

VESSEL				PROJECT & LEG				STATION DESIGNATION												
NOAA Ship MILLER FREEMAN				MF98-06				ST01H01												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)			(deg)	(m/s)	*	(m)		
0015609	41	N	157	19	90	03	MAY	98	04	41	07	60	5.4	1	52	72	25	108	620153	
CTD		JD/TIME		DATA LOCATION		REMARKS														
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header												
PRESS SN		29972		START DOWN				CTD001												
TEMP SN		1: 889, 2: 701		AT DEPTH																
COND SN		1: 480, 2: 303		AT SURFACE																
																		MAX. DEPTH = 146 m		
POS.				CTD CONVERTED MONITOR VALUES				TRANSMISSOMETER				SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				
TRIP DEPTH				PRESSURE				PRI. TEMP.				SEC. TEMP.				SALINITY				
1 130																7				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG MF98-06				STATION DESIGNATION ST01H03									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(deg)	(m/s)	* * *	(m)		
0025609	39	N	157	19	7	2	03	05	32	47.6	05.4	152	72	25	108	20151	
CTD	TIMES		JD/TIME		DATA LOCATION												
TYPE & SN	9Plus 91660		DATA ON		Tape/Diskette ID												
PRESS SN	29972		START DOWN		File Name/Header												
TEMP SN	1: 889, 2: 701		AT DEPTH		CTD0002												
COND SN	1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 101 m												
POS.	TRIP DEPTH	PAR		FLUOR	ChlAM	TRANSMISSOMETER	Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.	CHL.	WHIT'S NUTR.
1	~100	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				SALINITY		25						
2									SALINITY								
3									SALINITY								
4									SALINITY								
5									SALINITY								
6									SALINITY								
7									SALINITY								
8									SALINITY								
9									SALINITY								
10									SALINITY								
11									SALINITY								
12									SALINITY								

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VESSEL NOAA Ship MILLER FREEMAN		PROJECT & LEG MF98-06		STATION DESIGNATION 5054033																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
004	5	49.33	N	156.14	W	03	M	15	21	5.6	5.0	11.4	7	27	3	0	876	230	HF155		
CTD		TIMES		JD/TIME		DATA LOCATION															
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header													
PRESS SN		29972		START DOWN		CTD 004															
TEMP SN		1: 889, 2: 701		AT DEPTH																	
COND SN		1: 480, 2: 303		AT SURFACE																	
																		MAX. DEPTH = 50 m			
POS.	TRIP DEPTH	PAR		FLUOR		CHLOR		TRANSMISSOMETER		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL		WHT's NUTR.	
1	50									SALINITY		SALINITY		21						✓	
2	40									31.9799		31.94								✓	
3	30									31.90		31.74								✓	
4	20									31.73		31.74								✓	
5	10									31.74		31.74								✓	
6	0																			✓	
7																					
8																					
9																					
10																					
11																					
12																					

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VESSEL		PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN		MF98-06				ST 37 H 02											
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
0055707.71N	15539.81W	05	MA	Y 98	025406.200	10156	165	26	876	276						ST37H02	
CTD		TIMES		JD/TIME		DATA LOCATION		REMARKS									
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header									
PRESS SN		29972		START DOWN		CTD 005											
TEMP SN		1: 889, 2: 701		AT DEPTH													
COND SN		1: 480, 2: 303		AT SURFACE						MAX. DEPTH = 50 m							
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
				PAR		FLUOR		CHAM		Cleaned air bleed valve							
				PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SAL.		NUTR.		CHL.	
1		50										35				✓	
2		40														✓	
3		30														✓	
4		20														✓	
5		10														✓	
6		0														✓	
7																	
8																	
9																	
10																	
11																	
12																	

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VESSEL		PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN		MF98-06				ST 51 HOI											
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
DEG MIN	DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C)	(mb)	(m/s)	* * *	(deg)	(m/s)	* * *	* * *	(m)			
0085741.03N	15509.91W	05 MAY 98	1954	5.1	4.0	9.1	37	260	8	761	289	F0x60					
CTD		TIMES		JD/TIME		DATA LOCATION				REMARKS							
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID				File Name/Header							
PRESS SN		29972		START DOWN		CTD008											
TEMP SN		1: 889, 2: 701		AT DEPTH													
COND SN		1: 480, 2: 303		AT SURFACE						MAX. DEPTH = 284 m							
TRIP DEPTH		POS.		CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		SAMPLE BOTTLE		SAMPLE BOTTLE NUMBER		SAL.		NUTR.	CHL.	WATTS NUTR.	
1	250	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	200	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
3	150	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4	100	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
5	75	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6	50	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
7	40	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
8	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
9	20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
10	10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
11	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
12		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16





