PG LOF

CAST # LATITUDE LONGITUDE DATE DEG MIN DEG MIN DAY DEG MIN DEG MIN DAY STAPE & SIN SEL S S	LONGITUDE MIN 1 2.6.46						<u> 31</u>			عسر	57	
- 5 3 N 1 6 9 TIMES + 91660 DATA O	MIN 2.6.4 €	DATE JD=	JD= 252	TIME (GMT)	DRY BULB	E ™ E T	ATS A38	WIND	MIND IS	SLOUD (MEATHER TT	BOTTOM	STA. NAME/ID
-5 3 N 1 6 9 TIMES + 91660 DATA O	26.46	DAY MO		H MIN	(၁ _၀)		(q	(deb)	-	١.	(E)	
TIMES + 91660 DATA O START C		SE	P 9 7 2 1	13	9	8 .3	1930	CA	12	1 1	t,J	
+ 91660 DATA O	÷ 1	JD/TIME			Õ	DATA LOCATION	VIION		<u>ac</u>	壶		
		252/2126	ř	Tape/Diskette 1D	ette ID	File	File Name/Header	leader	i	N _o	bother tripped	polo
	25c/	2/2/26				الله	Cact bol de	+		150 PS	d chlan	etc.
889 АТ DEРТН	т <u>2.52</u> ,	-		Not vern-ded	o-deel	الودي	Cast 001 A . 44	147		•		
530 AT SURFACE	. "1	252/2137					6			MAX. DEPTH =) = HT	u -
701/303 X PAR		X FLUOR	X CHIAM	1.57	TRANSMISSOMETER	SOMETER						
	CTD	CTD CONVERTED MONITOR VALUES	MONITOR V	ALUES			S.	SAMPLE BOTTLE DATA	этпе	SAMF	SAMPLE BOTTLE NUMBER	NUMBER
PRESSUPE	PRI.1	PRI. TEMP.	SEC. TEMP	ΜP	SA.	SALINITY		SALINITY	_	SAL.	NUTRIENT	OTHER
	-											
		p.										
	,											
						:						
			-									
				,								

PG 2 OF

PG 🚣 OF	STATION DESIGNATION DI	8	COUD STA. STA. DEPTH NAME/ID	(m)	7112481-2	REMARKS	Est cock - docky for	bud saline value		MAX. DEPTH = (∅ m		SAMPLE BOTTLE NUMBER	SAL. NUTRIENT OTHER												
	STATION		VISIBILIT VIND V	• • (deg) (m/s)	38285088		File Name/Header			W	,	SAMPLE BOTTLE DATA	SALINITY												
			DRY WET SSUE BULB ET	(°C)	10.0 9.2193	DATA LOCATION		CASTODA			TRANSMISSOMETER		SALINITY							(1)					
	PROJECT & LEG MF97-09A		JD= 252 (GMT)	Œ	EP972223		Tape/Diskette ID	of.	22	74-	ChIAM	CTD CONVERTED MONITOR VALUES	SEC. TEMP		,			3					20		
	<u>8</u>	-	LONGITUDE DATE	DAY	26.70 W09 S	JD/TIME	252/22	OWN 252 / 2218	252/	ACE 252/2227			PRI. TEMP.												
	-B EBEEMAN		LATITUDE	DEG	16.6 N 169	TIMES	TYPE & SN 911 + 9166 DATA ON	297772 START DOWN	889 АТ DEРТН	530 AT SURFACE	Jos X PAR		PPESSUPE	190											
	VESSEL NOAA Ship MII J ER EREEMAN		CAST LA	9	002561	СТО	TYPE & SN 911	PRESS SN 2°	TEMP SN &	COND SN	TEMP SN TO!	POS. TRIP DEPTH		1	2	က	4	S	9	7	8	6	10	11	12

٤ NAME/ID STA. First cast with bollle PG 3 OF SPD. CCOUD (SIMIL) Secondary 15 STATION DESIGNATION MAX. DEPTH = REMARKS WIND DIRN. (ded) File Name/Header SEA STATE VISIBILITY DATA LOCATION J (mb) **BUCSSILL** ₩ 1 TRANSMISSOMETER WET BUG ပ္ပ 28:47 9,0 B B B B B Tape/Diskette ID ပ္ပ 2302 E E TIME (GMT) PROJECT & LEG ChIAM Œ N 16926.54 W 898 EP97 DATE JD= 252 MF97-09A 9 122 hd 230 DAY X FLUOR JD/TIME 757 253 252 LONGITUDE Z START DOWN AT SURFACE AT DEPTH TYPE & SN 911 + 91660 DATA ON X PAR 9 TIMES NOAA Ship MILLER FREEMAN LATITUDE PRESS SN 29772 7.91 95 200 TEMP SN 701 /303 Z S TEMP SN 889 COND SN 530 9 £ CAST VESSEL

,		F-0.0	7	<u> </u>				
So.	TRIP DEPTH			CTD CONVERTED	O MONITOR VALUES		SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER
一			PPESSURE	PRI, TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL. NUTRIENT OTHER
-	235	235	238 108	4,1346	4.1346	28 4614 (bad)	33, 2874	* 69b x tz
	2007	200	201,879	4,2011	4,2010	Bad		S ×
	150	150	152.239	4,4015	4. 400 6			×06/
	100	100	101,141	4,7292	4,7292			990x
	75	75	76.079	173P.H	4.9670			Xabs
,i	50	S	51.157	4.7589	4,7557			* 9 GU COR
	do H	7	41.067	5.632	5,6349	,		0,0
-	30	30	30.731	6.1837	6.1837			× 963 / 000
	20	70	19.920	9.0 48H	8.0465			3
0	9	10	10.337	9.1255	9,1344			70) 70b x
	0	2,5	2.631	9.2350	9,2363			04) IND x
12								
	3							

PG 4 OF

													-	5
VESSEL NOAA S	SEL A Ship MILL	VESSEL NOAA Ship MILLER FREEMAN	Z		PROJECT 8 MF97-09A	PROJECT & LEG MF97-09A	i				STATIC	STATION DESIGNATION		20
CONSC CAST #		LATITUDE	HOILIBNO		DATE	TIME (GMT)		DRY B B	381088388 E 28	SEA STATE VISIBILITY SEA STATE	QNIM	LOUD (amt) YPE AHITAH	BOTTOM	STA.
	DEG	MIN	DEG			£	 	╁	_	۸ .	(m/s)) *		NAME
0	4562	00456211.37N169		28.0 7 WID	S			9.	0	3727	10	\$ 7	9	2-1
	CID		TIMES	JD/TIME	₩			DA	DATA LOCATION	NOI		REMARKS		
TYPE	TYPE & SN 911	91660	91660 DATA ON	253	253 / 0002	Tape	Tape/Diskette ID	te ID	File N	File Name/Header		New primary		Conduction
PRES	PRESS SN 29772	772	START DOWN	N 253	5000	Tak	_	28:47	CAST 00 4	D0 4				
TEME	TEMPSN 889	6	AT DEPTH	253	00 14						! [-		
NO0	CONDSN 480	0	AT SURFACE			6.			Ti.	:	 I	MAX. DEPTH	11	29
TEM	TEMP SN 701	1/303	X PAR	K Froor	on Roc	ChIAM		TRANSMISSOMETER	OMETER					
& Si	JETH HETH			CTD COA	VERTED M	CTD CONVERTED MONITOR VALUES	ES			SAMPLE BOTTLE DATA	BOTTLE TA	SAM	SAMPLE BOTTLE NUMBER	NOMBE
		HES	PPESSUPE	PRI. TEMP.	IP.	SEC. TEMP	-		SALINITY	SALINITY	<u></u>	SAL	NUTRIENT	L OTHER
-	129	129 130	130.475	4,1495	2	4.1506		33,	2557			20	9L6 x	
7	001	100 101	101, 549	4,4260	0	4.4249		33,0064	64				51.b x	
ო	75	۲، ۶۲	16.114	3.8370	0	3, 8364	100	32.5	5454				7 %	
4	50	S) (S	50.628	3, 2484	h &	3, 2466		32,3035	3.5	16			× 973	ع ن ×
2	40	40	40.64	3.4587	587	3.uS71		32. 2	2517	,			***	×
9	30	30	30.644	3.2732	132	3,2741		32, 173 !	3.1				x 972	×
7	10	70	20.733	4,9001	10	4.8 952		32.1779	P L1					×
æ	<u>C</u>	9	10.532	9.3553	53	9,3579		31 90	9440				1 Lb ×	×
ი	٥		868	9.4903	03	9,4904		31.9341	त्।	31.9309	Ь	36	OL6 x	× ×
10													,	
-														
12														

PG S OF

					-								P.G	7	1
VESSEL NOAA S	hip MILLI	VESSEL NOAA Ship MILLER FREEMAN	– N		PROJECT 8 MF97-09A	PROJECT & LEG MF97-09A					STAT	STATION DESIGNATION	NATION	03	5.
CONSC CAST #	-	LATITUDE	LONGITUDE		DATE JD= "	JUE 253 (GMT)		DRY	M WESSURE	SEA STATE	ONIW ONING UNING	COUD (amt) PPE ABHTAER	BOTTOM PEPTH		STA.
-	930	Z	920	Z Z	DAY MO	£		Н	1 1	(q)	1		(m)		
000	562	0055624.15N169		27.13 W10	S	P 9 7 0 1	001	0	9.12	203725	5109	87 2	121	3	
ช	CTD		TIMES	JD/TIME	ME			DA	DATA LOCATION	NOIT		REMARKS	g		
TYPE &	SN 911	TYPE & SN 911 + 91660	DATA ON	253/00:	J. S. C.	Tape	Tape/Diskette ID	e ID	H.	File Name/Header	ē	0	M		
PRESS	PRESS SN 24772	7772	START DOWN		253/00/ 48	a series	-	34146	CAST	CASTODS					
TEMP SN	N SS 9	0	АТ рЕРТН	753/	00 : 59	Tank	3	51:53		la ,					
COND	COND SN 480	0	AT SURFACE	253	01:10	-		-				MAX. DEPTH	11	5)	ε
TEMP S	TEMP SN 701/303	1303	ХРАЯ	X FLUOR	KOY HOY	CHIAM		TRANSMISSOMETER	OMETER						
<u>&</u>			C	CTDCON	VERTED MC	CTD CONVERTED MONITOR VALUES	ES			SAMP	SAMPLE BOTTLE		SAMPLE BOTTLE NUMBER	LE NUI	MBER
		S								,					
		Œ	HESSURE	PRI. TEMP.	MP.	SEC. TEMP		SAL	SALINITY	V S	SALINITY	SAL.	. NUTRIENT	L	OTHER
-	15	(15	116.548	4,1105	10	4,1105	,	33.2	2946				× 483	- 2	81
7	00	lon	01.400	4.11.26	و	4.1131		33. 28	2892			100	× 922	7	
п	7		76.158	4.0500	õ	4.0499		32,6729	129				13b x		
4	50	S	51.089	3.6680	30	3.6672		32,1776	911				08b x	¥	5
ည	40	40	41.665	4.2330	330	4.2321		31.9	6296				, Si	×	1
9	20	20	30.735	7.6481	181	7.5991	_	32,019	191				blb x	×	
7	20	0	20.116	9.8361	9	9.8364		31.99	9866					×	
ω	10	æ	10.649	9.9134	34	51.0b 6.	51	31,9593	543	31.9	31.9508	24	816 x	× •>>	
O	D	5,4	2.538	9.9570	0ر	9,9586	-6	31.0	4384				1-6 x	×	7
10					TÇ.	,			1						>
2 -															
12													35		

