI						
COND SN 1:480 2:303	AT SURFACE			- 3	5 60		×		MAX. DEF	PTH = 150	51 m
	PAR	FLUOR	ChiAN	1	TAPS6	TAPS	4				
		SEA-BIRD 9	/11+	CTD DA	ТА			SAMPLE BOTTLE DATA		PLE BOTTLE	NUMBER
POS. DEPTH PRESSURE	PRITEMP	SEC.TEMP S	SALINIT	Y P/	4R	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 1500									30		
2 1.000							#				
3 500						100	-		_	<u> </u>	
4 300						- 1 ×		<u>-</u>	_	<u> </u>	
5	_		· · · · · · · · · · · · · · · · · · ·			4 - 3 7	*	<u> </u>			
6					- M	A			-	<u> </u>	
7	-						<u> </u>				
9						· · · · · ·				1	
10				9		.5			1		
11				=							
12										_	

,~	EL	. <u></u>		PF	OJECT & LI	EG	30				S		N DESIG	NATION	
NOA	SMILLER	FREEMAN		MF	97-04	733 ^{III} =				, ,			3-1		
CONS CAS	т	TITUDE	LONGITUDI	E DATE J	D= 95	TIME (GMT)	DRY BULB	WET BULB	PPESSUPE		WIND V	VIND SPD.	CLOUD (amt) TYPE WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG MIN	· · · · · ·	10 YR		(°C)	(°C)	(mb)	* * ((kts)	* *	(m)	74
oak	2585	9.70 N	17809.2	20WOSA	P R 9 7	0529	2.1	11.3	<u>ට</u> ු	480	ada	08	801	155	23-1
C	TD B - Sta	arboard	TIMES	JD / TIME				DATA LOC	OITA	, sr 91		"	REMARK	S	
TYPE	/SN SBE	E 9+ 92067	DATA ON	052140		Tape/Disk	cette ID	Fil	e Nar	ne/Hea	ader		WIZ	104	
PRES	S SN 300)66	START DOWN					C	TDB_	020	7			(
TEMF	SN 884		AT DEPTH		8				T	100	•				
CONE	SN 530		AT SURFACE							100		-	MAX. DE	PTH = \C	n (X
			PAR	FLUOR	() ChiAi	v 📳	TAPS6	TAP	S4	N. E					
		+0						<u> </u>			S/	MPLE	1		
	, i			SEA-BIR	D 9/11+	CTD DA	TA	0		22	В	OTTLE DATA		PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	: PRI.TEMP			2		FLUOR		ChIAM	BC	OTTLE DATA	SAM		
POS.	TRIP DEPTH	PRESSURE	: PRI. TEMP	SEA-BIR	D 9/11+	2	TA AR	FLUOR		ChIAM	BC	OTTLE	SAM		
POS. 1	DEPTH	PRESSURE	: PRI. TEMP			2		FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		
1	DEPTH 100	PRESSURE	PRI. TEMP			2		FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		
1 2	100°	PRESSURE	PRI. TEMP		SALINIT	Y P	AR	FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		
1 2 3	DEPTH 100' 50' 25' 10' 5'	PRESSURE	PRI. TEMP		SALINIT	Y P	AR	FLUOR		ChlAM	BC	OTTLE DATA	SAM SAL.		
1 2 3 4	100 50 100 100 100 100 100 100 100 100 1	PRESSURE	: PRI. TEMP		SALINIT	Y P	AR	FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		
1 2 3 4 5	DEPTH 100' 50' 25' 10' 5'	PRESSURE	PRI. TEMP		SALINIT	2	AR	FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		
1 2 3 4 5 6	DEPTH 100' 50' 25' 10' 5'	PRESSURE	PRI. TEMP		SALINIT	Y P	AR	FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		
1 2 3 4 5 6 7 8	DEPTH 100' 50' 25' 10' 5'	PRESSURE	PRI. TEMP		SALINIT	Y P	AR	FLUOR		ChlAM	BC	OTTLE DATA	SAM SAL.		
1 2 3 4 5 6 7 8 9	DEPTH 100' 50' 25' 10' 5'	PRESSURE	PRI. TEMP		SALINIT	Y P	AR	FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		
3 4 5 6 7 8	DEPTH 100' 50' 25' 10' 5'	PRESSURE	PRI. TEMP		SALINIT	Y P	AR	FLUOR		ChIAM	BC	OTTLE DATA	SAM SAL.		

# LATITUDE LONGITUDE DATE JD= 0.5 (GMT) BULB BULB E 0.5 DIRN. SPD. 0.5 DEPTH NA DEG MIN DEG MIN DAY MO YR HR MIN (°C) (°C) (mb) (deg) (kts) * * * (m) 0.3 0.5 0.5 0.5 0.3 N 1 7 8 0 0.2 4 W 0.5 A P R 9 7 0.5 5 3 2.5 1.2 0.5 4 8 0 0 0 4 6 7 1 1.5 4 2 CTD A - Port Side TIMES JD / TIME DATA LOCATION REMARKS	STA. ME/ID
03 0 5 8 5 q . 8 3 N 1 7 8 0 q . 2 4 W 0 5 A P R 9 7 0 5 5 3 2 . 5 1 . 2 0 5 4 8 0 q 0 0 4 6 7 1 1 5 4 2 CTD A - Port Side TIMES JD/TIME DATA LOCATION REMARKS	3 -
	3-2
TYPE / SN SBE 9+ 91660 DATA ON Tape/Diskette ID File Name/Header	
PRESS SN 29772 START DOWN CTDA	
TEMP SN 1:889 2:701 AT DEPTH	G.
COND SN 1:480 2:303 AT SURFACE	m
PAR FLUOR CHIAM TAPS6 TAPS4	
SEA-BIRD 9/11+ CTD DATA SEA-BIRD 9/11+ CTD DATA SAMPLE BOTTLE DATA SAMPLE BOTTLE NU	MBER
TRIP POS. DEPTH PRESSURE PRI.TEMP SEC.TEMP SALINITY PAR FLUOR CHIAM SALINITY SAL. NUTRIENT	CHLOR
1 32 20	
3 4	
5	
6	
7	
11	

VESS	EL			PR	OJECT & LI	EG .				STATION			
NOAA	S MILLER I	FREEMAN	.20	MF	97-04						244		
CONS CAS #	T LA	TITUDE MIN Q.64N	LONGITUDE DEG MIN	DAY N	O YR	TIME (GMT) HR MIN	DRY BULB (°C)		S SEA STATE S VISIBILITY S SEA STATE S S S S S S S S S S S S S S S S S S S	I. SPD. (kts) *		(m)	STA. NAME/ID
	CTD A - Po		시기왕 시이. 4 TIMES	16 W 06 A JD / TIME	P R 9 7	06 27	6.7-	DATA LOCATI	08/08/	- 10	EMARKS	1 1 1	24-1
131			DATA ON			Tape/Disk			lame/Heade			213	
PRES	SS SN 297	70.	START DOWN	42	- 128 II-	- 15			A_ 031		==	winde	atof
TEM	P SN 1:88	39 2:701	AT DEPTH			1.0		S *	8 IE: NA B		0.00	-tmp.	
CONI	O SN 1:4	80 2:303	AT SURFACE			=40	H DE	N. A.	# =			PTH = 2 \(m ر
			PAR	FLUOR	ChIAI	м	TAPS6	TAPS4					
	0.	34	-4	SEA-BIR	D 9/11+	CTD DA	TA	= 10	1 3	SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	210							A T			15	107,	
2	150	-											
3	-		-	9 10				A. 18	- "		 		
5				52		143				-			20
6										#5			
7								13			<u> </u>		
8 9		8			- 53							10 d	
10	1					4.	N				0.15		
11	[1]					30		N.					
12					#						1		

VESSEL		1	PROJECT & LI	FG	·	STATION	I DESIGNAT	ION
NOAAS MILLER	FREEMAN	-	MF97-04				24	
CONSC CAST # LA	ATITUDE MIN	LONGITUDE DEG MIN	DATE JD= 95 DAY MO YR		WET BULB WIN DIRY (°C) (mb) * * (deg	I. SPD. C (kts) *	* * (STA. PTH NAME/ID m) 24-2
CTD B - St	tarboard	TIMES	JD / TIME	117%	DATA LOCATION	R	EMARKS	
TYPE / SN SB	E 9+ 92067	DATA ON	0644	Tape/Diskette II	File Name/Heade	,	N(0)	05
PRESS SN 30	066	START DOWN			CTDB_ 632		winch r	epaired
TEMP SN 884		AT DEPTH	Na Sala					
COND SN 530		AT SURFACE				м	IAX. DEPTI	H = \(\(\) \(\) m
		PAR P	FLUOR CHIA	M TAPS6	TAPS4		01 (E. III	
			SEA-BIRD 9/11+	CTD DATA		SAMPLE BOTTLE DATA	SAMPLE	BOTTLE NUMBER
TRIP POS. DEPTH	PRESSURE	PRI.TEMP SE	C.TEMP SALINIT	TY PAR	FLUOR CHIAM	SALINITY	SAL. N	UTRIENT CHLOR
1 100							23	
2 56					5), All		<u> </u>	
3 25"								
5 5		0 2 =			(0)			
5 5 6 O		1						
7				12	\$			
8				911				- E
9					MI)			
10	71							
11				0.3				
12	H .		222	1.15		1	11	90

VESSEL NOAAS MILLER FREEMAN		PROJECT & LEG MF97-04	100		STATION DESIG	GNATION 5-1
CONSC CAST # LATITUDE DEG MIN	DEG MIN DAY		(°C) (°C)	(mb) * * (deg)	(sta)	(m)
CTD A - Port Side	TIMES JD/TI		0.5	<u> </u>	G711	
TYPE / SN SBE 9+ 91660	DATA ON	Tape/Di	7070	le Name/Header	W/O	
PRESS SN 29772	START DOWN		C	TDA_ 033		
TEMP SN 1:889 2:701	AT DEPTH					
COND SN 1:480 2:303	AT SURFACE				MAX. D	EPTH = 493 m
The state of the s	PAR FLUOR	ChlAM	TAPS6 TAF		8	Mi
	SEA-E	BIRD 9/11+ CTD D	ATA	E	SAMPLE BOTTLE DATA SAI	MPLE BOTTLE NUMBER
POS DEPTH PRESSUR	E PRI. TEMP SEC. TEM	SALINITY	PAR FLUOR	ChIAM S	ALINITY SAL	NUTRIENT CHLOR
1 493					2.2	
3 300	20 0			E:		
4	- A					
5						
6				3		
7	1255 (5 S: Yi 1111 11					
9		33	138,00			
10						
11			100			
12						

VESS	EL .			PR	OJECT & LI	=G				STATIC	N DESIGN	JATION	
NOAA	SMILLER	FREEMAN			97-04						25-	2	
CONS CAS	T <u> </u>	ATITUDE	LONGITUDE	E DATE J	D= 95	TIME (GMT)	DRY BULB	WET BULB	SEA STATE VISIBILITY JO N	ID WIND	JD (amt)	BOTTOM DEPTH I	STA. NAME/ID
, 10 1	DEG	MIN	DEG MIN	DAY N	10 YR	HR MIN	(°C)	(°C) (mb) * * (de	g) (kts)	* * *	(m)	
3	<u>451815</u>	56.56 N	117812.6	7W05A	P R 9 7	0807	1.8	1-0.40	3819	504	671	543	25-2
	TD A - P	ort Side	TIMES	JD / TIME		8		DATA LOCATI			REMARKS	wola	0
TYPE	/SN SB	E 9+ 91660	DATA ON			Tape/Disl	cette ID	File N	ame/Heade	r	0330	you me	rod
PRES	S SN 29	772	START DOWN			rena	ned a	es - CTD	A_034	. CNV		Acceli	,
TEMF	SN 1:8	89 2:701	AT DEPTH			origina	^		-33A.			moos c	
CONE	SN 1:4	180 2:303	AT SURFACE		<i>;</i>	Jes		<u> </u>				PTH = \O\	m
			PAR	FLUOR	ChlAl	и	TAPS6	TAPS4	-				
		§49		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	:	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChlAM	SALINIT	Y SAL.	NUTRIENT	CHLOR
1			1		-	8							
2	23							,	,				
3											_	-	
4								7.47			-		
5 6								18					
7							+	24					
8										-			
9													
10			,	-	5								
11		ļ									_		
12		1				1]			1	1		-

VESSI						PROJECT & LI	EG				STATION	DESIGN	_	
CONS CAS	т	TITUDE	LONG	TUDE		JD=95	TIME (GMT)	DRY BULB	WET SEE	SEA STATE VISIBILITY IQ &	CLOUD (amt)		оттом	STA. IAME/ID
3.5	DEG	MIN	DEG	MIN 2.28W	DAY	MO YR A P R 9 7		(°C) 2.6	(°C) (m	b) * * (deg) (kts) *	* * -	(m) 450	25-3
c	TD B - St	arboard	TIMES	J	O / TIME	E	W 2		ATA LOCAT	ION		MARKS		
TYPE	/ SN SBE	E 9+ 92067	DATA ON				Tape/Disk	cette ID	File N	Name/Heade	r (0/0	318	÷
PRES	S SN 300	066	START DOV	VN			7		CTD	B_035				
ТЕМР	SN 884		AT DEPTH							重易				
COND	SN 530		AT SURFAC	E	55	ė.	-	1/4			M	AX. DEF	TH = 30	2 m
	7		PAR	Ŋ₽	UOR	(Chia	м	TAPS6	TAPS4	, Ila	W) TO =	100		
300	E		W = I	SI	EA-BI	RD 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	29 SAMF	PLE BOTTLE I	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TE	MP SEC.	TEMP	SALINIT	TY P	AR	FLUOR	ChIAM	SALINITY		NUTRIENT	CHLOR
1	1001								1554			29		-
2	50 25									,			<u> </u>	
3 4	10													
5	5	- 2				=			·		182			23
6	0												B 8	
7									_ ====0		= <u></u>	F		
8						C4-577								
9														
10														
11														
12														

VESS	SEL .		3	PF	ROJECT & LI	 EG		er en		STATION	Í DESIGI	NATION	
NOA	AS MILLER I	REEMAN		М	97-04	V						26-	<u> </u>
CON CAS #	ST	TITUDE MIN	LONGITUDE DEG MIN		D= 95 MO YR PR97	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB & (°C) (m	WINDIPLE (deg	N. SPD. (c) (kts) *	* *	BOTTOM DEPTH (m)	STA. NAME/ID
	CTD A - Po		TIMES	JD / TIME			C	ATA LOCAT			EMARK	4 (2))	<u> </u>
TYPE	E/SN SBE	9+ 91660	DATA ON	95 092	2	Tape/Disk	cette iD	File N	lame/Heade	r	WIO	= 1023	
	SS SN 297		START DOWN	092		3			A_036	115.	10/0	1045	<u> </u>
TEM	P SN 1:88		AT DEPTH	094		3			01				
-43	D SN 1:4		AT SURFACE			12%	we =				IAX. DE	PTH = /	000 m
			PAR	FLUOR	ChiAi	<u>и</u> П	TAPS6	TAPS4				18	
		- P		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR	ALUCR:	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1000/							100			06		
2	600/											7	
3		51		<u> </u>							- 3		
4				1.5							╂		
5 6			::		<u> </u>	95		gon	- 12	- 10	 		
7			-					332			1		
8					333				14	10	1		
9													
10		-				X.							
11				=							_		
12		-											<u> </u>

VESS			-		OJECT & L	EG						STAT	ION I	DESIG	NATION	26-2
NOA	AS MILLER F	REEMAN		<u>IMF</u>	97-04								Tal			-6 2
CONS CAS #	т	TITUDE	LONGITUDI	E DATE JI	D= 95	TIME (GMT)	DRY BULB	WET BULB	PPESSURE	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt	WEATHER	BOTTOM DEPTH	STA. NAME/ID
34	DEG	MIN	DEG MIN	DAY N	10 YR	HR MIN	(°C)	(°C)	(mb) * *	(deg)	(kts)	*	* *	(m)	
03	7585	4.49 N	17813.3	58W05A	P R 9 7	1031	1.0	0.0	olo	<u>88k</u>	094	07	5	87	1028	26-2
C	CTD B - Sta	arboard	TIMES	JD / TIME		910		ATA LO	CATIC	ON			RE	MARK	S	
TYPE	SN SBE	9+ 92067	DATA ON	95/1020		Tape/Disk	cette ID	F	ile Na	ame/H	leader		W	0	323 M	
PRES	SS SN 300	66	START DOWN	1021				(CTDE	3_0	37				12	
TEMF	SN 884	2 X 3	AT DEPTH	1031	and the	=0% R		251	WAA TISS		97					
CON	O SN 530	1	AT SURFACE	1043	The second second	ij še		-1		- 10			MA	X. D	EPTH =	301 m
		44 24 25	PAR	FLUOR	ChIA	м	TAPS6	ТА	PS4			-0180 T	7		Li I	20
	4 4	97 17 17		SEA-BIR	D 9/11+	CTD DA	TA			iii a		SAMPI BOTTI DATA	E	SAI	MPLE BOTTI	E NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry P	AR	FLUOR	8	Chl	AM	SALINI	TY	SAL	NUTRIEN	IT CHLOR
1	300/	11200012		CES. TENII	O) ILII (I		Ī g	T LOGIC		1		177		17		
2	3001				- S	e = III0		1 10			5725 Tall	Ш	144			1 53
3	1001			- /	H			= 1	9	Ħ	24		Į.	W L		
4	501		80/		7.	A CONTRACTOR									e i	
5	251				54	_00		= /								
6	10/								_		ш				= N =	
7	51	2 "							_				_			
8	0												_			
9						Ш				¥.			_			
10				-				72					_			
11		5			9		20 2		10							- 39
12	- N						1, 3									

VESS	EL			PR	OJECT & LI	 ≣G			- A	STATION	N DESIGN	NATION	.0
NOA	S MILLER I	-REEMAN		Mf	97-04	i	111					27	-
CONS CAS #	T LA	TITUDE MIN 1.05 N	LONGITUDE DEG MIN	DAY N	IO YR	TIME (GMT) HR MIN 1 2 00	DRY BULB (°C)		SEA STATE WISHINTY Geo	N. SPD. C	* *	BOTTOM DEPTH (m)	STA. NAME/ID
	CTD A - Po	200	TIMES	JD / TIME		2		DATA LOCAT	= =30	F	EMARKS		<u> </u>
TYPE	/SN SBE	E 9+ 91660	DATA ON		3_	Tape/Disk	ette ID	File N	lame/Heade	r	w/o	= 1549	-
PRES	SS SN 297	72	START DOWN	95/1123	3	N	10	CTD	A_038		7		
TEM	P SN 1:88	39 2:701	AT DEPTH	120		#		1124	#x 11	3			
CON	D SN 1:4	80 2:303	AT SURFACE							N	MAX. DE	PTH = 15	00 m
	5		PAR	FLUOR	ChiAi	и	TAPS6	TAPS4		27	7	<i>\</i>	
3		*		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC.TEMP	SALINIT	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	15001										71		
2	1000v											(4)	
3	600				**				<u> </u>				
4				8									
5							ш					× = 1	
6		+		, , , , , , , , , , , , , , , , , , ,	·		- 1					201	
7													
8					6 //						<u> </u>		
9			27						SIL			ļ. <u>-</u>	
10						t.		ПП			<u> </u>		
11	W										×	ļ <u>-</u> .	
12		3: %									1		

VESS					OJECT & LI	EG		15		STATION	DESIGN	VATION	,
NOA	AS MILLER F	REEMAN		MF	97-04	· ·						27-2	
CON CAS	ST LA	TITUDE M I N	LONGITUDE DEG MIN		D= 95 10 YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB &	b) * SEA STATE MINIO MIN	i. SPD. ರ	* TYPE * WEATHER -	BOTTOM DEPTH (m)	STA. NAME/ID
03		1.52N	17816.9		P R 9 7	1255	2.1		93806	1015	611	737	27-2
	CTD B - Sta	arboard	TIMES	JD / TIME			D	ATA LOCAT	ION	RE	MARKS	3	1 191
TYPE	E / SN SBE	9+ 92067	DATA ON	95/1243	3	Tape/Disk	ette ID	File N	Name/Header	. = =	WO-	316	
PRE	SS SN 300	66	START DOWN	124	3	3		СТВ	B _ 039	_			
TEM	P SN 884		AT DEPTH	125.	3								
CON	D SN 530		AT SURFACE	130					* N	M	AX. DE	PTH = 3)/ m
		9	PAR	ÁLUOR	ChiAi	и	TAPS6	TAPS4	11 11 11	7.			
	5			SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	3001										32		
2	3001		5	11									
3	100/	1		122		0		77					
4	50,	/										_	
5	25/												
6	15/										<u> </u>		
7	10.					022						 	
8	5 🗸	19			·							 	
10	0 🗸			3		-						1	
11	-												
12		3						N					

VESSEL	D EDEEMAN V			OJECT & LI	EG			7.	STATION	V DESIGN	IATION 28-	-1
NOAAS MILLI	ER FREEMAN	_	<u> M</u>	97-04			<u>. </u>		1		<u> </u>	ı
CONSC CAST #	LATITUDE	LONGITUDI		D= 95	TIME (GMT)	DRY BULB	WET ELB	SEA STATE VISIBILITY		WEATHER	BOTTOM DEPTH I	STA. NAME/ID
04058	MIN 44.54 N	DEG MIN	DAY N	NO YR	HR MIN	(°C)	(°C) (m	b) (deg 93806) (kts) *	3012	(m) 237	28-1
CTD B -	Starboard	TIMES	JD / TIME	. 11 0 7	, , , , , , , , , , , , , , , , , , ,	101-1-1	ATA LOCAT	(1111111		REMARKS	, ,-,,	
TYPE / SN S	SBE 9+ 92067	DATA ON	95/1402	2	Tape/Disl	cette ID	File N	Name/Heade	r L	w/o =	319	
PRESS SN	30066	START DOWN	1403			II St	CTD	B_040	1 ×			
TEMP SN 8	84	AT DEPTH	1414		8 8			y A				
COND SN 5	30	AT SURFACE								/AX. DEI	PTH = 30	> / m
F -32	# 8	PAR	FLUOR	ChiA	и 📗	TAPS6	TAPS4	10 WH =	SAMPLE			
50 E			SEA-BIR	D 9/11+	CTD DA	TA	E 8		BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
TRIP POS. DEPTI		PRI. TEMP	SEC. TEMP	SALINI	Y P	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 300	4					00	8		- 8	7	<u> </u>	
2 300	# /		Đ							1	1	
3 /0C 4 5C	/		W	# .		T U			<u> </u>	 		
5 25	11	E.	11 22		ō II.							
6 10	4				45				9			<u> </u>
	4			-						-		
8 0	4						5			-	OC.	
10	î.	is a						Ž.				
11						55						
12			**							_1	<u>L</u> ,,	i).

