

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION													
CONSC CAST #									TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
		LATITUDE		LONGITUDE		DATE	JD=	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)		
\$ 41 57 43 . 17 N	152 17 . 14 W				25 SEP 02		24	51	11 . 4	10 . 9	173	72	49	24	461	192								
CTD		TIMES		JD/TIME		DATA LOCATION										REMARKS centerboard up eq 500 - off Chim. at eq 500 - off C2-C6-1b (before recovery)								
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID				File Name/Header														
PRESS SN	80020	START DOWN																						
TEMP SN	710/884	AT DEPTH																						
COND SN	915/530	AT SURFACE														MAX. DEPTH = m								
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve	184 m w/g																	
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER									
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
1	184																							
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

eq 500 or centerboard - centerboard up (depth values higher)

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	*	*	*	(m)	
4 16 58	16.46 N	14743.65 W	28 SEP 02	1348	16.7	9.1	1148	271	16	160	2354								
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID	File Name/Header												
PRESS SN	80020	START DOWN																	
TEMP SN	710/884	AT DEPTH																	
COND SN	915/530	AT SURFACE												MAX. DEPTH = - m					
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve	2250 m												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY			SEC. SALINITY			SALINITY			SAL.	NUTR.	CHL.	WHIT's NUTR.		
1	28 ✓												24	546					
2	23 ✓													547					
3	18 ✓													548					
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

chart depth -1196 fm ≈ 2175 m

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
CONSC CAST #	58 15		147 40					TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	LATITUDE	DEG	MIN	LONGITUDE	DEG	MIN	DATE JD=	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*
Φ 17 58	15.	.94 N	147 40.	29	W	34 SEP 02	09	42	10.7	10.7	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS							
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID				File Name/Header				FATE						
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE												MAX. DEPTH = 574 m						
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.										
1		28 ✓													549						
2		23 ✓													58	554					
3		18 ✓														551					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Depth from pdr

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
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)	
Φ 18	58	46	.97	N	1	48	50	.22	W	34	S E P 02	1426	9.7	9.4	1537	172	Φ 7	862	206		
CTD				TIMES		JD/TIME			DATA LOCATION								REMARKS				
TYPE & SN	9+ S/N 91220			DATA ON					Tape/Diskette ID				File Name/Header				2GB12				
PRESS SN	80020			START DOWN																	
TEMP SN	710/884			AT DEPTH																	
COND SN	915/530			AT SURFACE													MAX. DEPTH = 202 m				
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChiAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve	203 w/o									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.				
1	18 ✓															34					
2	23 ✓																				
3	18 ✓																				
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11												STATION DESIGNATION			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * (deg)	VISIBILITY	WIND DIRN. SPD. (m/s)	CLOUD (amt) * * (m/s)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
Φ 2 Φ	58 55.44 N	148 37.43 W	30	S E P	02	20	44	10.1	10.1	11	46067	2286	5256-						
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS						
TYPE & SN		DATA ON					Tape/Diskette ID			File Name/Header			CTD 20						
PRESS SN		START DOWN											GBP 11						
TEMP SN		AT DEPTH																	
COND SN		AT SURFACE											MAX. DEPTH = 249 m						
		<input checked="" type="checkbox"/> PAR 4242		<input checked="" type="checkbox"/> WP 5403		<input type="checkbox"/> FEOR 153		<input type="checkbox"/> ChlAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.					
1	243																		
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB		WET BULB		PRESSURE (mb)	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt)	TYPE	BOTTOM DEPTH	STA. NAME/ID		
									DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)
CTD			TIMES			JD/TIME			DATA LOCATION								REMARKS						
TYPE & SN			DATA ON						Tape/Diskette ID				File Name/Header				2G32						
PRESS SN			START DOWN																				
TEMP SN			AT DEPTH																				
COND SN			AT SURFACE														MAX. DEPTH = m						
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.						
1		204 ✓												66									
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

VESSEL NOAA RV MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION															
CONSC CAST #	59 41		149 21				TIME (GMT)		DRY BULB		WET BULB		PRESSURE (mb)		SEA STATE VISIBILITY		WIND DIRN. SPD.		CLOUD (amt) TYPE		WEATHER		BOTTOM DEPTH (m)		STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	*	(m)					
		149	21				14	46	9.8	9.6	98	36	300	16	8	6	6	227								
CTD			TIMES JD/TIME						DATA LOCATION								REMARKS									
TYPE & SN	9+ S/N 91220		DATA ON						Tape/Diskette ID				File Name/Header				2GB1									
PRESS SN	80020		START DOWN																							
TEMP SN	710/884		AT DEPTH																							
COND SN	915/530		AT SURFACE														MAX. DEPTH = m									
			<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER									
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.									
1		222 /												20												
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11							STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
								DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)
φ 31 15 9 39.2 φ N			14 8 38.4 7 W		φ 30 OCT 02			18	21	9.8	8.4	2537	52	14	362	184						
CTD				TIMES		JD/TIME			DATA LOCATION										REMARKS			
TYPE & SN		9+ S/N 91220		DATA ON					Tape/Diskette ID				File Name/Header						2688 A recovery			
PRESS SN		80020		START DOWN																		
TEMP SN		710/884		AT DEPTH																		
COND SN		915/530		AT SURFACE		wetstar													MAX. DEPTH = 175 m			
				<input checked="" type="checkbox"/> PAR 4242		<input checked="" type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChlAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve		174 w/s						
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY			SEC. SALINITY			SALINITY			SAL.	NUTR.	CHL.	WHIT's NUTR.					
1	175 ✓																					
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION												
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)	
	33 S	85 0.97 N	150	39.31 W	0	OCT	02	01	45	9.8	.	19	013	144	62	149	1	K52			
CTD	TIMES		JD/TIME		DATA LOCATION						REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON		01: 46: 00 GM						Tape/Diskette ID										
PRESS SN	80020		START DOWN		01: 46: 00 GM						File Name/Header										
TEMP SN	710/884		AT DEPTH		01: 51: 00 GM																
COND SN	915/530		AT SURFACE		02: 00: 00 GM																
	<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.					
150	1	147											✓	582							
125	2	122												583							
100	3	99												584							
75	4	75												585							
50	5	49												586	✓						
40	6	40												587	✓						
30	7	30												588	✓						
20	8	20												589	✓						
10	9	10												590	✓						
0	10	3												591	✓						
11																					
12																					