VESSEL				PROJECT & LEG				STATION DESIGNATION									
NOAA Ship MILLER FREEMAN				MF98-06				ST53401									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(deg)	(kts)	*	(m)		
0105736	26N	15501	03W	05	M	A	Y	8	22	16	5.1	4.1	19137	195	16	238	FOX58
CTD		TIMES		JD/TIME		DATA LOCATION		REMARKS									
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header									
PRESS SN		29972		START DOWN													
TEMP SN		1: 889, 2: 701		AT DEPTH													
COND SN		1: 480, 2: 303		AT SURFACE													
MAX. DEPTH =		233		m													
CTD CONVERTED MONITOR VALUES		PAR		FLUOR		CHIAM		TRANSMISSOMETER		Cleaned air bleed valve							
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.	
1	Bot	233												26		1664	
2	200													1663			
3	150													1662			
4	100													1661			
5	75													1660			
6	50													1659		✓	
7	40													1658		✓	
8	30													✓		✓	
9	20													1657		✓	
10	10													1656		✓	
11	0													1655		✓	
12																	

m2  
m2  
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VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG MF98-06				STATION DESIGNATION ST54 H01													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)		(deg)	(m/s)	*	(m)				
011	57	30.71	N	154	47.19	W	06	M	A	Y	98	00	09	6.8	5.09	147	191	16	381	214/FOX56	
CTD				TIMES				JD/TIME				DATA LOCATION				REMARKS					
TYPE & SN				9Plus 91660				DATA ON				Tape/Diskette ID				File Name/Header					
PRESS SN				29972				START DOWN				CTD017									
TEMP SN				1: 889, 2: 701				AT DEPTH													
COND SN				1: 480, 2: 303				AT SURFACE								MAX. DEPTH = 205 m					
<input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR <input checked="" type="checkbox"/> CHAM <input checked="" type="checkbox"/> TRANSMISSOMETER <input checked="" type="checkbox"/> Cleaned air bleed valve				CTD CONVERTED MONITOR VALUES																	
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SALINITY		SAL.		NUTR.		CHL.		WHIT's NUTR.	
1	Bottom	205												33		1869					
2	200 ✓															1868					
3	150 ✓															1867					
4	100 ✓															1866					
5	75 ✓															1865					
6	50 ✓															1864		✓			
7	40 ✓															1863		✓			
8	30 ✓															✓		✓			
9	20 ✓															1862		✓			
10	10 ✓															1861		✓			
11	0 ✓															1860		✓			
12																					

m2  
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m2

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VESSEL						PROJECT & LEG							STATION DESIGNATION											
NOAA Ship MILLER FREEMAN						MF98-06							ST 60 Hoi											
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	N	DEG	MIN	E	DAY	MO	YR	HR	MIN													(m)
1	45	55	.89 N	156	14	.	99	W	06	MAY	98	15	10	5.8	4.6	94	4	7	285	10	78	1	22Z	MoE
CTD		TIMES	JDTIME	DATA LOCATION																				
Type & SN			DATA ON				Tape/Diskette ID			File Name/Header														
PRESS SN			START DOWN																					
TEMP SN			AT SURFACE																					
COND SN			AT SURFACE																					
		PAR	FLUOR	CHIAM	Cleaned air bleed valve																			
POS.	TRIP DEPTH			SAMPLE BOTTLE DATA																				
1	211	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY														SAL.		NUTR.	CHL.	WHIT'S NUTR.
2																				4				
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								