VESSEL	L		14	PR	OJECT&LI	EG				STATIO	N DESIGN	VATION	
NOAAS	MILLER	FREEMAN		MF	97-04	1000			P			28-2	
CONSC CAST #		TITUDE MIN	LONGITUDE DEG MIN 17819.5	DAY N	10 YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB & (°C) (m		N. SPD. (· VECCOD (annual)	(m)	STA. NAME/ID
	ΓD A - P(110171	TIMES	JD / TIME	1111011			DATA LOCAT	91001-11	01101	REMARKS		~ U X
			DATA ON	95/143	4	Tape/Disl			Name/Heade			n = 155.	_
PRESS	SN 297	772	START DOWN	1435	331				A_041		-100 I	me started	
TEMP :	SN 1:8	39 2:701	AT DEPTH	1510	×			177		22	i i	AL SIDA FER	Co com
COND	SN 1:4	80 2:303	AT SURFACE		*			10.5%	1112		MAX. DE	PTH = /50	0 <i>3</i> m
			PAR	FLUOR	ChiA	м	TAPS6	TAPS4	y 22.	:		***	
	171	S 5		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA		PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry p	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
	1500	/						- 1 12					
	1000	12 12											
3	600 V					7.	- 83						
4												ļ	
5	***			15		8 9		10 1		To:	_		
6								850			-		
7				1			(m)						
8					8			V V2	a		_		
9	8		9								-		
10								£			_	1	
11										-		1	
12		11									1		

VESS					OJECT & LE	G		· -		STATION	DESIGN	IATION 29	- 1
NOA	AS MILLER F	REEMAN		IMF	97-04			1 6	*	T ₂		27	
CONS CAS #	т	TITUDE	LONGITUDE	DATE J	D= 95	TIME (GMT)	DRY BULB	WET BULB	SEA STATE VISIBILITY JU SI JU SI		WEATHER	SOTTOM DEPTH N	STA. IAME/ID
04	DEG	MIN	DEG MIN		IO YR	<u> </u>	(°C)	(°C) (m	b) * * (deg	(kts) *			29-1
	CTD B - Sta	arboard	TIMES	JD/TIME				ATA LOCAT	1 3		MARKS		
TYPE	E/SN SBE	9+ 92067	DATA ON	95/172		Tape/Disl	cette ID	File I	Name/Heade	r =	WO	= 3/7	
PRES	SS SN 300	66	START DOWN	172.	i			CTE	B_042	<u> </u>	no bio	= 3/7. logical bos	Hle
TEMF	SN 884		AT DEPTH	173	2				1		sampl	9 /	U
CON	D SN 530		AT SURFACE	1 80 20			 			M.	AX. DEF	PTH = 30	0 m
			PAR	FLUOR	ChiAi	и 📗	TAPS6	TAPS4	•	0.000	<u> </u>		,
				SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALIŅIT	Y P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300										26		gan al matter dispersion — gr. a.s. of or
2	41		i			-	-					F sales of	
3							·		<u></u>	_			
5_													
6					•						 		
7								· .					
8 9						,							<u></u>
10		*						·					
11													
12					-			- 704		<u> </u>			•

VESSE			\$3		OJECT & LE	:G				59	STATION	N DESIGN		
NOAA	SMILLERF	REEMAN		MF	97-04								29-2	<u>-</u>
CONS CAST	r LA	FITUDE MIN O.83 N	LONGITUDE DEG MIN		IO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	6 9 PRESSURE C 1 SEA STATE	WINING DIRN (deg	l. SPD. () (kts) *	MEATHER WEATHER	1 1 1	STA. NAME/ID
· c	TD A - Po	rt Side	TIMES	JD / TIME				ATA LO	CATION		F	REMARKS		
TYPE	/SN SBE	9+ 91660	DATA ON	95/180		Tape/Disl	kette ID	F	ile Name	/Heade	- K	W	0 = 15	<i>3</i> 7
PRES	S SN 297	72	START DOWN	180	2				TDA_	043		9		
TEMF	PSN 1:88	9 2:701	AT DEPTH	183	39	9.52		29		3				
CONE	O SN 1:48	30 2:303	AT SURFACE								ı	MAX. DEI	PTH = /5	503 m
0		_91	PAR	FLUOR	ChiAi	и	TAPS6	TA	PS4					
	===	8,			7						SAMPLE BOTTLE	- 11		
		\$1 \$1		SEA-BIR	D 9/11+	CTD DA	TA				DATA	III	LE BOTTLE	NUMBER
20 S.	TRIP DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	CI	hIAM		SAM		
20S.		PRESSURE	PRI. TEMP	SEA-BIR SEC. TEMP	D 9/11+	10	ATA PAR	FLUOR	C	hlAM	DATA	SAM	NUTRIENT	
1 2	DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	CI	hIAM	DATA	SAMF		
1 2 3	DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	Cl	hIAM	DATA	SAMF		
1 2	DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	Cl	hIAM	DATA	SAMF		
1 2 3 4	DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	Cl	hIAM	DATA	SAMF		
1 2 3 4 5	DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	CI	hIAM	DATA	SAMF		
1 2 3 4 5 6 7 8	DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	CI	hIAM	DATA	SAMF		
1 2 3 4 5 6 7 8 9	DEPTH	PRESSURE	PRI. TEMP			10		FLUOR	C	hIAM	DATA	SAMF		
2 3 4 5 6 7 8	DEPTH	PRESSURE	PRI. TEMP			TY F		FLUOR	CI	hIAM	DATA	SAMF		

VESS	SEL.		·	PF	ROJECT & LE	G				STATION	DESIGN	IATION	
NOA	AS MILLER I	REEMAN		МІ	F97-04						3	2-1	
CON: CAS	DEG LA	TITUDE MIN	LONGITUDE DEG MIN	DAY	D= 95 MO YR	TIME (GMT) HR MIN 2 2 1 2	DRY BULB (°C)		SEASTATE (G	N. SPD. ご (kts) *	, 	1 2 1	STA. NAME/ID
	CTD A - Po	(N	TIMES	JD/TIME	20			DATA LOCAT			MARKS		3 0 1
TYPE	E/SN SBE	E 9+ 91660	DATA ON	11290		Tape/Disk			Name/Heade			15 bg	
PRE	SS SN 297	772	START DOWN						A_044		0010	ii:	Car.
TEM	P SN 1:88		AT DEPTH	4-	_					-		· E	· - · · · · ·
	D SN 1:4		AT SURFACE	-	Ser I					— M	AX. DE	PTH = 150	 ∂2 m
		8 8	PAR	FLUOR	ChIA		TAPS6	TAPS4				100	<u> </u>
	본			SEA-BIR	RD 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1502										35		70
2				84								r)	
3		· · · · · · · · · · · · · · · · · · ·											=
4	Mr			S:									
5								×	72	92			
_ 6					110								
7					TR : 29					ľ			
7 8						<u> </u>							
7 8 9													
8													
8	×									Si e			

VESS	SEL AS MILLER	EDEEMANI			OJECT & LE	iG .				STATION		ATION - ~	
CON CAS	SC LA DEG 5500	TITUDE MIN Q.O2 N	LONGITUDE DEG MIN	DATE JI DAY M	D= 95	TIME (GMT) HR MIN 2357	DRY BULB (°C)	WET HE BULB & (°C) (m	93703	i. SPD. 5 i) (kts) *	######################################	OTTOM DEPTH 1	STA. NAME/ID
1	CTD B - St		TIMES	JD / TIME		T (5: 1		DATA LOCAT			EMARKS	- /	
1		E 9+ 92067	DATA ON		-	Tape/Disk	ette iD		Name/Heade	-	W/D	316	•
	SS SN 300 P.SN 884		START DOWN AT DEPTH		-				B_045	- -			
	OSN 530		AT SURFACE		-				2	-	IAX DEF	TH = 30	() m
	011 000		PAR	FLUOR	ChIAN	, [7]	TAPS6	TAPS4			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
			9	SEA-BIRI	D 9/11+	CTD DA	ГА			SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P/	NR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	<u>3∞</u>	,									30		
2					-						╂		
3 4			8 .								1		
5										_			
6													
7		!		,					,		<u> </u>		
8						_					-		· - · · ·
10				- ,		1					<u> </u>		
11						92	,						
12							28						

VESSE	<u> </u>			PRO	DECT & L	 EG	=			STATION	DESIGN	IATION	
NOAA	SMILLERF	REEMAN	29-7		97-04			V.				-1	
CONS CAST	LAT DEG	TITUDE MIN	LONGITUDE DEG MIN	DATE JC		TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB	(d SEA STATE VISIBILITY	ı. SPD. ರ	* TYPE * WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
041			179051	QW06A	P R 9 7	93146	2.3	1.00	13732	0127	8 2 3	745	31-1
C	TD A - Po	rt Side	TIMES	JD / TIME				DATA LOCAT	ON	RI	EMARKS	3	
TYPE	/ SN SBE	9+ 91660	DATA ON		III 02	Tape/Disk	cette ID	File I	Name/Heade	r	0/0	1543	
PRES	S SN 297	72	START DOWN	70		(0		CTE	DA_ 046	k	24816	25 3-(c	empty
ТЕМР	SN 1:88	9 2:701	AT DEPTH							7	Decyc	1 1) (I
CONE	SN 1:48	30 2:303	AT SURFACE				186	, , , , , , , , , , , , , , , , , , ,		_		PTH = 15	_ , , , , ,
			PAR	FLUOR	ChiA	М	TAPS6	TAPS4	22				
	*			SEA-BIRI) 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINE	TY P	'AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500				20	- 4					133		
2	1002						81	CCF					
3					TALL IN	-1-3	V 10				2-0		
5				E W	142				19			l l	
6				C 52 30		HI HILL		9.	× II				
7				, III	el la		- 20	1					
8					No.			14 11 33				=	
9							- B 4						
10	,	- (3)			27								15
11	600			¥ .	8_=1	3					24		
12	2			11.2						<u> </u>			

VESS	EL.			PR	OJECT & L	EG	10			STATION			
NOA	AS MILLER F	REEMAN		MF	97-04						31-2	2	234
CONS CAS #	DEG	FITUDE MIN 8.40 N	LONGITUDE DEG MIN	DAY N	10 YR		DRY BULB (°C)	WET 848 849 (°C) (n	nb) * * (de	N. SPD. 0	()	BOTTOM DEPTH (m)	STA. NAME/ID
0	CTD B - Sta	arboard	TIMES	JD / TIME			Ċ	ATA LOCA	TION	R	EMARKS		1611
TYPE	/ SN SBE	9+ 92067	DATA ON	0427		Tape/Disk	ette ID	File	Name/Heade	r	WIO	315	
PRES	SS SN 300	66	START DOWN	- V. 24			8	CTI	DB_ 047				
TEMF	PSN 884		AT DEPTH	12	100	306	N. EE		3 - 11				
СОИ	O SN 530		AT SURFACE			× ×				М	AX. DEI	PTH = 30	<u> </u>
			PAR	FLUOR	V ChiA	м	TAPS6	TAPS	1 4 2				
- 4				SEA-BIR	D 9/11+	CTD DA	TA		\$ F	SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH /	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry P.	AR =	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
. 1	300 V										04		
2	1001						ű		ä		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Ř	139
3	50 V	Δ.											
4	25 V									7	W		
5	15 V		W								╂		52
6	-1 <u>0</u> V										╣——		
8	2 1	-							2				18
9			10										
10	111	-	X									1 11	
11		79							3 8	H M			
12			=										>

VESS	 EL			PF	ROJECT & L	EG				STATION			
NOAA	S MILLER F	REEMAN		М	97-04						32	_ 1	7
CONS CAS	T LA	TITUDE M I N	LONGITUDE DEG MIN	DAY N	D= 96 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB &	* SEA STATE OF THE SEA	N. SPD. 7	* *	(m)	STA. NAME/ID
048		91-28N	17924.6	3.89	P R 9 7	0 3 0 0	2.3	0-110	2 2 8 3 0	5066	1-1:10	-, -, , ,	32-1
C	TD B - Sta	rboard	TIMES	JD / TIME				ATA LOCAT	ON	R	EMARKS		
TYPE	/SN SBE	9+ 92067	DATA ON	745.	_	Tape/Disk	ette ID	File N	ame/Heade	r (NO	316	
PRES	S SN 300	66	START DOWN					CTD	B_ 048				
TEMP	SN 884		AT DEPTH		or Hels	W =	2	1.5		24 25			
CONE	SN 530	6	AT SURFACE	810	2 V. (1	E + 3		1912	20 E	N	IAX. DE	PTH = 30	O m
6		1	V	√ FLUOR	1/ ChIAI	и П	TAPS6	TAPS4		V	Į š	3 3 1	
		E		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	2: SAM	Z. PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P.	AR III	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
ି 1	300√	. 8			* **		a a		~	183	27		
2	1001						E1		1008	B 8	8:		
3	50 V								1		<u> </u>	* **	
4	25 √		(4)		· · · · · · -		_						
5	101				E-E						 		
6	51		24			0		(3)		M	-		
7	01												11.
9			-		. 19			<u> </u>			1	· · · · · · · ·	
10											1		
11								-				22	
12			 	 		- 1 -				1	1	+	1

VESS				PF	ROJECT & LE	EG .		· · · · · · · · · · · · · · · · · · ·		STATIO	N DESIGN	NATION	
NOAA	SMILLERF	REEMAN		M	F97-04		Et		9 - 1		3	2-2	
CONS CAS	LAT	TUDE MIN	LONGITUDE DEG MIN	DAY	ID= 96 MO YR		DRY BULB (°C)	(°C) (TESSURE (d VISIBILITY A VISIBILITY A O O O O O O O O O O O O	N. SPD. (c) (kts)	* * *	(m)	STA. NAME/ID
	9 5 7 0 FTD A - Po		1 7 9 2 4 1. 2 TIMES	(1)	P R 9 7	0903	11.13		023826	· · · · · · · · · · · · · · · · · · ·		3748	32-2
				JD/TIME				DATA LOCA			REMARKS		
TYPE	/SN SBE	9+ 91660	DATA ON .	91	- 4	Tape/Disk	cette ID		Name/Heade		W/O	= 1540	
PRES	S SN 297	72	START DOWN				-33	СТ	DA_ 049	W			
TEMF	SN 1:88	9 2:701	AT DEPTH	090	2	1				_			
CON	O SN 1:48	0 2:303	AT SURFACE		67	- 8		1.1			MAX. DE	PTH = /5	0/ n
		9:	PAR	FLUOR	Chia	и П	TAPS6	TAPS	34				X
18/18/2		22 11 11		SEA-BIF	RD 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA		PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINE	ry p	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500/			¥							13		
2	IOCOL			5127								5 F.	
3	(500×	, 								ļ	_		
4		- · · · - · · · · · · · · · · · · · · ·		n A			83				-		
5	47									125			
6											_	-	
7													
8		<u></u>									_	-	
9		•[19								-		
10		<u> </u>										-	
11			15					i.e.		-		-	
12		L											

VESSEL		PROJECT & LEG		STATION	I DESIGNATION	. 1
CONSC CAST LATITUDE DEG MIN	LONGITUDE DATE	MF97-04 TIME DI (GMT) BU MO YR HR MIN (** A P R 9 7 2 2 5 4 5	LB BULB Œ ₩ N DIR	N. SPD. 0	BOTTOM BOTTOM DEPTH (m)	STA. NAME/ID
	TIMES JD/TIM	.07	DATA LOCATION		EMARKS	
TYPE / SN SBE 9+ 92067	DATA ON	Tape/Diskette	ID File Name/Heade	er (W/O 153	
PRESS SN 30066	START DOWN		CTDB_ 050		xtra water bott	e collection
TEMP SN 884	AT DEPTH		-7,	£	or egg incubation	u
COND SN 530	AT SURFACE			М	DEPTH = 15	4 m
	PAR FLUOR	ChIAM TAP	TAPS4	1 044515		
0	SEA-B	RD 9/11+ CTD DATA		SAMPLE BOTTLE DATA	SAMPLE BOTTLE	NUMBER
TRIP POS. DEPTH PRESSURE	PRI. TEMP SEC. TEMP	SALINITY PAR	FLUOR CHIAM	SALINITY	SAL. NUTRIENT	CHLOR
1 \$54 V	E 22 420			×	2.3	
2 1000	01 8 18					
3 50 4 25					100	
5 10	12 20 20	Cochi	SV T			
6 5	*	Cox		7/2	¥ E	1
7 0		9			33	
8 X addoce to	1,0	7	7		224	
9 1					Barrier Breat	
10 1				8		
12					1 22	

VESS	EL S MILLER I	REEMAN				ROJECT & LI =97-04	EG				STATION	I DESIGN	ATION 83 - 1	2
CONS CAS	SC I	TITUDE M I N		LONGITUDE EG MIN 740611	DATE J	D= 96 MO YR	TIME (GMT) HR MIN 2324	DRY BULB (°C)	WET BULB & (°C) (m	NIM VISBILITY VICTOR VICTOR	N. SPD. (2) (kts) *		OTTOM DEPTH 1	STA. NAME/ID
	TD A - Po			NES	JD / TIME				DATA LOCAT			EMARKS		
TYPE	/ SN SBE	9+ 91660	DA	TA ON			Tape/Dist	kette ID	File	Name/Heade	r	W10 F	52	
PRES	S SN 297	772	ST	ART DOWN			8		СТІ	DA_ 051				
TEMF	SN 1:88	39 2:701	ΑT	DEPTH					m m		<i>></i>		9 5	
CON	SN 1:4	80 2:303	ΑŢ	SURFACE	94		-X III	v'''	4.5		N	AX. DE	PTH = 15	m
			Ц	PAR	FLUOR	ChiA	м	TAPS6	TAPS	1				
16. 302		= "			SEA-BIF	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP	SEC. TEMP	SALINI	TY F	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	151											29		
2	X	for del	06	e e	V Ro							1		
3	X		\dashv											20
5			+		W-		23.			24				
6					1 . ž									
7									4					
8			4		= %	#						ļ		
9		6	-			E4							ļ	
10		1 1 1 1 1 1 1	-									-	<u> </u>	
12						i ka		- ST				-	-	

VESSEL		PROJECT & LEG		STATION DESIGNATION
NOAAS MILLER FREEMAN		MF97-04		34-1
TYPE / SN SBE 9+ 91660	DEG MIN DAY	E JD= 97 (GMT) BI MO YR HR MIN (1) A P R 9 7 00 2 2	DATA LOCATION	SPD. J Z DEPTH NAME/ID (kts) * * * (m)
TEMP SN 1:889 2:701	AT DEPTH			
COND SN 1:480 2:303	AT SURFACE	="		MAX. DEPTH = 377 m
	PAR FLUOR	ChIAM TAI	PS6 TAPS4	
	SEA-	BIRD 9/11+ CTD DATA	§	BOTTLE DATA SAMPLE BOTTLE NUMBER
POS. DEPTH PRESSURE	PRI. TEMP SEC. TEM	P SALINITY PAR	FLUOR CHIAM	SALINITY SAL. NUTRIENT CHLOR
1 377		5		
2 100				10
3				
4				
5				
7				
8				
9				
10				
11	1454			
12				