PG 6 OF

PG & OF	STATION DESIGNATION DY	CLOUD (amt) TYPE WEATHER DEPTH NAME/ID	(E)	8 7 2 9 4-11	REMARKS	3 0			MAX. DEPTH = 91 m		SAMPLE BOTTLE NUMBER	5	SAL. NUTRIENT OTHER	\ 489	386	MO x 484 x	<i>x</i>	x 98b x	*	7 286 7	33 × 48C					
-	STATIC	VISIBILITY DRIVE SEA STATE OF WIND STATE STATE	(ded) (m/s)	37248	N	File Name/Header	106				SAMPLE BOTTLE DATA		SALINITY								31.7309					
	÷	DRY WET BULB BULB	(Ç)	5 9.0	DATA LOCATION		S2; H CAST DO 6			TRANSMISSOMETER			SALINITY	33.2256	32.4710	31.7710	31.7512	31.7908	31.8235	31.7301	31.7319					
1	& LEG A	TIME (GMT)	<u> </u>	9 7 0 1 5 3		Tape/Diskette ID	- X	-			TOR VALUES		SEC. TEMP	41.0595	3.7388	5.4912	5. T194	8.2147	9.7247	9,6517	9. TOUD					
	PROJECT & LEG MF97-09A	DATE JD=253	DAY MO	SEP	JD/TIME	253 / 01:42	253/61244	3/61:54	20	RUOR C	CTD CONVERTED MONITOR VALUES					5.4911	5.776	8.2137	724n	8759	9.704S					
		LONGITUDE	G MIN	1692843	·		START DOWN 253	AT DEРТН 253	AT SURFACE 253	PAR	CLDC		PRI. TEMP.	6 4.6595					6	0						
-	ER FREEMAN	АТПОРЕ	MIN DEG	27.32 N 16	TIMES	TYPE & SN 9 11+ 9 1640 DATA ON	29772 STA		460 ATS	1 303			PPESSUPE	952,28	75 75.794	50 51,113	40. HI. 016	30,527	20.765		2,4 2.323					
	VESSEL NOAA Ship MILLER FREEMAN	CONSC CAST # LAT	DEG	006562	e E	TYPE & SN 4	PRESS SN 297	TEMP SN 889	COND SN	<u>P</u> S	POS.	,		1 92	2 75	3 50	4 40	5 30	07 9	7 10	0 8	6	10	11	12	

PG 7 OF

VESSEI			91		DEO IECT & LEG	9			T T T	5 E	5
描	MILLE	NOAA Ship MILLER FREEMAN	- z		MF97-09A	2			SIAIION	STATION DESIGNATION	05
CONSC CAST #	₹	LATITUDE	HONGILLD	UDE	TE JD=23	TIME	DBY WET	PRESSURE SEA STATE VISIBILITY	S S S S S S S S S S S S S S S S S S S	ABHTABN BOTTOM	STA
ľ	9	NIM	2 9 9 2	_	W N	∸	(5)	(dea)		۸.	NAIME/ID
5	7562	29.97N	1692	7 2 W	SEP9	02	19.5 9.0	036252	-	7 2 8 4	- S
CED	-		TIMES	JD/TIME			DATA LOCATION	NTION	<u> </u>	REMARKS	
& S	- Z	TYPE & SN 911 + 91660	DATA ON	253 /01:	1,29	Tape/Diskette ID		File Name/Header			
SS	PRESS SN 29712	775	START DOWN		2,33	Lape	1:07:52 CA	CASTOOT			
TEMP SN	884	· C	AT DEPTH	753/02:4	17:41	Ten	*		<u> </u>	-	
COND SN	28 7	0	AT SURFACE	253/102	21,48	-			Σ	MAX. DEPTH =	E &
TEMP SN	701	1303	X PAR	MRUOR	Chiam	MM M	TRANSMISSOMETER				
	TRIP DEPTH			CTD CONVER	CTD CONVERTED MONITOR VALUES	R VALUES		SAMPLE BOTTLE DATA	этте	SAMPLE BOTTLE NUMBER	LE NUMBER
		Ó: O: O:	000000		Coo		VEHA INC.		,		
0	1			2 Q 70 3	<u> </u>	O-1-C	O'ALINIIT	SALINITY		SAL. NOTHIEN	
3 3	, vo	50 51	51.150	4, 4504 H, 4504		4.4508	31.1148	\$0% P. 10	1.2	100 ×	3 × C00
135	40		40.742	5.28b7		2796	31.7395				× ×
6	3.0	30 3	30.604	7.5393	7,	5388	31.6532			XOGX	×
20	0		20.212	8.6079	8	6084	31.5%05				×
	P	0	6.788	9,0479	. ام	9 Lh 9	31.5851			166 x	* /
de *	0	2. प	2.250	9.0351	6	.0361	31.5750			66 x	×
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PG % OF

٦ - 	90	STA. NAME/ID		1 - 9				m (9)		SAMPLE BOTTLE NUMBER	T OTHER		0 V/)x	* *	×	×	×	k				
אַם מי		ВОТТОМ	$\overline{}$	3 4 16						E BOTTL	NUTRIENT	× 999	× 90 ×		£55 x		× 946	> 36 ×				
_	STATION DESIGNATION	CLOUD (amt) TYPE MEATHER R 7	1.1	8712				MAX. DEPTH =		SAMPL	SAL.							ī				
	STATION	WIND GIRD G		% & % ()	<u> </u>			<u>.</u> ≥.		OTTLE	Ł							8				,
		WIND		2 45	leader	,				SAMPLE BOTTLE DATA	SALINITY					! !		31,6798				
		SEA STATE YTISIBICITY		L 20	File Name/Header	800	101			S			<u> </u> 	<u></u>		<u></u>		<u> </u>		<u> </u> 	<u> </u>	
		WET BURESSURE	(C) (D)	1 8 8 2 03	File I			!	OMETER		SALINITY	54	183	800	240	13.2	842	190				
		DRY BULB		0		1:19:2	1:27:15		TRANSMISSOMETER		SAL	31.8159	31,7983	31,7688	31.7540	31,7132	31,6842	31.6790				
	rg	TIME (GMT)	¥	0322	Tape/Diskette ID	Tare	Tan. 1			/ALUES	IMP	5	160	18.	36	H279	19	94		,		-
	PROJECT & LEG MF97-09A	N N	Œ	P 9 7 (*		<u> </u>	ChIAM	NITOR \	SEC. TEMP	5.1825	5.8760	6.6778	J.6736	7. ધર	7.8019	8.0.346				
	PROJECT 8 MF97-09A	DATE JD=	<u>8</u>	В	03:14	03:14	03,27	03: 2%	<u> </u>	ERTED M			ь	5			2	7				
		71	<u>a</u>	16929001W100	253 / 0	253 / 0	253/6	253/0	KRUOR	CTD CONVERTED MONITOR VALUES	PRI. TEMP.	5.1816	5.8764	4273.3	7.0730	7. 4301	7.8016	8.0332				
		LONGITUDE	<u>Z</u> _) ·	· ~	OWN	I	ACE		ڻ ر		<i>የ</i> ነ			-							
	_ z	JOT			DATA ON	START DOWN	АТ БЕРТН	AT SURFACE	X PAR	,	PPESSUPE	69,065	50.734	46.935	30.051	20.569	10.620	2 .334		,		
	VESSEL NOAA Ship MILLER FREEMAN	ODE		CTD CTD	TYPE & SN 911+ 91660	7			3 03		$\lfloor - \rfloor$				Ì							
	MILLER	LATITUDE	NIM S	6 3 4	+======================================	PRESS SN 29772	000	08h	TEMP SN 701/3 03	흥 토		89	, 50		30	r O	10	2.6				
	VESSEL NOAA Ship	CONSC CAST #	DEG	S 6	PE & SN	ESS SN	TEMP SN 889	COND SN 480	MP SN		_	89	50	40	30	20	2	0				
·L	ý g	857		0	Σ	Œ.	Ë	8	Ü	POS.		-	7	က	4	ഗ	မ	7	8	6	10	,

PG 9 OF

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VESSEL NOAA Shi	VESSEL NOAA Ship MILLER FREEMAN	REEMAN			PROJECT & LEG MF97-09A	EG				STATION	STATION DESIGNATION		40
CONSC	- - -	L (JIME	∑. Zer	ESSANEE Lij M	TATE AS SIBILITY SIND SIND D		(tms) QUO. 39 F3HTA3	ВОТТОМ	STA.
*	DEG MIN		DEG MIN	N DAY	MO YR		+	\neg	IS	SPD. C	M.	DEPTH (m)	NAME/ID
00956		Z C S	120	1 2 W I O	SEP	D Q	9.8	0	3 7 8	1 2 %	72	357	
CTD			TIMES	JD/TIME			DA	DATA LOCATION	NC	<u>~</u>	REMARKS		
TYPE & S	TYPE & SN 911+	91160	91660 DATA ON	253/03:56	95	Tape/Diskette ID	kette ID	Z eji L	File Name/Header				
PRESS SI	PRESS SN 29772		START DOWN	253/03:58	5.8	196	127 15	(As + 209	60				Japa
TEMP SN 869	889		AT DEPTH	253/ 04:00	00		(32 cm						,
08h NS GNOO	· 480	,	AT SURFACE	253/04:05	:05					_ ≥	MAX. DEPTH	тн= 29	E
တ္မ	701/3	303	X PAR	X R.UOR	ChiaM		TRANSMISSOMETER	OMETER		_	:		
<u>8</u>	PEPTH THE			CTD CONVER	CTD CONVERTED MONTOR VALUES	NALUES		,	SAMPLE BOTTLE DATA	отп.е \	SAMP	SAMPLE BOTTLE NUMBER	NUMBER
								:					
	Ī	HESSER	# H	PRI. TEMP.	SEC	SEC TEMP	SAL	SALINITY	SALINITY	اح	SAL.	NUTRIENT	
- 28	i		74.27J	0 . 6 7 4D	6.6780	0.8	31.778 I	_ 00	31.7587	7	#	× lor	X CAL
2	07 07	Ì	20.032	7,4862	7.4818	18	31,7246	16					×
ю	0	10	10.350	7.6627	7.6593	593	31.7062	,2				1001 ×	Y
4	0	2.	2 - 5/26	7,7432	۲,۲	ויסאר.ר	2407.15	42				000 X	> ×
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PG 10 OF