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
6365843.59 N	151 00.04 W	05 OCT 02	041809.2	.	1835	07320	875	171	1 Ks5											
CTD			TIMES		JD/TIME			DATA LOCATION							REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON		04:20:00 Gmt			Tape/Diskette ID				File Name/Header								
PRESS SN	80020		START DOWN		04:21:00 Gmt															
TEMP SN	710/884		AT DEPTH		04:35:06 Gmt															
COND SN	915/530		AT SURFACE												MAX. DEPTH = 171 m					
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
165	167											✓	614							
150	150												615							
125	125												616							
100	100												617							
75	76												618							
50	50												619	✓						
40	46												620	✓						
20	31												621	✓						
10	20												622	✓						
0	10												623	✓						
11	3												624	✓						
12																				

MAX FLO1 = 0.5 Volts

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION										
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)
	03 75 84	0.89 N	151 08	.94 W	05	OCT	02	0514	9.2	.	1735	77	1987	184				KSG	
CTD			TIMES		JD/TIME		DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220		DATA ON		05:15:00 GMT		Tape/Diskette ID						File Name/Header						
PRESS SN	80020		START DOWN		05:16:00 GMT														
TEMP SN	710/884		AT DEPTH		05:21:00 GMT														
COND SN	915/530		AT SURFACE		05:30:00 GMT								MAX. DEPTH = 184 m						
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> Chiam 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
180	180											✓	625						
150	150												626						
125	125												627						
100	100												628						
75	75												629						
50	50												630	✓					
40	40												631	✓					
30	30												632	✓					
20	20												633	✓					
10	10												634	✓					
0	3												635	✓					
12																			

MAX F10 = 0.5 volts

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION						
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR										
	038 58	40.35 N	150 50	.36 W	05	OCT	02	0634	9.0	.	1635	67	22875	192	GP69		
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS			
TYPE & SN		DATA ON		06:35:06 GMT		Tape/Diskette ID				File Name/Header							
PRESS SN		START DOWN		06:35:00 GMT													
TEMP SN		AT DEPTH		06:41:00 GMT													
COND SN		AT SURFACE		06:51:00 GMT										MAX. DEPTH = 190 m			
				PAR 4242		FLUOR 153		ChiAM 109		TRANSMISSOMETER				Cleaned air bleed valve			
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.						
1	190										636						
2	151										637						
3	125										638						
4	101										639						
5	75										640						
6	50										641						
7	40										642	✓					
8	30										643	✓					
9	20										644	✓					
10	11										645	✓					
11	4										646	✓					
12											10						

MAX FLO = 0.5 Volts

$$\text{Max } F/l_0 = 0.5 \text{ } \sqrt{\sigma} \text{ ft/s}$$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11							STATION DESIGNATION								
CONSC CAST #	58 31.26 LATITUDE	150 47.33 LONGITUDE	DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * (deg)	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) * * *	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG MIN	DEG MIN	DAY	MO	YR	HR MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	(m)		
640	58 32.16 N	150 47.31 W	0	OCT	02	08 43	8.8	8.8	1435	1435	1435	1435	1435	1435	1435	GP79	
CTD		TIMES			JD/TIME			DATA LOCATION							REMARKS		
TYPE & SN		9+ S/N 91220			DATA ON			Tape/Diskette ID							File Name/Header		
PRESS SN		80020			START DOWN												
TEMP SN		710/884			AT DEPTH												
COND SN		915/530			AT SURFACE										MAX. DEPTH = m		
					<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve	130 w/o							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.						
1	133 ✓														658		
2	125 ✓														659		
3	100 ✓														660		
4	75 ✓														661		
5	60 ✓														662		
6	40 ✓														663		
7	30 ✓														664		
8	20 ✓														665		
9	10 ✓														666		
10	0 ✓														667		
11																	
12																	

max FIN - 0.55

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*	
041	58 29.	12 N	150 45.	31 W	185	OCT	02	09	51	9.2	9.2	133	505	229	8	76	92	6P71b	
CTD			TIMES			JD/TIME			DATA LOCATION						REMARKS				
TYPE & SN	9+ S/N 91220		DATA ON						Tape/Diskette ID			File Name/Header							
PRESS SN	80020		START DOWN																
TEMP SN	710/884		AT DEPTH																
COND SN	915/530		AT SURFACE												MAX. DEPTH = m				
			<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve 83w/o							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	88 ✓														671				
2	75 ✓														672				
3	60 ✓														673				
4	50 ✓														669				
5	40 ✓														670				
6	30 ✓														674				
7	20 ✓														675				
8	10 ✓														676				
9	0														677				
10															678				
11															679				
12																			

 $chV \approx 0.7$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION GP8									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR												HR
	425	825.9	1	N	156	43.4	4W	45	OCT	02	1102	10.6	16.0	124	7	65	3	875	875
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS				
TYPE & SN	9+ S/N 91220	DATA ON					Tape/Diskette ID				File Name/Header								
PRESS SN	80020	START DOWN																	
TEMP SN	710/884	AT DEPTH																	
COND SN	915/530	AT SURFACE													MAX. DEPTH = 77 / m				
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve	4/6 = 75							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	75														680				
2	60														681				
3	50														682				
4	40														683				
5	30														684				
6	20														685				
7	10														686				
8	6														687				
9																			
10																			
11																			
12																			

$$fIV_{max} \approx 0.5$$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION 6P8A									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	*
43 58 22.59 N		15 41.22 W		45 OCT 02			12 03		9.7	9.7	49	45	46	31	875		66		
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS				
TYPE & SN		9+ S/N 91220		DATA ON			Tape/Diskette ID								File Name/Header				
PRESS SN		80020		START DOWN															
TEMP SN		710/884		AT DEPTH															
COND SN		915/530		AT SURFACE											MAX. DEPTH = m				
							<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve 6/0 - 66								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY			SEC. SALINITY			SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.			
1	60														678				
2	50														679				
3	40														688				
4	30														689				
5	20														690				
6	10														691				
7	6														692				
8																			
9																			
10																			
11																			
12																			

