

VESSEL						PROJECT & LEG						STATION DESIGNATION									
NOAA Ship MILLER FREEMAN																					
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR										MIN			
47564	103	N	17012	54	W	22	APR	98	13	42	3.1	2.9	06	47	2	102	34-1				
CTD		TIMES		JD/TIME		DATA LOCATION															
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID File Name/Header															
PRESS SN		29972		START DOWN		CTD047															
TEMP SN		1: 889, 2: 701		AT DEPTH																	
COND SN		1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 95 m															
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES																	
				<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR(3)		<input type="checkbox"/> CHAM		<input checked="" type="checkbox"/> TRANSMISSOMETER		<input checked="" type="checkbox"/> Cleaned air bleed valve		SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER			
				PRESSURE	PRI. TEMP.	SEC. TEMP.		SALINITY		SALINITY		SALINITY		SAL.	NUTR.	CHL	WHIT'S NUTR.				
1	95													15			M191				
2	75															✓	M192				
3	50															✓	M193				
4	40															✓	M194				
5	30															✓	M195				
6	20															✓	M196				
7	10															✓	M197				
8	0															✓	M198				
9																					
10																					
11																					
12																					

[illegible]

VESSEL						PROJECT & LEG							STATION DESIGNATION										
NOAA Ship MILLER FREEMAN																							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	(m)					
495652-05 N	169	58.26 W	22	APR	19	8	17	32	31.0	21.8	0547	130	18	872	72	36-1							
CTD		JD/TIME		TIMES		DATA LOCATION															REMARKS		
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID File Name/Header																	
PRESS SN		29972		START DOWN		CTDO49																	
TEMP SN		1: 889, 2: 701		AT DEPTH																			
COND SN		1: 480, 2: 303		AT SURFACE																	MAX. DEPTH = 65 m		
<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR(3)		<input type="checkbox"/> CHLAM		<input type="checkbox"/> TRANSMISSOMETER		<input checked="" type="checkbox"/> Cleaned air bleed valve															
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	65																35			M206			
2	50																			207			
3	40																			208			
4	30																			209			
5	20																			210			
6	10																			211			
7	0																			212			
8																							
9																							
10																							
11																							
12																							

[illegible]

VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG				STATION DESIGNATION													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 112		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN (deg)	WIND SPD (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
515702.61N	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	2.1	2.10346	1302	21	872		65	37-2				
CTD				TIMES				JD/TIME				DATA LOCATION				REMARKS					
TYPE & SN 9Plus 91660				DATA ON				Tape/Diskette ID				File Name/Header									
PRESS SN 29972				START DOWN								CTDO51									
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 (3) <input type="checkbox"/> CHIAM				TRANSMISSOMETER				<input checked="" type="checkbox"/> Cleaned air bleed valve				MAX. DEPTH = 30 m					
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES																			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SAMPLE BOTTLE DATA												SAMPLE BOTTLE NUMBER			
1	28					SALINITY												SAL.	NUTR.	CHL.	WHIT'S NUTR.
2	18																				
3	13																				
4	7																				
5	4																				
6	0																				
7																					
8																					
9																					
10																					
11																					
12																					

VESSEL NOAA Ship MILLER FREEMAN							PROJECT & LEG						STATION DESIGNATION													
CONSCAST #	LATITUDE			LONGITUDE			DATE JD= \13			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	STA. NAME/ID		
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN															
525322-19N	16	8	42.03	N	23	W	23	A	P	R	9	8	16	46	4.3	3.6	954	7	200	14	872	*	*	(m)	317	38-1
CTD		TIMES		JD/TIME		DATA LOCATION											REMARKS									
TYPE & SN 9Plus 91660		DATA ON _____				Tape/Diskette ID File Name/Header																				
PRESS SN 29972		START DOWN _____				_____						CTD052														
TEMP SN 1: 889, 2: 701		AT DEPTH _____				_____																				
COND SN 1: 480, 2: 303		AT SURFACE _____				_____											MAX. DEPTH = 310 m									
				PAR <input checked="" type="checkbox"/>				FLUOR (3) <input type="checkbox"/> CHLAM <input type="checkbox"/>				TRANSMISSOMETER <input type="checkbox"/>				Cleaned air bleed valve <input checked="" type="checkbox"/>										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES				SAMPLE DATA				SAMPLE BOTTLE NUMBER																
1	310	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY				SALINITY				SAL. NUTR. CHL. WHIT'S NUTR.												
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