		STA. NAME/ID				105+	0 + 11	Â	٤		UMBER	OTHER THE	170	Ch!									-	
בס סו	ATION	ВОТТОМ		8			1 FDS 04	mixed	TH = \(\int \)		SAMPLE BOTTLE NUMBER	NUTRIENT	1004	1003	**									
-	STATION DESIGNATION	CLOUD (amt) WEATHER WEATHER		7 2	REMARKS	5	h, hu	Well M	MAX. DEPTH =		SAMP	SAL.	50							,				
	STATION	WIND COR		1 0 8	<u>æ</u>				_≥_		ОТП.Е А	<u></u>	Ş			į								
(3)		VISIBILITY ON WIND		7		/Header					SAMPLE BOTTLE DATA	SALINITY	31.7378								•			
		PRESSURE SEASTATE	b).	2 1 3	SATION	File Name/Header	CASTOIO			_										<u> </u>				
		WET	(0°)	9.12	DATA LOCATION	ű.		1]	SOMETE		SALINITY	7434	7007	,									
1		DRY	(00)	0.01	Δ.	ette ID	132 03	142.19		TRANSMISSOMETER		S/	31.						*	d.			÷	
	ගු	TIME (GMT)	H M M	0427		Tape/Diskette ID	Tape	-			VALUES	EMP	55	98	•									
,	PROJECT & LEG MF97-09A	= 253	Œ O	P 9 7		ı				CHIAM	CTD CONVERTED MONITOR VALUES	SEC. TEMP	7.1955	7,6586										
}	M M	DATE JD=	DAY MO	I D S E	ME	253 10422	5240	1042S	0426	HOD	VERTED	MP.				-								
		· -	MIN	29.07 W 10	JD/TIME	253	253	253	253	MEUOR	CTD CON	PRI. TEMP.	7.1991	7,6677				,				:		
		LONGITUDE	DEG N		TIMES	ATA ON	START DOWN	AT DEPTH	AT SURFACE	N PAR	! .	Ų.	7	و.										
-	EEMAN	ய	1	0105634.61N169	F	91660 DATA ON		<u>\</u>	_₹]			PPESSURE	3 612	1.916				٠						
	VESSEL NOAA Ship MILLER FREEMAN	LATITUDE	NIM NIM	39.6			PRESS SN 29772	b 85	180	TEMP SN 701 303	, I		V. Same	8										
	SEL A Ship M	ISC ST	9 1	056	CTD	TYPE & SN (11) +	SS SN	TEMP SN 889	COND SN 480	P SN 7			~	9/1)	_	44	* ***							
	VESSEL NOAA S	CONSC CAST #		0		Σ	Æ	TE N	8	TEM	S.		- -	N	က	4	ည	9	7	80	თ	10	Ξ	12

PG 11 OF	STATION DESIGNATION C1	WIND OD (AMT) SPD. CO PER BOTTOM STA. SPD. DEPTH NAME/ID	* * * (m)	8874 5320-1	PEWARKS	2			MAX. DEPTH = 48 m		LE SAMPLE BOTTLE NUMBER	SAL. NUTRIENT OTHER		x 1001 x	(M)	100 x CM	4	2						
S. C.	ST	STATA SABI YTJIBISIV ON W ON W	(geb) * *	362390	Z.	File Name/Header	11				SAMPLE BOTTLE DATA	SALINITY	31.6424											
	-	DRY WET 6550 RE BULB RE	(°C) (°C) (mb)	10.09.830	DATA LOCATION		00:00 CAST 011	કૃષ્ણ મુ	•	TRANSMISSOMETER		SALINITY	31,6323	31.6460	31.7188	31,0311	30,8994	30.8995						
	PROJECT & LEG MF97-09A	JD= 254 (GMT)	MM RH RY OM	E P 9 7 1 8 0 6		Tape/Diskette ID	7 22				CTD CONVERTED MONITOR VALUES	SEC. TEMP	4.4074	4. 5463	5,7328	9.5712	9.3280	9.3543					Į.	
	A M	DATE	MIN DAY N	4.85W118E	JD/TIME	254/1759	N 254 1802	254/1806	254/1915	X FLUOR	CTD CONVERTED	PRI. TEMP.	4.4099	4.5405	5.7270	9.5689	9.3276	9,3534						
	MAN	LONGITUDE	DEG		TIMES	O DATA ON	START DOWN	AT DEPTH	AT SURFACE	N X PAR		PPESSUPE	48.789	40.400	30.149	25,945	16. 105	7.682						
	VESSEL NOAA Ship MILLER FREEMAN	C LATITUDE	DEG	15706.53N1694	стр	TYPE & SN 9114 91660 DATA ON	PRESS SN 29172	SN 88.9	0%h NS	SN 701/303	TRIP DEPTH			ŀ	Ì		(۵ م	2.4						
	VESSEL NOAA S	CONSC CAST #	-	10		TYPE	PRESS	TEMP SN	COND SN	TEMP SN	& Si		-	۲	က	4	C)	9	7	80	6	2		12

PG 12 OF.

MAX. DEPTH MAY. DATA MAY. DEPTH MAY.	EEMAN MF97-09A TIME DRY WET	DEC LONGITUDE DATE JD= 254 GMT) BULB BULB E S S S S S S S S S
MF97-09A	MF97-09A MF97-09A	MF97-09A TIME DRY WET SE SE SE SE SE SE SE
MF97-09A	TIME DRY WET	Dec Min Dec Det Dec Dec Dec Dec Dec Dec
TIME DATE JD= 254 (GMT) DEG MIN DAY MO YR HR MIN DATE JD= 254 (GMT) DATE JD= 254 (GMT) MO YR HR MIN DATE JD= 254 (GMT) J J J J J J J J J	CONGITUDE DATE JD= 254 GMT) TIME DATE JD= 254 GMT) D	TIME
MF97-09A MF97-09A	CONGITUDE DATE JD= 254	LATITUDE
LONGITU DEG MI TIMES DATA ON START DOWN AT DEPTH AT SURFACE AT SURFACE AT SURFACE AT SURFACE AT SURFACE	LONGITU LONGITU LONGITU LONGITU TIMES TIMES AT DEPTH AT DEPTH AT SURFACE AT SURFACE	LATITUDE LONGITU LON
LONGITU DEG MI TIMES DATA ON START DOWN AT DEPTH AT SURFACE AT SURFACE AT SURFACE AT SURFACE AT SURFACE	LONGITU LONGITU LONGITU LONGITU TIMES TIMES AT DEPTH AT DEPTH AT SURFACE AT SURFACE	LATITUDE LONGITU LON
LONGITU DEG MI TIMES DATA ON START DOWN AT DEPTH AT SURFACE AT SURFACE AT SURFACE AT SURFACE AT SURFACE	LONGITU LONGITU LONGITU LONGITU TIMES TIMES AT DEPTH AT DEPTH AT SURFACE AT SURFACE	LATITUDE LONGITU LON
MAN MAN TIMES DATA START AT DEF AT SUR AT SUR	ATTTUDE DEG 0 8 6 N 1 6 9 9 1 1 6 9 9 1 1 9 9 1 1 9 9	SC
	ТТИВЕ МИ	SC LATITUDE

PG 13 OF

PG 13 OF	STATION DESIGNATION	HENTION (amil)	(E)	872] ≳ '	Sech. 14	Backup Lane Listed	late	MAX. DEPTH = 6 m		SAMPLE BOTTLE NUMBER	SAL. NUTRIENT OTHER		x /o/x x Che	X/017 X CLUE	₩) ×	× 1016 × Chr	M) x 5,01 x	22 × 10/4 × Che.					
	STATIC	VISIBILITY VISIBILITY VIND VIND	(s/m) (deg) (m/s)	3624206		File Name/Header	13				SAMPLE BOTTLE DATA	SALINITY							31, 1087					
		DRY WET	(၁့)	11.010.8	DATA LOCATION		26:14 CASTO13	30,35		TRANSMISSOMETER		SALINITY	31.7592	31, 7627	317644	31.6453	31, 308 6	31, 1134	31.1054					
	PROJECT & LEG MF97-09A	JD= 254 (GMT)	Œ	E P 9 7 2 0 2 4		Tape/Diskette ID	7 Tan 2	23	3/	K CHIAM	CTD CONVERTED MONITOR VALUES	SEC. TEMP	4.6471	4.6624	4.6706	4,9329	9,9281	9.9647	9.9721					
	a w	LONGITUDE DATE J	DAY	40 . 14 W 1 1 S	JD/TIME	254 / 20:15	WN 254/20:17	254 20:	254 20;	X	CTD CONVERTE	PRI. TEMP.	4.6472	4.6623	4.6703	4.9346	9.9275	ુકાવા	9,9721			*		Ē
	 FREEMAN	ATITUDE	980	35654.87 N1694	TIMES	91660 DATAON	START DOWN	AT DEPTH	AT SURFACE	303 X PAR		PRESSURE	61,698	° 50.375	40 40.488	30.921	3 18.216	10.425	2.5 2.305		59			
	VESSEL NOAA Ship MILLER FREEMAN	CONSC CAST # LATF	DEG M	0135654	СТО	TYPE & SN 911+ 91660	PRESS SN 29772	TEMP SN 889	cond sn 480	IOL NS	POS. DEPTH		13	2 50		4 30 30	5 (8. 18	Q Q	7 D	8	6	10	11	

2

PG 14 OF

FG OF	STATION DESIGNATION $\subset 6$	DOUD (amt) TYPE WEATHER DEPTH NAME/ID	(E)	8 7 4	PEMARKS	Seal 1 2.0			MAX. DEPTH = 6y m		E SAMPLE BOTTLE NUMBER	SAL. NUTRIENT OTHER		1 × × × × × × ×	× /033 ×	×	X 1022 X	× 9/	× 2020 ×					
	STA	SEA STATE VISIBILITY ON WIND SEA STATE	(deg)	36246	NC	File Name/Header	h 10				SAMPLE BOTTLE DATA	SALINITY	,					31. 4382						
	ie.	DRY WET	(°C)	510.9	DATA LOCATION		30:35 (ASTOIN	39.34		TRANSMISSOMETER		SALINITY	32,0912	32.0507	31,8478	31.8292	31.6556	31.4371	31,4338					
	PROJECT & LEG MF97-09A	TIME (GMT)	H WIN	PB 7 2 1 2 9 1		Tape/Diskette ID	Tage 2	: ::::::::::::::::::::::::::::::::::::		\Box	NITOR VALUES	SEC. TEMP	4.36.55	H, 5447	5, 2531	5.7066	7.8356	9.7619	9.7795					
	PROJECT 8	E DATE JD= 254	DAY	7.19W11SEP	JD/TIME	254 (21:19	254 21:23	254/21:29	254 - 21:35	X HOUR	CTD CONVERTED MONITOR VALUES	PRI. TEMP.	4.3659	4.5261	5.2543	5.7065	7.8463	9.7612	9.7803		- 69			
	- AN	LONGITUDE	DEG MIN	1693	TIMES	DATA ON	START DOWN	АТ DEРТН	AT SURFACE	X PAR		PRESSUPE:			424	30.734	20.817	890.01	1.067					
	VESSEL NOAA Ship MILLER FREEMAN	CONSC CAST # LATITUDE	DEG MIN	014564B.43N	сцэ	TYPE & SN 9114 91660	PRESS SN 29772	TEMP SN 889	cond sn 480	ွ	POS. TRIP DEPTH		1 6-4 64 64.814	2 50 50 51.096				6 10 10 10	7 O 7	8	6	10	11	12