FLV ~ 0.5

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION GP 26-											
CONSC CAST #	58 19		150 39		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*					
44 45 819.11 N		150 40.15 W		45	OCT	02	13	42	14.14	14.4	100845	464	29	895	61						
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS									
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID			File Name/Header												
PRESS SN	80020	START DOWN																			
TEMP SN	710/884	AT DEPTH																			
COND SN	915/530	AT SURFACE										MAX. DEPTH = m									
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER W/b = 60								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	55 ✓										693										
2	50 ✓										694										
3	40 ✓										695										
4	30 ✓										696										
5	20 ✓										697										
6	10 ✓										698										
7	0 ✓										699										
8																					
9																					
10																					
11																					
12																					

EV real = 4.3

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION						
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	(m)	
44 55 15.9 N	150 38.8 E	45 OCT 02	13 54	9.7	9.7	48	45 07 326	675	67									
CTD	TIMES	JD/TIME			DATA LOCATION						REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON			Tape/Diskette ID						File Name/Header							
PRESS SN	80020	START DOWN																
TEMP SN	710/884	AT DEPTH																
COND SN	915/530	AT SURFACE									MAX. DEPTH = 62 m							
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	62											700						
2	50											701						
3	40											707						
4	30											702						
5	20											703						
6	10											704						
7	0											705						
8												766						
9																		
10																		
11																		
12																		

$FIV \approx 0.4$ / 7 bottles marked as fired / 8 bottles closed snctd

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION GP9a									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) * * TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)				
46 58 11.47 N		15 03 6.76 W		45	OCT	02	15	44	9.2	.	6746	5731	872	140				
CTD			TIMES			JD/TIME			DATA LOCATION						REMARKS			
TYPE & SN	9+ S/N 91220		DATA ON						Tape/Diskette ID	File Name/Header			GB9A					
PRESS SN	80020		START DOWN															
TEMP SN	710/884		AT DEPTH															
COND SN	915/530		AT SURFACE										MAX. DEPTH = m					
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	165 ✓														708			
2	100 ✓														709			
3	75 ✓														710			
4	60 ✓														711			
5	50 ✓														712			
6	40 ✓														713			
7	30 ✓														714			
8	20 ✓														715			
9	10 ✓														716			
10	6														717			
11																		
12																		

max EIV ≈ 0.4 /Deck Unit shut off, restarted for surface sample

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	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	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	(m)	
	44 47 58.0	09.40 N	150 36.68 W	050	OCT	02	1558	9.3	.	0745	04923	864	137	GP96				
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID	File Name/Header					GB96						
PRESS SN	80020	START DOWN																
TEMP SN	710/884	AT DEPTH																
COND SN	915/530	AT SURFACE										MAX. DEPTH = m						
<input checked="" type="checkbox"/> PAR 4242 <input type="checkbox"/> FLUOR 153 <input type="checkbox"/> ChlAM 109 <input type="checkbox"/> TRANSMISSOMETER <input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	135 ✓									718								
2	125 ✓									719								
3	100 ✓									720								
4	75 ✓									791								
5	60 ✓									722								
6	50 ✓									723								
7	40 ✓									724								
8	30 ✓									725								
9	20 ✓									726								
10	10									727								
11	0									728								
12																		

±1 Volt max ≈ 0.4

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION													
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)			
	44	25	58	05	.95	N	150	35	.79	W	65	OCT	02	16	54	16	.4	.	46	44	96	Φ 23	874	144	gb1Φ
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS										
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID			File Name/Header					gb b											
PRESS SN	80020	START DOWN																							
TEMP SN	710/884	AT DEPTH																							
COND SN	915/530	AT SURFACE												MAX. DEPTH = 140 m											
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve w/o 139																			
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.														
1	140																								
2	125																								
3	100																								
4	75																								
5	60																								
6	50																								
7	40																								
8	30																								
9	20																								
10	10																								
11	0																								
12																									

fl vdl max ≈ 0.4

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION GBII					
CONSC CAST #	S ^o 66 LATITUDE	156 31 LONGITUDE	DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE WEATHER	157 BOTTOM DEPTH (m)	STA. NAME/ID
	DEG MIN	DEG MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	GPII
0 49 58	00.23 N	15 31.04 W	05	OCT	02	18	06	10.4	.064	44	077	18874	156			
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS		
TYPE & SN	9+ S/N 91220	DATA ON	Tape/Diskette ID								File Name/Header	GBII				
PRESS SN	80020	START DOWN														
TEMP SN	710/884	AT DEPTH														
COND SN	915/530	AT SURFACE										MAX. DEPTH = m				
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve	160 w/o									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.					
1	156										17	740				
2	175											741				
3	105											742				
4	75											743				
5	60											744				
6	50											745				
7	40											746				
8	30											747				
9	20											748				
10	10											19	749			
11	0												750			
12																

±1 Volt max ≈ 0.5 / Rosette didn't fire on 1 bottle of 11
 we took samples assuming surface bottle unfired - See other side

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION												
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)				
φ 5 φ 5 7 5 2 . 7 5 N	1 5 0 2 7 . 9 6 W	φ 5 0 C T 0 2	1 9 2 9 1 0 . 4	.	4 6 4 4	2 1 7	1 1	8 7 2	1 1 2	P A 1 2														
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS										
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID				File Name/Header														
PRESS SN	80020	START DOWN																						
TEMP SN	710/884	AT DEPTH																						
COND SN	915/530	AT SURFACE												MAX. DEPTH = m										
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	107													✓	750									
2	100														751									
3	75														752									
4	60														753	✓								
5	50														754	✓								
6	40														755	✓								
7	30														756	✓								
8	20														757	✓								
9	10														758	✓								
10	0														759	✓								
11																								
12																								

fl Volt max ≤ 0.55

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION										
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	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												
	05 15 75 S	6.87	N	150	25.	83	W	05	OCT	02	2013	9.6	.	0644	216	10872	161	AB11
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON		20:14:00 GMT			Tape/Diskette ID			File Name/Header								
PRESS SN	80020	START DOWN		20:14:00 GMT														
TEMP SN	710/884	AT DEPTH		20:21:00 GMT														
COND SN	915/530	AT SURFACE		20:30:00 GMT									MAX. DEPTH = 158 m					
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
158	158																	
125	125																	
100	100																	
75	77																	
60	60																	
50	50																	
40	50																	
30	39																	
20	30																	
10	19																	
0	9																	
11	2																	
12																		