VESSE	ESSEL OAAS MILLER FREEMAN				PROJECT	R LEG		<u> </u>		STATION		_	
NOAAS	MILLER	REEMAN		····	MF97-04			<u> </u>		₽	1	4-2	12
CONSC CAST #		TITUDE	LONGITUD	E DA	ATE JD= 97	TIME (GMT)	DRY BULB	WET SSE BULB	SEA STATE VISIBILITY IQ S		TYPE WEATHER m	BOTTOM DEPTH 1	STA. NAME/ID
	DEG	MIN	DEG MIN	D/	Y MO Y	R HR MIN	(°C)	(°C) (ml	o) (deg			(m)	
05 3	573	4.72N	17407.	a wo	7 A P R 9	70105	3.0	0.00	13813	5056	81	534	34-2
СТ	D B - Sta	rboard	TIMES	JD/	, IME			DATA LOCAT	ON	RE	EMARKS		,
TYPE /	SN SBE	9+ 92067	DATA ON			Tape/Dis	kette ID	File N	lame/Heade	r	WIC	310	5
PRESS	SN 300	66	START DOWN	10		- X		CTD	B _053				
TEMP :	SN 884	1	AT DEPTH					o**					E
COND	SN 530	mA .	AT SURFACE			1 4		NE DIE		M	AX. DE	PTH= 30	Om
			PAR	X FLUO	я ДС	nIAM	TAPS6	TAPS4	10 23		W		
				SEA	-BIRD 9/1	+ CTD D/	ATA			SAMPLE BOTTLE DATA	15 SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH _/	PRESSURE	PRI. TEMP	SEC. TE	MP SAL	NITY	PAR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 2	300 Y					<u> </u>							
	00 /							- 8	- W				20
	50 √										15		
5	75 Y						-		-			N.	
6	5 1			5-				E .	<u>-</u>				
7	0							· ·					
8	χ			D .								-	
9	X		F 8			-					ļ		
10		••••							==				
11	10.	<u></u>											
12											<u> </u>		

VESSEL			PRO	OJECT & LE	:G	62			STATION		ATION	
NOAAS MILL	ER FREEMAN		MF	97-04			79		3			- 15
CONSC	,= N	EQ.	= =	*	*		<u> </u>	TATE	ID WIND ON SPD.	É		X.
CAST #	LATITUDE	LONGITUDE	DATE J	D= 97	TIME (GMT)	DRY BULB	WET G	SEA STATE VISIBILITY	ID WIND O	WEAT	DEPTH N	STA. IAME/ID
DEG	MIN	DEG MIN	DAY M	O YR	HR MIN	(°C)	(°C) (r	nb) (de			(m)	,
5457	133.73N	17409.0	6WOTA	P R 9 7	0214	2.0	0.00	3813	0077	811	110	3/5-
CTD A	- Port Side	TIMES	JD/TIME	16	*2		DATA LOCA	TION	Ŕ	EMARKS		. 9
TYPE / SN	SBE 9+ 91660	DATA ON		77 025	Tape/Disk	ette ID	File	Name/Head	er	WIC	1106	- 4
PRESS SN	29772	START DOWN			Helen		СТ	DA_ 054		hitb	aftom	W
TEMP SN	1:889 2:701	AT DEPTH		158		1				-7:	read	1160
COND SN	1:480 2:303	AT SURFACE		- Canada				5 5 5	(65%)	AX. DE		
							[27]					<u> </u>
		PAR	FLLIOR	ChIAN	и 📗	TAPS6	TAPS	4				
	200	PAR	FLLOR SEA-BIR				TAPS	4 NA	SAMPLE BOTTLE DATA	33 SAMI	PLE BOTTLE	NUMBER
TRIF		25			CTD DA		TAPS	ChIAM	BOTTLE	SAMI		
	TH PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI	PLE BOTTLE	
1 . \000 2 000	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	
1 \ \000 2 \ 000 3 \ \0	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI	PLE BOTTLE	
1 \ \000 2 \ 000 3 \ 0	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	
POS. DEPT 1 \ \000 2 \ \000 3 \ \0	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	
POS. DEPT 1 \ \000 2 \ 000 3 \ 0 4 5	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	
POS. DEPT 1 \ \000 2 \ 000 3 \ \0 4 \ 5 \ 6	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	
POS. DEPT 1 . \000 2 \000 3 \000 4 \ 5 \ 6 \ 7	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	
POS. DEPT 1 . \000 2 . 000 3 \0 4 . 5 6 . 7 8	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	
POS. DEPT 1 . \000 2 \000 3 \000 4 \ 5 \ 6 \ 7 \ 8 \ 9	PRESSURE	25	SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAMI SAL.	PLE BOTTLE	

VESSE		FDEELANI			OJECT & L	EG .				STATION	DESIGN		
NOAAS	S MILLER I	FREEMAN	· .	<u></u>	97-04								
CONSC CAST	· LA	TITUDE	LONGITUD			TIME (GMT)	DRY BULB	WET EULB	SEA STATE VISIBILITY	ı SPD. ರ	WEATH		STA. NAME/ID
055	DEG	MIN 3.87N	DEG MIN	DAY N		HR MIN	(°C) 3.7	(°C) (m	b) (dec		8 \	(m)	35-2
СТ	ΓD B - Sta	arboard	TIMES	JD / TIME	Ę4			DATA LOCAT	ION	R	EMARKS	, a.	
TYPE /	SN SBE	9+ 92067	DATA ON	024630	<u>, </u>	Tape/Disk	ette ID	File I	Name/Heade		WIO	325	
PRESS	S SN 300	966	START DOWN	Hop C				CTD	B_055				
TEMP	SN 884		AT DEPTH	13 1									
COND	SN 530	1 .	AT SURFACE						***	М	AX. DEF	тн= 30	O m
			PAR	FLUOR	ChiAi	M	TAPS6	TAPS4					
-		II.		SEA-BIR	D 9/11+	CTD DA	TA		91	SAMPLE BOTTLE DATA	17 SAME	LE BOTTLE I	NUMBER
$\overline{}$	TRIP DEPTH/	PRESSURE	PRI.TEMP	SEC. TEMP	SALINI	ry P	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	3001		; ; ;	56									
2	100		i h.							.		172	-
3 4	50°										17		
5	101			,			,			_	+		
6	5					-							
7	O		,							8			
8						,			,				
9	,					,					<u> </u>		
10					7								
11	·				*			-3 Ty.					
12	*				119						11		10.

VESSE				PR	OJECT & LI	<u> </u>		··- <u></u>		STATION	I DESIGN	NATION	
NOAAS	MILLER F	REEMAN		MF	97-04						36-		
CONSC CAST #	LAT	TITUDE MIN 2.05 N	LONGITUDE DEG MIN	DATE J	10 YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB &	0	N. SPD. (kts) *	* *	BOTTOM DEPTH (m)	STA. NAME/ID
	TD A - Po	•	TIMES	JD / TIME		170		ATA LOCAT			EMARKS	1 2 3 1	
TYPE.	/SN SBE	9+ 91660	DATA ON	034830		Tape/Disk			Name/Heade	200	wic		
PRESS	S SN 297	72	START DOWN	177-10-3					A_056	7			Δ -
TEMP	SN 1:88		AT DEPTH	5		100		[85] E 13					(
COND	SN 1:48	80 2:303	AT SURFACE			14 14 14					MAX. DE	PTH = 15 C	m m
			PAR	FLUOR	ChiA	м	TAPS6	TAPS4		× 1			·
	£1		21	SEA-BIR	D 9/11+	CTD DA	TA		9	SAMPLE BOTTLE DATA		PLE BOTTLE	NUMBER
POS.	TRIP DEPTH /	PRESSURE	PRI. TEMP	SEC. TEMP	SALINE	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500V								58		\$23	u u	
2	10001					Title Title					0	84	100
3	500										28		
5				10				, -	30	-	-		
6						51		110 110		<u> </u>	┨		
7				, v	8 8			3					
8					£+								2
9	TE .				N .			~					
10						**		10 To			1		Ti.
11										<u> </u>	-	5.	1350
12		L.,			180				474	= 12			

VESSEL			PRO.	JECT & LE	 EG				STATION	N DESIGN	NATION	
NOAAS MILLER	FREEMAN		MF9	7-04						<u> 36 -</u>	2	
DEG	TITUDE M I N	LONGITUDE DEG MIN	DATE JD=	YR	TIME (GMT) HR MIN	DRY BULB (°C)		(qui) * SEA STATE VISIBILITY NIM NIM NIM NIM NIM NIM NIM NI	N. SPD. (c) (kts) *	* *	BOTTOM DEPTH (m)	STA. NAME/ID
1	3 6 3 N	(1)	OWOZIAIP	R 9 7	0531	21-01	0 1	<u>obla8146</u>		B 7 1	91141	36-12
CTD B - Sta	arboard	TIMES	JD / TIME			U	ATA LOC			EWARKS		
TYPE / SN SBE	E 9+ 92067	DATA ON	051/45		Tape/Disk	ette ID	Fil	e Name/Heade	r	WO	321	
PRESS SN 300	066	START DOWN	2 d d d d d d d d d d d d d d d d d d d			1	<u> </u>	TDB_057				
TEMP SN 884		AT DEPTH					<u> </u>					
COND SN 530		AT SURFACE			<u> </u>				N	AX. DE	PTH = 30	m Oct
		PAR	FLUOR	ChIAN	И	TAPS6	TAP	S4				
			SEA-BIRD	9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
TRIP POS. DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	Y P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 300	,									100		
2 100 V					, (6							
3 50 V			,									
4 25 V			, .							14		
5 10				_								-
6 5										-		<u> </u>
8				-								
9												
10												
11					-							
12												

VESSEL					PROJECT & L	E G			STATION	DESIGN	NATION	
NOAAS	MILLER F	REEMAN		W 151	MF97-04	M	3 0	W .			7-1	
CONSC CAST #		TITUDE	LONGITUDE	E DATI	: <u> </u>	TIME (GMT)	DRY BULB		/IND WIND CORN. SPD. CO		BOTTOM DEPTH 1	STA. NAME/ID
	DEG	MIN	DEG MIN	DAY	MO YR	HR MIN	(°C)		deg) (kts) *	* *	(m)	
958	572	7.61 N	17425.9	4 WOZ	A P R 9 7	0707	1.7	0.400281	45048	823	3091	37-1
1	D B - Sta	arboard	TIMES ·	JD / TIN	ΛE		=0	PATA LOCATION	R	EMARKS	6	.0
TYPE / S	SN SBE	9+ 92067	DATA ON	0653		Tape/Disl	kette ID	File Name/Hea	der (U/O	318	
PRESS	SN 300	66	START DOWN			W		CTDB_058		1000		
TEMP S	N 884		AT DEPTH		H		= 16			2		
COND S	SN 530	-7	AT SURFACE						M	AX. DE	PTH = 30	⊘ s m
7/1 80			PAR	FLUOR	Chia	м	TAPS6	TAPS4		8		N.
	W E			SEA-B	IRD 9/11+	CTD DA	TA		SAMPLE BOTTLE DATA	16 SAM	PLE BOTTLE	NUMBER
	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY F	PAR	FLUOR ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 2	CON	ee n	H w W s	100	200							
	ODV	×	11			090				16		<u> </u>
3	50	31								ļ		
l I	25					_=	101			<u> </u>	ja	
5	10		 					174	-	<u> </u>		
7	5	<u> </u>							80			
8						 .	-					
9		2		⊙	-							
10		20										
11	111									<u> </u>	<u> </u>	19 1
12				1								

VESSEL	Al.	PROJECT & LEG		STA	TION DESIGNATION
NOAAS MILLER FREEMAN		MF97-04			37-2
CONSC CAST # LATITUDE DEG MIN	LONGITUDE DAT	TIME E JD= 97 (GMT) MO YR HR MIN	DRY WET SE BULB E	MIND WIND SPI	D. JES DEPTH NAME/ID
0595727.95N	17425.43W07	APR970813	1.4 0.40	0281501	48873087 37-2
CTD A - Port Side	TIMES JD/TII	ME	DATA LOCAT	ION	REMARKS
TYPE / SN SBE 9+ 91660	DATA ON	Tape/Dis		lame/Header	$\omega/0 = 1603$
PRESS SN 29772	START DOWN 073	<u> </u>	CTD	A_ 050	
TEMP SN 1:889 2:701	AT DEPTH 08	13			
COND SN 1:480 2:303	AT SURFACE				MAX. DEPTH = 1500 m
	PAR FLUOR	ChIAM	TAPS6 TAPS4		
	SEA-E	BIRD 9/11+ CTD DA	ATA	SAM BOT DA	TLE
TRIP POS. DEPTH PRESSURE	PRI. TEMP SEC. TEMI	SALINITY I	PAR FLUOR	ChIAM SALI	NITY SAL. NUTRIENT CHLOR
1 1560					
3 600					25
4					~
5	A.				
6 7			\$6 \$6		
8					
9	60				
10		- 1.00 M			ž.
11			V.		
12					

VESS		FREEMAN			ROJECT & LI	EG				STATION	DESIGN	iation 38	-1
CONS CAS #	DEG D	TITUDE MIN 6.80 N		DATE J	F97-04 D= 97 MO YR PR97	TIME (GMT) HR MIN 1053	DRY BULB (°C)	\$10.00E	93809	N. SPD. 0 g) (kts) *	* * * 8 2 3	OTTOM DEPTH N	STA. NAME/ID
i	TD B - Sta		TIMES	JD / TIME		Tono/Diele		DATA LOCAT			EMARKS J		3
I	S SN 300	2	DATA ON START DOWN	<u>97 / 10 42</u> Tape/Diskette ID File Name/Heade							Wo	= 327	TH.
	SN 884		AT DEPTH	105			0	- 015	5 _060				
8	SN 530		AT SURFACE			GT:		8	11/11	м	AX. DEF	PTH = 20	24 m
			PAR	FLUOR	enial	и	TAPS6	TAPS4	35 (4)	-	_9 11		
		W		SEA-BIR	D 9/11+	CTD DA	TA		15.	SAMPLE BOTTLE DATA	SAMF	LE BOTTLE I	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P/	4R	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300 /					W\$11 100°				# XX			W
3	100/						A 15	S T	8 8.		22		10
4	501	1/100			8 1 8	- I		755					
5	25/												
6	10 /												
7	54										55.0		
8	0 🗸		SP.							53			
9	10	-		13.	-80			10	54				
10	-	04	100										
12										==			

VESS	SEL			PR	OJECT & LI	G				STATION	DESIGN	IATION	
NOA	AS MILLER I	REEMAN		МЕ	97-04							38-2	
CON: CAS #	DEG	TITUDE MIN G.90N	LONGITUDI DEG MIN	DAY M	D= 97	TIME (GMT) HR MIN	DRY BULB (°C)	WET 8	mb) (de	N. SPD. C	* TYPE * WEATHE	BOTTOM DEPTH (m)	STA. NAME/ID
	CTD A - Po	ort Side	TIMES	JD / TIME		(2)	[OATA LOCA			EMARKS		
TYPE	E/SN SBE	9+ 91660	DATA ON	97/ 1120		Tape/Disk	ette ID	File	Name/Heade	r	wlo =	= 156	₹
PRES	SS SN 297	72	START DOWN	1121				СТ	DA_061		w/v		
ТЕМ	P SN 1:88	9 2:701	AT DEPTH	1157		<u> </u>		8 .	77		ud in the	se started	@ 20M
CON	D SN 1:4	80 2:303	AT SURFACE		641	= =	- 1				IAX. DEI		501 m
			PAR	FLUOR	Chia	и П	TAPS6	TAPS	4				
		1.		SEA-BIR	D 9/11+	CTD DA	TA	<i>y</i> =		SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINI	TY P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	15001	/	48						23402		ļ		
3	300v							-34		E	23	41	
4		1		86						1/	-		
5						_ =			3.	-	╫	1	
6								4					
7		EC						3.5 +0					
.8		:: E									<u> </u>		-
10				2	·						-		
11		V _I		7131					1	1	 		
12											╢		

VESSE		3.55			OJECT & LI	EG						STATIO	ON D	ESIG	NATION	
NOAA:	S MILLER	FREEMAN	W	MF	97-04			1						1 1	39-	<u>/</u>
CONSCAST	LA DEG	TITUDE MIN	LONGITUDE DEG MIN	DAY N	10 YR	TIME (GMT) HR MIN	DRY BULB (°C)	(°C) ((mb)	* SEA STATE * VISIBILITY	(deg	. SPD.	* *	*	BOTTOM DEPTH (m)	STA. NAME/ID
062	<u> 2 5 7 0</u>			14 W 0 7 A	P R 9 7	1443	1/1.5	<u> </u>		36	07	516	87		34911	39-1
	TD B - St		TIMES	JD / TIME				DATA LOCA						IARK!		
TYPE.	/ SN SBE	9+ 92067	DATA ON	97/1431		Tape/Disk	ette ID	File	e Nar	ne/H	eader		U) <u>/o</u>	= 332	_
PRESS	S SN 300)66	START DOWN	1431				<u>C1</u>	rdb __	_Φ	02	_		<u>/</u>		
TEMP	SN 884		AT DEPTH	144.	2			* :				,				
COND	SN 530		AT SURFACE										MAX	K. DE	PTH =	307 m
			PAR	FLUOR	Chia	v 📗	TAPS6	TAPS	S4							
			,	SEA-BIR	D 9/11+	CTD DA	TA			83		SAMPLI BOTTLI DATA	≣ ∦	SAM	PLE BOTTL	E NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P.	AR .	FLUOR		ChlA	М	SALINIT	Υ	SAL.	NUTRIEN	T CHLOR
1	175		1 6										Ĭ	03		
2						·							_			
3				8 -	25				+				-	•		
5	,	<u> </u>		ui a					+				╁		,	
6					<u></u>				+				╁			
7		····			,								┪			
8							· ·					,				
9		•														
10									\perp				_			
11					,								_			
12									Ì		l	- -	ļ		<u> </u>	1.

VES	SEL AS MILLER	EDEEMAN			ROJECT & LI	EG ,				STATION	DESIGN		7
CON CAS #	SC ST LA DEG	TITUDE MIN	LONGITUD DEG MIN	E DATE	MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET 84 BULB 4 (°C) (m		g) (kts) *	* TYPE	(m)	STA. NAME/ID
	CTD A - P	ort Side	TIMES	JD / TIME			5	DATA LOCAT	ION	R	EMARKS		
TYPE	E/SN SBI	E 9+ 91660	DATA ON	97/145	7	Tape/Diske	tte ID	File I	Name/Heade	r	wlo :	= 154	//
PRES	SS SN 29	772	START DOWN	145	8			CTE	A_φ63		I ;		
ТЕМІ	P SN 1:8	89 2:701	AT DEPTH	<u> 153.</u>	5								-
CON	D SN 1:4	80 2:303	AT SURFACE			,			_	М	AX. DEF	TH = /5	0 Z m
			PAR	FLUOR	ChiAN	Л	APS6	TAPS4	. =				
				SEA-BIF	RD 9/11+	CTD DAT	Α	034		SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y PAI	₹	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1200								,		18		
2	<u> </u>	·		-									
3							,				-		
-5			<u> </u>								-		
6													
7												-	
8		+											-
9	,												
10					-								
11													
12		,			,			·		,			

VESS	 SEL			PF	ROJECT & LI	EG		- 10	III	STATIO	N DESIGI	NATION	
NOA/	AS MILLER F	REEMAN		MF	97-04							40 -	l
CONS CAS	DEG LA	TITUDE MIN 7.48 N	LONGITUDE DEG MIN	DAY	D= 97 10 YR PR97	TIME (GMT) HR MIN	DRY BULB (°C)	571	WING GEASTATE (GEASTATE (A COLUMN A COL	N. SPD. (g) (kts) *		(m)	STA. NAME/ID
06	CTD B - Sta	1	TIMES	JD / TIME	r n s /	1 / / / 0	70	OATA LOCAT	33.75	111 22	REMARKS	10	70 1
1	E/SN SBE		DATA ON		_ 1	Tape/Disk			Name/Heade		***	321	
	SS SN 300	1	START DOWN	97/1908		, aporbion			B_Φ64		MO -	321	
	PSN 884		AT DEPTH	<u> 1903</u>			W	_ 015	<u> </u>	_			ı
110	D SN 530		AT SURFACE	1916	· <u> </u>				IAI.	-	AAV DE	DTU 2	- 7
CON	D 3N 330		PAR	PLUOR	Chia		TAPS6	TAPS4		I N	MAX. DE	PIN= 3	03 m
7.				SEA-BIR						SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P.	AR .	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	100/	19:24		3.0	E						26		
2	761				-1	111112	418	3	120		- 21		
3	501		- F	113	in in				_		-	 	
4	38			10.7	=	1			-				
5	251					Ę.		1			1		
7	23 /	=0	T T)	<u></u>		╂──		
8	10 /	19:31				10	-	/				-	
9	5/	- (· · · · · · · · · · · · · · · · · ·		v ====									
10	01	₹ W		1 1 7									
11		4 18			43	= c							
12						= 1							