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VESSEL						PROJECT & LEG						STATION DESIGNATION									
NOAA Ship MILLER FREEMAN						MF98-06						ST64H03									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	(m)			
017	55	42.11	N	156	26	49	W	06	M	A	Y	9	8	2	15	5	4	7	280	21	
																		885	241	H F 153	
CTD		TIMES		JD/TIME		DATA LOCATION														REMARKS	
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID				File Name/Header											
PRESS SN		29972		START DOWN						CTD017											
TEMP SN		1: 889, 2: 701		AT DEPTH																	
COND SN		1: 480, 2: 303		AT SURFACE																MAX. DEPTH = 233 m	
POS.	TRIP DEPTH	PAR		FLUOR		CHIAM		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.	NUTR.	CHL.	WHIT'S NUTR.		
1	Bot ✓	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>								18	1889				
2	200 ✓																1888				
3	150 ✓																1887				
4	100 ✓																1886				
5	75 ✓																1885				
6	50 ✓																1884	-			
7	40 ✓																1883	-			
8	30 ✓																-	-			
9	20 ✓																1882	-			
10	10 ✓																1881	-			
11	0 ✓																1880	-			
12																					



VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG MF98-06				STATION DESIGNATION ST66 H03																									
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB		WIND DIRN.		WIND SPD.		CLOUD (amt)		WEATHER		BOTTOM DEPTH		STA. NAME/ID											
DEG	MIN	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(deg)	(kts)	(%)	(amt)	(amt)	(m)	(m)	(m)	(m)												
619	55	42	46	N	156	00	8	2	W	07	M	A	Y	9	8	0	2	3	4	7	0	5	0	1	4	8	1	2	1	5	H	1	5
CTD		TIMES		JD/TIME		DATA LOCATION		Tape/Diskette ID		File Name/Header		REMARKS																					
TYPE & SN		9Plus 91660		DATA ON																													
PRESS SN		29972		START DOWN																													
TEMP SN		1: 889, 2: 701		AT DEPTH																													
COND SN		1: 480, 2: 303		AT SURFACE																													
MAX. DEPTH =		207		m																													
CTD CONVERTED MONITOR VALUES		PAR		FLUOR		CHLOR		TRANSMISSOMETER		Cleaned air bleed valve																							
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL.		WHIT'S NUTR.											
1	260 ✓															6		1908															
2	150 ✓																	1907															
3	100 ✓																	1906															
4	75 ✓																	1905															
5	50 ✓																	1904		✓													
6	40 ✓																	1903		✓													
7	30 ✓																	✓		✓													
8	20 ✓																	1902		✓													
9	10 ✓																	1901		✓													
10	0 ✓																	1900		✓													
11																																	
12																																	

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VESSEL		PROJECT & LEG		STATION DESIGNATION																	
NOAA Ship MILLER FREEMAN		MF98-06		ST75101																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(kts)	.	.	(m)		
02156	42	53	N	155	58	80	W	07	M	AY	98	22	56	5.0	3.1	1348	240	09	431	305E-A2	
CTD		TIMES		JD/TIME		DATA LOCATION															
TYPE & SN		9Plus 91660		DATA ON		File Name/Header															
PRESS SN		29972		START DOWN		CTD021															
TEMP SN		1: 889, 2: 701		AT DEPTH																	
COND SN		1: 480, 2: 303		AT SURFACE																	
MAX. DEPTH =		296 m																			
REMARKS																					
CTD CONVERTED MONITOR VALUES		Cleaned air bleed valve																			
POS.	TRIP DEPTH	PAR		FLUOR		CHLOR		TRANSMISSOMETER		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL.		WHIT'S NUTR.	
1	296									SALINITY				24							
2										SALINITY											
3										SALINITY											
4										SALINITY											
5										SALINITY											
6										SALINITY											
7										SALINITY											
8										SALINITY											
9										SALINITY											
10										SALINITY											
11										SALINITY											
12										SALINITY											