MAX FLO = 0.55 volts

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION												
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)	
	652580	1.45 N	15025	.78 W	05	OCT	02	21	15	9.3	.	0644	216	118	72	178	PB10				
CTD			TIMES		JD/TIME			DATA LOCATION						REMARKS							
TYPE & SN	9+ S/N 91220		DATA ON		21:18:00 Gmt			Tape/Diskette ID			File Name/Header										
PRESS SN	80020		START DOWN		21:18:00 Gmt																
TEMP SN	710/884		AT DEPTH		21:24:00 Gmt																
COND SN	915/530		AT SURFACE		21:35:00 Gmt																
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER			<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.		PRI. SALINITY	SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	166																				
2	150																				
3	126																				
4	100																				
5	74																				
6	50																				
7	40																				
8	31																				
9	21																				
10	10																				
11	4																				
12																					

MAX FLO = 0.6V

Wrong label
sheet based

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION <i>PBA 09</i>									
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)	
<i>05 35 S</i>	<i>07.01 N</i>	<i>150 23.46 W</i>		<i>05</i>	<i>OCT</i>	<i>02</i>	<i>22</i>	<i>20</i>	<i>9.6</i>	<i>1.</i>	<i>0543</i>	<i>20010872</i>		<i>194</i>	<i>PBA 09</i>						
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON	<i>22:22:00</i> <i>6MT</i>		Tape/Diskette ID								File Name/Header								
PRESS SN	80020	START DOWN	<i>22:22:00</i> <i>6MT</i>																		
TEMP SN	710/884	AT DEPTH	<i>22:29:00</i> <i>6MT</i>																		
COND SN	915/530	AT SURFACE	<i>22:40:00</i> <i>6MT</i>																		
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
175	<i>188</i>										<i>✓ 902</i>										
150	<i>124</i>										<i>903</i>										
125	<i>151</i>										<i>904</i>										
100	<i>127</i>										<i>905</i>										
75	<i>101</i>										<i>906</i>										
50	<i>75</i>										<i>907</i>										
25	<i>49</i>										<i>908 L</i>										
0	<i>30</i>										<i>909 L</i>										
10	<i>20</i>										<i>910 L</i>										
11	<i>10</i>										<i>911 L</i>										
12											<i>912 ✓</i>										

MAX FLO = 0.5 vols

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION <i>PBA08</i>									
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)	
05 45 80 9.21 N	150 21.80 W	05 OCT 02	23 03	9.7	.	0543	215098	72	158	PBA08											
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON	23:04:00 6MT		Tape/Diskette ID				File Name/Header												
PRESS SN	80020	START DOWN	23:05:00 6MT																		
TEMP SN	710/884	AT DEPTH	23:10:00 6MT																		
COND SN	915/530	AT SURFACE	23:17:00 6MT										MAX. DEPTH = 150 m								
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	150											✓	913								
125	125												914								
100	100												915								
75	75												916								
60	60												917	✓							
50	50												918	✓							
50	51												919	✓							
40	39												920	✓							
30	30												921	✓							
20	19												922	✓							
10	9												923	✓							
0	1.5																				
12																					

MAX FLO = 0.5 volts

VESSEL NOAA RV MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	(m)			
	055	58	12	.98	N	150	20	.12	W	05	OCT	02	23	49	9.7	.	044	3193	11872	850	BA07
CTD		TIMES		JD/TIME						DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON	23:51:00 6MT						Tape/Diskette ID			File Name/Header									
PRESS SN	80020	START DOWN	23:51:00 6MT																		
TEMP SN	710/884	AT DEPTH	23:54:10 6MT																		
COND SN	915/530	AT SURFACE	23:59:00 6MT												MAX. DEPTH = 82 m						
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT'S NUTR.							
1	82													✓	924						
2	74														925						
3	61														926	✓					
4	52														927	✓					
5	40														928	✓					
6	29														929	✓					
7	20														930	✓					
8	10														931	✓					
9	3														932	✓					
10																					
11																					
12																					

MAX FLO = 0.5 vols

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
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)	
	056	58	17.43	N	150	17.94	W	06	OCT	02	0045	10.0	1	1	0455	18908	872	1	55	PBA 06	
CTD				TIMES		JD/TIME			DATA LOCATION								REMARKS				
TYPE & SN	9+ S/N 91220			DATA ON					Tape/Diskette ID				File Name/Header								
PRESS SN	80020			START DOWN																	
TEMP SN	710/884			AT DEPTH																	
COND SN	915/530			AT SURFACE													MAX. DEPTH = 52 m				
		<input checked="" type="checkbox"/>	PAR 4242	<input checked="" type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	52											✓	935	✓							
2	40												936	✓							
3	30												937	✓							
4	20												938	✓							
5	10												939	✓							
6	0												940	✓							
7																					
8																					
9																					
10																					
11																					
12																					

Out many fl

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION <i>PBA05</i>										
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	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	(°C)	(°C)	(mb)								
	<i>51° 58' 21.56 N</i>	<i>150° 16.40 W</i>		<i>06 OCT 02</i>			<i>01:37</i>	<i>10.0</i>	<i>10.0</i>	<i>0455</i>	<i>15</i>	<i>15</i>	<i>0455</i>	<i>15</i>	<i>15</i>	<i>15</i>	<i>15</i>	
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON	<i>01:38:00</i>			6MT	Tape/Diskette ID			File Name/Header								
PRESS SN	80020	START DOWN	<i>01:38:00</i>			6MT												
TEMP SN	710/884	AT DEPTH	<i>01:40:00</i>			6MT												
COND SN	915/530	AT SURFACE	<i>01:43:00</i>			6MT												
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	<i>50</i>						<i>✓</i>	<i>941</i>	<i>✓</i>									
2	<i>40</i>							<i>942</i>	<i>✓</i>									
3	<i>30</i>							<i>943</i>	<i>✓</i>									
4	<i>21</i>							<i>944</i>	<i>✓</i>									
5	<i>11</i>							<i>945</i>	<i>✓</i>									
6	<i>3</i>							<i>946</i>	<i>✓</i>									
7																		
8																		
9																		
10																		
11																		
12																		