PG 15 OF

PG (2) OF	STATION DESIGNATION $()$	MEATHER OTTOM STA. NAME(I)	(m)	7 7 7 7 9 2 4 - 1	REMARKS	Secchi 3, 25m			МАХ. DEРТН = 7 ч m		SAMPLE BOTTLE NUMBER	SAL. NUTRIENT OTHER	4]642	170 x 1701 x	x Cholx	*	1039 x	x 0 3 8 x	×1037 ×		23			
	STATION	SEA STATE WIND W	* * (deg) (m/s)	136240068		File Name/Header			Σ		SAMPLE BOTTLE DATA	SALINITY			31,8279									
		DRY WET	(0°)	11.711.3	DATA LOCATION		34:30 CASTOLS	- SI: 57		TRANSMISSOMETER		SALINITY	32,1249	31.9304	31.8392	31.6498	31,6431	31.5465	31.4769					
	PROJECT & LEG MF97-09A	JD= 254 (GMT)		EP972228		Tape/Diskette ID	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			א ChlaM	CTD CONVERTED MONITOR VALUES	SEC. TEMP	4.0761	5.0209	5.2928	5.0447	7,5650	9.0119	9,5060		,			
	PR	DATE	DAY	5.82W11S	JD/TIME	254 /2218	254 (222)	254 / 2223	254 / 22.35	X RUOR	CTD CONVERTED	PRI. TEMP.	4.0762	5.0208	5.2933	5.0418	7,5549	9.0197	9. 5092				,	
	MAN	LONGITUDE	DEC _	1693	TIMES	91660 DATA ON	START DOWN	АТ ОЕРТН	AT SURFACE	X PAR		PRESSURE	74,882	50.693	41. ora	30.246	21.098	16.707	6,898					
12000	VESSEL NOAA Ship MILLER FREEMAN	CONSC CAST # LATITUDE	DEG -	0 1556 42.95N	СТО	TYPE & SN 911+ 916	PRESS SN 29172	TEMP SN 889	COND SN 480	S	POS. TRIP DEPTH	4	7 74 7	2 Sp Sb E			5 20 20		7 0 2,5	80	6	10	11	12

PG 16 OF

TIME DRY WET BY SELECTION SPD. CITY OF COMMIND OF COMMIND OF COMPOSITION SPD. CITY OF COMPOSITION SPD. CITY OF COMPOSITION SPD. CITY OF CITY O	chin Mill 1				PROJECT & LEG	LEG				STATI	STATION DESIGNATION	ا اد	7 7 7
NGTTUDE DATE JD= 254 GANT BULB BULB E E E E E E E E E					INITS/ -USA						(1		Q.
Signature Control Co	<u>-</u>	υ <u>C</u> Ε	E		٥	 	} G		EA STATE YTJIBISI		LOU D (am. 799 73HTA3		STA.
3 5 6 0		MIN	DEG		\$ ≥	9		1	Λ S		W .	H (E)	NAME/ID
Times Data Location Para Location Figure	7	0.1 CN	16935	160 W	SEP9	23	12	N	1362		2/2	7725	<u> </u>
STAFT DOWN 254 22:59 Tape/Diskette D File Name/Header				JD/TIME			Ď	ATA LOCAT	NOL		REMARKS		
START DOWN 254 23:01 Top 2 51:57 CA57016 MAX AT DEPTH 254 23:158 I:01:01 AT SUBFACE 254 -23:15 MAX AT SUBFACE 254 Chiam MAX THOORN VERIED MONITOR VALUES SALINITY SALINITY SO, 282 5.8245 5.8245 31.8605 M4.9320 41.9321 31.4053 M4.9320 41.9321 31.4053 M4.9320 31.5020 31.5068 A	411	1660	DATA ON	254 / 22	27.58	Tape/Dist	kette ID	File	Name/Head	ler.	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		3
AT DEPTH 254 / 23:08 1:01:01 MAX	29	772	START DOWN	254 /	3:01		51;57		1016				
1303 ATSURFACE 254 - 13:15 MAX	884		AT DEPTH	_	3:0B	-	10:10:1		-				
1303 N PAR N PLUCR N CTD CONVERTED MONITOR VALUES SAMPLE BOTTLE	08h		AT SURFACE		23:15			 			MAX. DEPTH	7H= 73	E
PRISSIPE PRI TEMP. SEC TEMP SALINITY SALINITY 73. 672 41.0800 41.0890 32.1164 50. 282 5.8245 5.8249 31.8605 40. 508 41.9320 41.932 31.6453 30. 523 6.8573 6.8516 31.7553 70. 506 7.1755 7.1752 31.5069 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 31.4107 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4735 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476 7.4476 1.890 7.4476	701	1303	X PAR	X RUOR	X	W	TRANSMIS	SOMETER					
PRESSURE PRI TEMP SEC TEMP SALINITY 73, 674 4,0900 4,0890 32,1164 50,282 5,8245 5,8249 31,8605 40,508 4,9320 41,9321 31,6453 30,523 6,8573 6,8516 31,1553 20,506 4,1755 7,1732 31,5020 31,5068 1,890 9,4735 9,4476 31,4109	류			CTD CONVER	TED MONITO	R VALUES	a)		SAMF	LE BOTTLE DATA		SAMPLE BOTTLE NUMBER	UMBER
31, 674 4,0890 4,0892 32,1164 50,282 5,8245 5,8249 31,8605 40,508 4,9320 41,9321 31,6453 30,502 4,9320 41,932 31,6453 20,506 4,1755 7,1752 31,189 1,595 8,9052 31,5020 31,5068 1,890 9,4735 9,4476 31,4109	Ach		X.PE	PRI. TEMP.	SEC	TEMP	SA	LINITY	S	ALINITY	SAL.	NOTRIENT	E E
50.282 5.8245 5.8245 31,8605 46.508 4.9320 41,9321 31,6453 30.523 6.8573 6.8516 31,7553 20.506 7,1755 7,1752 31,5020 31,5048 1.890 9.4735 9.4476 31,4109	73	ا 3. ا	hL'	1,0900	4.0	000	32.1	164				x 10x8	
46.568 4.9320 41.9321 31.6453 30.523 6.8513 6.8515 31.753 20.506 7.1755 7.1752 31.189 7.535 8.905 8.8522 31.5020 31.5068 1.890 9.4735 9.4476 31.4109	So	50.2	8.7	5.8245		3249	31.	3605				XVXOVX	() A A
30. 523 6.8516 31,753 20. 506 4,1755 7.1732 31,189 1.890 8.9005 8.8622 31,5020 31,5068 1.890 9.4735 9.4476 31,4109	46	46.	508	4.9320	רו.	9321		6453				x y yo , x	
20.506 7.1755 7.1732 31.789 31.5068 1.890 31.5068 31.890 31.5068 31.890 31.5068 31.4109	36	30.	523	6,8573	(,	8516	ъ.	7553				×	
1.535 8.9622 31.5020 31.5068 1.890 9.4135 9.4476 31.4109	20		. 506			2511	31	1189				× /0 %8/	
1.890 9.4735 9.4476 31.4109	4		535	8.9005	8	8822	31.	502.0		5068	2 0	× 1091 ×	
	5	8.	390	,473	9	9Lhh	31:1	1109				X 1043 X	₂ >
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PG 17 OF

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VESSEL NOAA Ship M	VESSEL NOAA Ship MILLER FREEMAN	7	ĪΣ	PROJECT & LEG MF97-09A				STATION	STATION DESIGNATION		69
CONSC CAST #	LATITUDE	LONGITUDE	DATE	JD= 25_V (GMT)	E DRY	38 W 39 ES30 38 ES30 58 ES30 58 ES30 58 ES30 58 ES30 58 ES30 58 ES30 58 ES30 58 ES30 58 ES30 5	SEA STATE VISIBILITY S S S S S S S S S S S S S S S S S S S	WIND (ami)	CLOUD (amt) TYPE WEATHER R C	ВОТТОМ	STA. NAME/ID
930	MIN	DEG MIN	DAY	Ŧ	-	1	(ded)	(m/s)	١.	├-	
01756	75638.16N169		35.55 W 118	S E P 9 7 2 3 4 3	<u>-</u>	_	36230	0 1 8	74	32	1 - 9
GE3		TIMES	JD/TIME		0	DATA LOCATION	N	<u></u> #	REMARKS		,
TYPE & SN	TYPE & SN 911 + 91660 DATA ON	DATA ON	254 2334		Tape/Diskette 1D	File Na	File Name/Header		X Cch	3.5m	\$
PRESS SN 29772	29772	START DOWN	254 2338	1 5	7 1.01:01	L CIASTOLY	17				
TEMP SN 889	ડેહવ	AT DEPTH	254 / 2347	-	1 :09 : 40	q					
cond sn 480	480	AT SURFACE	254 23			!		È	MAX. DEPTH	h9 =н	E
NS	701 /3.03	X PAR	X Ruor	XCHIAM	TRANSMISSOMETER	SOMETER					
POS. TRIP	. .	- .	CTD CONVERTE	CTD CONVERTED MONITOR VALUES	ြုန္တ		SAMPLE BOTTLE DATA	этпе	SAMPL	SAMPLE BOTTLE NUMBER	NUMBER
	PRESSURE	Z.E.	PRI. TEMP.	SEC. TEMP	SA	SALINTY	SALINITY		SAL.	NUTRIENT	OTHER
1 6	63 64.822	22	4.5738	4,5732	31,	9120			,	hsol x	
2 50 5		092	5,8711	5.8726	31.	7277				× 1053	x Chl
3 49	40 HBH	184	6.4106	6.4106	31.	6765			(x 1052	y ,
4 33	30.627	+Z°	6.69 db	6.6919	31.	31.6205					×
5 20	21 20.	20.979	7.1431	7,1401	31	6238			ζ.	1501 ×	×
		10.952	8.1390	8, 1421	31.	5129			X	650	
7 0 6	2.5	2.424	8.7021	8.7002	31.	1 9 5h	31.5818		80	, bhol x	×
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10					- L						
7					-						
12											
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PG 18 OF

VESSEI					\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	-					
NOAA Ship MILLER FREEMAN	LER FREEMAN			MF97-09A	l & LEG		***		STATION	STATION DESIGNATION	۲ ک
CONSC					·		_∃euns	TATE VIIV	(tms) (I	(tms) Ol	:
CAST #	LATITUDE	LONGITUDE		DATE JD= 2	255 (GMT)	BUG BUG	W.E. B.U.B \$3899	SEA S	WIND OIL	WEAT DEPTH	OM STA.
DEG	MIN	DEG MIN		DAY MO	YR HR MIN	Ш	(°C) (mb)				╄
0185636.9	6 9 4N	1693	4.39W12	SEP	97001	5 1 1 8	10.73	1 1 62 8 0	8 9 0	7 5	4027-11
сТр		TIMES	JD/TIME	% Tut			DATA LOCATION		~	REMARKS	
TYPE & SN qui+		91660 DATA ON	255/000	600	Tape/Di	Tape/Diskette ID	File N	File Name/Header			
PRESS SN 24772		START DOWN	255/0012	210	Tays 2	1:09:40	:40 CASTONES	018			
TEMP SN 589		AT DEPTH	255/c	0015	- .	1:15	:15:22				
COND SN 480		AT SURFACE	255/0	0018				. •	Σ.	MAX. DEPTH =	35 m
TEMP SN 70	701 /303	X PAR	R HUOR	X X	χ ChIAM	TRANSMIS	TRANSMISSOMETER		_		
POS. TRIP			CTD CONV	ERTED MON	CTD CONVERTED MONITOR VALUES	i		SAMPLE BOTTLE DATA	отпе А	SAMPLEB	SAMPLE BOTTLE NUMBER
				-	1		· ·			H	-
十	THESSOFT SC	<u>1</u>	FHI. LEMP.	 	SEC. LEMP	`` .	SALINITY	က -	<u>.</u> 	SAL.	NUTRIENT OTHER
- 2	500 15	202	7 160		150 الا ١٥٠ ال	7.1.7	7724	31. (7)2	75	1	05 % (Mo
	20, 215	215	51.00.1	95	1.5134		781			×	×
1	-01	388	7,8138) _{&}	7,8144	31.	31.6892	-		×	X 22 /2 X
5 0 2.0	2	. 138	9,2548		9, 2219	31.	thLh			X	X Sey
9								i			
7				>							
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PG 19 OF