VESSEL						PROJECT & LEG						STATION DESIGNATION															
NOAA Ship MILLER FREEMAN						MF98-06						ST#6 H01															
CONSC CAST #	DEG	MIN	LATITUDE	DEG	MIN	LONGITUDE	DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (ami)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID				
022	56	40.20	N	155	53.34	W	08	M	A	Y	98	00	23	5.1	3.9	1347	25	6	78	1		28	E-A3				
CTD						JD/TIME						DATA LOCATION															
TYPE & SN						9Plus 91660 DATA ON						Tape/Diskette ID						File Name/Header									
PRESS SN						29972												CTD 022									
TEMP SN						1: 889, 2: 701 AT DEPTH																					
COND SN						1: 480, 2: 303 AT SURFACE												MAX. DEPTH = 273 m									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										TRANSMISSOMETER		REMARKS													
		<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHLAM	<input checked="" type="checkbox"/> Cleaned air bleed valve										SAMPLE BOTTLE NUMBER												
1	273											SALINITY		SALINITY										SAL.	NUTR.	CHL.	WHIT'S NUTR
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
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VESSEL						PROJECT & LEG						STATION DESIGNATION																	
NOAA Ship MILLER FREEMAN						MF98-06						ST78H01																	
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB		WET BULB		SEA STATE		VISIBILITY		WIND DIRN.		WIND SPD.		CLOUD (amt)		WEATHER		BOTTOM DEPTH		STA. NAME/ID	
		DEG MIN		DEG MIN		DAY MO YR		HR MIN		(°C)		(°C)		(mb)		*		(deg)		(kts)		* * *		(m)					
0245635.45 N		15543.13 W		08 MAY 98		0255		4.2		6.0		1247		15		16		781		227		E-A5							
CTD						TIMES						DATA LOCATION						REMARKS											
TYPE & SN						DATA ON						Tape/Diskette ID						File Name/Header											
PRESS SN						29972						START DOWN						CTD024											
TEMP SN						1: 889, 2: 701						AT DEPTH																	
COND SN						1: 480, 2: 303						AT SURFACE						MAX. DEPTH = 221 m											
POS.		TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHLOROPHYLL		WHIT'S					
1		101 ✓														11		1928											
2		200 ✓																1927											
3		150 ✓																1926											
4		100 ✓																1925											
5		75 ✓																1924											
6		60 ✓																✓											
7		50 ✓																1923											
8		40 ✓																1922											
9		30 ✓																-											
10		20 ✓																1921											
11		10 ✓																1920											
12		but ✓																1919											



[illegible]

VESSEL		PROJECT & LEG				STATION DESIGNATION																			
NOAA Ship MILLER FREEMAN		MF98-06				ST 80 H01																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID									
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(deg)	(amt)	(m)									
026	56	28.20	N	156	11.53	W	08	M	A	Y	98	06	01	5.1	4.0	10	47	190	22	77	6	275	F	-D-3	
CTD		TIMES		JD/TIME		DATA LOCATION												REMARKS							
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header																	
PRESS SN		29972		START DOWN		CTD026																			
TEMP SN		1: 889, 2: 701		AT DEPTH																					
COND SN		1: 480, 2: 303		AT SURFACE														MAX. DEPTH = 268 m							
TRIP DEPTH		268		268		268		268		268		268		268		268		268		268		268		268	
POS.	CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA												SAMPLE BOTTLE NUMBER						
	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		
1	268		268		268		268		268		268		268		268		268		268		268		268		
2	268		268		268		268		268		268		268		268		268		268		268		268		
3	268		268		268		268		268		268		268		268		268		268		268		268		
4	268		268		268		268		268		268		268		268		268		268		268		268		
5	268		268		268		268		268		268		268		268		268		268		268		268		
6	268		268		268		268		268		268		268		268		268		268		268		268		
7	268		268		268		268		268		268		268		268		268		268		268		268		
8	268		268		268		268		268		268		268		268		268		268		268		268		
9	268		268		268		268		268		268		268		268		268		268		268		268		
10	268		268		268		268		268		268		268		268		268		268		268		268		
11	268		268		268		268		268		268		268		268		268		268		268		268		
12	268		268		268		268		268		268		268		268		268		268		268		268		

one bottle didn't rip; reading ast.

26A OF

VESSEL NOAA Ship MILLER FREEMAN		PROJECT & LEG MF98-06		STATION DESIGNATION STBCH02																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR												MIN			
526A	56	28.17 N	156	11.68 W	M	A	Y	9	8														
CTD		TIMES		JD/TIME		DATA LOCATION																	
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header		REMARKS													
PRESS SN		29972		START DOWN		CTD026A		bottle only		(bottle cast file July)													
TEMP SN		1: 889, 2: 701		AT DEPTH						(Deep bottle on CTD026)													
COND SN		1: 480, 2: 303		AT SURFACE						MAX. DEPTH = 250 m													
POS.		TRIP DEPTH		PAR		FLUOR		CHIAM		TRANSMISSOMETER		Cleaned air bleed valve											
		CTD CONVERTED MONITOR VALUES																					
		PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL.		WHIT'S NUTR.	
1	1																						
2	200																						
3	150																						
4	100																						
5	75																						
6	60																						
7	50																						
8	40																						
9	30																						
10	20																						
11	10																						
12	bucket																						

one bottle didn't trip; re-doing cast.