0,35 max F/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11						STATION DESIGNATION										
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)	
	058	S 8 23.76 N	150	14.07 W	06	OCT	02	02	18	10.4	10.4	10355	165	09872	65	PBA04				
CTD				TIMES		JD/TIME				DATA LOCATION						REMARKS				
TYPE & SN	9+ S/N 91220			DATA ON		02:21:00 6mT				Tape/Diskette ID			File Name/Header							
PRESS SN	80020			START DOWN		02:22:10 6mT														
TEMP SN	710/884			AT DEPTH		02:24:00 6mT														
COND SN	915/530			AT SURFACE		02:29:00 6mT										MAX. DEPTH = 61 m				
				<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
60	1	61										✓	947							
50	2	50											948	✓						
40	3	41											949	✓						
30	4	30											950	✓						
20	5	20											951	✓						
10	6	10											952	✓						
0	7	3											953	✓						
	8																			
	9																			
	10																			
	11																			
	12																			

0.4 = max f1

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION PBA03								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	*	*	(m/s)	*	*	(m)	
	0 5 9 5 8 2 8 . 5 8 N	1 5 0 1 3 . 8 1 W	0 6	O C T	0 2	0 3	1 7	0	. 5	0 2	5 1 6 8	1 5	8 7 2	8 4	P B A 0 3			
CTD	TIMES		JD/TIME			DATA LOCATION							REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON			0 3 : 1 9 : 0 0 6 M T			Tape/Diskette ID			File Name/Header						
PRESS SN	80020		START DOWN			0 3 : 1 9 : 0 0 6 M T												
TEMP SN	710/884		AT DEPTH			0 3 : 2 2 : 0 0 6 M T												
COND SN	915/530		AT SURFACE			0 3 : 2 7 : 0 0 6 M T									MAX. DEPTH = 80 m			
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	80											✓	954					
2	59												955	✓				
3	38												956	✓				
4	30												957	✓				
5	20												958	✓				
6	10												959	✓				
7	3												960	✓				
8																		
9																		
10																		
11																		
12																		

0.55 max f/

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * (deg)	VISIBILITY * (m/s)	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) * TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG 0 6 0	MIN S 8 3 6 . 0 3 N	DEG 1 5 0 1 0 . 5 8 W	MIN 0 6 0	DAY O C T	MO 0 2	YR 0 4 2	HR 3	MIN 1 1 . 0	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*	(m)
CTD		TIMES	JD/TIME	DATA LOCATION								REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON	0 4 : 2 6 : 0 0 G M T	Tape/Diskette ID								File Name/Header							
PRESS SN	80020	START DOWN	0 4 : 2 6 : 0 0 G M T																
TEMP SN	710/884	AT DEPTH	0 4 : 3 1 : 0 0 G M T																
COND SN	915/530	AT SURFACE	0 4 : 3 6 : 0 0 G M T																
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER								<input type="checkbox"/> Cleaned air bleed valve						
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.								
1	111											✓	781						
2	76												782						
3	59												783						
4	50												784	✓					
5	40												785	✓					
6	30												786	✓					
7	20												787	✓					
8	10												788	✓					
9	2												789	✓					
10																			
11																			
12																			

back to "missed" page
nutrient labels

0.5 max f1

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION PBAO1											
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)			
	0 6 1 5 8 3 9 . 9 1 N		1 5 0 0 9 . 3 4 W	0 6 0 C T 0 2	0 5 1 6	1 1 . 0	.	0 2 4 5	1 9 0 1 9	8 6 4	1 2 5	PBAO11											
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS								
TYPE & SN		DATA ON		OS:12:00 6MT			Tape/Diskette ID				File Name/Header												
PRESS SN		START DOWN		OS:12:00 6MT																			
TEMP SN		AT DEPTH		OS:16:00 6MT																			
COND SN		AT SURFACE		OS:24:00 6MT											MAX. DEPTH = 123 m								
		<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> ChlAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
1	123						✓	790															
2	100							791															
3	76							792															
4	60							793															
5	49							794	✓														
6	40							795	L														
7	30							796	L														
8	20							797	L														
9	11							798	L														
10	3							799	✓														
11																							
12																							

0.45 max f/

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION											
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	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)
	0625839.01 N	15033.87 W		06	OCT	02	0639	11.0		.	0145	18	S	20	864	218	PBB	12	
CTD	TIMES	JD/TIME						DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON		06:40:00 GMT						Tape/Diskette ID		File Name/Header				pb12			
PRESS SN	80020	START DOWN		06:40:00 GMT												pb12			
TEMP SN	710/884	AT DEPTH		06:50:00 GMT															
COND SN	915/530	AT SURFACE		06:58:00 GMT												MAX. DEPTH = m			
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.		PRI. SALINITY	SEC. SALINITY	SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.						
60	215																		
200	200																		
175	176																		
150	150																		
100	100																		
75	75																		
50	49																		
40	40																		
30	30																		
20	19																		
0	3																		
12																			

0.45 max f/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
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)	
	063	58	33.87	N	150	28.40	W	06	OCT	02	0748	11.0	.	0	14519021864	173	P6A11				
CTD				TIMES		JD/TIME			DATA LOCATION								REMARKS				
TYPE & SN	9+ S/N 91220		DATA ON		67:51:00 6MT			Tape/Diskette ID								File Name/Header					
PRESS SN	80020		START DOWN		67:51:00 6MT																
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE		Wetstar											4/6					
	<input checked="" type="checkbox"/> PAR 4242		<input checked="" type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER										<input type="checkbox"/> Cleaned air bleed valve				
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.							
60+	148													811							
150	150													812							
125	125													813							
100	100													814							
75	75													815							
60	50													816	/						
40	40													817	/						
30	30													818	/						
20	20													819	/						
10	10													820	/						
0	0																				
12																					