- * too deep for know
- * marginally deep for par

VESSEL						PROJECT & LEG							STATION DESIGNATION															
NOAA Ship MILLER FREEMAN																												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID								
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*		(m)									
053	53	26.33	N	168	46.45	W	23 APR 98	173	9	4.9	3.9	953	7	230	14	47	1	1183	39-1									
CTD		TIMES		JD/TIME		DATA LOCATION															REMARKS							
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header													check off 500m							
PRESS SN		29972		START DOWN				CRD053													rho sigma t file							
TEMP SN		1: 889, 2: 701		AT DEPTH																								
COND SN		1: 480, 2: 303		AT SURFACE																	MAX. DEPTH = 1003 m							
<input checked="" type="checkbox"/> PAR				<input type="checkbox"/> FLUOR				<input type="checkbox"/> CHLAM				<input type="checkbox"/> TRANSMISSOMETER				<input checked="" type="checkbox"/> Cleaned air bleed valve												
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	1003																				17			M200				
2	750																							1				
3	500																							2				
4	250																							3				
5	100																							4				
6	40																							5				
7	26																							6				
8	18																							7				
9	10																							8				
10	6																							9				
11	0																							M230				
12																												

VESSEL						PROJECT & LEG							STATION DESIGNATION										
NOAA Ship MILLER FREEMAN						M F98-05B																	
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												
5453	24	.54	N	168	51	.78	W	24	AUG	98	02	17	4.5	3.6	953	72	15	12	681	1098	39-4		
CTD						TIMES						DATA LOCATION						REMARKS					
TYPE & SN 9Plus 91660						Tape/Diskette ID File Name/Header						w/01098											
PRESS SN 29972						START DOWN						CTDO54											
TEMP SN 1: 889, 2: 701																							
COND SN 1: 480, 2: 303						AT SURFACE												MAX. DEPTH = 1000 m					
<input checked="" type="checkbox"/> PAR						<input type="checkbox"/> FLUOR						<input type="checkbox"/> CHLOR						<input checked="" type="checkbox"/> Cleaned air bleed valve					
POS.						TRIP DEPTH						SAMPLE BOTTLE DATA						SAMPLE BOTTLE NUMBER					
1						1000						SALINITY						SAL. NUTR. CHL. WHIT'S NUTR.					
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

VESSEL						PROJECT & LEG							STATION DESIGNATION													
NOAA Ship MILLER FREEMAN																										
CONSC. CAST #	LATITUDE		LONGITUDE			DATE JD= 114			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	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(m)								*	*	* * *						
555330-80 N	16	855-17 W	24	A	P	R	9	8	O	4	4	6	4.5	9538	205	7	561	1828	40 - 1							
CTD		TIMES	JT/TIME	DATA LOCATION								REMARKS														
TYPE & SN	9Plus 91660 DATA ON		Tape/Diskette ID File Name/Header																							
PRESS SN	29972 START DOWN		<u>CTDO55</u>																							
TEMP SN	1: 889, 2: 701 AT DEPTH																									
COND SN	1: 480, 2: 303 AT SURFACE										MAX. DEPTH = 1502 m															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES																								
		<input type="checkbox"/> PAR	<input type="checkbox"/> FLUOR	<input type="checkbox"/> CHLAM	<input checked="" type="checkbox"/> TRANSMISSOMETER	<input checked="" type="checkbox"/>	Cleaned air bleed valve														SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER				
1	1502	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY															SALINITY		SAL.	NUTR.	CHL.	WHIT'S NUTR.	
2	500																					55		M231		
3	300																							M232		
4	200																							M233		
5	100																							M234		
6	50																							M235		
7	20																							M236		
8	0																							M237		
9																								M238		
10																										
11																										
12																										