VESSEL			PROJECT & L	EG		STATIO	N DESIGNATION ,	
NOAAS MILLER F	FREEMAN		MF97-04	50				-2
	TITUDE MIN	LONGITUDE DEG MIN	DATE JD= 97	TIME DR (GMT) BUI HR MIN (°C	B BULB 또 쌩똣 DI	IND WIND 7 RN. SPD. 7 eg) (kts) *	WOLLOB WEATHER (w)	STA. NAME/ID
065564	7.07N	17616.25	W O 7 A P R 9 7	2025 1	5 0.900370	55178	3 3 6 2 5	40-2
CTD A - Po	ort Side	TIMES	JD / TIME		DATA LOCATION	F	REMARKS	
TYPE / SN SBE	9+ 91660	DATA ON		Tape/Diskette	ID File Name/Head	ler	WO = 1537	
PRESS SN 297	72	START DOWN		2 6	CTDA_Φ65		110	
TEMP SN 1:88	9 2:701	AT DEPTH						
COND SN 1:48	30 2:303	AT SURFACE				N	MAX. DEPTH = /5	00 m
		PAR	FLUOR CHIA	M TAPS	TAPS4			34
			SEA-BIRD 9/11+	CTD DATA		SAMPLE BOTTLE DATA	SAMPLE BOTTLE	NUMBER
POS. DEPTH	PRESSURE	PRI.TEMP SE	C.TEMP SALINIT	ry par	FLUOR ChIAM	SALINITY	SAL. NUTRIENT	CHLOR
1 /500				1				
2 /000								
3 600							4	22
4 300		<u> </u>			2	+		1
5 0								-
7	-						6	-
8		10 10						
9					42			
10								
11								
12								

VESS		FREEMAN		1	PROJECT & L	EG				STATIO	V DESIGN	NATION	
CON: CAS	SC ST	TITUDE MIN	LONGITUDI	■ DATE	JD= 98 MO YR	TIME (GMT) HR MIN	DRY BULB		PESSURE SEA STATE VISIBILITY JUN NEIBILITY	I. SPD. a	* TYPE * WEATHER	BOTTOM DEPTH	STA. NAME/ID
06	. 1	6.97N		7 1 1 7 7 1	P R 9 7		(°C)	10.0	(mb)		1813	(m) 733	41-1
(CTD B - S1	arboard	TIMES	JD / TIME			D	ATA LOC	ATION	F	REMARKS		*
TYPE	/ SN SB	E 9+ 92067	DATA ON		11.	Tape/Disk	cette ID	File	e Name/Heade		31	7 W/O	
PRES	SS SN 300	066	START DOWN					C	ΓDB_ <i>φ</i> 666				
TEMF	SN 884		AT DEPTH						100				
CON	OSN 530	8	AT SURFACE					20 22			AX. DEF	PTH = 30	O m
			X PAR	FLUOR	X Chiai	и	TAPS6	TAP	S4	SE 5	7	X II, II	
	W 2W				RD 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	TY P.	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300								1000	541	#14		
2	100					-111 (0)			18 X		6		
3	50	! <u> </u>		00		=		7					
5	25 10	8			_								
6	5												
7	0									<u> </u>			
8	<u> </u>												
9													
10							* 1						
11		M					13						
12													

VESSEL NOAAS MILLER FREEMAN	PROJEC MF97-04	1	ST	ATION DESIGNATION 41-2
CONSC CAST # LATITUDE DEG MIN	LONGITUDE DATE JD= 9 DEG MIN DAY MO 177709.57w08aPR	TIME DRY (GMT) BULB YR HR MIN (°C) 7 0 1 3 4 2 8	(°C) (mb) (deg) (kg) 1.201380451	ND O HE BOTTOM STA. PD. 0 F M DEPTH NAME/ID Cts) * * * (m) 5 8 8 1 3 7 3 7 4 1 - 2
CTD A - Port Side	TIMES JD/TIME		DATA LOCATION	REMARKS
	DATA ON	Tape/Diskette ID		w/o 1536
=2 5	START DOWN		CTDA_ φ67	
- 65	AT DEPTH AT SURFACE			MAY DEDTU
1.480 2.303		TAPS6	TAPS4	MAX. DEPTH = /502 m
	<u> </u>	1+ CTD DATA	BOT	MPLE ITLE ITA SAMPLE BOTTLE NUMBER
POS. DEPTH PRESSURE	PRI. TEMP SEC. TEMP SA	INITY PAR	FLUOR CHIAM SALI	NITY SAL. NUTRIENT CHLOR
1 /500		S X		
² /000 3 600			8	20
4				20
5				
6				
7				
8				
9				
11				
12				

VESS		-		PF	OJECT & L	EG		<u>.</u>	· -	STATIO	N DESIGI	NATION ,	
NOA	AS MILLER	FREEMAN	W	МІ	97-04	, 			, <u>, ,</u>			42	2-1
CON: CAS	DEG LA	TITUDE MIN 7.09N	LONGITUDE DEG MIN	DAY N	D= 98 10 YR PR97	TIME (GMT) HR MIN / 3 4 9	DRY BULB (°C)	WET BULB &	A SEA STATE WINGERITY A SEA STATE O GE A SEA ST	(kts) *	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	CTD B - St		TIMES	JD/TIME	53			DATA LOCAT			REMARKS	No.	11/21/11
TYPE	SN SBE	E 9+ 92067	DATA ON	98/1340)	Tape/Disk	cette ID	File N	Name/Heade	er	ul o	= 180	
PRES	SS SN 300	066	START DOWN	1341		- 8		CTD	B_ \$68		10		
TEMF	SN 884		AT DEPTH	134	7							33	
CON	OSN 530		AT SURFACE	Ust i		lust M	el III			N	ИАХ. DE	PTH = /	60 m
ï	2 72		PAR	FLUOR	CHA	S	TAPS6	TAPS4					
	9		Z.	SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA		PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	_ PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1501			TEE			344		- aV_	1 = =0			
2	1001											_	
3 4	50/ 25/							36			10	-	
5	25 V										18		
6	10/	-				echi	247					1	
7	51		11			2 CX							
8	01	8			- 5	ne !					 		
9		19)				L			<u> </u>		2		
10		30	<u>×</u>								-		
12								-				 	
	···			<u></u>						<u>-l</u> .	II	!	

VESSEL NOAAS MILLER FREEMAN		PROJECT & LI MF97-04	EG		STATION DES	42-2
CONSC CAST # LATITUDE DEG MIN	DEG MIN	DATE JD= 98 DAY MO YR	TIME DRY (GMT) BULB	WET BULB BULB STATE WET BULB BULB WIND WET BULB WIND WISH WIND WIND	SPD. 리존	BOTTOM STA. DEPTH NAME/ID (m)
0695637.14N		08 A P R 9 7	14115 10.6		V = 10 = 10	167 42-2
112) / TIME	× -	DATA LOCATION	REMAR	
TYPE / SN SBE 9+ 91660	DATA ON 98	1408	Tape/Diskette ID	File Name/Header	W	0=163
PRESS SN 29772	START DOWN/	1409	5833	<u>CTDA_</u> φ69	'	
TEMP SN 1:889 2:701	AT DEPTH	1414				
COND SN 1:480 2:303	AT SURFACE			<u> </u>	MAX. [DEPTH = 159 m
	PAR FL	UOR CHIAN	M TAPS6	TAPS4		
	SE	A-BIRD 9/11+	CTD DATA		SAMPLE BOTTLE DATA SA	MPLE BOTTLE NUMBER
TRIP POS. DEPTH PRESSURE	PRI. TEMP SEC.	TEMP SALINIT	Y PAR	FLUOR CHIAM	SALINITY SA	L. NUTRIENT CHLOR
1 1251					6	
2 125			- E			P3
3			*			
4						
5		3				
7		- W				
8						
9						
10	2 1			10 10		
11			b =			
12						

VESS		EDEE AAA		I .	PROJECT & L	EG				STATION	DESIGN	IATION 12	-1
CONS CAS #	DEG DEG 3	TITUDE MIN 6.08N arboard 9+92067	TIMES DATA ON	DATE	MO YR PR97	TIME (GMT) HR MIN / 5 0 3			82801 ION Name/Header	I. SPD.	* * MEATHER 7 2 MARKS	(m)	STA. NAME/ID
	S SN 300	966	START DOWN	14.	51			_ CTD	В _ Ф70	_ 3	20 m	water samy	pledid
TEMP	SN 884	2	AT DEPTH		<u>) </u>	- 81	:5			<u>n</u>	ot log	as fired k	out was
CONE	SN 530		AT SURFACE						- 1	M	AX. DĔſ	PTH = 30) m
			PAR	FLUOR	Chia	м	TAPS6	TAPS4			3 2	,	
				SEA-BI	RD 9/11+	CTD DA	TA)32 E2	± N	SAMPLE BOTTLE DATA	SAMF	PLEBOTTLE	NUMBER.
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P/	AR _	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300	15:01							пп				1
2	1001	15108						र्वेड					
3	501				10.	100 400 -							
4	25 1	-				31 .				38	-		
5	194	- 13							N.				
6	<u> </u>		-										-
8	0 🗸							39					
9		<u> </u>										=	
10			t.	100				N.			N		
11			1 (2)										
12													1.5

VESS		8				PRO	JECT & L	EG	4		F				STATIO	ON D	ESIG	NATION		
NOA	AS MILLER I	FREEMAN				MF9	7-04											set of the	<u>43-2</u>	
CONS CAS #	т	TITUDE	LONG	ATUDE	DA	TE JD:		TIME (GMT)	DRY			SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA NAME	
	DEG	MIN	DEG	MIN	DA	Y M) YR	HR MIN	(°C)	(°C) (ml		*	(deg)	(kts)	* *	*	(m)		
07	1563	5.86 N	1725	5.8	3 w o	8 A P	R 9 7	1609	-11.	0 - 1	50	9 2	8	017	15	87	2	658	43	- 2
	CTD A - Po	- 1	TIMES		JD/T					DATA	LOCAT	ON				REN	IARK	3		
TYPE	SN SBE	9+ 91660	DATA ON		98/1	551		Tape/Dis	kette i	D .	File N	lam	e/He	eader		- 4	wlo	= 62	6	
PRES	SS SN 297	72	START DO	WN	/	51					CTD	A_	Φ.	71						
TEMF	P SN 1:88	9 2:701	AT DEPTH			,09	-			,					_				··	
CON	O SN 1:48	30 2:303	AT SURFAC	Œ	-		•				4					MAX	K. DE	PTH =	605	m
			PAR		FLUOF	3	ChiAi	м	TAPS		TAPS4									
	7. 2. 2. 2.			ì	SEA-	BIRD	9/11+	CTD DA	TA						SAMPL BOTTL DATA	Ε∥	SAM	PLE BOTT	LE NUMB	ER
POS.	TRIP DEPTH	PRESSURE	PRI. TI	EMP	SEC. TEM	1P	SALINIT	TY F	AR	FLU	OR	(ChIAI	м	SALINIT	Υ	SAL.	NUTRIE	VT CHL	.OR
1	605-							-					,			┸				
2	500					_										_ -				
3	3001		-												, , , , , , , , , , , , , , , , , , , 	-	27	91	_	
4							<u>. </u>		3%				•			╬			-	
5 6	:					\dashv										╬			+	
7						\dashv					-				· -	\dashv		1		
8															•••	1				
9																				3 3
10)					·								
11	·							·								4				
12													-			-				

VESS	SEL AS MILLER I		0		ROJECT & LI =97-04	EG				STATION	DESIGN	NATION 44	-1
CON CAS #	SC ST LA	TITUDE MIN 3.46N	LONGITUDE DEG MIN	E DATE J	D= 98 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C) ((MIN VISIBILITY A SEA STATE O O * (quint of the control of the co	N. SPD. 0	- 		STA. NAME/ID
	CTD B - Sta	arboard	TIMES	JD / TIME	, , ,			ATA LOCA	TION	RI	MARKS		
TYPE	E/SN SBE	9+ 92067	DATA ON	98/ 1700	>	 Tape/Disl	cette ID	File	Name/Heade	r	wlo	= 331	(4)
PRES	SS SN 300	66	START DOWN	170				СТ	DB_ 072				
ТЕМІ	PSN 884		AT DEPTH	1711		(H)			-17				jali:
CON	D SN 530	4	AT SURFACE			- 3 %				М	AX. DE	PTH = 3	00 m
-		s 8	PAR	FLUOR	Chia	и	TAPS6	TAPS	64				
	8 9			SEA-BIR	D 9/11+	CTD DA	TA	***	F1 - 2/4	SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300/	J=0	11 E V - 4 S					8W 8		Ŧ	40	9	
2	100/					**						<u> </u>	
3	50V		-					O.		<u> </u>		1	
5	25 / 10 /		-							<u> </u>		+	
6	5/						-		51				
7	01	·		n S				2:					
8	42		U 6			_					372		
9	<u> </u>					15					Ξ		83
10	(X)	100											
11			1				88				- 4		0
12												<u> </u>	<u> </u>

VESSEL				ROJECT & LI	EG				STATIC	ON DESIGI	NATION ,	14-2
NOAAS MILLER	FREEMAN		<u>IM</u> I	F97-04	≅~5v. ₃ . v			ш.	<u></u>	(amt)		4-2
CONSC CAST				0.0	TIME	DRY	WET SEE	SEA STATE VISIBILITY IQ &	D WIND	악기지	воттом	STA.
# LA	MIN	LONGITUDI DEG MIN		ID= 98 MO YR	(GMT) HR MIN	BULB (°C)	 	DIRN (deg		<u>□</u> + +	(m)	NAME/ID
073563	3.36N	17300.2	25W08A	P R 9 7	1814	0.0	-0.51	04834	7 18	872	020	44-2
CTD A - P	ort Side	TIMES	JD / TIME		ŕ	,	DATA LOCAT	FION	Ì	REMARKS	\$	
TYPE / SN SB	E 9+ 91660	DATA ON	98/1747		Tape/Disk	ette ID	File	Name/Heade	r	WO	= /03	35
PRESS SN 29	772	START DOWN	1748	<u>. </u>	,		CTE	$DA_{-}\phi73$		Dinger	indicak	& ~ 10+ i
TEMP SN 1:8	89 2:701	AT DEPTH	1814	<u> </u>				5 2	27	above b	1.1	,
COND SN 1:4	80 2:303	AT SURFACE			• [MAX. DE	PTH = /() <i>(</i> 0 m
44		PAR	FLUOR	ChlAl	и 📗	TAPS6	TAPS4	ļ	Ç.		387	4
			- 						SAMPLE BOTTLE			
<u> </u>			SEA-BIR	D 9/11+	CTD DA	TA	4		DATA	- 11	PLE BOTTLE	NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	A R	FLUOR	ChIAM	SALINIT	Y SAL.	NUTRIENT	CHLOR
1 /0/0	,			,						19		
2 600			ļ	_		, .					-	
3												-
4						50						
6											·	68
7		<u> </u>										.,
8									-			
9												
10												
11										_		
12					4			1				,

VESSEL				PI	ROJECT & L	EG						STATI	ON DE	SIGN	NATION,	
NOAAS	MILLER FI	REEMAN	,	М	F97-04	,				101					2/5	-1
	DEG N	ITUDE M ! N	LONGITUD	DAY	ID= 98 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	3 PRESSURE		WIND DIRN. (deg)	WIND SPD. (kts)	* *	* WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
70	<u> </u>	0185N	/ 7 3 5 . 4 TIMES	43 WOSA	P R 9 7	1931	11-6	0.8	10		358	15	87	2 2	462	145-11
				JD / TIME	* •			DATA LO					REMA	1 64		% ==
TYPE / S	SN SBE	9+ 92067	DATA ON	98/192	0	Tape/Disk	ette ID			me/He			V	10=	328	
PRESS S	SN 3006	6	START DOWN	192	0			<u>C</u>	TDE	$-\phi$	74	-		`		ā
TEMP SI	N 884		AT DEPTH			e II 3				8.1						
COND S	SN 530		AT SURFACE	8 8 8		W 48 ³³					55		MAX.	DEF	PTH =	302 m
			N PAR	FLUOR	ChiAi	м	TAPS6	TAI	PS4			** **			o l	
	330	10		SEA-BIF	D 9/11+	CTD DA	TA		8	27		SAMPL BOTTL DATA	E	SAME	PLE BOTTL	E NUMBER
	TRIP)	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR		ChlA	и :	SALINIT	γ [5	SAL.	NUTRIEN	T CHLOR
1 /	00 1				7,88		5	111 W						23		
	50 V	<u>5</u> II				"			\perp	+++			_		<u> </u>	
	25 V	^							100%				4		_	
	25						D						9			
	12 V				181			- 1								
6	70							(·	+				- -		-	
	7.5 V		II:	183				0					$-\parallel$		 	
9	4	<u> </u>		.III		93	**		+				$-\parallel$			
	7			10					+		-+		\dashv		 	
11	<u>~ </u>								+		-				-	
12	_			S	-				+				╬	90.	+	
·-						1				-					<u> </u>	l

VESS				,			PROJE		EG					,	STATIO	N DESIG	NATION	2
NOA	AS MILLER	FREEMAN					MF97-0	04				r		•			4	5-2
CON: CAS	Τ	TITUDE	:	LONGITUDE		DATE	JD=		TIME (GMT)	DRY	WET	PRESSURE	SEA STATE VISIBILITY	WIND DIRN.		NPE MEATHER	BOTTOM DEPTH	STA. NAME/ID
<u> </u>	DEG	MIN	DE		<u> </u>	DAY			HR MIN	(°C)	(°C)	(mb)		(deg)	(kts) *		(m) :	
Ø 7		0.66 N		1305 5	7 w		APF			1.4	1-0-5	10		35		72	2531	45-2
(CTD A - Po	ort Side	TIM	ES	JE) TIM	E				DATA LO	CATIC	N		F	REMARKS	S	•
TYPE	SN SBE	E 9+ 91660	DAT	ΓA ON					Tape/Disk	ette ID) Fi	le Na	ıme/H	eader		WO	1540	
PRES	SS SN 297	72	STA	RT DOWN				,	٠.	,	C	TDA	_φ ₇	75				
ТЕМ	SN 1:88	39 2:701	AT [DEPTH									1	.,[1]				
CON	D SN 1:4	80 2:303	AT S	SURFACE							<u> </u>	,			8	ИАХ. DE	PTH = 15	Ø2 m
				PAR	R	.UOR		ChiAi	и	TAPS6	TAI	PS4		1				
6. 5. 5. 7.	7		,		SE	EA-BI	IRD 9	/11+	CTD DA	TA		3		,	SAMPLE BOTTLE DATA	SAM	PLE BOTTL	E NUMBER
POS.	TRIP DEPTH/	PRESSURE	İ	PRI. TEMP	SEC.	TEMP	9	SALINIT	ry P.	AR	FLUOR		ChlA	м	SALINITY	SAL.	NUTRIEN	T CHLOR
1	1500 V																	
2	1000 V																	
3	6000 V		-													Ø5		
4	300 V				•											<u> </u>		
5				19														
6									111							<u> </u>		
7			_		_			-				_				1-	<u> </u>	<u> </u>
8																-		_
9			+									\perp	<u> </u>			-		
10										-	4							-
11												+						
12					<u> </u>													

VESS	 SEL		<u> </u>	PF	ROJECT & L	EG					STAT	ΓΙΟΝ	DESIGN		. 3
NOA	AS MILLER I	FREEMAN	7	MF	97-04					0				46-1	5.
CON: CAS	T		LOVOTINO	77	n og	TIME	DRY	WET	PRESSURE	111 11 11	WIND WINI DIRN. SPD dea) (kts	LOUD (amt)	YPE	воттом	STA.
#		TITUDE	LONGITUDE	' 		(GMT)	BULB				DIRN. SPD) ()) ()		DEPTH	NAME/ID
07	DEG 2	MIN 1.73 N	DEG MIN		PB97	2234	(°C)	(°C)	(mb) ,		deg) (kts	/		(m) 783	46-1
	CTD B - Sta	11 = 1	TIMES	JD / TIME				DATA LOC	ATION	 <u> C O </u>	7 1=0	9	MARKS		1-1101
TYPE	SN SBE	9+ 92067	DATA ON	2218	E (6)	Tape/Disk	kette ID	File	e Nam	ne/Hea	ıder	4	1/0	= 314	(look I
PRES	SS SN 300	966	START DOWN	2221			× F	<u>C</u>	TDB_	07	6_		1 =		·
TEMP	PSN 884		AT DEPTH	新 新	22	0.00				5	13			_	
CONI	OSN 530	1	AT SURFACE			ii	Q I			Tin iji	al n	M	AX. DE	PTH = 3	DO m
		VII	PAR	FLUOR	ChIAI	M	TAPS6	TAP	S4	Day.		10			
	HE STATE OF THE ST			SEA-BIR	D 9/11+	CTD DA	TA		Ň		SAMP BOTT DAT	LE	SAMI	PLE BOTTL	E NUMBER
POS.	TRIP DEPTH /	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR		ChIAM	SALIN	IΤΥ	SAL.	NUTRIEN	T CHLOR
1	3001		- 4		11/1		18	9	= 22%	V	- E		H 8 E	1	
2	1001			283.110	1/2	18		2 7							
3	50 V							70.	1.6	•					97
4	25 1				¥.								28	*	I
5	6			11.	2-										
6	5 Y							111				140			
7	01	E35			8 **										
8							90		10,						
9				<u> </u>					_					_	8 3
10							2/-							ļ. <u>.</u>	
11		 							-						
12		7	: (*)					1					<u> </u>		