0.45 max f/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION											
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)			
	45 58 31.89 N	150 25.78 W	46 60 C	T	020	849	16.1	.	61 37	188	25	872	101	PBB10									
CTD	TIMES		JD/TIME			DATA LOCATION								REMARKS									
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID				File Name/Header													
PRESS SN	80020		START DOWN																				
TEMP SN	710/884		AT DEPTH																				
COND SN	915/530		AT SURFACE											MAX. DEPTH = 96 m									
	<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.												
1	95																		822				
2	75																		823				
3	66																		824				
4	56																		825				
5	40																		826				
6	30																		827				
7	26																		828				
8	18																		829				
9	6																		830				
10																							
11																							
12																							

f1 Volt max ≈ 0.4

VESSEL NOAA RV MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (cm)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
	46 55 29.33 N	156 23.51 W	60	OCT	02	493	810	.1		0137	1842	2286	2	94	P	8609					
CTD			TIMES		JD/TIME			DATA LOCATION								REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON					Tape/Diskette ID				File Name/Header									
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE													MAX. DEPTH = 85 m					
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	85															832					
2	75															831					
3	60															833					
4	50															834					
5	40															835					
6	30															836					
7	20															837					
8	10															838					
9	0															839					
10																					
11																					
12																					

f1 V=H max ≈ 0.5

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION												
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)		
	46	45	58	26.78	N	154	21.26	W	46	OCT 02	1025	16.1	.	4	3720428872	79	pb6b8					
CTD			TIMES		JD/TIME			DATA LOCATION							REMARKS							
TYPE & SN	9+ S/N 91220		DATA ON					Tape/Diskette ID			File Name/Header				pb6b8							
PRESS SN	80020		START DOWN																			
TEMP SN	710/884		AT DEPTH																			
COND SN	915/530		AT SURFACE												MAX. DEPTH = 74 m							
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	74 ✓															840						
2	60 ✓															841						
3	50 ✓															842						
4	40 ✓															843						
5	30 ✓															844						
6	20 ✓															845						
7	10 ✓															846						
8	0 ✓															847						
9																						
10																						
11																						
12																						

$f_1 V_{0.1} \text{ max } \approx 0.47$

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION										
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)	
	φ 67 58 24.48 N	150 18.7 φ W	46 0 C T 02	11 11 10.4	.	404	721	0	2486	2	71	pb617									
CTD	TIMES		JD/TIME			DATA LOCATION						REMARKS									
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID			File Name/Header												
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE									MAX. DEPTH = 67 m									
	<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	65m											848									
2	60											649									
3	50											650									
4	40											851									
5	30											852									
6	20											853									
7	10											854									
8	0											855									
9																					
10																					
11																					
12																					

$E_1 \text{ Volt}_{\max} \leq \phi.3$ (unfarm, $L_y = 0.3$, $0-65 \text{ m}$)

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION										
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)	
	Φ 6 8 5 8 2 1 . 7 3 N	1 5 Φ 1 6 . 8 3 W	Φ 6 0 C T 0 2	1 1 5 7	1 0 . 6	.	Φ 1 4	7 2 2 2 2 4	8 7 2	5 7	p b b l										
CTD	TIMES		JD/TIME			DATA LOCATION						REMARKS									
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID			File Name/Header			<i>pbtg = pbb6</i>									
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH									<i>w/o = 50</i>									
COND SN	915/530		AT SURFACE									MAX. DEPTH = 50 m									
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	56 ✓															856	✓				
2	40 ✓															857	✓				
3	30 ✓															858	✓				
4	20 ✓															859	✓				
5	10 ✓															860	✓				
6	0															861	✓				
7																					
8																					
9																					
10																					
11																					
12																					

$\epsilon_1 V_{\text{max}} = \phi .3$ / well mixed

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION										
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)		
46 9 58	19.1 ϕ N	15 ϕ 14.82 W	6 Oct 02	1249	14.5	.	14	7	228	26	662	53	PBB5									
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON					Tape/Diskette ID	File Name/Header								pbb5						
PRESS SN	80020	START DOWN																				
TEMP SN	710/884	AT DEPTH														w/o - 48						
COND SN	915/530	AT SURFACE														MAX. DEPTH = m						
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	48															862	/					
2	40															863	/					
3	30															864	/					
4	20															865	/					
5	10															866	/					
6	0															867	/					
7																						
8																						
9																						
10																						
11																						
12																						

 $E1 \text{ Vatts} \approx 0.3 / \text{well mixed}$

1 bottle didn't fire / Assuming it was surface bottle

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
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)	
	07	58	16.54	N	150	12.34	W	06	OCT 02	1330	14.7	.	24	7234	22672	56	Pbb14				
CTD				TIMES		JD/TIME			DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220			DATA ON					Tape/Diskette ID			File Name/Header			pbb21						
PRESS SN	80020			START DOWN																	
TEMP SN	710/884			AT DEPTH											616.51						
COND SN	915/530			AT SURFACE											MAX. DEPTH = 51 m						
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	50																			567	
2	40																			668	
3	30																			769	
4	20																			870	
5	10																			871	
6	0																			872	
7																					
8																					
9																					
10																					
11																					
12																					

f1 Volt $\max \leq 0.3$

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION												
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)				
	47 15 81	3.9 1 N	150 10.24 W	46 0 C	T	02	14 14	10.7	.	42 47	23 0	26	6 72	82	PBB 03									
CTD				TIMES					JD/TIME			DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220			DATA ON					Tape/Diskette ID			File Name/Header						PBT 3 = pbb3						
PRESS SN	80020			START DOWN																				
TEMP SN	710/884			AT DEPTH																				
COND SN	915/530			AT SURFACE														MAX. DEPTH = m						
				<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
1	75															673								
2	60															674								
3	50															675								
4	40															676								
5	30															677								
6	20															678								
7	10															679								
8	0															680								
9																								
10																								
11																								
12																								

fl Volt_{max} ≈ 0.3

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION											
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)		
	47 35 58	46.57 N	15 04 44	22 W	6 Oct	02	16	15	14.3		.54	7239	17	772	281	PBB1						
CTD	TIMES		JD/TIME			DATA LOCATION								REMARKS								
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID								File Name/Header								
PRESS SN	80020		START DOWN																			
TEMP SN	710/884		AT DEPTH																			
COND SN	915/530		AT SURFACE																			
	<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER				<input type="checkbox"/> Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	270																					
2	250																					
3	225																					
4	200																					
5	150																					
6	100																					
7	50																					
8	30																					
9	20																					
10	10																					
11	0																					
12																						