[illegible]

VESSEL						PROJECT & LEG						STATION DESIGNATION									
NOAA Ship MILLER FREEMAN																					
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)			
59	54	20.09 N	169	48.36 W	24	APR	1988	16	20	3.0	2.7	923	8	350	16	862	2	1614	44-1		
CTD		TIMES		JD/TIME		DATA LOCATION														REMARKS	
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID File Name/Header															
PRESS SN		29972		START DOWN		CTDOSS															
TEMP SN		1: 889, 2: 701		AT DEPTH																	
COND SN		1: 480, 2: 303		AT SURFACE																MAX. DEPTH = 1500m	
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES														SAMPLE BOTTLE NUMBER			
				PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAL.	NUTR.	CHL.	WHIT'S NUTR.		
1		1500														24			M263		
2		500																	M264		
3		300																	M265		
4		200																	M266		
5		100																	M267		
6		50																	M268		
7		20																	M269		
8		0																	M270		
9																					
10																					
11																					
12																					

VESSEL		PROJECT & LEG				STATION DESIGNATION														
NOAA Ship MILLER FREEMAN																				
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 114		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR											MIN	
615440.28N	169	11.39W	24	APR	98	21	27	2.9	2.79	33	3	0	15	17	86	2	1704	45-2		
CTD		TIMES		JD/TIME		DATA LOCATION														
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header												
PRESS SN 29972		START DOWN						CTD 061												
TEMP SN 1: 889, 2: 701		AT DEPTH																		
COND SN 1: 480, 2: 303		AT SURFACE						MAX. DEPTH = 1500 m												
PAR		FLUOR		CHIAM		TRANSMISSOMETER		Cleaned air bleed valve												
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	1500																	M271		
2	500																	M272		
3	300														14			M273		
4	200																	M274		
5	100																	M275		
6	50																	M276		
7	20																	M277		
8	0																	M278		
9																				
10																				
11																				
12																				

VESSEL		PROJECT & LEG				STATION DESIGNATION													
NOAA Ship MILLER FREEMAN																			
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD= 115			TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE	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							*	*	*		
06254	58.40N	16844.55W	25	APR	98	00	58		3.8	3.2	943	7030	16861	2235					46-1
CTD		TIMES		JD/TIME		DATA LOCATION													
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header											
PRESS SN 29972		START DOWN						CTD062											
TEMP SN 1: 889, 2: 701		AT DEPTH																	
COND SN 1: 480, 2: 303		AT SURFACE																	
										MAX. DEPTH = 1500 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	1500											25			M279				
2	500														M280				
3	300														M281				
4	200														M282				
5	100														M283				
6	50														M284				
7	20														M285				
8	0														M286				
9																			
10																			
11																			
12																			

[illegible]

VESSEL				PROJECT & LEG				STATION DESIGNATION																				
NOAA Ship MILLER FREEMAN																												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=115		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						
064	55	21.9	2	N	168	13.3	2	W	25	APR	9	8	11	24	4.2	3.3	0.5	4	8	02.0	17	3	41	9	6	2	48	-1
CTD		TIMES		JD/TIME		DATA LOCATION																						
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header																				
PRESS SN		29972		START DOWN		CTD064																						
TEMP SN		1: 889, 2: 701		AT DEPTH																								
COND SN		1: 480, 2: 303		AT SURFACE																								
MAX. DEPTH =		955		m																								
REMARKS																												
CLEANED AIR BLEED VALVE		<input checked="" type="checkbox"/>																										
CTD CONVERTED MONITOR VALUES		<input checked="" type="checkbox"/> PAR <input type="checkbox"/> FLUOR <input type="checkbox"/> CHLOR <input type="checkbox"/> TRANSMISSOMETER																										
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTR.	CHL.	WHIT'S NUTR.																
1	955								28			M295																
2	500								612			M296																
3	300								613			M297																
4	200								614			M298																
5	100								615			M299																
6	75								616			M300																
7	50								614			M301																
8	40								-		✓	M302																
9	30								616		✓	M303																
10	20								609		✓	M304																
11	10								608		✓	M305																
12	0								605		✓	M306																