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VESSEL NOAA Ship MI	VESSEL NOAA Ship MILLER FREEMAN		_ <	PROJECT & LEG MF97-09A	_o		,		STATIO	STATION DESIGNATION		5
							38	3T/	((0.0)	(अणर)		
CONSC CAST #	LATITUDE	FONGILIDE	DATE	JD= 25.5	TIME	DRY	LESSON E LI E K	ATS A38	WIND	SLOUD YEATHE	BOTTOM	STA.
SHO DHG		DEG	DAY	۶	N ₩	(5)	\top	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(m/n)	۸.	+	AMEZIO
0,1956	4 9 N	169	19 W 1 2	Р 9 7		11.8	7	1 6 2	0 6	7	2028	1
CE CE		TIMES				Ö	DATA LOCATION		2	REMARKS		
TYPE & SN	TYPE & SN 911+ 91660	DATA ON	255 / 00:40	1	Tape/Diskette ID	cette ID	File	File Name/Header		Secth.	2,4	
PRESS SN 24772	29772	START DOWN	255/00:43	~	Tax 2	1:15:	22 CAS	CASTOIG		•		
TEMP SN 889	6.8	AT DEPTH	255/00:45	 Sh	_	End						
COND SN L180	180	AT SURFACE	255 00; 5	46					<u><</u>	MAX. DEPTH	H= 14	m /
NS o	701 /503	X PAR	X FLUOR	X CHIAM		TRANSMISSOMETER	SOMETER					
POS. DEPTH			CTD CONVERTED MONITOR VALUES	ED MONITOR V	/ALUES	,		SAMPLE BOTTLE DATA	ВОТП.Е ГА	SAMPL	SAMPLE BOTTLE NUMBER	UMBER
	PRESSURE		PRI. TEMP.	SEC. TEMP	EMP	SA	SALINITY	YIINI IS	<u> </u>	IAS.	NI TRIENT	CHEE
1 14	14.614) ।	11981	7.8750	50	31,	F019	5697 18	٠		_	× Clu
2 10	10.257	254	8.0950	8.6726	26	31. (31. 6313				_	× Cho
3	2.5	2.590	8.5439	8.50	5430	31,	31.5707				1	X CO O
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6												
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PG 200F

PG 40 OF	STATION DESIGNATION B	NEATHER DOTTOM STA	(m)	MARKS	Sech.	1 2 m	-	MAX. DEPTH = 0.5 m		SAMPLE BOTTLE NUMBER	SAL. NUTRIENT OTHER	6901×	6001 x	× 1067 × Chu	x 9900 x	×	x 5001 x	x +30 ×	× 1063 ×			_
•	STATIC	VISIBILITY O WIND O	. (deg) (m/s)	1051	File Name/Header	2.0				SAMPLE BOTTLE DATA	SALINITY	32.7530										
		DRY WET BULB BULB	(S) (A)	ATA LOCAT		00:00 CAST 020	· ·		TRANSMISSOMETER		SALINITY	32.7420	32.4703	32,2573	32.1838	32,0051	31,9697	31.8284	31.8111			
	PROJECT & LEG MF97-09A	JD= 756 (GMT)	7 6		Tape/Diskette ID	ار اور اور				CTD CONVERTED MONITOR VALUES	SEC. TEMP	4.1792	3.8612	4,6342	4.2035	6.6407	9946.8	9.3804	9,3474			
	PR	DATE			256/2035	N 256/ 2037	256/ 2047	256	X FLUÓR	CTD CONVERTED	PRI. TEMP.	H. 1784	3.8605	4,0407	4.19.75	6.0424	9,3456	9.3791	4,3484			
	- FREEMAN	UDE LONGITUDE	N S S	TIMES	TYPE & SN 9114 91640 DATA ON	2 START DOWN	АТ DEРТН	AT SURFACE	1303 X PAR		PPESSUPE	101.283	75.889	50.699	40.951	30.866	20. 418	[0.173	1.898			
	VESSEL NOAA Ship MILLER FREEMAN	CONSC CAST # LATITUDE	02056 MIN	стр	TYPE & SN 911+	PRESS SN 24772	TEMP SN 889	COND SN 480	TEMPSN 701 1303	POS. TRIP DEPTH		00	2 75	3	4 4o.	5 30	6 20	7 10	8 0 2.0	6	10	

NAME/ID SAMPLE BOTTLE NUMBER 日田 37 12672 1109442-PG 21 OF 20 NUTRIENT]o⊃ (1074 1075 × 1012 1073 OLV BOTTOM DEPTH STATION DESIGNATION MAX. DEPTH = E REMARKS 5 SAL. (m/s) SAMPLE BOTTLE SALINITY DATA 0 8 WIND 31,8840 (deb) DIRN. File Name/Header VISIBILITY 8.911938 SEA STATE DATA LOCATION CMSTOZ (am) **ESSONUE** TRANSMISSOMETER WET BULB 31.8685 32.7052 <u>ဂ</u> SALINITY 32.2604 32,1725 31.9610 31,9559 13:15 24:48 1014 Tape/Diskette ID SW.B ပ္ပ 1 | S | 1 | S | E | P | 9 | 7 | 2 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 ¥ £ GMT) CTD CONVERTED MONITOR VALUES 9,4193 8.272.8 9,0579 4,9925 SEC. TEMP 4.460 cl 9,4400 4,2499 PROJECT & LEG 4.2183 |X|ChIAM 256 Œ MF97-09A DATE JD= S 256/2139 2141 1151 256 / 2159 DA≺ 9,0657 X PLUOR 12841 94146 **JD/TIME** 4.9402 4.4672 4.2162 PRI. TEMP. 4.2480 4,4404 256 256 LONGITUDE Z S START DOWN AT SURFACE AT DEPTH X PAR 91660 DATA ON 9 30.019 24,910 TIMES 40.544 50.907 £ 615' 75,585 10.118 100 .T3T PPESSURE NOAA Ship MILLER FREEMAN LATITUDE TEMP SN 701 (303 PRESS SN 29112 Z S th 95/12 TYPE & SN 911+ COND SN 480 TEMPSN 889 25% 8 00 6 20 5 2 30 20 9 CONSC VESSEL Š 0 မ σ

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1 00:1	VESSEL NOAA Ship MILLER FREEMAN		PRC	PROJECT & LEG MF97-09A		<u> </u>	PG 22 OF STATION DESIGNATION (83)
LATITUDE		LONGITUDE	DE DATE JD=	TIME (GMT)	DRY WET	SEE STATE SEE STATE	PER PERINER PE
MIN DEG	띰	N. S.	DAY	Œ	(0,) (0,)	(deg) (deg)] .] .
725653.15 NIT		0 2 6.	N17026.63W13SE	E P 9 7 2 2 5	2 10 6 9.2	1837115112	872 9743-1
TIMES	TIME	Ø	JD/TIME		DATA LOCATION	NOITA	REMARKS
TYPE & SN911 + 91660 DATA ON	DAT,	A ON	256/ 224D	_ Tape/E	Tape/Diskette ID File	File Name/Header	Section 1
PRESS SN 29772 STAF	STAF	START DOWN	256/ 2242	400	3 25:21 CA	CASTORS	V. D.
ATC	4T C	АТ ОЕРТН	256/2252		38: 12		
ATS	A S	AT SURFACE	256 2300				MAX. DEPTH = 9, m
/303 X		X PAR	X FLUOR	ChlAM	TRANSMISSOMETER		
		- -	CTD CONVERTED MONITOR VALUES	MONITOR VALUES		SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER
PPESSUPE	씨	22	PRI. TEMP.	SEC. TEMP	SALINITY	SALINITY	SAL. NUTRIENT OTHER
93,723	23		3,9679	3.9686	32.4859		× 1093
75.866	99		3. 4006	3.4658	32.2530		× 10%2
49.965	65		3.6814	3,6757	32.1665		180) x
40.426	김	٩	4.1617	4.1622	32,0953		×
30.300	30	0	5, 603.5	5.6048	32,0176		<i>x</i>
20.846	<u>ا</u>	. 9	8.7617	8.7535	31.8699	31.8739	x 1079 ×
10.263	7	٤٩	4.1817	9.0452	31,01810		× × × ×
1.90T	0		9.7372	9.7331	31.3712		/ × 1017 ×
		!		87			

9 NAME/ID SAMPLE BOTTLE NUMBER * C. M. J 9244 5 PG 23 OF 00 NUTRIENT 62L 1083 BOTTOM DEPTH STATION DESIGNATION E MAX. DEPTH = REMARKS WEATHER CLOUD (amt) TYPE SAL. 09872 · (s/m) SAMPLE BOTTLE SALINITY DATA WIND. (ded) File Name/Header VISIBILITY 9 41173 CA 51023 SEA STATE DATA LOCATION (dm) **3U**0SS**3**UU TRANSMISSOMETER WET BUGB SALINITY 32.3003 32.3124 48:56 38:12 5 Tape/Diskette 1D ₽ 8 8 <u>ဂ</u> 4 N 1 7 0 2 3 . 9 1 W 1 3 S E P 9 7 2 3 3 2 ¥ E GMT) CTD CONVERTED MONITOR VALUES SEC. TEMP 4.1012 3.9149 3.9203 PROJECT & LEG X CHIAM ۶ DATE JD= 256 MF97-09A 8 2332 12322 256 /2340 256 2319 DAY |X ||Ruon 3.9146 JD/TIME 3.9200 PRI. TEMP. H. 1011 2.54 LONGITUDE Z S START DOWN AT SURFACE AT DEPTH X PAR TYPE & SNIGH + 91660 DATA ON 9 TIMES 75.443 50.22H PPESSUPE 87.17 NOAA Ship MILLER FREEMAN LATITUDE TEMP SN 701 / 303 0. PRESS SN 29772 Z 98h رک در OEPTH OEPTH 9 3 56 TEMP SN COND SN 5 ŝ 98 5 CAST VESSEL PQ.