$f_1 \text{ volt max} \approx 4.33$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (sm)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
	47 45 86	1.86 N	149 59	.77 W	46	OCT	02	1725	16.7	.	.	1047	23921	772	268	pbc18					
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS						
TYPE & SN	9+ S/N 91220	DATA ON					Tape/Diskette ID	File Name/Header								PBC8					
PRESS SN	80020	START DOWN																			
TEMP SN	710/884	AT DEPTH																			
COND SN	915/530	AT SURFACE														MAX. DEPTH = 285 m					
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	285											963									
2	275											964									
3	250											965									
4	200											966									
5	150											967									
6	100											968									
7	70											969	-								
8	50											970	-								
9	20											971	-								
10	10											972	-								
11	0											973	-								
12																					

$$f_1 V_{\text{max}} \approx 0.3$$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION											
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)	
075 58.19 N	149 58.99 W	6	OCT	02	1833	11	.	48	47	24	4	21	6	72	283	pBC17					
CTD	TIMES		JD/TIME			DATA LOCATION								REMARKS							
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID								File Name/Header							
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE																		
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	275											974									
2	250											975									
3	225											976									
4	200											977									
5	150											978									
6	100											979									
7	50											980									
8	30											981									
9	20											982									
10	10											983									
11	0											984									
12																					

$f_1 V_{st, max} \approx 0.35$

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION									
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)	
	47 58 10.42 N	149 57.35 W	06	OCT	02	19 45	16.1	.1	1019.4	72	58	15	67	2	146	PBC6		
CTD	TIMES						DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220						Tape/Diskette ID						File Name/Header					
PRESS SN	80020						START DOWN											
TEMP SN	710/884						AT DEPTH											
COND SN	915/530						AT SURFACE											
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER			
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY					SAL.	NUTR.	CHL.	WHIT's NUTR.			
1	125											—	985					
2	100												986					
3	75												987					
4	60												988					
5	50												989	✓				
6	40												990	✓				
7	30												991	✓				
8	20												992	✓				
9	10												993	✓				
10	0												994	✓				
11																		
12																		

$$\text{EV}_\text{max} \approx 0.3$$

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
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)	
47 75 81	13.48 N	149 54.46 W	6	OCT	02		2024	10.4		10472	5915672				84		PBCS				
CTD	TIMES		JD/TIME		DATA LOCATION								REMARKS								
TYPE & SN	DATA ON		20:25:00 GMT		Tape/Diskette ID								File Name/Header								
PRESS SN	START DOWN		20:25:00 GMT																		
TEMP SN	AT DEPTH		20:28:00 GMT																		
COND SN	AT SURFACE		20:37:00 GMT										MAX. DEPTH = 83 m								
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
bot	83											✓	995								
75	75												996								
60	60												997	✓							
50	50												998	✓							
40	39												999	✓							
30	29												1000	✓							
20	19												1001	✓							
10	10												1002	✓							
0	3												1003	✓							
11																					
12																					

0.4 max fl

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)	
	078 58	17.23 N	149 52	.21	W	06 OCT	02	21	09	10.2	.	1047	256	13672	2	66	PBC	4			
CTD			TIMES			JD/TIME			DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220		DATA ON	21:09:00			6MT			Tape/Diskette ID			File Name/Header								
PRESS SN	80020		START DOWN	21:09:00			6MT														
TEMP SN	710/884		AT DEPTH	21:12:00			6MT														
COND SN	915/530		AT SURFACE	21:15:06			6MT									MAX. DEPTH = 63 m					
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.		PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
60	63																				
50	49																				
40	39																				
30	29																				
20	21																				
10	10																				
0	2																				
8																					
9																					
10																					
11																					
12																					

O.S max f/

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION													
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)			
	079	58	19	.77	N	149	50	.71	W	06	OCT	02	21	40	10.1	.	104	72	48	13672	81	PBC13
CTD			TIMES	JD/TIME						DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220		DATA ON	21:41:00 GMT						Tape/Diskette ID						File Name/Header						
PRESS SN	80020		START DOWN	21:41:00 GMT																		
TEMP SN	710/884		AT DEPTH	21:44:00 GMT																		
COND SN	915/530		AT SURFACE	21:50:00 GMT												MAX. DEPTH = 76 m						
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.					
bot	76													✓	1011							
60	61														1012							
50	50														1013	✓						
40	40														1014	✓						
30	29														1015	✓						
20	20														1016	✓						
10	11														1017	✓						
0	2														1018	✓						
9																						
10																						
11																						
12																						

O.S max f/

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*		
08 0	58 22.41 N	149 49.98 W	06 OCT 02	22	14	10.2	.	1147	24913	672	113	PBC12							
CTD	TIMES	JD/TIME			DATA LOCATION						REMARKS								
TYPE & SN	9+ S/N 91220	DATA ON			22:16:00 GMT			Tape/Diskette ID			File Name/Header								
PRESS SN	80020	START DOWN			22:16:00 GMT														
TEMP SN	710/884	AT DEPTH			22:19:00 GMT														
COND SN	915/530	AT SURFACE			22:24:00 GMT									MAX. DEPTH = 106 m					
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
50	106						✓	1019											
75	7.5							1020											
60	61							1021											
50	50							1022		✓									
40	39							1023		✓									
30	29							1024		✓									
20	20							1025		✓									
10	10							1026		✓									
0	3							1027		✓									
10																			
11																			
12																			

0.45 max fl

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION										
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG MIN	DEG	MIN	DAY	MO	YR	HR MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
0815	825.20N	149	48.88W	06	OCT	0222	S210.S	.1	11172	1146	72	141	PBC1					
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON	27:53:00 GMT			Tape/Diskette ID						File Name/Header						
PRESS SN	80020	START DOWN	22:53:00 GMT															
TEMP SN	710/884	AT DEPTH	22:58:00 GMT															
COND SN	915/530	AT SURFACE	23:06:00 GMT															
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve							
bot 125 100 75 50 40 30 20 10 0	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL	WHIT's NUTR.							
		1 (3.5)																
		2 125																
		3 100																
		4 75																
		5 50																
		6 40																
		7 30																
		8 20																
		9 10																
		10 3																
		11																
12																		