VESSEL		PROJE	ECT & LEG			STATION	DESIGNATION	
NOAAS MILLER FREE	MAN	MF97	-04			<u> </u>	46-2	
CONSC CAST # LATITUE DEG MIN	1	N DAY MO	1	DRY WET BULB (°C) (°C)	(mb) + + (deg)	WIND DONG (kts) *	## BOTTOM DEPTH * * (m) 7.2. 3 \ 5. 4	STA. NAME/ID
CTD A - Port Sid	de TIMES	JD / TIME		DATA LO	CATION	RE	EMARKS	50
TYPE / SN SBE 9+ 9	91660 DATA ON		Tape/Disl	cette ID F	le Name/Header	ω	VO 1568	
PRESS SN 29772	START DOWN	*	-	<u>c</u>	TDA_ 077_			
TEMP SN 1:889 2	:701 AT DEPTH	2334			Su. 1	_	c er	~
COND SN 1:480 2	2:303 AT SURFACE					, м	AX. DEPTH = \	00 m
7	PAR	FLUOR	ChIAM	TAPS6 TAI	PS4		28	
	7/ 2/	SEA-BIRD	9/11+ CTD DA	TA		SAMPLE BOTTLE DATA	SAMPLE BOTTI	E NUMBER
POS. DEPTH, PR	ESSURE PRI.TEMP	SEC. TEMP	SALINITY F	AR FLUOR	ChIAM	SALINITY	SAL. NUTRIE	IT CHLOR
1 1500							11	
2 1000								
3 600					<u> </u>			1
4				9	-			
6		+ +						
7								
8								
9			-				(0)	
10								
11				(8)				
12								

VESSEL			ÎPR	OJECT & LI	 EG		-				STATI	ON DE	SIGN	IATION	
NOAAS MILLER	FREEMAN			97-04									47	7-1	
DEG	ATITUDE MIN	LONGITUDE DEG MIN	DAY N	IO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C)	m PRESSURE		WIND	SPD. (kts)	* *	*	BOTTOM DEPTH (m)	STA. NAME/ID
CTD B - St	1 . 45 N	173146.3 TIMES	WOQA JD/TIME	P R 9 7	0138	0.4	OATA LOC	1 /		3 5 ¢	25	REM/		<u> 33 3 </u>	47-1
			OD/THVIC												
TYPE / SN SBI	E 9+ 92067	DATA ON	0122	_	Tape/Disk	ette ID			me/H					315	1 /
PRESS SN 300	066	START DOWN					_ <u>c</u>	TDB	-0	78	11	bst	fles	10/5	broken
TEMP SN 884	i	AT DEPTH			1 8		43 III I			22.00	_				2
COND SN 530	100 100	AT SURFACE					11			IIW	5	мах	. DEF	PTH = 3	00 m
7 1		PAR	FLUOR	X ChiAi	v S	TAPS6	TAP	' \$4		E.					
			SEA-BIR	D 9/11+	CTD DA	TA	30		٥ <u>ـــ</u>	<u>II</u>	SAMPL BOTTL DATA	Ε∥	SAMF		E NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC, TEMP	SALINIT	ry P.	AR .	FLUOR		ChIA	м	SALINIT	Y	SAL.	NUTRIEN	T CHLOR
1 300			-100	TI =	<u>i</u>				8		ŝi		ē	<u> </u>	
2 100 1		7.4	×	30	W _{II}	v. 5						_ _			
3 50 V												W.			
4 25 1		27%						\bot				(DI		
5 10 V		1						_ _				_ _			ļ
6 51		.".			_	-		_				_		<u> </u>	1
7 0								4				_ _			<u> </u>
8		0,73					2	 -				_		<u> </u>	
9								_						ļ	-
10												_ -			
11								+							0,6
12															

VESS	EL					PROJECT & L	.EG				STATION	DESIGN	ATION	
NOA	AS MILLER	FREEMAN				MF97-04	_					47-	2	
CON CAS	DEG LA	TITUDE MIN	DEG	3350	DAY W Oq	A P R 9 7	TIME (GMT) HR MIN		(°C)		N. SPD. 0 g) (kts) * 5 2 9 6	* * WEATH	(m)	STA. NAME/ID
	CTD A - Po		TIMES	5	JD / TI	ME		*	DATA LOC			EMARKS	. /	\$0.
TYPE	E/SN SBE	E 9+ 91660	DATA	ON	, the second		Tape/Dis	kette ID	File	e Name/Heade	r <u>l</u>	NO	1609	
PRES	SS SN 297	72	STAR	T DOWN	* .	412			<u>,C</u> -	TDA_079			1	•
TEM	SN 1:88	39 2:701	AT DE	EPTH		<u>, , , , , , , , , , , , , , , , , , , </u>	,		:					
СОИ	D SN 1:4	80 2:303	AT SU	IRFACE				-	-		M	AX. DEF	TH = \5 Q	m m
				PAR	FLUOR	ChiA	м	TAPS6	TAP	S4				
				4	SEA-E	3IRD 9/11+	CTD DA	TA_			SAMPLE BOTTLE DATA	SAMP	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	. F	PRI. TEMP	SEC. TEM	P SALINI	TY F	PAR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500V											21		
2	600				Š									
3	101			,										i I
4	5													
5													,	
6											,			
7			_											^
8														
9														
10			_										. ,	
11												-		
12												,	1	_

VESSEL			PROJECT & LI	EG		0	STATION			_
NOAAS MILL	ER FREEMAN		MF97-04					48	/- L	=
CONSC CAST #	LATITUDE M I N	LONGITUDE DEG MIN	DATE JD= 99	TIME (GMT)	DRY BULB (°C)	WET BULB ATAILS OF CO. (mb) * (ded)	. SPD. ರ	· TYPE · WEATHER	OTTOM DEPTH I	STA. NAME/ID
08055		😉 🗏	OQAPR97	05 30	7.1	0.0 1268 90		623		48-1
CTD B -	- Starboard	TIMES J	D/TIME	(20)	D	ATA LOCATION	F1.33	EMARKS	E ##	- 51
TYPE / SN :	SBE 9+ 92067	DATA ON)515	Tape/Disket	te ID	File Name/Header	<u>\</u>	0/0 3	318	
PRESS SN	30066	START DOWN		0		CTDB_ 080				
TEMPSN 8	884	AT DEPTH		00 80			_			
COND SN 5	530	AT SURFACE					M	AX. DEP	TH =	m
	1	X PAR X FI	UOR K CHIAI	M LTA	APS6	TAPS4				
		S	EA-BIRD 9/11+	CTD DATA	4	= - 2	SAMPLE BOTTLE DATA	SAMPL	E BOTTLE	NUMBER
TRIP POS. DEPTI		PRI. TEMP SEC.	TEMP SALINIT	TY PAR	٠	FLUOR ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 300	7	× × × × × × × × × × × × × × × × × × ×				8		71		
2 \ \OC 3 \ 50						E2 1 30 10		<u>'</u>		
4 25	-/		- 41	D						
5 10	1/	Ξ				- 12 H	6	?		
6 5	1							8		
7 0	1						-0	8 8		
8	Žį.			AT .	32					
10			-2			~			<u> </u>	
11				1.5						-
12	2	G								

			г -				·								*:	
VESSE		<u> </u>				PROJECT & L	EG	1					STATION			
NOAAS	MILLER I	REEMAN				MF97-04		<u> </u>			· · · · · · · · · · · · · · · · · · ·	,	 		8-2	
CONSC CAST #	LA	TITUDE		<u>ONGITUDI</u>		E JD= 99	TIME (GMT)	DRY BULB	WET BULB	*1	SEA STATE VISIBILITY	WINE	. SPD. 근	* TYPE * WEATHER	BOTTOM DEPTH	STA. NAME/ID
081	DEG	MIN 3N	DEG 17			MO YR APR97		(°C)	(°C)	(mb)		(deg		673		48-2
	ΓD A - Po	ort Side	TIMES		JD / TI		·		DATA LOC	CATIO				EMARKS		
TYPE /	SN SBE	9+ 91660	DATA	ON	054	30	Tape/Dist	kette ID	Fi	le Na	me/He	eader	4 .	WIC	156	3
PRESS	SN 297	72	START	DOWN					_ <u>c</u>	TDA	_ 08	2	_			Z.
TEMP :	SN 1:88	9 2:701	AT DE	PTH		·			<u> </u>							
COND	SN 1:48	30 2:303		RFACE	·								M	IAX. DEF	PTH = 15	03 m
(4) (5)			F	PAR .	FLUOR	ChlA	м	TAPS6	TAF	PS4						
1					SEA-E	— BIRD 9/11+	CTD DA	TA					SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH_/	PRESSURE	: P	RI. TEMP	SEC. TEM	P SALINI	ΓY P	'AR	FLUOR		Chl A i	м	SALINITY	SAL.	NUTRIENT	CHLOR
1 1	500							4,	-							
2 {	000 /					13									4	
3	boo^{\dagger}													15		
4			_													ļ
5			-							_						
6				-	<u> </u>	115				\perp				╂		
7			 -							- -				1		
9		<u> </u>	+							+						
10		34	-							\dashv				╂──		
11			+-		1					+		$\overline{}$		1		-
12		-	1													
					·	· · · · · · · · · · · · · · · · · · ·									•	

VESS	EL.			PR	OJECT & L	EG		ET		STATION	DESIGN	NATION	10 1
NOAA	SMILLER	FREEMAN	6.		97-04							A	49-1
CONS CAS	T LA	TITUDE MIN	LONGITUDE DEG MIN	0.0	D= 99 10 YR PR97	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB 6 (°C) (1	mb) (deg	N. SPD. O	* *	BOTTOM DEPTH (m)	STA. NAME/ID
<u> </u>	TD B - St		TIMES	JD / TIME	5 5	, ,		DATA LOCA	31.7	111 * 2011	EMARKS		1.1.7
	/SN SBE		DATA ON START DOWN	99/1002		Tape/Disk	kette ID		Name/Heade DB_	r 	ωļ	0 = 317	
10	SN 884 SN 530		AT DEPTH AT SURFACE PAR	1012 VIFLUOR			TAPS6	TAPS		м	AX. DEI	PTH =	301 m
× 71	H.			SEA-BIR	— (*****	ं				SAMPLE BOTTLE DATA	SAMI	PLE BOTTLI	E NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	TY P	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIEN	T CHLOR
1	300										16	1.	
2		23	**						-	8	l	-	
3	2 N							32				 	
5	23											†	
6			×								 	8	
7		2 8	5					_ 2				1	
8		V.		0									
9									î				
10								27					
11									0.0		W.	ļ	
12						13	Đ.		<u>L</u>	!			<u> </u>

VESS			,,		OJECT & LI	EG	.			STATION	DESIGN	IATION /	9-2
NOAA	AS MILLER F	REEMAN		MF	97-04			-				7	1-2
CONS CAS	T LA	TITUDE MIN 3-98 N	LONGITUDE DEG MIN 17436.9	DAY N	D= 99 10 YR PR97	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C) (m		N. SPD. こ (kts) *	* *	SOTTOM DEPTH (m)	STA. NAME/ID
	CTD A - Po	ort Side	TIMES	JD / TIME			C	ATA LOCAT	ION	RE	EMARKS		
TYPE	SN SBE	9+ 91660	DATA ON	99/103	3	Tape/Disl	cette ID	File N	lame/Heade	r ^{SSS}	ωο	= 1550	
PRES	SS SN 297	72	START DOWN		- 1			CTD	A_ \$3	_			:
TEMP	SN 1:88	9 2:701	AT DEPTH	1109	_								
CONE	O SN 1:48	30 2:303	AT SURFACE			1				M.	AX. DEF	PTH = /	500 m
			PAR	FLUOR	ChiAi	и [TAPS6	TAPS4			ı.	. <u>-</u>	. 12
] }			SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIEN	CHLOR
1	1500					S.					04		
2						+1							
3			-		.	-		-				99	1
5								7					
6		5	191	-		25					ļ		
7												<u> </u>	
9		20	~							<u> </u>			
10		75											8
11				100									
12	*1.						700		<u> </u>			<u> </u>	

VESSEL				OJECT & LE	EG			-	STATIO	N DESIGN	ATION 50	_
NOAAS MILLER	FREEMAN		<u> MF</u>	97-04		<u> </u>			1	g	30	
DEG	ATITUDE MIN	LONGITUDE DEG MIN	DAY N	IO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB &	200	I. SPD. (kts) *	* *	(m)	STA. NAME/ID
0184151510	6.59 N		4 WO 9 A	P R 9 7	1521	2.0	0.311	i, i	0121418	<u> </u>		90-11
CTD B - St	arboard	TIMES	JD / TIME				ATA LOCATI			REMARKS		
TYPE / SN SBI	E 9+ 92067	DATA ON	99/15/0	<u> </u>	Tape/Disl	cette ID		ame/Heade	r	wo	= 3/3	<u></u>
PRESS SN 300	066	START DOWN	151		·		CTD	B_ \$84_	1	MOA La	hhode is	meant
TEMP SN 884		AT DEPTH	152	<u> 21</u>		<u>-</u>				,		
COND SN 530		AT SURFACE								MAX. DEF	TH = 30) m
		PAR	XFLUOR	X ChIAN	и	TAPS6	TAPS4					
	7/1		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	1	LE BOTTLE	NUMBER
TRIP POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 75/	15:28									20		
2		-		<u> </u>						_		
3												
4								<u>_</u>		_	-	
5		-				·		· · · · · · · · · · · · · · · · · · ·	_			
7		+			- -		-					
8			. 14				13)	-		1		
9												
10												
11											<u> </u>	
12											l	

VESS					OJECT & LI	EG	4			STATION	DESIGN		, ,
CON CAS #	LA DEG	TITUDE MIN	LONGITUDE DEG MIN 17518.4	DATE J	10 YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C) (r	nb) (deg	SPD. C (kts) * 2 4 8	* * 7 2 3	OTTOM DEPTH (m)	STA. NAME/ID
TYPE	E/SN SBE	E 9+ 91660	DATA ON	99/153	6	Tape/Disk	cette ID	File	Name/Header		w/c	= 15	65
PRES	SS SN 297	72	START DOWN	/530				CT	DA_ Ø85	-	11	,	
ТЕМ	P SN 1:88	39 2:701	AT DEPTH	161	3					_			
СОИ	D SN 1:48	80 2:303	AT SURFACE							N	AX. DEF	PTH = /3	501 m
			PAR	FLUOR	ChiAi	и	TAPS6	TAPS	4		· .		
	TRIP			SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS.	I B		PRI. TEMP	SEC. TEMP	SALINIT	ry P	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1095	16:25						<u> </u>			08		
2		-			-				1		<u>-</u>		
3					· · · · · ·								
<u>4</u> 5			•				_		,			 	
6		,								.08			
7	X												
_8													
9		1								,	 		
10	,											<u> </u>	
11											 	 	
12											Ш	<u> </u>	

VESSEL NOAAS MILLER FREEMAN	i I	PROJECT & LEG MF97-04		STATION DESIGNATION 51-1
CONSC CAST # LATITUDE DEG MIN	LONGITUDE DATE DEG MIN DAY	TIME DR JD= /OO (GMT) BUI MO YR HR MIN (°C) A PR 9 7 O (5 6 3	,	WIND SPD. O A MEDITOM STA. SPD. O A MEDITOM NAME/ID (kts) * * * (m)
CTD B - Starboard	TIMES JD / TIME		DATA LOCATION	REMARKS
	DATA ON	Tape/Diskette	ID File Name/Header CTDB_	W/O 314
241	START DOWN		CIDB_000	-
	AT DEPTH AT SURFACE			MAX. DEPTH = 300 m
10/109	RAR X FLUOR	CHIAM TAPS	6 TAPS4	INFACTOR INTO SECTION IN
		RD 9/11+ CTD DATA		SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER
POS. DEPTH/ PRESSURE	PRI. TEMP SEC. TEMP	SALINITY PAR	FLUOR CHIAM	SALINITY SAL. NUTRIENT CHLOR
1 300				
3 50				
4 15				23
5 10				
6 3 1		Geton),2
7 0		6	1	
8			lw.	
10				
11				
12				

VESS					OJECT & L	EG (-		STATION	DESIGN	ATION 5	1-2
CON	AS MILLER F	-REEWAN		INF	97-04	۲ ₃ :	.	<u>"</u>	SEA STATE VISIBILITY AUI A	CLOUD (amt)	臣		
CAS	ST	TITUDE	LONGITUDE	E DATE J	D= {00	TIME (GMT)	DRY BULB	WET SEE	NIM MINI	WIND O	WEATH	OTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG MIN	DAY N	10 YR	HR MIN	(°C)	(°C) (mb) (deg	/ (10)	- - -		
	7 5 4 1 CTD A - Po	7.87 N	11223614 TIMES	JD/TIME	P R 9 7	0251		DATA LOCATION	1417041		7 7 3 MARKS	500	51-2
		-=-	DATA ON	OD / THALE		Tape/Disl			ame/Header		DECEMBER OF	542	. 3
PRES	SS SN 297	72	START DOWN		<u>a.</u>		,	CTD	4_087	_			
1 13	P SN 1:88		AT DEPTH	<u> </u>	_ .		2V	<u> </u>		_	AV DEE	TU - See	
CONI	D SN 1:48	80 2:303	AT SURFACE PAR	FLUOR	ChIA	<u> </u> м П	TAPS6	TAPS4		IVI	AX. DEF	PTH = 150	<u>3 m</u>
: : : : : : : : : : : : : : : : : : :	7			SEA-BIR	 D	CTD DA	ΤΔ			SAMPLE BOTTLE DATA	SAME	PLE BOTTLE	NUMBER
POS.	TRIP	DOCOCI DE	PRI. TEMP	SEC. TEMP			AR	FLUOR		SALINITY		NUTRIENT	
1	DEPTH /	PRESSURE	: PN. IEMP	SEC. TEIVIP	SALINI	i i	An	FLOOR	CHIAN	SALINITI	OAL.	140 THE TOTAL	GILOIT
	10001	,						-			17		
3 4	500	,											
5									-				,
6 7													
8													
9 10	,										\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.		
11			,										
12	<u>_</u>												

VESSEL	-		PF	ROJECT & LI	EG				STATION	_	the second secon	
NOAAS MILLER I	FREEMAN		М	F97-04	<u></u>			···			2-1	
DEG	TITUDE M!N	LONGITUDE DEG MIN	DAY	ID= 100 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB & (°C) (mb		N. SPD. (C	* *	(m)	STA. NAME/ID
CTD B - Sta	9 . IIN arboard	1171159.11 TIMES	9 W 10 A JD / TIME	P R 9 7	0653	4 .B 	3 8 08	3 3 8 0 9 on	2 1 2 8 R	EMARKS		<u> </u>
TYPE / SN SBE		DATA ON	1/2-7		 Tape/Disi			ame/Heade	r .	VA	217	
PRESS SN 300		START DOWN	_(D) 	(6)	Γαροίδιοι			B_@\$\$. <u>u</u>	<u> </u>	21+	
TEMP SN 884		AT DEPTH					^	i i	_	· · ·		
COND SN 530		AT SURFACE							N	AX. DEF	TH = 30) m
		PAR	FLUOR	ChiA	м	TAPS6	TAPS4					
			SEA-BIF	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	PLEBOTTLE	NUMBER
TRIP POS. DEPTH	PRESSURE	: PRI.TEMP	SEC. TEMP	SALINI	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 300	- ''				5- -					18		
2 100		Ť	1	<u> </u>	ì					-		
3 50 1		;		7				-, -		 	595	
4 25				-	-					<u> </u>	, <u> </u>	
5 V 6 5 V	/								<u> </u>	1		
7 0								#G				
8	,	.00										· · ·
9												
10										<u> </u>		
11												<u> </u>
12			<u> </u>							ļ	<u> </u>	

VESS	SEL					PROJE	CT&L	EG			•			STATIO				
NOA	AS MILLER	FREEMAN				MF97	04										-2	
CON CAS	ST	TITUDE		LONGITUDE		DATE JD=	100	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE VISIBILITY	WIND		CLOUD (amt)	WEATHER	ОТТОМ ОЕРТН	STA. NAME/ID
	DEG	MIN	DE	G MIN		DAY MO	YR	HR MIN	(°C)	(°C)	(mb		(deg		* * *	1	(m)	
08	9544	9.09 N	17	159.5	74 W	OAPI	9 7	0753	3.7	3.2	08	38	060	0 14	37	13	491	52-2
	CTD A - Po	ort Side	ПМЕ	S	JD .	/ TIME			- 1	DATA LO	CATIC	N			REMA	RKS		
TYPE	E / SN SB	E 9+ 91660	DAT	A ON				Tape/Disk	ette ID			_	eader		u	0	= 1536	, ,
PRES	SS SN 297	772	STAF	RT DOWN				. = 3			TDA	1_0\ <u>_</u>	39	_			,	
TEM	SN 1:88	39 2:701	AT D	EPTH		0753		20					· , (_		*		
CON	D SN 1:4	80 2:303	AT S	URFACE									100		MAX.	DEP	TH = /3	03 m
	ę.	2E		PAR	FLU	OR .	ChIA	м [TAPS6	TA	PS4		i					
A					SE	A-BIRD 9	9/11+	CTD DA	TA					SAMPLE BOTTLE DATA		AMP	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP	SEC.T	EMP	SALINI	TY PA	AR	FLUOR		ChiA	м	SALINITY	/ <u>s</u>	AL.	NUTRIENT	CHLOR
1	1500	0753																
2	1000	০৬৫১	+				· · · · · · · · · · · · · · · · · · ·						-		0	6		
3	000	<i>୦</i> ୪1 3									\dashv				╫			
5	,										+			<u> </u>			<u> </u>	
6									"		\top				1		© .	-
7																		
8																		
9															\bot			
10		16.								_	127				_			
11			\bot							<u> </u>					_			100
12		<u> </u>																10