× 1085 L & 0 1084 28 31,8003 31,7941 32, 1301 31. 485t 32,0046 31.8163 3-1,7213 8.9998 9:41626 5,8006 1498.H 9.813 5,8375 9.0007 9.0118 4.8632 839 30,427 10.466 259 90 39. 4 Ŝ 33 C 0 12 - ဖ 4 ഹ 00 တ

STA. NAME/ID **是** SAMPLE BOTTLE NUMBER 845-5 PG 24 OF α 2 SPD. CLOUD (ami) NUTRIENT 738 732 133 STATION DESIGNATION MAX. DEPTH = REMARKS SAL SAMPLE BOTTLE 32.2704 SALINITY DATA <u>J</u> WIND DIRN (deb) File Name/Header VISIBILITY 9.5113 SEA STATE DATA LOCATION (mp) TRANSMISSOMETER WET BULB 31,7770 31,7598 <u>(</u> 9635 31,4623 SALINITY 31,9090 32,2545 32,1912 58:55 48:56 2 Tape/Diskette ID ပ္ပ GMT) 100 CTD CONVERTED MONITOR VALUES SEC. TEMP 8,5559 .2109 9,4899 4.6282 6.1860 4.0613 4.0141 PROJECT & LEG ChIAM NI 702 1.69WI4SEP97 Œ DATE JD= 257 MF97-09A Ş 4100 257 0009 257/0007 DA≺ 8.5570 X FLUÓR 4.0600 4.6271 6,1799 4.0159 JD/TIME 9.2148 PRI. TEMP. 257 257 LONGITUDE Z START DOWN AT SURFACE AT DEPTH X PAR TYPE & SN 9114 91660 DATA ON 9 TIMES 30.344 9.00 10.613 40.830 51, 315 FESSURE 703 79,466 NOAA Ship MILLER FREEMAN 245656.92 701 303 LATITUDE Z PRESS SN 29772 COND SN 480 TEMP SN 889 DEPTH PETH 9 4 50 738 ٥ 0 9 TEMP SN CAST VESSEL POS. 10 Ø ო φ Φ

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OT THE NAME/ID SAMPLE BOTTLE NUMBER 3 8712 6 4146-8 PG 25 OF 9 NUTRIENT 6521 ノナイノ BOTTOM DEPTH STATION DESIGNATION MAX. DEPTH = E REMARKS (svery S WIND (amt) SAL (s/m) SAMPLE BOTTLE SALINITY DATA 7 31.4389 WIND DIRN. (deb) File Name/Header VISIBILITY CAST 025 SEA STATE DATA LOCATION (qu) **BUNSSBUR** TRANSMISSOMETER WET BULB 0 31.416 31.8295 31.6463 31.7178 <u>ဂ</u> 31.9383 31,7353 SALINITY 31. 9314 58.55 10806 - 0 Tape/Diskette 1D PA BUB ပ္ပ ¥ E GMT) 1710 18173 W145 EP97010 CTD CONVERTED MONITOR VALUES 6.9542 SEC. TEMP 4.6873 4,9219 9.49.27 4.6053 PROJECT & LEG 8.6175 7,8743 |X||ChIAM Œ DATE JD= 157 MF97-09A § 254/0055 257/0106 257/0052 257 10101 DAY N FLUOR 4.9244 4. 4824 6.9608 JD/TIME 4.6877 8,6233 PRI. TEMP. 4.5976 1,9741 LONGITUDE Z START DOWN AT SURFACE AT DEPTH X PAR DATA ON 9 TIMES 30-824 50, 438 40.157 21.108 60-630 2,142 PRESSURE 10.606 NOAA Ship MILLER FREEMAN 0.25 ST00.18 N TYPE & SN 9114 91662 LATITUDE TEMP SN 701/303 PRESS SN 24772 Z cond sn 480 TEMPSN 889 9 9 20 S 350 0 20 0 CONSC VESSEL CAST 8 10 12 N S ന ω ω O

E E NAME/ID SAMPLE BOTTLE NUMBER STA. 5 PG 26 OF NUTRIENT 966 x 1743 5771 HUDI X رخ ح BOTTOM DEPTH STATION DESIGNATION MAX. DEPTH = Ê REMARKS S WE CLOUD (amt) Green SAL. 13872 G (m/s): SAMPLE BOTTLE SALINITY DATA <u>_</u> WIND 31 6095 (ded) SPS File Name/Header VISIBILITY 9.411537 SEA STATE DATA LOCATION (mb) 3HUSS3HH TRANSMISSOMETER WET BULB <u>(</u> 31, 5220 SALINITY 31.6092 30.9810 5933 7755,18 36,9812 1:15:25 10806 .87 WIYS EP9701 43 16.0 Tape/Diskette ID PR BUB <u>(</u>) Lape 3 ¥ £ GMT) CTD CONVERTED MONITOR VALUES SEC. TEMP 9.7350 8.3833 9.7281 6,6364 7,4667 6.8810 PROJECT & LEG CHIAM Œ 25 MF97-09A DATE JD= Š 257/0148 257/0143 257/0135 254 0138 DAY 9,7353 X RUOR 9.7275 JD/TIME 7.5197 PRI. TEMP. 8.3831 6.6360 11778.9 LONGITUDE Z S START DOWN 17016 AT SURFACE AT DEPTH X PAR TYPE & SN 911 + 91660 DATA ON 9 TIMES 30.573 10, 428 40.597 948 21.062 50.325 PRESSURE NOAA Ship MILLER FREEMAN z 265702.55 TEMP SN 701 /303 LATITUDE PRESS SN 29772 Z cond sn 480 TEMPSN 889 OEPTH THE 8 9 29 0 £ B 5 C CONSC VESSEL g 7 0 - Ł ဖ œ თ

Ε 3 NAME/ID SAMPLE BOTTLE NUMBER 3 E 10 3 STA. į. 3.448 PG 27 OF 88 30 NUTRIENT BOTTOM VITS VITS STATION DESIGNATION DEPTH MAX. DEPTH = (E) REMARKS S WIND (amt)
CLOUD (amt)
WEATHER 872 SAL <u>J</u> (m/s) SAMPLE BOTTLE SALINITY 31, 3243 DATA 0 2 WIND (deb) DIRN File Name/Header VISIBILITY 9-3-437 (ASTOZZ SEA STATE DATA LOCATION (am) **BUNSSBUU** TRANSMISSOMETER 31.5478 31,5188 WET BULB SALINITY ပ္ 31.2966 31,3061 02 7 5 7 0 5. 7 8 N 1 7 0 12 . 9 6 W 1 4 S E P 9 7 0 2 2 9 1 0 . 0 Tape/Diskette ID PR BULB () () <u>N</u> GMT) CTD CONVERTED MONITOR VALUES SEC. TEMP 9,0219 8.5563 8. 4874 9.0426 PROJECT & LEG ChIAM Œ DATE JD= 257 MF97-09A Š 0223 257 0226 0229 257 / 023 DAY 9.0220 X Ruon 9.0424 JD/TIME PRI. TEMP. 8,5541 257 8.4877 257 LONGITUDE Z S START DOWN AT SURFACE AT DEPTH MAPAPA X TYPE & SN 9114 91660 | DATA ON 9 TIMES PESSUR 20.295 10.588 30.387 2,166 NOAA Ship MILLER FREEMAN LATITUDE TEMP SN 701 (303 PRESS SN 29112 Z COND SN 480 TEMP SN 889 က္က 39 20 2 Ę 0 CONSC VESSEL တ္တ 12 -- 10 N ო വ ဖွ 00 O

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N Ε STA. NAME/ID SAMPLE BOTTLE NUMBER PH-10 ±-• S PG 235 OF 67 SAL. NUTRIENT 755 × 1753 **LSLI** X 67 1752 1759 BOTTOM DEPTH x 1756 STATION DESIGNATION MAX. DEPTH = $\widehat{\epsilon}$ SO WINCLOUD (amt)
TYPE
WEATHER REMARKS (SVOGE 29 (deg) |(m/s)|* |* | ហ SAMPLE BOTTLE SALINITY DATA 31,8427 WIND DIRN. 232 File Name/Header SEA STATE VISIBILITY 901647 CAST028 DATA LOCATION (mb) **BURSSBUU** TRANSMISSOMETER WET BULB ပ္ 31.4942 31.4592 31.450 31.4499 31, 4515 SALINITY 31.7003 31.8281 09:41 Tape 4 00.00 0 Tape/Diskette ID ် 9.67W 158 E P 970612 ¥ E GMT) CTD CONVERTED MONITOR VALUES 8.3433 7.52 69 SEC. TEMP 8.5234 8.5669 5.8905 8.5566 8,5752 PROJECT & LEG ChiaM Œ DATE JD= 258 MF97-09A № 258/40620 258 10607 258/0613 259/0604 DA≺ K PLUOR \$.5700 8.5750 JD/TIME 8.3392 8.5160 8,5595 PRI. TEMP. 7,5725 5.8888 LONGITUDE Z ∑ START DOWN AT SURFACE AT DEPTH PAR TYPE & SN GILL GILLO DATA ON 02 85659 .25 NI 70 9 TIMES .209 3,947 11.957 .638 PRESSURE 41.025 21.026 55,597 NOAA Ship MILLER FREEMAN ď LATITUDE TEMP SN 701 333 PRESS SN 29772 Z COND SN 480 TEMP SN 889 TRIP DEPTH 9 2 5 N 2 00 び £ CONSC VESSEL SS 0 7 ო S ဖ ത α

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PG 29 OF

										_	PG <u>21</u> OF	٦. ا	
VESSEL				PROJECT & LEG	LEG			0)	STATION DESIGNATION	DESIGN		0	
NOAA Ship MILLER FREEMAN	ER FREEMAN			MF97-09A							. 957		
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD= 258	TIME	DRY E	E MINESSELLE E MIN	NSIBILITY NSIBILITY NAME NA	S S S S S S S S S S S S S S S S S S S	VEATHER	BOTTOM	STA.	
92	NE NE	DEG	F	W W	1-	0	1-	(den)		۸.	H (B)	NAME/ID	
029565	N h	2	d w	SEP	06		0	47226	25	_	-2	1 - t S	
СТР	<u> </u>	TIMES	JD/TIME			DΑ	DATA LOCATION		<u> </u>	REMARKS))		
TYPE & SN 911 + 91660 DATA ON	+ 91660 C	ATA ON	259 /0641	Nh:	Tape/Diskette ID	cette ID	File Na	File Name/Header	<u>~</u>	Bleefan	—- Š		
PRESS SN 24772	3 בדרו	START DOWN	258/0647	547	ا مريم	09:41	(A ST 029	29		•			
TEMP SN 869		AT DEPTH	258/0655	555	-	20:58					•		
COND SN	084	AT SURFACE	258/070	707			i		Ž	MAX. DEPTH	TH = 78	ε	
NS o	701/303	X PAR	X Huor	R CHIAM	M	TRANSMISSOMETER	OMETER						
POS.	_		CTD CONVE	RTED MONITOR	ITOR VALUES			SAMPLE BOTTLE	TLE	SAMP	SAMPLE BOTTLE NUMBER	NUMBER	
5								DAIA	•				
	FFESSURE	#	PRI. TEMP.	SEC	SEC. TEMP	SAI	SALINITY	SALINITY		SAL.	NUTRIENT	- OTHER	7
1 60	61.002	2	4.3014	4.3	.3042	31.5	31.8640	31,7478		17	45L1 X	X Ch (? . X
2 35	33,902	102	5, 2585		5.3188	31.5	31.5708				09 L1 X	<i>-</i>	· ×
3 20	20.281	182	8,6110	8	. 6114	31.9	5294				1.911	\	· ×
حرا 4	12.	12. 491	8.9629	00	9534	31.	31.5006				× 1762	· L	×
°00	ئى د	8.644	9.1992		9,1993	31.	UT40				59 LV ×	×	×
J 9	4.013	13	9,2009	6,	2014	31.	4694			1.1	411 ×	×	
7 3.3	3.397	 	9.2099		9.2103	31.	4665			, .	× 1765	\ ×	; >
80													>
0													
10													
11				-									
12													
							8						_