[illegible]

[illegible]

VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG MF98-06				STATION DESIGNATION ST 82 H 01																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	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)	(m/s)	.	(m)							
029	56	24.7	2 N	156	33.4	1 W	08	M	A	Y	98	0	9	45	5.0	4.5	3.2	47	18.0	26	8	62	205	E-F1
CTD		TIMES		JD/TIME		DATA LOCATION														REMARKS				
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header																
PRESS SN		29972		START DOWN				CHD029																
TEMP SN		1: 889, 2: 701		AT DEPTH																				
COND SN		1: 480, 2: 303		AT SURFACE																		MAX. DEPTH = 197 m		
CTD CONVERTED MONITOR VALUES				<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHAM		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.	CHL.	WHIT'S NUTR.				
1	197							32.16						8		1947								
2	150							32.01								1946								
3	100	102						31.80								1945								
4	75							31.67								1944								
5	60							31.66								—			✓	MZ				
6	50							31.63								1943			✓	1				
7	40	41						31.63								1942			✓	1				
8	30							31.62								—			✓	1				
9	20	21						31.61								1941			✓	1				
10	10	11						31.61								1940			✓	MZ				
11	0	3						31.60								1939			✓					
12																								

[illegible]

VESSEL						PROJECT & LEG							STATION DESIGNATION							
NOAA Ship MILLER FREEMAN						MF98-06							ST84461							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN											
031	56	19.71 N	156	23.78 W	08	MAY	98	1253	4.8	4.5	67	181	32	876	236	E-F3				
CTD			TIMES			JD/TIME			DATA LOCATION										REMARKS	
TYPE & SN			DATA ON			Tape/Diskette ID			File Name/Header											
PRESS SN			START DOWN						ctd031.dat											
TEMP SN			1: 889, 2: 701																	
COND SN			1: 480, 2: 303			AT SURFACE													MAX. DEPTH = 226 m	
			<input checked="" type="checkbox"/> PAR			<input checked="" type="checkbox"/> FLUOR			<input checked="" type="checkbox"/> CHLAM			<input type="checkbox"/> TRANSMISSOMETER			<input type="checkbox"/> Cleaned air bleed valve					
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES			SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER			WHIT'S NUTR.									
1	223	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY			SAL.			NUTR.	CHL.							
2					32.17							07								
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				



[illegible]

VESSEL				PROJECT & LEG				STATION DESIGNATION													
NOAA Ship MILLER FREEMAN				MF98-06				ST85 H01													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	.	*	(m)				
033	56	17.4	N	156	18.36	W	08	M	A	Y	98	19	41	6.0	5.8	9366	190	24	876	278	E-F4
CTD		TIMES		JD/TIME		DATA LOCATION												REMARKS			
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header													
PRESS SN		29972		START DOWN				CTD033													
TEMP SN		1: 889, 2: 701		AT DEPTH																	
COND SN		1: 480, 2: 303		AT SURFACE																MAX. DEPTH = 270 m	
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY								SAL.	NUTR.	CHL.	WHIT'S NUTR.				
1	270													36							
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

VESSEL		PROJECT & LEG				STATION DESIGNATION																	
NOAA Ship MILLER FREEMAN		MF98-06				ST 86 H 01																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO													YR	HR	MIN		
034	56	15.07N	156	12.76W	08	MAY	98	2205	16.2	5.7	936	190	27	876	.	.	260	I-F5					
CTD		TIMES		JD/TIME		DATA LOCATION																	
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID																	
PRESS SN		29972		START DOWN		File Name/Header																	
TEMP SN		1: 889, 2: 701		AT DEPTH		CTD034																	
COND SN		1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 253 m																	
TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL		WHIT'S NUTR.	
1	bottom	753														26		1957					
2	200 ✓																	1958					
3	150 ✓																	1955					
4	100 ✓																	1954					
5	75 ✓																	1953					
6	60 ✓																	-		✓		✓	
7	50 ✓																	1952		✓		✓	
8	40 ✓																	1951		✓		✓	
9	30 ✓																	-		✓		✓	
10	20 ✓																	1950		✓		✓	
11	10 ✓																	1949		✓		✓	
12	bucket																	1948		✓		✓	