VESS	EL			PR	OJECT & LI	EG				STATION	DESIGN		,]
NOAA	AS MILLER I	FREEMAN		MF	97-04				- 		7.7	<u> </u>	-
CONS CAS	Т	TITUDE MIN	LONGITUDE DEG MIN		0= /0 <u>0</u>	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB &	WIN VISIBILITY (de	<u>v. SPD. ರ</u>	* TYPE * WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
09	0551	8.83 N	17136.1		P R 9 7	1136	4.6	3.71	03807	0163	713	308	53-1
С	TD B - Sta	arboard	TIMES	JD / TIME			C	DATA LOCAT	TON	RI	EMARKS		
TYPE	SN SBE	E 9+ 92067	DATA ON	100/1125	8	Tape/Disk	ette ID	File I	Name/Heade	r	WO	= 3/8	
PRES	SS SN 300	SN 30066 START DOWN 112.5 SN 884 AT DEPTH 1/36				1 # Eg		CTE	В_ Ф9Ф	M ST ST			
TEMP	SN 530 AT SURFACE				>	-		lice.	mil/Re				
CONE	SN 530 AT SURFACE									М	AX. DEI	PTH = 3	01 m
			PAR	X FLUOR	ChiA	м	TAPS6	TAPS4		<u> </u>			
	SEA-BIRD 9					CTD DA	TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300	11.36	K S E E (C			(11)	+	- 8°	8 6	n Ti	03	-	
2	100/	11:41	E	1 5 1		*77a II	, T	T dex	<u> </u>		 	 	
3	50 /			1.	:=		_				Ya -	 	
4	25 1	<u></u> .				-					 	11	
5 6	10 V				_						-	25 7	
7	0~/				æ					 			
8													3
9		-	1	\$16 \$16	<u>-</u>		O;						
10													
11							5.5		20	<u> </u>	 		q:
12				24			+					107	<u> </u>

VESS	EL			Р	ROJECT & LI	EG				STATION	DESIGN		2
NOA	AS MILLER I	FREEMAN		<u> </u>	F97-04					<u> </u>		<u> </u>	-2
CONS CAS	T	TITUDE	LONGITUDE	E DATE	JD= /00	TIME (GMT)	DRY BULB	WET SULB	SEA STATE VISIBILITY JU &	D WIND CO	TYPE WEATHER ©	OTTOM DEPTH I	STA. NAME/ID
<u></u>	DEG	MIN	DEG MIN	DAY	MO YR	HR MIN	(°C)	(°C) (m	b) * * (deg		* *	(m)	
09	1551	8.72 N	17135	OWIDA	P R 9 7	1233	3.5	3.01	13807	0161	013	300	53-2
(CTD A - Po	ort Side	TIMES	JD / TIME		,		DATA LOCAT	TION	R	EMARKS		
TYPE	/ SN SBE	E 9+ 91660	DATA ON	100 11:5	6	Tape/Disk	ette ID	File	Name/Heade		wo	= 156	9
PRES	SS SN 297	1:889 2:701 AT DEPTH 1:480 2:303 AT SURFACE					_	СТІ	$\Delta \phi 91$	_	•		
TEM	SN 1:88	39 2:701	AT DEPTH	12:3	3 3		·						
CON	O SN 1:4	80 2:303	AT SURFACE							M	IAX. DEF	PTH = /5	0/ m
		AT SURFACE PAR FLU			ChlAl	м П	TAPS6	TAPS4					
				SEA-BIF	RD 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	1:889 2:701 AT DEPTH 1:480 2:303 AT SURFACE PAR PAR FLU SE RIP TH PRESSURE PRI. TEMP SEC. 1			SALINI	ry P/	AR .	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500			. ,							30		
2	/000	1		1							ļ	,	
3	600										<u> </u>		
4								<u> </u>			 	<u> </u>	
5	11										 	,	
6	*	,		ļ				· · · · ·		<u>.</u>	<u> </u>	<u>.</u>	
7									<u> </u>		-		
8										-	╂	ļ — —	
9				× .						<u> </u>	┨	<u> </u>	ž.
10							-	.	27				1
11												<u> </u>	
12				<u> </u>					<u> </u>		<u> </u>		

VESS					ROJECT & L	EG		9		STATION	N DESIGN	IATION	2/-1
NOA	AS MILLER I	IILLER FREEMAN			97-04			<u> </u>		<u>' </u>	<u>. </u>		1 1
CON	ST		. 8		100	TIME	DRY	WET BULB	SEA STATE VISIBILITY JI S S S S S S S S S S S S S S S S S S S		PE GATHER	BOTTOM	STA.
#		TITUDE	LONGITUDE		D= /00	(GMT)	BULB			I. SPD. C		DEPTH	NAME/ID
\vdash	DEG	MIN	DEG MIN		MO YR	HR MIN	(°C))) (kts) *		17/	1 1
09	2553	8 75 N	17120.7	18W10A	P R 9 7	1525	4.6	3.81	13709	9121	1013	054	54-1
(CTD B - St	arboard	TIMES	JD / TIME		B (X		DATA LOCATI	ON	R	EMARKS		
TYPE	E/SN SBE	9+ 92067	DATA ON	100/1514	<u></u>	Tape/Disl	kette ID	File N	ame/Headeı		ωc	= 316	M
PRES	SS SN 300	166	START DOWN	1515	<u>-</u>	# ec	Vi	CTD	B _ φ92	88 00			-
TEM					5			<u> </u>					
CON	D SN 530								- \$ L	N	AX. DEF	PTH = 30	ol m
						м=	TAPS6	TAPS4	28 AS	9	of B	- 8	
	PAR LUOR CHAM SEA-BIRD 9/11+ 0					CTD DA	TA		14 0	SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry e	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300 V	/=	ELECT IN W	ille III			0 =	E 1	1 1111	77 10	22		
2	1001		m nc Z	95W n.	i i		H					<u> </u>	
3	50 /											<u> </u>	
4	25/	· · · · · · · · · · · · · · · · · · ·									↓	<u> </u>	9
5	10. ✓	/	10		41	0					-∦		<u> </u>
6	51								lu .		<u> </u>	<u> </u>	<u> </u>
7	0./		2.5								_	<u> </u>	
8	14 20										<u> </u>	ļ	ļ
9									<u> </u>		 		
10						 					ـــ	 	-
11				U _i								+	
12									50	5			34.

VESS		FOEEMAN			OJECT & LEG				.2.	STATION	DESIGN	ATION 54	4-2
CONS CAS	DEG 3 5 5 3 CTD A - Po	TITUDE MIN 8.63 N ort Side	TIMES	DATE J DAY N 3 GW / O A JD / TIME	D= /OO MO YR PR97	TIME (GMT) HR MIN / 6 2 3		시-OI	mb) (deg	N. SPD. ご g) (kts) * GO 9 /	Q I 3	OTTOM DEPTH (m)	STA. NAME/ID
			DATA ON	100 15-45	- _ ~	rape/Disk	ette ID		Name/Heade	r	WC	= 15	<i>≤</i> 8
1	SS SN 297	W-	START DOWN	1540		<u></u>	_		DA _ φ93_	- 1 -			55
3	P SN 1:88		AT DEPTH	1623						_	AX. DEF		Sal m
CONI	OND SN 1:480 2:303 AT SURFACE PAR FLUOR						TAPS6	TAPS	4	IVI	AA. DEI	71n = /<	501 m
		=			ChIAM D 9/11+ (0.70	SAMPLE BOTTLE DATA	SAME	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	/ PA	VR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500		1							<u> </u>	<u> </u>		
2	1000	<i>y</i>	2						H .		27		
3	600	<u> </u>		==	·			<u> </u>	<u> </u>	<u> </u>	21		
5						- 	_		<u>=</u>		 		
6									ta .				
7							¥						
8	48				e				X		<u> </u>		
9		-	17	85							<u> </u>		- B
10					_	:	i,				-		
11											 	-	- 5
12							X						

VESS					OJECT & LI	EG				STATION	DESIGN	IATION 55	5-1
NOAA	S MILLER I	FREEMAN		IMł	97-04	<u> </u>				 	,		<u> </u>
CONS					E345/00110			 <u> </u>	SEA STATE VISIBILITY AUTO AUTO AUTO AUTO AUTO AUTO AUTO AUTO	D WIND O	臣		
CAS						TIME	DRY	WET BULB	NIM SIE		HIN E	воттом	STA.
#		TITUDE	LONGITUDE		D= /00	(GMT)	BULB			I. SPD. ರ	ΣŞ	DEPTH N	VAME/ID
	DEG	MIN	DEG MIN		10 YR		(°C)	(°C) (m	b) * * (deg) (kts) *	* *	···/	+ 1 1
09	<u> 4 5 5 5</u>	6.514N	17107.0	2W/OA	P R 9 7	1903	3.5	3.01	23407	0 1 1 9	-42	870	55-1
C	TD B - St	arboard	TIMES	JD / TIME				DATA LOCAT	TION	R	EMARKS	i	
TYPE	/SN SBE	E 9+ 92067	DATA ON	100 185.	2	Tape/Disl	cette ID	File I	Name/Heade	•	w/0 =	- 316 n	1
PRES	S SN 300	066	START DOWN	185.				CTE	B_ Φ94		= 10		
TEMP	SN 884	14	AT DEPTH	190			-	10		_			
	SN 530 AT SURFACE					=	300			_ _M	AX. DEF	PTH = 30	>/ m
7					X CHIA	M (1)	TAPS6	TAPS4	88	9			~ 1
	PAR WILLIOR					<u> </u>	174 00		11	SAMPLE			
.j=	-	ı.ă		SEA-BIR	D 9/11+	CTD DA	TA			BOTTLE DATA	SAME	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY P	'AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300/	19:03	II EVII TI	EIB .					> II		08		
2	1001			10.	8	= =		_					1111
3	50/		=				223						
4	471		III .	(W)	[]]	_	53 ¹		29				
5	25 /		= aa	Ш							ļ		
6	23 🗸					0					ļ		17
7	14 /				**			.					
8	10 1								(a)		<u> </u>		
9	7 /	_ /							39	-	 		-
10	51										-	<u> </u>	
11	\sim					<u> </u>	24				╂		
12			<u> </u>						30	<u> </u>	1	<u> </u>	

VESS		14		I _{PB}	OJECT & LI				<u>.</u>	STATION	DESIGN	IATION	
	AS MILLER I	FREEMAN			97-04							53	5-2
CONS CAS	SC ST LA	TITUDE MIN	LONGITUDE DEG MIN	E DATE J	27 E-37		DRY BULB (°C)		WING Geg) (kts) *	* *	(m)	STA. NAME/ID
09	CTD A - Po	6 4 6 N ort Side	<u> </u>	JD / TIME	F R 9 7	2007		ATA LOCAT		-	MARKS		
1			DATA ON	100/193	5	Tape/Disk			Name/Header		wlo	= 15.3	,2
PRES	MP SN 1:889 2:701 AT DEPTH							CTE	A_ Φ95	, ,			
ТЕМ									7 27 2		150		
СОИ							•	. +		М	AX. DEI	PTH = 150	5 (m
	-		PAR	FLUOR	и 📋	TAPS6	TAPS4		-	·	· .		
	PAR FLUOR Chi					CTD DA	TA			SAMPLE BOTTLE DATA	25 SAMI	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	ry P.	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500	100											
2	1000		7								25		
3≈	600	/		,							ļ 		
4			_									<u> </u>	
5										<u> </u>	<u> </u>	ļ	· ·
6			-		<u>-</u>								r
7								·				+	
9				,	v								
10											-	-	
11	-						-						
12			,										

VESS					PROJECT & L	EG		,		STATION	DESIGN		7 -1
NOA	AS MILLER	FREEMAN	89		MF97-04		I			1 12	<u> </u>	<u> </u>	6-1
CON CAS	ST	TITUDE	LONGITUDE	DATE	JD= 100	TIME (GMT)	DRY BULB	WET THE BULB	SEA STATE VISIBILITY NUSIBILITY DIA		TYPE WEATHER ©	OTTOM DEPTH	STA. NAME/ID_
ng	DEG	MIN 5.75 N	DEG MIN	DAY	MO YR A P R 9 7	HR MIN	(°C)	(°C) (m		(kts) *	* *	(m)	56-1
	CTD B - St		TIMES	JD / TIM		KI (1)+1		OATA LOCAT	7-		EMARKS	· · · · · · · · · · · · · · · · · · ·	10 101 14
TYPE	E/SN SBI	E 9+ 92067	DATA ON			Tape/Disk	ette ID	File N	lame/Header		w10 =	339	
PRES	SS SN 300	066	START DOWN					CTD	B_096) 	
TEM	PSN 884		AT DEPTH							_			
CON	D SN 530		AT SURFACE				<u> </u>			_ N	IAX. DEF	TH = ろく	30 m
			PAR	FLUOR	Chia	м	TAPS6	TAPS4	•				
				SEA-B	RD 9/11+		TA			SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS.	TRIP DEPTH/	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY PA	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	3001	/						· V				,	
2	1001				1				, 1		-		
3	50 V										╂		
4	25		,								7		
5 6	5 1								-		 		
7	0					- -	,			·		1	
8										<u>.</u>	1		
9							- C						
10													93
11												22	
12													

VESSEL		PROJECT & LEG	12	STATION DESIGNATION
NOAAS MILLER FREEMAN		MF97-04		56-2
CONSC CAST # LATITUDE DEG MIN	LONGITUDE DAT DEG MIN DAY	E JD= /OO (GMT) B MO YR HR MIN (DRY WET BULB E SIND DIRN. *C) (°C) (mb) (deg)	
CTD A - Port Side	TIMES JD/TII	ME	DATA LOCATION	REMARKS
TYPE / SN SBE 9+ 91660	DATA ON	Tape/Diskett	e ID File Name/Header	Wo 1579
PRESS SN 29772	START DOWN	E-90	CTDA_607	byn bottles for
TEMP SN 1:889 2:701	AT DEPTH			dedoie (Sal = 32.75)
COND SN 1:480 2:303	AT SURFACE		- A	MAX. DEPTH = 1502 m
i.	PAR FLUOR	ChIAM TA	PS6 TAPS4	1
	SEA-E	BIRD 9/11+ CTD DATA		SAMPLE BOTTLE NUMBER SAMPLE BOTTLE NUMBER
POS. DEPTH PRESSURE	PRI. TEMP SEC. TEMP	SALINITY PAR	FLUOR CHIAM	SALINITY SAL. NUTRIENT CHLOR
1 1500		172 4		
2 1006		III.	7 ₁₁₁₁ = ₂ = _	
3 600V	5	33 5.		21
4 64				
5 64			+1	
6 b4				
7 64		- 		
9	25			= =
10				
11	- 1			
12				

VESS					ROJECT & LI	EG	-			STATION			
NOA	AS MILLER	FREEMAN		MI	97-04		- i	· · · · · · · · · · · · · · · · · · ·			57-	-1	
CON CAS	ST	TITUDE MIN	LONGITUDE DEG MIN		D= 0 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB &	SEA STATE NISIBILITY NISIBILITY NICHONIA	I. SPD. ö	* TYPE * WEATHER _ ®	OTTOM DEPTH 1	STA. NAME/ID
09	_ //	q.10N	2 5		P R 9 7	0032	4.0	3.11	4704		72		57-1
(CTD B - St	arboard	TIMES	JD / TIME				ATA LOCATI	ON	RE	MARKS		
TYPE	E/SN SBE	E 9+ 92067	DATA ON	1830	_	Tape/Disl	cette ID	File N	lame/Headeı	u	10	321	""
PRE	SS SN 300	066	START DOWN					CTD	B_098				
ТЕМ	PSN 884		AT DEPTH			8 11		3					
CON	D SN 530		AT SURFACE			10))	M	AX. DEP	TH = 30	m O
11 8	4	-0	PAR	FLUOR	ChiAi	и	TAPS6	TAPS4					
				SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	32 SAMP	LE BOTTLE	NUMBER
POS.	TRIP DEPTH /	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	TY P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300		alles —			N 18		9 R				40	
2	105 V				41 3	<u> </u>	<u> </u>				32		
3	50 V	65								F-1			
<u>4</u> 5	101						,		+81				
6	5 1	2 ==	F00.04		17								
7	D V		4										*
8	W							·					-
9													(%
10	-									1	¥3		
11		18						W			2		
12		,		77						itte			

VESSEL	**	······································	747	DECT & LE	E G			-	STATION			
NOAAS MILLER FI	REEMAN		MF9	97-04			,			51	4-2_	
1	TTUDE MIN	LONGITUDE DEG MIN	DATE JO	O YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB (°C) (m	b) . VISIBILITY OA	1. SPD. ਹ	* *	(m)	STA. NAME/ID 57-2
CTD A - Por	rt Side	TIMES	JD/TIME		•	E	ATA LOCAT	ION	RE	MARKS		
TYPE / SN SBE	9+ 91660	DATA ON	101	_	Tape/Disk	cette ID	File I	Name/Heade	r į	0/0	1040	
PRESS SN 297	72	START DOWN	Ž.,				CTE	A_099		MOre	32 75	oh
TEMP SN 1:889	9 2:701	AT DEPTH	(1) W.				8		u	des	for each	42.0
COND SN 1:48	30 2:303	AT SURFACE				1 2 3 7	, ¥ .,	付着		AX. DE	700	la m
		PAR	FLUOR	ChiA	м	TAPS6	TAPS4					·
	201		SEA-BIRE	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	15 SAMI	PLE BOTTLE	NUMBER
POS. DEPTH /	PRESSURE	PRI.TEMP S	SEC. TEMP	SALINI	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 16061						100				-,-		
2 500 V						8				15		<u> </u>
4 empty												
5 🔭			-1					¥.	125			**
6 7					8		- 7			<u> </u>		
7								×		ļ		
8	ā	-20									<u> </u>	
10	36 W				5					 		-
11		-	7									
12			11.7								-=	

VESS	SEL AS MILLER	FREEMAN			ROJECT & LI F97-04	EG				STATION	DESIGN	ATION	-
CON CAS #	SC ST LA	TITUDE	LONGITUDI	E DATE J	D= 101	TIME (GMT)	DRY BULB	WET BULB	SEA STATE VISIBILITY USIBILITY USISISSISSISSISSISSISSISSISSISSISSISSISS	CLOUD (amt)	TYPE WEATHER	OTTOM DEPTH 1	STA. NAME/ID
10	DEG Ø560	MIN 9.97 N	DEG MIN	DAY 1	MO YR P R 9 7	HR MIN	(°C)	(°C) (m	b) (deg	1 (815)	72	(m) 487	58-1
	CTD B - St	ı	TIMES	JD / TIME			1	DATA LOCAT	Annual A	, ,	MARKS		94
TYPE	E/SN SBI	E 9+ 92067	DATA ON			Tape/Disk	ette ID	File f	Name/Headei	1	0/0	334	
PRES	SS SN 300	066	START DOWN			11	3	CTD	B_100	_ \		-	
ТЕМІ	SN 884		AT DEPTH	0231			_	/	C 744		=		5
CON	D SN 530	din.	AT SURFACE							M	AX. DEP	TH = 30	m
	Ž		PAR	FLUOR	CHA	N	TAPS6	TAPS4		- 15			a
	3 1	te.		SEA-BIR	 D 9/11+	CTD DA	TA	a	Î	SAMPLE BOTTLE DATA	3 SAMP	3 LEBOTTLE	NUMBER
POS.	TRIP DEPTH /	PRESSURE	PRI.TEMP	SEC. TEMP	SALINIT	ry P	AR _	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300	516 Sign		,							33		3
3	50	/						24					i
4	25-V			<u></u>									2
5	101	/*)											
6	<u>5</u>												.00
7	0												
8	-	-								-		1,6	<
9													
11				-	83					· <u> </u>			
12			10.										