bucket
sample

VESSEL						PROJECT & LEG							STATION DESIGNATION										
NOAA Ship MILLER FREEMAN																							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115			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	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN														
65	55	22.17 N	168	10.73 W	25	APR	98	12	51	4.1	3.1	1054	7		351	16	* * *	*	526	49-1			
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 = 500 m		
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES																		SAMPLE BOTTLE NUMBER	
				PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SAMPLE BOTTLE DATA															
1		500						SALINITY										SAL.	NUTR.	CHL.	WHIT'S NUTR.		
2		300																23	625		M307		
3		200																	624		308		
4		100																	623		309		
5		75																	622		710		
6		50																	621		311		
7		40																	620		312		
8		30																	619	✓	313		
9		20																		✓	314		
10		10																	618	✓	75		
11		0																	617	✓	316		
12																			607	✓	317		

VESSEL				PROJECT & LEG				STATION DESIGNATION																		
NOAA Ship MILLER FREEMAN																										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=115		TIME (GMT)		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							
66	55	25.48	N	168	04.26	W	25	APR	9	8	13	59	4.0	3.1	06	47	00	0	222	50-1						
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 (3)		<input type="checkbox"/> CHIAM		<input type="checkbox"/> TRANSMISSOMETER		<input checked="" type="checkbox"/> Cleaned air bleed valve																
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES																						
				PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL.		WHIT'S NUTR.		
1	2	15																	20	634						M318
2	15																			633						M319
3	100																			632						M320
4	75																			631			✓			M321
5	50																			630			✓			M322
6	40																			629			✓			M323
7	30																						✓			M324
8	20																						✓			M325
9	10																						✓			M326
10	0																						✓			M327
11																										
12																										

MAX. DEPTH = 215 m

[illegible]

[illegible]

VESSEL				PROJECT & LEG				STATION DESIGNATION												
NOAA Ship MILLER FREEMAN																				
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
6955	46.0	5N	167	10.0	5W	25	APR	9	8	18	52	3.9	3.4	10	47	0	15	0	136	53-1
CTD				TIMES				JD/TIME				DATA LOCATION				REMARKS				
TYPE & SN				9Plus 91660				DATA ON				Tape/Diskette ID				File Name/Header				
PRESS SN				29972				START DOWN				CTD 069								
TEMP SN				1: 889, 2: 701				AT DEPTH												
COND SN				1: 480, 2: 303				AT SURFACE								MAX. DEPTH = 130 m				
<input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR (3) <input type="checkbox"/> CHAM <input 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	SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				WHIT'S NUTR.					
1	130														SAL. NUTR. CHL.					
2	100														M344					
3	75														5					
4	50														6					
5	40														7					
6	20														8					
7	10														9					
8	0														M350					
9	0														1					
10	0																			
11	0																			
12																				