VESSEL						PROJECT & LEG							STATION DESIGNATION								
NOAA Ship MILLER FREEMAN						MF98-06							ST87H04								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt) . . .	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN												
035	56.27	.75 N	156.11	.76 W	09	MAY	98	01	06	5.8	4.98	3	5	7	19	5	68	1	E-D3		
CTD		JD/TIME		REMARKS																	
TYPE & SN		DATA ON		Tape/Diskette ID File Name/Header																	
PRESS SN		29972		CTD035																	
TEMP SN		1: 889, 2: 701																			
COND SN		1: 480, 2: 303		MAX. DEPTH = 267 m																	
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										TRANSMISSOMETER		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHLOR								<input checked="" type="checkbox"/>	Cleaned air bleed valve	SAL.	NUTR.	CHL.	WHIT'S NUTR.				
1	Bot	PRESSURE	267	PRI. TEMP.						SEC. TEMP.						SALINITY					
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

VESSEL							PROJECT & LEG						STATION DESIGNATION								
NOAA Ship MILLER FREEMAN							MF98-06						ST 88H61								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) TYPE WEATHER	BOTTOM DEPTH  (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN												
030	56	36.09 N	155	59.26 W	09	MAY	98	03	10	6.0	4.8	935	7	19	0	17	48	1	E-B3		
<b>CTD</b>				<b>TIMES</b>		<b>JDTIME</b>		<b>DATA LOCATION</b>												<b>REMARKS</b>	
TYPE & SN		9Plus 91660		DATA ON _____		Tape/Diskette ID		File Name/Header												Chlorophyll max Per cast at cold Oxygen ~ 80 m.	
PRESS SN		29972		START DOWN _____		CTD 036															
TEMP SN		1: 889, 2: 701		AT DEPTH _____																	
COND SN		1: 480, 2: 303		AT SURFACE _____														MAX. DEPTH = 272 m			
										<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input type="checkbox"/> CHLAM		<input checked="" type="checkbox"/> TRANSMISSOMETER		Cleaned air bleed valve			
<b>POS.</b>		<b>TRIP DEPTH</b>		<b>CTD CONVERTED MONITOR VALUES</b>																<b>SAMPLE BOTTLE NUMBER</b>	
				<b>PRESSURE</b>		<b>PRI. TEMP.</b>		<b>SEC. TEMP.</b>		<b>SALINITY</b>		<b>SALINITY DATA</b>		<b>SAL.</b>		<b>NUTR.</b>		<b>CHL / WHIT'S NUTR.</b>			
1		Bot ✓												4		1967					
2		200 ✓														1966					
3		150 ✓														1965					
4		100 ✓														1964					
5		75 ✓														1963 ✓		✓			
6		60 ✓														—		✓			
7		50 ✓														1962 ✓		✓			
8		40 ✓														1961 ✓		✓			
9		30 ✓														—		✓			
10		20 ✓														1960 ✓		✓			
11		10 ✓														1959 ✓		✓			
12		Surf ✓														1958 ✓		✓			

[illegible]

CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN															
038	56	41.09N	156	10.42W	09	MAY	98	06	50	5.5	4.0	94	5	7	220	18	53	1	23	2	E-B-1			
CTD		TIMES		JD/TIME		DATA LOCATION															REMARKS			
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header																
PRESS SN		29972		START DOWN																				
TEMP SN		1: 889, 2: 701		AT DEPTH																				
COND SN		1: 480, 2: 303		AT SURFACE																	MAX. DEPTH = 225 m			
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										TRANSMISSOMETER		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.						
		<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHLOR																				
1	001	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT'S NUTR.				
2																	24							
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