VESSI				PR	OJECT & LE	EG				STATION		ATION	
NOAA	SMILLERF	REEMAN		ME	97-04				33	5	3 <i>-2</i>		
CONS CAS	LA-	TITUDE MIN Q.Q2N	LONGITUDE DEG MIN	DATE J	D= 0 40 YR PR97	TIME (GMT) HR MIN	DRY BULB (°C)	WET SUBBLE (°C) (n	ASEA STATE VISIBILITY VISIBILITY TO GE	l. SPD. ਹ	* *	(m)	STA. NAME/ID
	TD A - Po	-	TIMES	JD/TIME		0		DATA LOCA	- 0		MARKS		D O I T C
TYPE	/ SN SBE	9+ 91660	DATA ON		- W - W	Tape/Disl	kette ID	File	Name/Heade		48	7	
PRES	S SN 297	72	START DOWN			3		CT	DA_ \ 0	17	(-		
TEMF	SN 1:88	9 2:701	AT DEPTH			W.	18	2/2 N	E	100			
CONE	SN 1:48	30 2:303	AT SURFACE			9:		, å		M	AX. DEF	PTH = 4	7-7 m
4			PAR	FLUOR	ChiA	м	TAPS6	TAPS	4				
14 PM 14			-	SEA-BIR	D 9/11+	CTD DA	τA			SAMPLE BOTTLE DATA	SAMF	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ΓY F	'AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	477				811			·	12		24		
2	³³ 122		_		8 = 8				2		<u> </u>		
3				- 11 th 1	31 E			-)()			<u> </u>	
5				34)							<u>-</u>		
6				10	+10			70	â			<u> </u>	
7								Sec. Sec.					
8					III								
9				g ^l	B =	80 E							
10						9		<u> </u>					
11				<u> </u>	ne .								
12		<u> </u>		<u> </u>		L_							<u> </u>

VESSEL			P	ROJECT & LI	ÉG				STATIO	N DESIGN		*.
NOAAS MILLER FRE	EMAN		N	F97-04				· · · · · · · · · · · · · · · · · · ·	<u> </u>	-50	1-1	
CONSC CAST # LATITU	7 1	LONGITUDE DEG MIN	E DATE	JD= /O / MO YR	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE * SEA STATE NUSIBILITY INIM TO SEA STATE TO	. SPD. o	* TYPE * WEATHER - WEATHER	OTTOM DEPTH I	STA. NAME/ID
1025612	20N	17054.7		P R 9 7		3.3	2.5		1951.7	72	148	59-1
CTD B - Starbo	oard	TIMES	JD / TIME			ד	DATA LOC	CATION	l l	REMARKS		6
TYPE / SN SBE 9+	92067	DATA ON	Ø348	3_	Tape/Diske	tte ID	Fi	le Name/Header		WO 1	52	
PRESS SN 30066		START DOWN	W. I	M 39		5	_ <u>c</u>	TDB_ 102	8		<u> </u>	
TEMP SN 884		AT DEPTH		SHI				Ngg (6			0	
COND SN 530		AT SURFACE		-		111			-	MAX. DEP	TH= (4)	2 m
8 8		PAR	FLUOR	Chiai	м Т	APS6	TAF	PS4			4)	
			SEA-BIF		CTD DAT	A		s	SAMPLE BOTTLE DATA		LE BOTTLE	NUMBER
TRIP POS. DEPTH F	RESSURE	PRI. TEMP	SEC. TEMP	SALINIT	TY PAI	** W	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 142		s mar i					8			16		
2 100				0.4	35 21	1 8	iii w	<u> </u>		_		
3 50 √ 4 25 √			1 21					111		-		
4 25 b						50		-		┨──		
6 5		-	.2									
7 0 1		22								<u> </u>		₹ <u>*</u> .
8			0	<u> </u>					<u>-</u> .			
9		=			- 15							
10												3 4
11					ij.			ić		_		
12												

VESSE NOAA	EL S MILLER F	REEMAN			7		PROJE	CT&U	EG	·	::					S	TATIC	DN D		IATION 9-Z	<u> </u>	
CONS	r						49.		TIME		DRY	WET	PRESSURE	SEA STATE	WIN WIN	D V	VIND SPD.	LOUD (amt)	EATHER	воттом		STA.
#		TITUDE M I N	DE	LONGITUDE G MIN		DATE	MQ	101	(GMT	-	BULB (°C)	BULB (°C)	(mb		DIRI (de			* *		DEPTH (m)	N.	AME/ID
10	171	2.32N		, 	7 W			3 9 7		a	21.8	2.1	110	38				8=		149	5	1q-2
c	TD A - Po	ort Side	TIM	ES	J	D / TIM	Ε		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			ATA LO	CATIO	ON		,			MARKS	5		1
TYPE	/ SN SBE	9+ 91660	DAT	TA ON				200	Tape/I	Diske	tte ID	F	ile Na	ame/	Heade	r		W	0 1	45		
PRES	S SN 297	72	STA	ART DOWN			- 178						TD/	A_	03		7.					
TEMP	SN 1:88	39 2:701	ATI	DEPTH		100	Vi i		- Fi					•		12						
CONE	SN 1:4	80 2:303	AT S	SURFACE					10			7					3.2	MA	X. DE	PTH = \	43	m
Ř				PAR	Пн	LUOR		ChiA	М	П	APS6	TA	PS4					1		`	<u> </u>	
7 - X - X - X	8:			8	S	EA-B		9/11+	CTD	DAT	Ā					B	AMPL OTTL OATA	E∥	2Ø SAM	PLE BOTT	TLE N	IUMBER
POS.	TRIP DEPTH	PRESSURE		PRI, TEMP	SEC	.TEMP	9	SALINI	TY	III PA	R	FLUOR		Ch	IAM _	SA	LINIT	Υ	SAL.	NUTRIE	NT.	CHLOR
1	25					36										<u> </u>		_ _	20		\downarrow	
2	3 1 II	<u> </u>	_	W	-	7 7 7		Vi Second				8 S	_			<u> </u>		_		1	77	
3			\perp		2.4	5 g 20 2	35	er X								-		_		<u> </u>	\perp	
4			_		48	8									*	+		_#		+	W.	
5	N.			¥13						11	_		17			-	V	┩		-	_	
6			\dashv				53%					04		A.	15	 		╢			\dashv	
7 8			\dashv	-	 					- 10			12	.		+		┪		- 	+	
9		98	1 1	8 6)		=	V.		.53%				\dashv									·
10		- 17				10			Z A.			<u> </u>		93				\dashv				
11				=		85	II,	1	HŲ.						200		şi					
12							=	-	il:													-

VESSE		546			ROJECT & L	EG		-		STATIO	N DESIGI		
<u>NOAA</u>	SMILLERF	REEMAN			97-04						6	0-1	
CONS CAST	DEG	TITUDE M I N	LONGITUDE DEG MIN		D= /O / MO YR	TIME (GMT) HR MIN	DRY BULB (°C)	WET SS BULB & (°C) (m	G SEA STATE (Ge) TO SIGN (GE	N. SPD. d	* TYPE * WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
104	11-1-17-	9-17N	1		P R 9 7	1835	4.1	311	11704	1002	474	150	60-
С	TD B - Sta	rboard	TIMES	JD/TIME				DATA LOCAT	ION	F	REMARKS	3	
TYPE	/SN SBE	9+ 92067	DATA ON	101 1829	_	Tape/Disl	kette ID	File	Name/Heade	er [WO	= 14	6
PRES	S SN 300	66	START DOWN	1830	- 4			CTE	B_ 104	1.805	/		
TEMP	SN 884	10-	AT DEPTH	1835	gor" a			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1881/				
CONE	SN 530	= 1	AT SURFACE			is sing	1	T GWEST	34 1	N	MAX. DE	PTH =	14/1 n
		1	PAR	FLUOR	XCHA	м П	TAPS6	TAPS4				ă j	, , ,
	77.0			SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA		PLE BOTTLE	: NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry F	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	150	()	107		177					Ch I	33	30	
2	1001		21 2								-	<u> </u>	
3	501												
4	251									-			
5	101												
6	5/					101	M					1	
7	01				- (eck				1		-	
9		3								-	1		
10							1						
\dashv	_	64.03.05	_			U		- S			1		
11				1					Lancas and the same of the sam		- 11		

VESSEL			PR	OJECT & LE	 ∃G				STATION	DESIGN	ATION	11
NOAAS MILLER F	REEMAN		1	97-04					_		0-2	
DEG	MIN 9.20N	LONGITUDE DEG MIN	8 8 2	D= 101 10 YR PR97	TIME (GMT) HR MIN / 859	DRY BULB (°C)	WET BULB	b) (deg	i. SPD. ರ	* TYPE * WEATHER	юттом	STA. NAME/ID
CTD A - Po		TIMES	JD/TIME	. 0.10	7101017		ATA LOCA		1.00	MARKS	1.117	00
TYPE / SN SBE		DATA ON	101/185	ا ا	Tape/Dist			Name/Headei		,	= 146	
PRESS SN 297	15.4	START DOWN	1854	-	23,200	W _{ge}		DA_105		ω_{l}	116	
TEMP SN 1:88	#5	AT DEPTH	185									
COND SN 1:48		AT SURFACE	///			- a	- 3		— _M	AX. DEI	PTH = /	46 m
		PAR	FLUOR	Chiai	м	TAPS6	TAPS	 4				10
	. A .		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAME	PLE BOTTLE	NUMBER
POS. DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry F	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 1501										/5	-	
2		•	## #				10					
4	95		10 8T									
5				05 N	112		233	10 (da			1.7	· · · · ·
6 =	ä:	1	*.	200		ù.	Ž4					
7	<u> </u>	<u> </u>	1151									
8		C 9.0	152	10 10			-			32		
10		11 2 2 2 2		55 E m	75					 		
11												
12		N. 35						†				121

VESSEL			PF	OJECT & LI	EG		100		STATION	N DESIGN		=
NOAAS MILLER	FREEMAN		М	97-04			-				61	-{
CONSC CAST # LA	ATITUDE M I N	LONGITUD DEG MIN		D= 101	TIME (GMT)	DRY BULB (°C)	WET BULB &	WING VISIBILITY WING VISIBILITY WING VISIBILITY WANTE VISIBILIT	N. SPD.	* INPE * WEATHER	502 BOTTOM DEPTH (m)	STA. NAME/ID
	2 0 - N	. / O k	9.	P R 9 7	2012	3/	9.5	b) * * (deg	7 (110/)	 	502	61-1
CTD B - St	tarboard	TIMES	JD / TIME	FIN 9 1	AONA	31.16	DATA LOCAT			H-HILLS EMARKS		(D)
TYPE / SN SBI	E 9+ 92067	DATA ON			 Tape/Disk	cette ID	File N	Name/Heade	r u	10 31	1	
PRESS SN 300		START DOWN		_		8		B_ 1Ø6		·		
TEMP SN 884		AT DEPTH	-			,			- -			
COND SN 530		AT SURFACE				-	-			MAX. DEI	PTH = 30	c) m
		PAR	FLUOR	ChiA	M	TAPS6	TAPS4				<u> </u>	
		<u> </u>	SEA-BIR			TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS. DEPTH /	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 300 V							Ŀ		11112	5		
2 100 V		* .		_		-						
3 50 V										/	 	
5 10 1												
6 5	,				-							
7 0				-			·				1	
8												
9											<u> </u>	
10		217								-		<u> </u>
11	-		,							-		1
12									,	<u> </u>		

VESSEL			CT&LE	G			_	STATION	DESIGN		7
NOAAS MILLER FREEMAN	= = = = = = = = = = = = = = = = = = = =	MF97	-04 	<u> </u>		<u> </u>	111	 		61-	7
CONSC CAST # LATITUDE DEG MIN	LONGITUDE DEG MIN	DATE JD=		(GMT) E		WET BULB &	SEA STATE VISIBILITY ODE VISIBILITY	SPD. ರ	* TYPE * WEATHER 	OTTOM DEPTH N	STA. NAME/ID
1075522.93	1/0	4W11AP	1 1		1.8	11811	7046	- /	74	8 6 3	61-2
CTD A - Port Side	TIMES	JD / TIME	j		DA	TA LOCATIO	NC	RE	EMARKS		l
TYPE / SN SBE 9+ 9166	DATA ON		=,	Tape/Disket	e ID	File Na	ame/Header	1	210	505	
PRESS SN 29772	START DOWN	. S			X	CTD	4_107				
TEMP SN 1:889 2:701	AT DEPTH						1				
COND SN 1:480 2:303	AT SURFACE		27					М	AX. DEF	TH = 47	cy m
	PAR	FLUOR	ChIAN	И _ TA	PS6	TAPS4					,
		SEA-BIRD	9/11+	CTD DATA				SAMPLE BOTTLE DATA	SAMP	LE BOTTLE	NUMBER
TRIP POS. DEPTH PRESS.	RE PRI.TEMP	SEC. TEMP	SALINIT	Y PAR		FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 479						ñë.			24		Ã.
2		3.							<u> </u>		
3		- 2		3.					ļ		
5		20 00					37		1		
6		73				\$1		77	 	ļ	~
7									1		
8			l s						1		
9	- 13 E										
10	Y 100			30							
11									<u> </u>		
12		USA. I II	, XII.				MI			<u> </u>	

VESS	EL			PR	OJECT & L	EG				STATION			
NOA	AS MILLER I	FREEMAN		МЕ	97-04	· · · · · · · · · · · · · · · · · · ·		· · · · · ·			62	2-1	
CON CAS	ST LA	TITUDE	LONGITUDE			TIME (GMT)	DRY BULB	WET BULB	SEA STATE VISIBILITY VIO	v. SPD. ご	WEATHER		STA. IAME/ID
10	8552	MIN 1.57N	DEG MIN		10 YR PR97	HR MIN 2 1 3 2	(°C) 3.	(°C) (ml	0) (de		741	(m) 0436	2-1
(CTD B - Sta	arboard	TIMES	JD / TIME			C	ATA LOCATI	ON	RE	MARKS		
TYPE	SN SBE	E 9+ 92067	DATA ON			Tape/Disk	ette ID	File N	lame/Heade	r (N/O	317	
PRES	SS SN 300	966	START DOWN					CTD	B_108			·	
ТЕМІ	PSN 884		AT DEPTH			18			9.4				
CON	D SN 530	ti li	AT SURFACE							M	AX. DEF	TH = 36	, m
		N. T.	PAR	FLUOR	ChiA	м	TAPS6	TAPS4					L
				SEA-BIR	D 9/11+	CTD DA	TA		\$	SAMPLE BOTTLE DATA	SAMF	LE BOTTLE I	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY P.	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300 V			14		. # T					- 8		
2	100			1 = 1 8									
3	501										16		774
4	25										10		
5 6	51	5.1	5										
7	Ó			-						13		#	
8	=					-		П					
9													
10			30			0							
11										11+31			
12								111		14.2			

VESSEL				PR	OJECT & LI	EG	4	· ·	***	STATION	DESIGN	IATION	
NOAAS	MILLER F	REEMAN		МЕ	97-04						62-	7	_
CONSC CAST #	LAT DEG	TITUDE MIN 1.43 N	LONGITUDE DEG MIN	DAY	D= 0 AO YR PR97	TIME (GMT) HR MIN 2 2 2 1	DRY BULB (°C)		SEASTATE SEASTATE VISIBILITY SEASTATE OF COMMENT N. SPD. ご	.1 3	1 1 1	STA. NAME/ID	
100	TD A - Po	321	16813.0	JD/TIME	PIN 9 7	시간시	2.\	DATA LOCATI	42704 On		字(4)() EMARKS		<u> </u>
			DATA ON			Tape/Disl			ame/Heade				•
	SN 297		START DOWN				To the		A_ 100	-	1105	, W10	
	SN 1:88		AT DEPTH				0.8		_ 100				
97			AT SURFACE		111	194			70	_ M	AY DE	PTH = 1\ (^)	0
JOINE	014 1,40	2.550	PAR	FLUOR	ChIA	<u>.</u>	TAPS6	TAPS4		livi	AX. DE	FIH = 10	∂ _O m
	22	/e/		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINE	TY F	AR	FLUOŔ	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
)OO							115			19		
2 (500			Œ I							1	, T	
3		<u></u>	-	8							<u> </u>		<u> </u>
5				37									
6				37 4				E 5			-		
7								31 (84)		7	/		50
8		36			33								
9					163								-
10											<u> </u>	用	
11									(4)				
12		<u>. </u>		_		_				<u> </u>			

VES	SEL				ROJECT & LE			· <u> </u>		CTATION	LDECION	IATION	
	AS MILLER	FREEMAN			IF97-04	_G				STATION	DESIGN 3		
CON CAS #	SC ST LA DEG	ATITUDE MIN Q. S. N	LONGITUD DEG MIN	DATE O	JD= / 0 MO YR P R 9 7		DRY BULB (°C)	WET BULB &	2708	N. SPD. 0 g) (kts) *	· · WEATHER	SOTTOM DEPTH (m)	STA. NAME/ID
					8			ATA LOCATION			EMARKS		
1			DATA ON	231	1:45	Tape/Diske	tte ID		ame/Heade	r	WIO	317	
PRES	SS SN 300	066	START DOWN		_			CTD	3_110				
TEM	PSN 884	Lp 8	AT DEPTH						V=E				
CON	O SN 530		AT SURFACE	1)				\$1 F			AX. DEF	TH= 30	<u></u> m
			PAR	FLUOR	ChIAN		APS6	TAPS4				<u> </u>	<u> </u>
	TRIP			SEA-BIR	D 9/11+	CTD DAT	4		8 4	SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS.	DEPTH	_PRESSURE	PRI. TEMP	SEC. TEMP	SÄLINIT	Y PAF	7	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
	300°					100					0		
2	501					17-					28		
3	25 ^V			 									ān .
5	71	-											
	3.72 1		1	1 1				·					
n I	_ \U_/					- 1				<u> </u>	350		
6 7	5									8	===		
7	5									22	10		
7	5									2		-0	
7 8 9	5									22			
7 8 9 10	5									2			
7 8 9	5									8			

VESSEL	- Y	PROJECT & LEG	3		STATIO	N DESIGNATION
NOAAS MILLER FREEMAN	100	MF97-04		120	JOIA NO	03-7
CONSC CAST # LATITUDE DEG MIN 1115519.42 N	DEG MIN DAY		TIME DRY (GMT) BULB HR MIN (°C)	NIM VISIBILITY OC) (quu) (quu) (quu) (quu)	N. SPD. (BOTTOM STA. DEPTH NAME/ID (m)
CTD A - Port Side	TIMES JD/TI		9012111411	7 3 7 1 2 3 7 0 1 DATA LOCATION		172 1522 63-2 REMARKS
TYPE / SN SBE 9+ 91660	DATA ON		ape/Diskette ID		_	
PRESS SN 29772	START DOWN	- A	aporbiokette ib	20	' - -	WIO 1514
TEMP SN 1:889 2:701	AT DEPTH	- W 2	171//	CTDA_ \\\		
	AT SURFACE	75	. 1842.		·	
7.450 2.303						MAX. DEPTH = \ \ \ \ \ \ \ \ \ \ \ \ \ m
	PAR FLUOR	ChIAM	TAPS6	TAPS4		
	SEA-E	BIRD 9/11+ C	CTD DATA		SAMPLE BOTTLE DATA	
TRIP POS. DEPTH / PRESSURE	PRI. TEMP SEC. TEMP	SALINITY	PAR	FLUOR ChIAM	SALINITY	
1 1483 1						71
2 1000 V	- 72				24	£
3 600 V	74 (1)		16.			
4	5 46					,
5	- 		===		347	
7				5 ·	IF	
8	- 					- 1
9		2 13 W =		=-		
10		123	(9)			
11	R ₀ A		_			
12						

VESS	EL AS MILLER I	FREEMAN			PROJECT & LI	EG				- 8	NDESIGN	. (
CON CAS	SC T LA	TITUDE	LONGITUDI	DATE	JD= 102	TIME (GMT)	DRY BULB	WET BULB	SEA STATE VISIBILITY	ı. SPD. Z	* TYPE * WEATHER	OTTOM DEPTH N	STA. NAME/ID
[]	DEG 2 55 \	MIN O. L 3N	DEG MIN	DAY OW 12	MO YR A P R 9 7		(°C)	(°C) (m1	b) (dec	101	1 -	\ 	64-11
	CTD B - St	arboard	TIMES	JD / TIM	E 77	120		DATA LOCAT	ION	F	REMARKS		
TYPE	SN SBE	E 9+ 92067	DATA ON			Tape/Disi	kette ID	File N	lame/Heade		W/0	319	
PRES	SS SN 300	066	START DOWN	:=	_			CTD	B _ (<u>Z</u>				
TEM	PSN 884		AT DEPTH	0223	险	_		*	井 麗日	_	8		\forall
CON	O SN 530		AT SURFACE		=	- C	= 3				AX. DEP	TH = 30	O m
			7 PAR	X ELUOR	X ChIA	м	TAPS6	TAPS4					
				# #	RD 9/11+	34	TA	<u> </u>		SAMPLE BOTTLE DATA	SAMP	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINI	TY F	'AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300 V			81			12	2					
2	100					= ==	92 19			(a)	_		
3	50		_					 -		<u> </u>	40		# 6
4	25 V				+						1		
5 6	10		30										
7	0 1									40	<u> </u>		
8								i.	8			***	
9			181										
10		55"								60			
11			Ÿ.								<u> </u>		
12				<u> </u>	0)								

VESSEL	···		PR	OJECT & LI	≣G				STATION	DESIGN	IATION	
NOAAS MILLER F	REEMAN		MF	97-04	··		aV.			54-	2	
	TITUDE MIN	LONGITUDE DEG MIN 1 6 8 3 1 1	- C 24	10 YR		DRY BULB (°C)	WET BULB	VISBILLY (de	N. SPD. Ö g) (kts) *		1 1 10	STA. NAME/ID
CTD A - Po		TIMES	JD/TIME		- 1 71 - 2		DATA LOCA			MARKS		
TYPE / SN SBE	9+ 91660	DATA ON	02:44	- 2	Tape/Disk	ette ID	File	Name/Heade	r 2	V10=	01546	
PRESS SN 297	72	START DOWN					СТІ	DA_ 113				
TEMP SN 1:88		AT DEPTH	03:25		-		<u> </u>					
COND SN 1:4	80 2:303	AT SURFACE				18922			М	AX. DE	PTH = (50	JO m
- 11.00 m		PAR	FLUOR	ChIA	М	TAPS6	TAPS	\$				
	E, å		SEA-BIR	D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS. DEPTH	PRESSURE	E PRI. TEMP	SEC. TEMP	SALINI	т <u>у</u> Р	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1 1500	/										A	
3 650	<u> </u>		201							2	-	
4			× =							01		
5								21	89			
6			7 4558				34					
8			8:		-		 	71	<u> </u>			
9		19 %	22									
10					(2)							.a.
11									 	-		
12							<u>-</u>		1	<u> </u>		

VES					ROJECT & L	EG	0			STATION	,		-
NOA	AS MILLER	FREEMAN	,	<u> М</u>	F97-04	r - 1						5 -1	
CON CAS #	ST	TITUDE MIN	LONGITUDE DEG MIN		JD= 102 MO YR	TIME (GMT) HR MIN	DRY BULB (°C)		PPESSURE (qui) (qui) (pi) (qui) (pi) (qui)	v. SPD. ರ	* TYPE * WEATHER ®	OTTOM DEPTH N	STA. NAME/ID
11	4545	7.28n	16853.0	W12A	P R 9 7	0614	5.0	3.8	113806	0108	722	233	65-1
,	CTD B - St	arboard	TIMES	JD / TIME				ATA LOC	ATION	RI	EMARKS	/	
TYPI	E/SN SBE	≣ 9+ 92067	DATA ON		<u>. </u>	Tape/Disk	cette ID	File	e Name/Heade	r_ \ \	1/0=	= 3.16	
PRE	SS SN 300	066	START DOWN			,	,	<u>C</u> 1	DB_114				
ТЕМ	PSN 884	ā	AT DEPTH				. ,					-	
CON	D SN 530		AT SURFACE							M	AX. DEF	TH = 30	⊅ m
		ŕ	X PAR	FLUOR	Chia	M .	TAPS6	TAPS	S4				
		,		SEA-BIF	D 9/11+	CTD DA	TA	,		SAMPLE BOTTLE DATA	SAMF	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	ry P	AR	FLUOR	ChlAM	SALINITY	SAL.	NUTRIENT	CHLOR
1_	300 Y							i — jež					
2	1001			L ;						,			
3	.50	7	_						· · ·				
4	25-V							-	,		26		-
5 6	10 V			.									
7	0		,						-				
8													
9		, ,						•	, , ,				c
10	3	-				100							
11													
12			33										4.