VESSEL				PROJECT & LEG				STATION DESIGNATION									
NOAA Ship MILLER FREEMAN																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR									
705546.19N	16710.19W	25	APR	9	8	19	20	3.8	3.2	1047	355	14	0	135	53-2		
CTD		TIMES		JD/TIME		DATA LOCATION											
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header									
PRESS SN 29972		START DOWN						CTD070									
TEMP SN 1: 889, 2: 701		AT DEPTH															
COND SN 1: 480, 2: 303		AT SURFACE								MAX. DEPTH = 54 m							
VESSEL				PROJECT & LEG				STATION DESIGNATION									
NOAA Ship MILLER FREEMAN																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR									
705546.19N	16710.19W	25	APR	9	8	19	20	3.8	3.2	1047	355	14	0	135	53-2		
CTD		TIMES		JD/TIME		DATA LOCATION											
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header									
PRESS SN 29972		START DOWN						CTD070									
TEMP SN 1: 889, 2: 701		AT DEPTH															
COND SN 1: 480, 2: 303		AT SURFACE								MAX. DEPTH = 54 m							
VESSEL				PROJECT & LEG				STATION DESIGNATION									
NOAA Ship MILLER FREEMAN																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR									
705546.19N	16710.19W	25	APR	9	8	19	20	3.8	3.2	1047	355	14	0	135	53-2		
CTD		TIMES		JD/TIME		DATA LOCATION											
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header									
PRESS SN 29972		START DOWN						CTD070									
TEMP SN 1: 889, 2: 701		AT DEPTH															
COND SN 1: 480, 2: 303		AT SURFACE								MAX. DEPTH = 54 m							
VESSEL				PROJECT & LEG				STATION DESIGNATION									
NOAA Ship MILLER FREEMAN																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR									
705546.19N	16710.19W	25	APR	9	8	19	20	3.8	3.2	1047	355	14	0	135	53-2		
CTD		TIMES		JD/TIME		DATA LOCATION											
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header									
PRESS SN 29972		START DOWN						CTD070									
TEMP SN 1: 889, 2: 701		AT DEPTH															
COND SN 1: 480, 2: 303		AT SURFACE								MAX. DEPTH = 54 m							
VESSEL				PROJECT & LEG				STATION DESIGNATION									
NOAA Ship MILLER FREEMAN																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR									
705546.19N	16710.19W	25	APR	9	8	19</											

[illegible]

VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN																			
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													
725603.25	N	166	19.76	W	25	APR	9	8	23	03	4.1	3.4	1148	350	152	10		121	55-1
CTD		TIMES		JD/TIME		DATA LOCATION													
TYPE & SN		9Plus 91660		DATA ON		File Name/Header													
PRESS SN		29972		START DOWN		CTD 072													
TEMP SN		1: 889, 2: 701		AT DEPTH															
COND SN		1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 51 m													
VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN																			
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													
725603.25	N	166	19.76	W	25	APR	9	8	23	03	4.1	3.4	1148	350	152	10		121	55-1
CTD		TIMES		JD/TIME		DATA LOCATION													
TYPE & SN		9Plus 91660		DATA ON		File Name/Header													
PRESS SN		29972		START DOWN		CTD 072													
TEMP SN		1: 889, 2: 701		AT DEPTH															
COND SN		1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 51 m													
VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN																			
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													
725603.25	N	166	19.76	W	25	APR	9	8	23	03	4.1	3.4	1148	350	152	10		121	55-1
CTD		TIMES		JD/TIME		DATA LOCATION													
TYPE & SN		9Plus 91660		DATA ON		File Name/Header													
PRESS SN		29972		START DOWN		CTD 072													
TEMP SN		1: 889, 2: 701		AT DEPTH															
COND SN		1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 51 m													
VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN																			
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													
725603.25	N	166	19.76	W	25	APR	9	8	23	03	4.1	3.4	1148	350	152	10		121	55-1
CTD		TIMES		JD/TIME		DATA LOCATION													
TYPE & SN		9Plus 91660		DATA ON		File Name/Header													
PRESS SN		29972		START DOWN		CTD 072													
TEMP SN		1: 889, 2: 701		AT DEPTH															
COND SN		1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 51 m													
VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN																			
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													
725603.25	N	166	19.76	W															

4116

PG 33 OF

VESSEL				PROJECT & LEG				STATION DESIGNATION								
NOAA Ship MILLER FREEMAN																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 116		TIME (GMT)		WET BULB (°C)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR								
0735603.32	N	16619.76	W	26	19	8	0	13	4.9	3.8	1248	160	0	0	12.1	55-4
CTD		TIMES		JD/TIME		DATA LOCATION										
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header								
PRESS SN		29972		START DOWN		CTDOE3										
TEMP SN		1: 889, 2: 701		AT DEPTH												
COND SN		1: 480, 2: 303		AT SURFACE				MAX. DEPTH = 116 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	115										4					
2	100													769		M360
3	75													640		M361
4	50													639		M362
5	40													638		M363
6	30													—		M364
7	20													637		M365
8	11													—		M366
9	11													—		M367
10	11													636		
11	0													635		M368
12																