VESSEL				PROJECT & LEG				STATION DESIGNATION															
NOAA Ship MILLER FREEMAN				MF98-06				ST91H01															
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB		WIND DIRN.		WIND SPD.		CLOUD (amt)		WEATHER		BOTTOM DEPTH		STA. NAME/ID	
DEG	MIN	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(deg)	(m/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	
039	5638.72	N	15604.86	W	09	MAY	98	08	23	14	3.2	57	245	20	631	295	E-B2						
CTD				TIMES				JD/TIME				DATA LOCATION				REMARKS							
TYPE & SN				DATA ON				Tape/Diskette ID				File Name/Header											
PRESS SN				29972								CTD039											
TEMP SN				1: 889, 2: 701																			
COND SN				1: 480, 2: 303												MAX. DEPTH = 287 m							
TRIP DEPTH				287																			
POS.				1																			
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							



VESSEL		PROJECT & LEG				STATION DESIGNATION													
NOAA Ship MILLER FREEMAN		MF98-06				5792401													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	(deg)	(m/s)	.	(m)		
04056	32	09	N	156	05	72	W	09	MA	Y 98	10	21	5	7	20	5	31	283	E-C3
CTD	TIMES		JD/TIME		DATA LOCATION														
TYPE & SN	9Plus 91660		DATA ON		Tape/Diskette ID File Name/Header														
PRESS SN	29972		START DOWN																
TEMP SN	1: 889, 2: 701		AT DEPTH																
COND SN	1: 480, 2: 303		AT SURFACE																
					<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHAM	<input type="checkbox"/> TRANSMISSOMETER	Cleaned air bleed valve										
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.	SEC. TEMP.	SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.	CHL.	WATTS NOTR.	
1	273					33.12		33.12				17		1977					
2	200					32.29		32.29						1976					
3	150					32.05		32.05						1975					
4	100					31.95		31.95						1974					
5	75					31.88		31.88						1973					
6	60					31.81		31.81						—			✓	MZ	
7	50					31.78		31.78						1972			✓	MZ	
8	40					31.55		31.55						1971			✓	MZ	
9	30					31.54		31.54						—			✓	MZ	
10	20					31.54		31.54						1970			✓	MZ	
11	10					31.54		31.54						1968			✓	MZ	
12	0 (bucket)													1969			✓		

VESSEL NOAA Ship MILLER FREEMAN		PROJECT & LEG MF98-06		STATION DESIGNATION ST93 H01																				
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID					
0415629.38	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)			(deg)	(m/s)		(m)						
0415629.38	N	15	6	00	24	W	09	M	A	Y	9	8	11	5	2	5	1	3	5	68	1	245	5	E-C4
CTD		TIMES		JD/TIME		DATA LOCATION														REMARKS				
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header																
PRESS SN		29972		START DOWN				04041																
TEMP SN		1: 889, 2: 701		AT DEPTH		1152																		
COND SN		1: 480, 2: 303		AT SURFACE																		MAX. DEPTH = 246 m		
TRIP DEPTH		246		PAR		FLUOR		CHAM		TRANSMISSOMETER		Cleared air bleed valve												
POS.	CTD CONVERTED MONITOR VALUES		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER																			
1	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY																				
2				33.18																				
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

VESSEL		PROJECT & LEG				STATION DESIGNATION														
NOAA Ship MILLER FREEMAN		MF98-06				ST94 401														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)			(deg)	(m/s)		(m)		
04256	25	44	N	156	06	12	W	09	MAY	98	13	21	5	1	3	4	6	7	235	14
CTD		JD/TIME		TIMES		REMARKS														
TYPE & SN		9Plus 91660		DATA ON		File Name/Header														
PRESS SN		29972		START DOWN		Ctd 042														
TEMP SN		1: 889; 2: 701		AT DEPTH																
COND SN		1: 480; 2: 303		AT SURFACE		MAX. DEPTH = 252 m														
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.	CHL.	WHIT'S NUTR.
1	250							33.21						30						
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