	2	1								118			4				Ţ.	, .	C 115-C	\ -	
									- 65										G 1150	·	
VESSEL				Year			PROJEC		ĒG		==		=			STATI	ONI		NATION		
NOAAS	MILLER F	REEMAN				[i	MF97-0	4		T			=	1 1	1 3	ıñ.	T at		55-2		
										_ ×	. 8		ш	攌、		D WIND I. SPD. i) (kts)	amt				
CONSC	:									12		■ ±F	15	STA				밀			
CAST #	LAT	TTUDE		LONGITUDE		DATE	JD= /	02		ME MT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	WINI DIRN	D WIND		툂퉨	BOTTOM DEPTH	ST NAM	ra. Me/ID
	DEG	MIN	DEG	A MIN		DAY	МО	YR		MIN	(°C)	(°C)	(mb	1	(deg) (kts)	1		(m)	INCIV	10,10
115	545	7.08N	16	8531.9	5 W	12	APR	9 7	07	21	3.7	2.9)	38	309	008	g	62	2245	65	5 - 2
1	DA-Po	1	TIME			/ TIM	-		Q.			DATA LO	CATIO	ON	44.	IM2		MARK	S		
TYPE /	SN SBE	9+ 91660	DATA	A ON				34	Тар	e/Disk	ette ID	F	ile Na	ame/	Heade:	r		' /∩ -	1548		ŀ
PRESS	SN 297	72 =	STAF	RT DOWN		7.4	1000		Ì				CTD/	4 =	15		"		10 40		
TEMP :	SN 1:88		AT DI			1.	7 1		8	A Son		A 10				4					
6.				JRFACE		1986	100		Y.	6,420-1		= 11	HI		e	- 1	M	AY DI	EPTH = \		
		2.000		PAR		JOR		ChiA	L		TAPS6		NPS4	-			1417		-1 111 - 1	<u> </u>	m
3.5				ı Aı	<u> </u>			CHILA	IVI		IAFGO		\r\54	-		SAMPI	F	Γ			
3		180 P			: OF	. A . D	1DD 0	14 4	ОТ !		- V					вотт	E				
0	TRIP			2	SE	:A-B	IRD 9/	11+	CII) DA	1A					DATA	<u> </u>	SAN	IPLE BOTT	LE NUN	MBER
POS.	DEPTH	PRESSURE		PRI. TEMP	SEC.	TEMP	S	ALINI	ΓY	P	AR	FLUOR		Ch	nIAM	SALINI	τy	SAL	. NUTRIE	NT C	HLOR
1 1	500V	10				ě												21			==
2 1	000/		1 8	ř.	-		£					10						=			
3	1000 V	-			20					<u> </u>											
4				•	101					 				ď.	5.4					_	
5			-							15	— 		121		41	1)"	1.5		-		
6	1.4	- 0	+-			3.0	-			-			10			<u> </u>				77.	W
8				<u> </u>	<u> </u>		-	(1.68	\dashv	3	 						
9			3 92	III.					-		-+		\dashv								
10	(2)	\$20 \$20	\dashv	-	30	50			¥				\dashv	2							\longrightarrow
11			+	1)	227-								+								
12	_	2			11.0	34.70				1			٥,					╟─			

VESS					OJECT & LI	E G				STATION		IATION	-
NOA/	AS MILLER F	REEMAN		MF	97-04			- · ·	1 1		66-1		
CONS CAS #	TE LAT	MIN 1.26 N	LONGITUDE DEG MIN 16918.6	DAY N	D= 102 10 YR PR97	TIME (GMT) HR MIN	DRY BULB (°C)	WET BULB & (°C) (m	WINDER SEASTATE OF	N. SPD. o	* TYPE * WEATH	(m)	STA. NAME/ID
(CTD B - Sta	rboard	TIMES	JD / TIME	38.			ATA LOCAT	ION	RI	EMARKS		
TYPE	E/SN SBE	9+ 92067	DATA ON	102 095	4	Tape/Disk	kette ID	File N	lame/Heade	or e	wo -	= 320 m	
PRES	SS SN 300	66	START DOWN	095	•			CTD	B _116		n		· · · · · · · · · · · · · · · · · · ·
TEMF	P SN 884		AT DEPTH	100	5	16		NE 1	6 04 5 27 5 77 5				
CON	D SN 530		AT SURFACE			1				М	AX. DEI	PTH = 3	800 m
			PAR	FLUOR	M CHIAI	и 📗	TAPS6	TAPS4					
				SEA-BIR	 D 9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINIT	Y P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	300/		HE - X	181		100000						T 1500	
2	1001		5 110					11 13 20					
3	501									Left)	20		252
5	25 v		1			22				<u> </u>	 		
6	5 /	 											
7	0 🗸												
8								1.1			ļ		
9							***				2.0		
10								- 1		-			-
11	$\longrightarrow \parallel$	<u></u>									 -	-	
12		-		0.00							<u> </u>		<u> </u>

VESS				1	OJECT & LE	EG.				STATION	DESIGN		
NOAA	AS MILLER F	REEMAN		MF	97-04	-			 			66	<u>-2</u>
CONS CAS	T LA	FITUDE MIN	LONGITUDE DEG MIN	DAY N	D= 102 10 YR PR97	TIME (GMT) HR MIN	DRY BULB (°C)	WET 838 BULB & (°C) (m	1 1	v. SPD. ರ	* *	OTTOM DEPTH (m)	STA. NAME/ID
	CTD A - Po	rt Side	TIMES	JD / TIME		711 01 11		ATA LOCAT			EMARKS	<u> </u>	
		9+ 91660	DATA ON	102 102	7	Tape/Diske			lame/Heade	100	- 1	= 1607	,
1	SS SN 297	40	START DOWN	102	/ '	(7700)			A_117	*	00 10	_1001	
	P SN 1:88		AT DEPTH	1104	T		10	75 an		- ES -			Œ
35	D SN 1:48		AT SURFACE	110~		75, 71	7	The state of	748 15 ₁₄₈	_ _M	AX. DEI	PTH = /5	04 m
	-		PAR	FLUOR	Chia	и Пт	APS6	TAPS4	13 8	12	-	73	07 "
	533 I	L.				CTD DAT		_ <u></u>		SAMPLE BOTTLE DATA	SAMI	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINI	TY PA	R	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	1500.	/									27		
2	1000	(5)		24						F1-X 1	1		E 9
3	600	5283	1 No.							in in			
5		1.1		10					-	<u> </u>		<u> </u>	U.
6								- 40		-	1	10	
7								0.6			-		
8					= 3	1 -		·	22				
9			25.										-
10		400	51	-		\$1 T				ļ		85	
11	-			(E)						<u> </u>	 	(5)	
12													

VESS				PF	OJECT & L	EG		=-		STATION	DESIGN	NATION _	
NOA/	AS MILLER I	FREEMAN		MF	97-04					<u> </u>		67	-
CONS CAS #	ST	TITUDE MIN	LONGITUDE	1 1 1	D= /02	TIME (GMT)	DRY BULB	WET BULB	111	N. SPD. ರ	* TYPE * WEATHER		STA. NAME/ID
11	8542	0.93 N	DEG MIN 16949.8		10 YR P R 9 7		(°C)	(°C) (n 2.4 l	23810		72	(m) 895	67-1
C	CTD B - Sta	arboard	TIMES	JD / TIME		8		DATA LOCA	TION	Ri	EMARKS		27
TYPE	E/SN SBE	9+ 92067	DATA ON	102/140	3	Tape/Disl	kette ID	File	Name/Heade	r	Wo	= 315	M
PRES	SS SN 300)66	START DOWN	140	9_	11		CTI	DB_118	<u> </u>			
TEMF	PSN 884		AT DEPTH	1419	() () () () () () () () () ()		(8		A TOTAL	Cu		<u>.</u>	
CON	D SN 530		AT SURFACE			. 12	-		- 3	M	AX. DEI	PTH = 3	00 m
	6 8	114	PAR	FLUOR	Х СНА	м	TAPS6	TAPS	4	24.5	7,50		
450	1 37 1			SEA-BIR	D 9/11+	CTD DA	TA	- Ju	= 93	SAMPLE BOTTLE DATA	SAM	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINI	ry P	AR	FLUOR	ChIAM	SALINITY	SAL.	NUTRIENT	CHLOR
1	3001	10	II BOOK F	¥ 3		1969	3		us lie	ês.	100 =	l II	
2	1001		A SH C I								08		
3 4	_50 v		_			81						19	
5	10 /		N	=12								1	
6	5 /		5.						#.				
7	0 /												57
8											<u> </u>		E
9				0 0 2								-	
10				20 20					- 1		-		Ťi
11		- E				= =				_	 	-	
12									<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

		PROJECT & LE	· · · · · · · · · · · · · · · · · · ·		101711011	DESIGNATION	
NOAAS MILLER FREEMAN	· · · · · · · · · · · · · · · · · · ·	MF97-04		,			7-2
CONSC CAST # LATITUDE	LONGITUDE	DATE JD= 102	TIME DRY (GMT) BULB	RESSURE SEA STATE VISIBILITY		MOTTON KER	STA. NAME/ID
			HR MIN (°C)	(°C) (mb) (deg		* * (m)	
	16950.01 W	12APR97	1516 3.2		5087	721895	67-2
		/TIME	D	ATA LOCATION	RE	EMARKS	,
TYPE / SN SBE 9+ 91660	DATA ON	11439	Tape/Diskette ID	File Name/Header		$\omega _0 = 15$	64
PRESS SN 29772	START DOWN	14/39		CTDA_ //9	_ _	, (•
TEMP SN 1:889 2:701 A	AT DEPTH	1516					,
COND SN 1:480 2:303 A	AT SURFACE				M	AX. DEPTH = /	503 m
	PAR FL	JOR CHIAM	TAPS6	TAPS4			
#	SE	:A-BIRD 9/11+ (CTD DATA		SAMPLE BOTTLE DATA	SAMPLE BOTTLI	ENUMBER
POS. DEPTH PRESSURE	PRI. TEMP SEC.	TEMP SALINITY	Y PAR	FLUOR ChIAM	SALINITY	SAL. NUTRIEN	T CHLOR
1 /500							
2 /000						04	
3 600						0.1	
5							
6	8 · · ·				-		
7							ů.
8				1			-
9				. ,			
10					<u> </u>	<u> </u>	
11						<u> </u>	

VESS						PROJECT & L	EG				,	STATIO	ON DESIGI	NATION 68	- 1
NOA	AS MILLER F	REEMAN			<u></u>	/IF97-04				T	 		a T	. 60	_ 1
CONS CAS #	T	TITUDE	LΟ	NGITUDE	E DATE	JD= 102	TIME (GMT)	DRY BULB	WET BULB	PPESSURE	SEA STATE VISIBILITY SEA STATE	ND WIND		BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO YR	HR MIN	(°C)	(°C)	(mb)	(de	eg) (kts)	* * * *	(m)	
12	0540	1.67N	169	3 / . 5	50W/2A	P R 9 7	1827	3.5	3.0	12	38 08	3510	872	183d	68-1
(CTD A - Po	rt Side	TIMES		JD / TIME	∃		E	DATA LO	CATIC	N		REMARKS	3	
TYPE	E/SN SBE	9+ 91660	DATA O	N	102/17	1B	Tape/Dis	kette ID	Fi	ile Na	me/Head	er	wo:	: 1543	
PRES	SS SN 297	72	START	NWO	174	9			<u> </u>	TDA	_ /20				
TEME	P SN 1:88	9 2:701	AT DEPT	ſΗ	182	27_							5		
сом	D SN 1:48	30 2:303	AT SURF	ACE									MAX. DE	PTH =	m
- 7			PA	R	FLUOR	ChiA	м	TAPS6	TAI	PS4					
24 [. 9	SEA-BII	RD 9/11+	CTD DA	TA				SAMPLI BOTTLI DATA	≣ ∥	PLE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	: PRI	.TEMP	SEC. TEMP	SALINI	ry F	PAR	FLUOR		ChIAM	SALINIT	Y SAL.	NUTRIENT	CHLOR
1	1499	1000			- 17								32		
2										4				<u> </u>	_
3		<u> </u>								+		 			
4					A		Ger	< 1		-		1	-		·
5 6				•	4			NSV		9	· <u></u>	,	┪		
7			1				Col	/\				,	1	1	
8							1	1			,				
9				DC.											
10											<u> </u>	-			
1.1												-	_		<u> </u>
12														<u> </u>	<u></u>

VESSEL						PROJECT & LEG			(5			STATION DESIGNATION 69-1			
NOAAS MILLER FREEMAN				MF97	'-04			- -		_		69	- /		
CON CAS	ST LA	TITUDE		LONGITUDE			102	TIME (GMT)	DRY BULB	WET SEE BULB		O WIND O			STA. IAME/ID
DEG MIN DEG MIN DAY		İ	YR R 9 7	= 150,000	(°C)	(°C) (m	0) (deg 23802		8721	(m) 538	69-1				
CTD A - Port Side TIMES JD / TIM			ME		DATA LOCATION REMARKS							: !			
TYPE	E/SN SB	E 9+ 91660	DA	TA ON				Tape/Disk	cette ID	File N	lame/Headei		wlo	1541	
PRES	SS SN 297	772	STA	ART DOWN					-	CTD	A_ 121	_	· ·	-	
TEM	P SN 1:88	39 2:701	АТ	DEPTH				· 100				_			
СОИ	D SN 1:4	80 2:303	AT	SURFACE								= 1	MAX. DEF	TH = \5	01 m
				PAR	FLUOR		ChIA	м	TAPS6	TAPS4			i		
				. &	SEA-E	BIRD	9/11+	CTD DA	TA			SAMPLE BOTTLE DATA	- 1	LE BOTTLE	NUMBER
POS.	TRIP DEPTH	PRESSURE	<u> </u>	PRI. TEMP	SEC. TEMP	-	SALINI*	TY P	AR	FLUOR	ChIAM	SALINITY		NUTRIENT	CHLOR
1	1501	,	4				<u></u>						7	£2 ==	
2		<u> </u>	+			+				·				* (
3			-			+	_			_		<u> </u>			
5			\top					15			Α,"	- · · · · · · · · · · · · · · · · · · ·		,	
6											#3 %				
7															
8						\perp									
9			\perp						- -				-		
10	•		\dashv			_				_					
11						1 50.0		<u> </u>					 		
12						1 **						L	II		

VESSEL NO. A CANTILL ST. EDEEL MAN			4	PI		STATION DESIGNATION								
NOAAS MILLER FREEMAN					F97-04					1 =				
			5/15/97					 		(amt)	E E			
CON			169 59-	44		TIME	DRY	WET EULB	SEA STATE VISIBILITY AUGUSTATE SEA STATE VISIBILITY		ᆲ	воттом	STA.	
#		TITUDE	LONGITUDE	l	JD= /02	(GMT)	BULB	BULB	SE DIRI	i. SPD.	[]		NAME/ID	
	DEG	MIN	DEG MIN	DAY	MO YR	HR MIN	(°C)	(°C) (r	nb) * * (deg			(m)	7 .	
12	2533	5.76 N	16959.4	14W12A	P R 9 7	2336	3.8	3.21	13804	0137	711	750	70-1	
(CTD A - Po	ort Side	TIMES	JD / TIME			C	ATA LOCA	TION	RI	EMARKS			
TYPE	E / SN SBE	9+ 91660	DATA ON			Tape/Disl	File	Name/Header	er W01535					
PRES	SS SN 297	772	START DOWN	,				СТ	DA_122	5	-20l	bottle	sof	
TEM	P SN 1:88	39 2:701	AT DEPTH				+					e Hoofe		
CON	D SN 1:4	80 2:303	AT SURFACE				ů.					PTH= 15		
			PAR	FLUOR	ChIA	м	TAPS6	TAPS	4					
	,			<u> </u>						SAMPLE				
				SEA-BIF	RD 9/11+	TA	BOTTL DATA							
	TRIP			<u> </u>					· <u>. </u>					
POS.	DEPTH	PRESSURE	PRI.TEMP	SEC. TEMP	SALINI	<u> </u>	AR I	FLUOR	ChIAM	SALINITY	310000	NUTRIENT	CHLOR	
1	1500			<u> </u>				,			30			
2	5 ⁽²⁾								1		95			
3	5	,								·	-			
5	5	Th.							-					
6	5		1				,							
7							. ,							
8										_				
9											ļ			
10				<u> </u>										
11										<u>-</u>	 			
12														

⁽⁷⁾ see remarks, not logged

VESSEL		CT&LEG	STATION DESIGNATION					
NOAAS MILLER FREEMAN	MF97-0	04		71-1				
CONSC CAST # LATITUDE	LONGITUDE DATE JD=			MEATHER DEPTH NAME/ID				
DEG MIN 1235325 N	DEG MIN DAY MO	YR HR MIN (°C 1970 \ 40 4		kts) * * * (m)				
CTD A - Port Side	TIMES JD/TIME		DATA LOCATION	REMARKS				
TYPE / SN SBE 9+ 91660	DATA ON	Tape/Diskette	ID File Name/Header	w/0 9110				
PRESS SN 29772	START DOWN		CTDA_ 23	5 10 labeles for				
TEMP SN 1:889 2:701	AT DEPTH			Justegas at 60m 32				
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	SEA-BIRD 9	/11+ CTD DATA	ВО	MPLE OTTLE ATA SAMPLE BOTTLE NUMBER				
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CONSC CAST # LA	ATITUDE	LONGITUDE	DATE J	D= /03	TIME (GMT)	DRY BULB	WET SE	SEA STATE VISIBILITY NAID	CLOUD (amt)		OTTOM DEPTH N	STA. NAME/ID	
DEG 1 2 4 5 3 2	MIN 4.71 N	DEG MIN			HR MIN	(°C)	(°C) (m	b) (deg) (KIS)	81	(m) 493	72-1	
CTD A - P	ort Side	TIMES	JD / TIME				DATA LOCAT	ION	RE	REMARKS			
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TEMP SN 1:8	89 2:701	AT DEPTH										L L	
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	SEA-BIR						SAMPLE BOTTLE DATA SAMPLE BOTTLE NUMBER						
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SEA-BIRD 9/11+						SAM BOT CTD DATA DA				TLE 15			
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