Cleaned air bleed valve

TRANSMISSOMETER

CHAM

FLUOR (3)

PAR

VESSEL		PROJECT & LEG				STATION DESIGNATION																	
NOAA Ship MILLER FREEMAN																							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR												MIN			
075	55	59.0	11	N	166	35.1	2	W	26	17	9	8	06	09	4.8	4.0	14	38	320	10	0	130	57-1
CTD		TIMES		JD/TIME		DATA LOCATION		REMARKS															
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header															
PRESS SN 29972		START DOWN				CTD075																	
TEMP SN 1: 889, 2: 701		AT DEPTH																					
COND SN 1: 480, 2: 303		AT SURFACE																					
																						MAX. DEPTH = 125 m	
POS. TRIP DEPTH		CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER													
1	125	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY			SALINITY		SAL.		NUTR.	CHL.	WHIT's NUTR.									
2	100									19		784		M378									
3	75											783		M379									
4	50											782		M380									
5	40											781		M381									
6	30											780		M382									
7	20											---		M383									
8	10											779		M384									
9	0											778		M385									
10												777		M386									
11																							
12																							

VESSEL						PROJECT & LEG						STATION DESIGNATION															
NOAA Ship MILLER FREEMAN																											
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				
	DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN																
0765612.56N	16630.12W	26APR98	0812	3.2	3.1	1538306																					
CTD		TIMES	JD/TIME	DATA LOCATION																			REMARKS				
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID File Name/Header																					
PRESS SN		29972		START DOWN		CYD076																					
TEMP SN		1: 889, 2: 701		AT DEPTH																							
COND SN		1: 480, 2: 303		AT SURFACE																					MAX. DEPTH = 109 m		
<input checked="" type="checkbox"/> PAR				<input checked="" type="checkbox"/> FLUOR(3)				<input type="checkbox"/> CHLAM				<input type="checkbox"/> TRANSMISSOMETER				<input checked="" type="checkbox"/> Cleaned air bleed valve											
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	109																					16	792			M 387	
2	100																						791			M 388	
3	75																						790			M 389	
4	50																						789		/	M 390	
5	40																						788		/	M 391	
6	30																								/	M 392	
7	20																						787		/	M 393	
8	10																						786		/	M 394	
9	0																						785		/	M 395	
10																											
11																											
12																											

VESSEL						PROJECT & LEG								STATION DESIGNATION												
NOAA Ship MILLER FREEMAN																										
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	N	DEG	MIN	E	DAY	MO	YR	HR	MIN															
775610	04	N	16606	15	W	26	APR	98	10	08	3.6	3.3	14.3	8	2	8	0	7	3	21	107	59-1				
CTD		TIMES		JD/TIME		DATA LOCATION																				
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																						
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR(3)		<input type="checkbox"/> CHAM		<input type="checkbox"/> TRANSMISSOMETER		<input checked="" type="checkbox"/> Cleaned air bleed valve		MAX. DEPTH = 100 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	100																		10	799		AS 396				
2	75																			798		AS 397				
3	50																			797	✓	AS 398				
4	40																			796	✓	AS 399				
5	30																			---	✓	M 400				
6	20																			795	✓	M 401				
7	10																			794	✓	AS 402				
8	D																			793	✓	AS 403				
9																										
10																										
11																										
12																										

[illegible]

VESSEL		PROJECT & LEG				STATION DESIGNATION															
NOAA Ship MILLER FREEMAN																					
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)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN												
79	56	23.54	N	165	23.17	W	26	APR	98	13	48	2.5	2.4	12	37	277	77	71	87	61-1	
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS					
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID		File Name/Header													
PRESS SN		29972		START DOWN				CTD079													
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 (3)		<input type="checkbox"/> CHLAM		<input type="checkbox"/> TRANSMISSOMETER		<input checked="" type="checkbox"/> Cleaned air bleed valve											
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	83											6			m411						
2	75																				
3	60																				
4	40																				
5	20																				
6	10																				
7	0														m417						
8																					
9																					
10																					
11																					
12																					