STA. NAME/ID SAMPLE BOTTLE NUMBER į H PG 30 OF 2 2 6 2 WIND (ami)

WIND

CLOUD (ami)

CLOUD (ami) NUTRIENT 99 LI XI STATION DESIGNATION MAX. DEPTH = REMARKS SAL 1995 SAMPLE BOTTLE DATA SALINITY WIND DIRN. 8.81547232 (deb) File Name/Header SEA STATE YILIBICITY DATA LOCATION (mb) **3H**OSS3HH TRANSMISSOMETER WET BULB (S) 31.5147 SALINITY 31.5144 31, 5145 2650 12050 6 Tape/Diskette ID ORY BULB () () 305714.80N171012.911W15SEP9711738 ¥ E GMT) CTD CONVERTED MONITOR VALUES 3994 SEC. TEMP 8.3992 8,4095 PROJECT & LEG X ChIAM Œ DATE JD= 258 *∞* MF97-09A S 1138 1736 ZhL |~ DAY ||X||FLUOR 8.3997 JD/TIME . 399 8.4016 PRI. TEMP. LONGITUDE Z START DOWN AT SURFACE AT DEPTH X PAR TYPE & SN (114 91660 DATA ON 9 TIMES lo. 587 PPESSUPE 18.629 2.024 NOAA Ship MILLER FREEMAN LATITUDE PRESS SN 29772 TEMP SN TOI / 303 Z COND SN 480 TEMPSN 889 9 0 <u>න</u> 20 5 CONSC VESSEL SS. 12 0 ന Ŋ Θ ω 6

STA. NAME/ID OTHER THE SAMPLE BOTTLE NUMBER 3 PG 31 OF 99 NUTRIENT 1770 1771 BOTTOM DEPTH STATION DESIGNATION MAX. DEPTH = (m) REMARKS S MINO (amt)
CLOUD (amt)
WEATHER Carour) SAL 1 8 6 6 1 (m/s) SAMPLE BOTTLE ,9282 SALINITY DATA WIND DIRN. 240 (ded) File Name/Header VISIBILITY 9-00637 SEA STATE (AST D3) DATA LOCATION (mb) **BHICKSOME** TRANSMISSOMETER 31.6819 WET BULB 31.5377 31.7047 <u>(</u>) 31.9014 SALINITY 31.9125 31.9164 40:34 0 Tape/Diskette 1D PH BUR ပ္ပ N 1 6 9 56 .9 4 W/1 5 S E P 9 7 2 0 1 1 8 ¥ £ GMT) CTD CONVERTED MONITOR VALUES 9.5729 4.6225 5840 SEC. TEMP 8.8207 8.2179 4.5805 4.6213 PROJECT & LEG ChIAM Œ DATE JD= 258 MF97-09A Ş 2012 12008 2013 4202 DAY X FLUOR 4.6228 JD/TIME 8.5273 4.6205 9.5723 8.2189 PRI. TEMP. 9.5781 4.5810 258 / 258 258 LONGITUDE Z START DOWN AT SURFACE AT DEPTH X PAR TYPE & SN 911 + 91660 DATA ON 9 TIMES 30.440 20.905 10,195 40.156 50. 494 PRESSURE 65.079 .862 NOAA Ship MILLER FREEMAN 0315734.35 ATITUDE TEMP SN 701 333 PRESS SN 24112 Z COND SN 480 TEMP SN 884 9 9 S 30 65 Ś 0 9 CONSC VESSEL Pos. 12 10 C) ന 6 ထ Φ

PG 32 OF

	j.j.				1		**						Л	5
N N	A Ship MILLI	VESSEL NOAA Ship MILLER FREEMAN	- 7		MF97-09A	PHOJECT & LEG MF97-09A			i		STATIO	STATION DESIGNATION	ATION	B2
CONSC CAST		ATITUDE	LONGITUDE		DATE JD= 258		TIME (GMT)	DRY BUIB	SESSURE B. S.	SEA STATE VISIBILITY SEA STATE	QNIM	CLOUD (amt) NEATHER	ВОТТОМ	STA.
	DEG	MIN	DEG M		DAY MO	1	Z. Z. Z.	(S)	1	\ \ .	(m/s)	١.	(E)	
0 3	2572	9 .5 5 N	257729.55N17000.45W15	۳ اح اس	SE	P 9 7 2	1 2 1 1 2	0 0	0	3 72	1 5	8 6 2	9 ± 9	-
	СТО		TIMES	JD/TIME	Ē			70	DATA LOCATION	NOI		REMARKS		
<u>T</u>	TYPE & SN 911 +	4 91660	DATA ON	258 / 2104	2104	 ¤	Tape/Diskette ID	itte ID	File ì	File Name/Header		Sech	7	
PÄ	PRESS SN 24772	172	START DOWN	'	258/2106	1	1 d	40,04	(AST032	32		Green	London March	
TEM	TEMP SN %q	<u> </u>	AT DEPTH	258	2112			48:30					3	
8 0 0	COND SN 480	٥	AT SURFACE	258	12119				1		<u> </u>	MAX. DEPTH	11	62 m
TEM	NS o	701 (303	M PAR	X Ruor	on S	X ChIAM		TRANSMISSOMETER	SOMETER		<u> </u>	-		
8 8		98		CTD CON	CTD CONVERTED MONITOR VALUES	ONITOR VA	LUES			SAMPLE BOTTLE DATA	ВОТП.Е 7A	SAMP	SAMPLE BOTTLE NUMBER	NUMBER
		PHESSUFE		PRI. TEMP.	٥٠	SEC. TEMP	Q.	SAI	SALINITY	SALINITY	Ě	SAL	NUTRIENT	OTHER
-	(2	62, 45	5	4.56 lb		4.5611		31.88	8809				2 1779	\times
7	50	50.757	157	4.5692		4.5697	p#	31.8	6889.	31.8998	2	23	8111 x	, K
က	40	ζ ζ	40.899	4,6263		4.6228	9	31.	1 478			<u> </u>		×
4	30	30.	30.585	9.6033		4,6057	, +	31,	31,5536					×
വ	20	20	20-07	91,6678	- 5	9.6569	6	31.	ררו				41117	×
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7	2.6	2.	2.794	9,7459	Þ	9.7489	9	31.	31. 4873		i	1	× 1775	×
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PG 33 OF

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VESSEL NOAA S	SEL <u>A Ship MILL</u>	VESSEL NOAA Ship MILLER FREEMAN	- 2		PROJ MF97	PROJECT & LEG MF97-09A	•				STATI(STATION DESIGNATION	NATION	S	
CONSC			-14-	,			TIME	₩	3911653 E.J. X.	SIBILITY SIBILITY	MIND	OUD (amt)	BOTTOM	STA	
**	9	LATITUDE	LONGITUDE		DATE JD=	258 x	GMT)	BUG S		SIA BS	SPD.	. ME	DEPTH	NAME/ID	\int
0 3	3572	0 3 3 5 7 2 6.0 1 N 1 7 0		W P	SE	P 9 7		- 0 - 3	5	7 4 7 7	5 0 1 8	- 2	79	- 9	
	CTD		TIMES	JD/TIME	√E v	-		DA	DATA LOCATION	Not		REMARKS]		
Σ	TYPE & SN 9114	4 91660	91660 DATA ON	258/215c	2.150	<u> </u>	Tape/Diskette ID	ette ID	File	File Name/Header	-	Secol		·	
E.	PRESS SN 24172	772.	START DOWN	258 / 215	2153	ا ا	المحرا	48:30	CASTOJZ	523		Green			
TEM	TEMPSN 889	~-	АТ ОЕРТН	258	2158		5	5614		24					
8	COND SN 480	0	AT SURFACE	2.58	2203					-		MAX. DEPTH	El	55	Ε
TEM	ο l	1303	X	X R.UOR	æ	ChIAM		TRANSMISSOMETER	OMETER						
8	TRIP DEPTH			CTDCON	VERTED M	CTD CONVERTED MONITOR VALUES	ALUES	. ` .		SAMPL	SAMPLE BOTTLE DATA	SAMI	SAMPLE BOTTLE NUMBER	ENUMBER	m
		PRESSURE	SURE THE	PRI. TEMP.	<u>G</u>	SEC. TEMP	d⊩	SAL	SALINITY	IVS	SALINITY	SAL.	NUTRIENT	T OTHER	~
-	50	50.904	60	5.0705	2	5.0692	2	31.8922	422	3.9106	106	60	× 1783	35	
2	dh.	40,44	141	5, 2499	49	5.2512	2	31.8713	713					 ×	
ო	30	30.681	18	8,5791	191	8.55	527	31.	.6308			l		×	
4	20	20.	20.708	9.7748	748	9,7760	2	31,1	31,4031				28L1×	×	
ည	10	10.	10.300	9,7718	1 8 1	9,7721	1	31.3	3258				18L) x	×	
မ	2.9	2.	2.642	9.7	7190	9.7784	9	31.3	.3253		:		08L1×	> ×	
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PG 34 OF