VESSEL NOAA Ship MILLER FREEMAN		PROJECT & LEG MF98-06		STATION DESIGNATION ST95 H01																													
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB		WIND DIRN.		WIND SPD.		CLOUD (amt)		WEATHER		BOTTOM DEPTH		STA. NAME/ID											
DEG		MIN		DEG		MIN		DAY		MO		YR		HR		MIN		°C		°C		(deg)		(m/s)		.		.		(m)			
043		5623.83N		15617.26W		09MAY		1450		5.0		3.0		57		225		10		381		257		E-E3									
CTD		TIMES		JD/TIME		DATA LOCATION		Tape/Diskette ID		File Name/Header		REMARKS																					
TYPE & SN		9Plus 91660		DATA ON		May 9 1441																											
PRESS SN		29972		START DOWN		"																											
TEMP SN		1: 889, 2: 701		AT DEPTH		1450																											
COND SN		1: 480, 2: 303		AT SURFACE		1456																											
POS.		TRIP DEPTH		PAR		FLUOR		CHIAM		TRANSMISSOMETER		Cleared air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL.		WHIT'S NUTR.									
1		244		PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		32.77		SALINITY		18																	
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

MAX. DEPTH = 244 m

VESSEL		PROJECT & LEG				STATION DESIGNATION							
NOAA Ship MILLER FREEMAN		MF98-06				ST96 H03							
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
0445615.19N	15613.10W	09 MAY 98	1926	5.9	4.0	0.0	48260	12	481	260	E-F5		
CTD		JD/TIME		DATA LOCATION		Tape/Diskette ID		File Name/Header		REMARKS			
TYPE & SN		9Plus 91660		May 9 19:17		ctd044		ctd044		tried moorings. It crapped out.			
PRESS SN		29972											
TEMP SN		1: 889, 2: 701											
COND SN		1: 480, 2: 303										MAX. DEPTH = 250 m	
TRIP DEPTH		CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			
1	250	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY			SALINITY		SAL.		NUTR.	CHL.
2	200				31.28					6		1990	
3	150				32.26							1991	
4	100				32.11							1992	
5	75				31.98							1984	
6	60				31.90							1983	
7	50				31.84							1982	✓
8	40				31.79							1981	✓
9	30	33			31.70							1980	✓
10	20	21			31.61							1979	✓
11	10				31.56							1978	✓
12	Surface												

ME

WATER NUTR.

VESSEL		PROJECT & LEG		STATION DESIGNATION									
NOAA Ship MILLER FREEMAN		MF98-06		ST97 H01									
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	WET BULB	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
0455626.00N	5606.27W	09 MAY 98	2110	5.5	3.800	48260	5	481	264	E-D4			
CTD		JD/TIME		DATA LOCATION		REMARKS							
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header							
PRESS SN		29972		START DOWN		CTD 645							
TEMP SN		1: 889, 2: 701		AT DEPTH									
COND SN		1: 480, 2: 303		AT SURFACE				MAX. DEPTH = 255 m					
TRIP DEPTH		PAR		FLUOR		CHIAM		TRANSMISSOMETER		Cleaned air bleed valve			
POS.		CTD CONVERTED MONITOR VALUES		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
1	80T ✓	PRESSURE	255	PRI. TEMP.	SEC. TEMP.	SALINITY		SAL.	3	NUTR.	97	WHT'S NUTR.	✓
2	200 ✓										96		✓
3	150 ✓										95		✓
4	100 ✓										94		✓
5	75 ✓										1948		✓
6	60 ✓										1948		✓
7	50 ✓										89		✓
8	40 ✓										88		✓
9	30 ✓										-		✓
10	20 ✓										67		✓
11	10 ✓										86		✓
12	touch ✓										1985		✓

[illegible]





VESSEL			PROJECT & LEG			STATION DESIGNATION												
NOAA Ship MILLER FREEMAN			MF98-06			ST100 H01												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB (°C)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (knots)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR									MIN	
048	56	35.60 N	156	00.10 W	10	MAY	98	0145	6.0	4.4	0348	270	13	381	282	ST100		
CTD			TIMES		JD/TIME		DATA LOCATION											
TYPE & SN			DATA ON				Tape/Diskette ID		File Name/Header									
PRESS SN			29972						CTD048									
TEMP SN			1: 889, 2: 701															
COND SN			1: 480, 2: 303															
			PAR		FLUOR		CHIAM		TRANSMISSOMETER		Cleaned air bleed valve							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES																
1		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SAMPLE BOTTLE DATA										SAMPLE BOTTLE NUMBER		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		