MAX. DEPTH = 83 m

[illegible]

[illegible]

[illegible]

VESSEL							PROJECT & LEG						STATION DESIGNATION																					
NOAA Ship MILLER FREEMAN																																		
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)											
835652.55		N			16402.86			W			26 APR 98			1950		11.9		11.9		1.9		0833		220		17		874		72		64-2		
CTD		TIMES			JD/TIME			DATA LOCATION			REMARKS																							
TYPE & SN		9Plus 91660			DATA ON			Tape/Diskette ID			File Name/Header																							
PRESS SN		29972			START DOWN						CTD083																							
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(3)			<input type="checkbox"/> CHIAM			<input type="checkbox"/> TRANSMISSOMETER			<input checked="" type="checkbox"/> Cleaned air bleed valve																				
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES																		SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER								
1		60		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY											SAL.		NUTR.	CHL.	WHIT'S NUTR.											
2		50																	35					MH30										
3		40																						MH31										
4		30																						MH32										
5		20																						MH33										
6		10																						MH34										
7		0																						MH35										
8																								MH36										
9																																		
10																																		
11																																		
12																																		

VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG				STATION DESIGNATION												
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	
84	56	52.39 N	164	02.95 W	27	APR 98	808	3.9	3.6	984	7	290	21	862	72	64-16				
CTD				TIMES				JD/TIME				DATA LOCATION				REMARKS				
TYPE & SN 9Plus 91660				DATA ON				Tape/Diskette ID				File Name/Header								
PRESS SN 29972				START DOWN								CTD084								
TEMP SN 1: 889, 2: 701				AT DEPTH																
COND SN 1: 480, 2: 303				AT SURFACE												MAX. DEPTH = 69 m				
<input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR (3) <input type="checkbox"/> CHAM <input 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		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.	CHL.	WHIT'S NUTR.
1	69															5		805		M437
2	50																	804		M438
3	40																	803		M439
4	30																			M440
5	20																	802		M441
6	10																	801		M442
7	5																			M443
8	5																			
9	5																			
10	0	busted																800		M444
11																				
12																				

VESSEL NOAA Ship MILLER FREEMAN		PROJECT & LEG		STATION DESIGNATION																	
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
865527.58 N		16432.66 W		227 APR 98		22 16		3.0		1.9	115730523	741								102	69-1
CTD		TIMES		JD/TIME		DATA LOCATION															
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID		File Name/Header										REMARKS			
PRESS SN 29972		START DOWN						CTD086													
TEMP SN 1: 889, 2: 701		AT DEPTH																			
COND SN 1: 480, 2: 303		AT SURFACE																MAX. DEPTH = m			
TRIP DEPTH		POS.		CTD CONVERTED MONITOR VALUES		PAR		FLUOR* (3)		CHIAM		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.	
1		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY																
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG				STATION DESIGNATION															
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					
87	54	41.71 N	166	14.26 W	28 APR 98	1844	1.5	1.0	1867	310	22	741	285	72-1	REMARKS no fluorescence check of -OK!								
CTD				TIMES				JD/TIME				DATA LOCATION				Tape/Diskette ID				File Name/Header			
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 = 280 m																							
<input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR(10) <input type="checkbox"/> CHIAM <input checked="" type="checkbox"/> TRANSMISSOMETER <input checked="" type="checkbox"/> Cleaned air bleed valve				CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				WHIT'S NUTR.							
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY																	
1	275																						
2	250																						
3	200																						
4	150																						
5	100																						
6	75																						
7	50																						
8	40																						
9	30																						
10	20																						
11	10																						
12	0	bucket																					