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<u>ў</u>	VESSEL			<u>a. </u>	PROJECT & LEG	o	27			STATION	STATION DESIGNATION	NO NO	
2	4A Ship MIL	NOAA Ship MILLER FREEMAN		Σ	MF97-09A		æ					H.	
8 8	CONSC						<u>.</u>	3Uns	STATE		(tms) QL A3H1		
Š #		сатпире	LONGITUDE	DATE .	JD= 258	(GMT)		WET BUGB BEBESS	SEA S	WIND SPD.	WEAT DEPTH		STA. NAME/ID
	<u> </u>	MIN	DEG MIN	N DAY	¥ Qv	¥	_	1		(m/s)		-	
0	345	23.64 N	17006.	0345723.64N17006.26W158	E P 9 7	2 2 3 8	10.6	<u></u>	4 7 2		- m as	5967	
	СТО	<u>-</u>	TIMES	JD/TIME			DAT	DATA LOCATION			REMARKS		
<u></u>	TYPE & SN GII +	09916 +1	91660 DATA ON	258/22:30		Tape/Diskette ID	cette ID	File N	File Name/Header		\$ 500 C	2.1	
Ë	PRESS SN 29772	· ·	START DOWN	25.21/852	32	Tage 4	56:14	CAST 0 34	34				
É	TEMP SN 869		AT DEPTH	250/22:34	34	•	1:03:47	i					
8	COND SN 480		AT SURFACE	258/2244						≥	MAX. DEPTH	S4	Ε
臣	SN	701/303	X PAR	A FLUOR A CHIAM	X ChiAM		TRANSMISSOMETER	METER					
& Si				CTD CONVERTE	DMONITOR	VALUES		:	SAMPLE BOTTLE	ЗОТПЕ	SAMPLE	SAMPLE BOTTLE NUMBER	MBER
							in.		DATA	⋖		Jyes	
		PPESSUPE	H	PRI. TEMP.	SEC. TEMP	EMP	SALINITY	LUΣ	SALINITY	<u>ل</u>	SAL. NL	NUTRIENT	OTHER
	So	51, 154	-	6.1523	6,1516		31,6595	. 2			X	×	3
7	G	40.040	40	6.1629	6.1644	14	31.7620	20				×	_
က	30	30.142	12	7.4935	7,3	.352B	31.6974	hL				ж	
4	220	20.855	55	9.6123	9.6138	38	31, 5374	3기시			×	x L8L1	
2	2	10.0	0.000	9,7678	9,7(7669	31,4486	98	31.4637	57	x 91	× 98L1	
ဖ	2.2 <	2.263	297	4.7754	-	1741	31. 4450	-150			×	x 2811	_
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NOAA Ship MI	NOAA Ship MILLER FREEMAN	- z		MF97-09A	PROJECT & LEG MF97-09A					STATION	STATION DESIGNATION		A5
CONSC CAST #	LATITUDE	ECNO I		DATE ID-250	<u></u> .	TIME	} } }	3808386 	EA STATE YTHEISILITY S S S S S S S S S S S S S S S S S S S	QNIM	(jms) QUOJ PFF FATHER © 0	ВОТТОМ	STA.
92		DEG	F		+	Z	+		S		M .	DEPTH	NAME/ID
03557	2355721113 N 1 7 0 0 8 1 2 W 1 5	17008	123 W1	SE	12		P	7	47	1 8 6	 m 05	9 + 5	1 5
CH2		TIMES	JD/TIME	Ш			DA	DATA LOCATION			REMARKS	7	
TYPE & SN	TYPE & SN 9114 91660 DATA ON	DATA ON	258 /23	12309	Tap	Tape/Diskette ID	tte ID	File N	File Name/Header		Green	South 1.7	٢)
PRESS SN	29772	START DOWN	'	258/2312	Fa	Tare of	10348	CAS703	035		Clox to	transfiles	4
TEMP SN 989	63	АТ ОЕРТН	150/	150/2317		_	1:09:36				-	1	
COND SN	480	AT SURFACE	258 23	23 23		=				≥	MAX. DEPTH	TH= 52	ε
NS d	701 /303	X X PAR	X PLUOR	K K	X ChIAM		TRANSMISSOMETER	METER			-		
POS.	· · · · · · · · · · · · · · · · · · ·	d	CTD CONV	ERTED MO	CTD CONVERTED MONITOR VALUES	UES			SAMPLE BOTTLE DATA	ОТПЕ	SAMPI	SAMPLE BOTTLE NUMBER	NUMBER
		50 77	DD: TEMP		CEC TEMP		VEN N				- 1		
- 59	119'61		HOOL (-	6.3997	¥	31 7762	- N	SALIMITY	<u>-</u>	SAL.	NOTHEN	OIHER VOV
2 40	40.585	585	G. 4356		928h.9			143				h -	3 -
3 30	30,	30.866	7.2409		7.2491		31, 71	7173	31.7943	=	-		×
4	9	16.690	9.69	6918	9,6302		31.4	4234				× 119n	*
5 10	٥	9.716	9.7885		7.7888	9	31.3	3775				P&LI X	×
6 2,1		128.	9.7944	ь Б	9.7935	5	31.3	3734		-¥.		7 1788	×
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PG 36 OF

PG Jb OF	STATION DESIGNATION A6	YPE WEATHER WOTTOM STA.	۸.	3 1 5 0 6 9 - 11	RKS	5,4338		Missed bather both the first	. =		SAMPLE BOTTLE NUMBER	SAL. NUTRIENT OTHER	×	×	× 1/2 ×	× 1473 ×	x ZbLlx	X JUJS X						
	STATIC	VISIBILITY WIND WIND	(den) (m/s)	4725015		File Name/Header					SAMPLE BOTTLE	SALINITY	CC W	4										
		DRY WET	(S)	010.0	DATA LOCATION		1:09:36 CMSTD36			TRANSMISSOMETER		SALINITY	31.7312	31.6987		31,5538	31,5446	31,7503						
01 6 HOU	MF97-09A	JD= 259 (GMT)	广	9702		Tape/Diskette ID	1 Lap 1	0520		X ChlAM	MONITOR VALUES	SEC. TEMP	6.8859	T. 6347	9.0974	9.1272	9.1250	6.6627						
700	MF	DATE	DAY	9 W 1 6 s	JD/TIME	259/0234	259	259 0247	259 0246	X Ruor	CTD CONVERTED MONITOR VALUES	PRI. TEMP.	99 88.9	7.6239	9.0959	9.1269	9.1251	6,6684						
	EEMAN	ELONGITUDE	DEG N	8 09 LIN 6	TIMES	660 DATA ON	START DOWN	AT DEPTH	AT SURFACE	X PAR		PPESSUPE	40.283	31.163	20.149	10.687	2,204	45.201						
VESSEI	NOAA Ship MILLER FREEMAN	CONSC CAST # LATITUDE	DEG MIN	0365719.39	CTO	TYPE & SN 911 4 91660	PRESS SN 29772	TEMPSN 869	COND SN 480	ပ	POS. TRIP DEPTH		7 20 1	2 30	3 20	4 10	5 2.1	9 H S	7	8	State of the state	10	11	12

PG 33 OF

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AA Ship	VESSEL NOAA Ship MILLER FREEMAN	- 7		PROJECT 8 MF97-09A	PROJECT & LEG MF97-09A				STATION	DESIGN	STATION DESIGNATION $\beta_{\not\prec}$	~
CONSC			<u>. </u>		ear Charles Comments	ou .		TATE TT-	(tms) C	(tms) C		
CAST #	LATITUDE	LONGITUDE		DATE JD= 2	259 (GMT)	BUB BUB	WEIT BUILD B	SEA S	NIN C	ТΑ∃М	ВОТТОМ	STA.
DEG	Si MIN	DEG	H	₽	Ŧ	7	\top	(deg)		۸.	4-	CICIMIEN
375.	375718143N17009141W16	17009.	d l w		S E P 9 7 0 3 2	20104	9		1 7 3	~	L 6 h	0
CTO		TIMES	JD/TIME	ш	H	_	DATA LOCATION		<u>~</u>	REMARKS		
PE & SN	TYPE & SN 911+ 9160 DATA ON	DATA ON	254 0313	313	Tape/L	Tape/Diskette ID	File N	File Name/Header		Sech		
ESS SN	PRESS SN 29772	START DOWN	259	0316	Tape 4	4 1:16:15	CAST638	38				
TEMPSN 889	888	AT DEPTH	259/(0319						:		
COND SN 480	480	AT SURFACE	259	0325	-			1	<u> ∑</u>	MAX. DEPTH	TH = 45	E
S	701/303	X	Aruor	X K	X ChIAM		TRANSMISSOMETER				?	
POS. DEPTH	를 단		CTD CONV	ERTED MON	CTD CONVERTED MONITOR VALUES	ا پ		SAMPLE BOTTLE DATA	отпе	SAMP	SAMPLE BOTTLE NUMBER	NUMBER
		URE .	PRI. TEMP.		SEC. TEMP	5	SALINITY	SALINITY	∠	SAL	NUTRIENT	OTHER
1-15	45,935	935	7,5875		7, 5898	31.(31.6646				bl.hl x	Sh
2 Yr		40.667	7.9505		7,9614	31	31.5930					-
3 30		30, 137	8.2641		8.2386	34.	.5253					
4 20		20.738	8.4444	ch	8.4464	31,	£484				8LH1 x	
5 10		10.174	9.377I	5	1.3767	31,	3945	31,413	S		LLH1 x	
9	7 T	2.082	9.3812		9.3810	31	31,3936				× 1476	→
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8	,											
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PG 38 OF

STATION DESIGNATION AS	WET STATE SEA STATE WIND WI	(mb). (deg) (m/s). (m)	DCATION REMARKS	File Name/Header			MAX. DEPTH = 34 m		SAMPLE BOTTLE SAMPLE BOTTLE NUMBER DATA	NITY SALINITY SAL NUTBENT OTHER	x 14 83	31.4860 20 × 1482 ×	×	×							
	DRY BUB	0 0	0	Tape/Diskette ID	4 12310	131.01		TRANSMISSOMETER	ES	SALINITY	31.4658	31, 4664	31. 432	31.3							
PROJECT & LEG MF97-09A	JD= 259 (GMT)	MO YA HA			37	7	9,	ChIAM	CTD CONVERTED MONITOR VALUES	SEC. TEMP	8.6176	8.6154	8,8561	9.38TT							
<u>a. ≥</u>	DATE DAY			254/0346	N 259/034B	259 / 0352	254 0356	Х Ruor	CTD CONVERTE	PRI. TEMP.	-8.6194	8.6154	8.8059	9.3812							
EMAN	LONGITUDE	MIN DEG 10		60 DATA ON	START DOWN	АТ ОЕРТН	AT SURFACE	X PAR		PRESSURE	30.305	21.128	181.01	2.023							
VESSEL NOAA Ship MILLER FREEMAN	SC T LATITUDE	DEG MIN S 7 1 7 .12		TYPE & SN 911 4 91660	PRESS SN 24712	TEMP SN 989	cond sn 4%0	TEMP SN 701 /303	DEPTH		30 3	20	٥١	2.1							
VESSEI NOAA S	CONSC CAST #	0 3		TYPE	PRES	TEMP	SON	TEMP	& Si		-	~	က	4	2	9	7	ω	6	9	-

Ε STA. NAME/ID 2 - 1 Ag PG 39 OF V WIND WIND OUR SPD. CLOPE MAX. DEPTH = 2 STATION DESIGNATION 7 $\widehat{\mathbf{E}}$ REMARKS Sech Bluer <u>~</u> (m/s) (deg) File Name/Header SEA STATE VISIBILITY 70 CA ST 03 9 DATA LOCATION (mp) 9 WET BULB ပ္ပ 36 46 13101 0 ORY BULB Tape/Diskette ID ŝ 0 42 T Y Y TIME (GMT) PROJECT & LEG ቻ 6 S E P 9 7 DATE JD= 259 MF97-09A 2 0426 0429 0423 259 /0421 DAY JD/TIME 80 259/ 259 259 LONGITUDE ⋛ START DOWN AT SURFACE AT DEPTH TYPE & SN 9114 91660 DATA ON ava 📐 0 - 2 / 8 TIMES NOAA Ship MILLER FREEMAN LATITUDE 395716.0 PRESS SN 29172 **Z** TEMPSN Jalla cond sn 480 TEMPSN 889 8 S E CONSC VESSEL

	or Marked uning cust	Т	г	Τ-	199 JWG	me	9517	5# YU7	1 O.V	40Q 14 +}	40 	MA MA	ند ند ه	שר י	laus form
	SAMPLE BOTTLE NUMBER NOT WOOTKEL	NUTRIENT OTHER			×										
	SAME	SAL.	15	_											8/
	SAMPLE BOTTLE DATA	SALINITY	31.4626												
TRANSMISSOMETER		SALINITY	31, 4408	31,4326	31.4325										
	CTD CONVERTED MONITOR VALUES	SEC. TEMP	8,7072		8.7355				,						
X RUOR	CTD CONVERTED	PRI. TEMP.	8.7048	8.7361	9.7355						,		3		-
1303 XPAR		PPESSUPE	20,238	10,622	2.645										
IEMP SN [01/303	POS. TRIP DEPTH		1 20	2 10	3. 0	4	5	9	7	80	6	10	11	12	