Yes! No 811 Ush

305

VESSEL						PROJECT & LEG							STATION DESIGNATION														
NOAA Ship MILLER FREEMAN																											
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																
08854	42.42	N		146	15.8		1	12	8	19	55	11.8	0.9	20.6	7	3	30	23	78	1	274	72-3					
CTD		TIMES		JD/TIME		DATA LOCATION																					
TYPE & SN		9Plus 91660		DATA ON		Tape/Diskette ID File Name/Header																					
PRESS SN		29972		START DOWN		CTD088																					
TEMP SN		1: 889, 2: 701		AT DEPTH																							
COND SN		1: 480, 2: 303		AT SURFACE		MAX. DEPTH = 43 m																					
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR (10)		<input type="checkbox"/> CHLAM		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL.		WHIT'S NUTR.	
1	38	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY																						
2	25																										
3	18																										
4	10																										
5	6																										
6	0																										
7																											
8																											
9																											
10																											
11																											
12																											

[illegible]

VESSEL NOAA Ship MILLER FREEMAN				PROJECT & LEG				STATION DESIGNATION												
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	
0915421.43 N	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	3.8	3.6	2267312	20761	20761	20761	20761	20761	463	75-1	
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 =		m																		
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.	CHL.	WHIT'S NUTR.
1	400															15		1606		M465
2	300																	1607		
3	200																	1608		
4	100																	1609		M466
5	75																	1610		
6	50																	1611		
7	40																	1612		
8	30																	—		M467
9	20																	1613		
10	10																	1614		
11	0																	1615		M468
12																				

VESSEL								PROJECT & LEG						STATION DESIGNATION								
NOAA Ship MILLER FREEMAN																						
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		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)
0925420.18 N				16525.58 W			29 APR 98	0455	3.5	3.2	22673320	20	631					160	76-1			
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 = 152 m			
						<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR(10)		<input type="checkbox"/> CHIAM		<input type="checkbox"/> TRANSMISSOMETER		<input checked="" type="checkbox"/> Cleaned air bleed valve				SAMPLE BOTTLE NUMBER				
POS.	TRIP DEPTH	SAMPLE BOTTLE DATA																	SAMPLE BOTTLE NUMBER			
1	150	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY												SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.	
2	100																	3	1616		M469	
3	75																		1617			
4	50																		1618		M470	
5	40																		1619	✓		
6	30																		1620	✓		
7	20																		-	✓	M471	
8	10																		1621	✓		
9	0																		1622	✓		
10	0																		1623	✓	M472	
11																						
12																						

VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA Ship MILLER FREEMAN																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=119		TIME (GMT)		WET BULB	DRY BULB	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	(°C)	(°C)	(deg)	(m/s)	* * *	* * *	(m)				
09354	22.53	N	165	16.17	W	29	APR	9 8	632	3.2	2.1	2367	310	206	1	166	77-1		
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															
				<input checked="" type="checkbox"/> PAR				<input checked="" type="checkbox"/> FLUOR				<input type="checkbox"/> CHIAM				<input type="checkbox"/> TRANSMISSOMETER			
																<input checked="" type="checkbox"/> Cleaned air bleed valve			
POS.	TRIP DEPTH	PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT's NUTR.			
1																			
2	150																		
3	100																		
4																			
5	50																		
6	40																		
7	30																		
8	20																		
9	10																		
10	0																		
11																			
12																			

MAX. DEPTH = 156 m

VESSEL		PROJECT & LEG				STATION DESIGNATION															
NOAA Ship MILLER FREEMAN																					
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			
094	54 25.14 N	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	2.9	1.1	23.6	7	3	8	134	78-1			
CTD		TIMES		JD/TIME		DATA LOCATION															
TYPE & SN 9Plus 91660		DATA ON				Tape/Diskette ID				File Name/Header											
PRESS SN 29972		START DOWN								CTD094											
TEMP SN 1: 889, 2: 701		AT DEPTH																			
COND SN 1: 480, 2: 303		AT SURFACE								MAX. DEPTH = 126 m											
										Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES													SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER				
1	126	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY											SALINITY		SAL.	NUTR.	CHL.	WHIT'S NUTR.
2	100																	24	1635		M477
3																			1634		
4	50																		1633	✓	M478
5	40																		1632	✓	
6	30																			✓	M479
7	20																			✓	
8	10																			✓	
9	0																		1631	✓	
10																			1630	✓	M480
11																					
12																					