Water dumped / no samples taken

0.55 max f/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*				
	082	S	825	.07	N	149	49	.26	W	060	OCT	02	23	16	10	.5	.	114	723913672	140	PBC11
CTD			TIMES	JD/TIME						DATA LOCATION								REMARKS			
TYPE & SN	9+ S/N 91220		DATA ON	23:17:00 GMT						Tape/Diskette ID								File Name/Header			
PRESS SN	80020		START DOWN	23:17:00 GMT																	
TEMP SN	710/884		AT DEPTH	23:23:00 GMT																	
COND SN	915/530		AT SURFACE	23:30:00 GMT														MAX. DEPTH = 135 m			
				<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
66t	135															1038					
125	125															1039					
100	100															1030					
75	75															1031					
50	49															1032					
40	40															1033					
36	29															1034					
20	19															1035					
10	10															1036					
0	2															1037					
11																					
12																					

0.5 max f1

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*			
	083	58	10	.39	N	149	25	.06	W	07	OCT	02	00	10.4	.	1347	232	19672	104	PX11
CTD			TIMES	JD/TIME			G1309						DATA LOCATION				REMARKS			
TYPE & SN	9+ S/N 91220		DATA ON	01:31:00 GMT									Tape/Diskette ID				File Name/Header			
PRESS SN	80020		START DOWN	01:32:00 GMT																
TEMP SN	710/884		AT DEPTH	01:35:00 GMT																
COND SN	915/530		AT SURFACE	01:42:00 GMT													MAX. DEPTH = 100 m			
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
bot	100											✓	1038							
75	75												1039							
60	58												1040							
50	49												1041	✓						
40	40												1042	✓						
20	30												1043	✓						
20	20												1044	✓						
10	10												1045	✓						
0	3												1046	✓						
10																				
11																				
12																				

0.4S max f1

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*			
	08 45	813.5	1 N	14 938.4	2 W	070	OCT	02	02 44	10.5	.	13 47	21217	672	62	PX10				
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS					
TYPE & SN		DATA ON		02:45:00			Tape/Diskette ID								File Name/Header					
PRESS SN		START DOWN		02:46:00																
TEMP SN		AT DEPTH		02:48:00																
COND SN		AT SURFACE		02:51:00											MAX. DEPTH = 55 m					
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
bot	55											✓	1047	✓						
40	40												1048	✓						
30	30												1049	✓						
20	21												1050	✓						
10	10												1051	✓						
0	3												1052	✓						
7																				
8																				
9																				
10																				
11																				
12																				

O. S max f/

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11							STATION DESIGNATION									
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	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	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*		
	08 58 16.79 N	14 95 11.79 W	0	7	OCT	02	03 56 10.1	.	.	134	72	18672	610	px9				
CTD		TIMES		JD/TIME			DATA LOCATION							REMARKS				
TYPE & SN	9+ S/N 91220	DATA ON	03:58:00 GMT			Tape/Diskette ID			File Name/Header									
PRESS SN	80020	START DOWN	03:58:00 GMT															
TEMP SN	710/884	AT DEPTH	04:00:00 GMT															
COND SN	915/530	AT SURFACE	04:04:00 6mt										MAX. DEPTH = 53 m					
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
bot	53																	
40	40																	
30	30																	
20	19																	
10	10																	
0	3																	
7																		
8																		
9																		
10																		
11																		
12																		

0.55 max f/

0.55 max f!

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN.	WIND SPD. (m/s)	CLOUD (arm) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*	*	*	*	
	0 8 7 5 8 2 1 . 9 9 N	1 5 0 1 7 . 0 0 W	0 7 0	O C T	0 2	0 6 0 1	1 0 . 6	.	.	1 2 4	7 2 0 1 2 3 6 7 2	5 3	px7							
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON	06:04:00 GMT			Tape/Diskette ID	File Name/Header													
PRESS SN	80020	START DOWN	06:04:00 GMT																	
TEMP SN	710/884	AT DEPTH	06:06:00 GMT																	
COND SN	915/530	AT SURFACE	06:08:00 GMT										MAX. DEPTH = 46 m							
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER									
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	46																			
2	32																			
3	21																			
4	10																			
5	0																			
6	3		?																	
7																				
8																				
9																				
10																				
11																				
12																				

~20.6 max f/

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						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	
		DEG	MIN	DEG	MIN	DAY												MO
088	S 82 3.20 N	15	02 S .68 W	07	OCT	02	06	42	10.5	.1	1247	20	1226	72	68	1 X 6		
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON	06:43:00 GMT			Tape/Diskette ID	File Name/Header											
PRESS SN	80020	START DOWN	06:44:00 GMT															
TEMP SN	710/884	AT DEPTH	06:45:00 GMT															
COND SN	915/530	AT SURFACE	06:51:00 GMT										MAX. DEPTH = m					
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
b6t	1 64										✓	1070						
50	2 50											1071	✓					
40	3 40											1072	✓					
30	4 31											1073	✓					
20	5 20											1074	✓					
10	6 10											1075	✓					
0	7 3											1076	✓					
	8																	
	9																	
	10																	
	11																	
	12																	

0.55 max f/

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN.	WIND SPD. (m/s)	CLOUD (arm) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*					
	08	95	82	41.47	N	150	35.18	W	07	OCT	02	072410.2	.	114720019	672	73	PX15			
CTD			TIMES			JD/TIME			DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON			07:27:00 GMT			Tape/Diskette ID			File Name/Header								
PRESS SN	80020		START DOWN			07:27:00 GMT														
TEMP SN	710/884		AT DEPTH			07:29:00 GMT														
COND SN	915/530		AT SURFACE			07:33:00 GMT									MAX. DEPTH = 68 m					
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
60	1 68											1077								
50	2 50											1078								
40	3 40											1079								
30	4 31											1080								
20	5 20											1081								
10	6 10											1082								
0	7 3											1083								
8																				
9																				
10																				
11																				
12																				

0.55 max f/

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN. SPD.	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID				
	DEG	MIN	DEG	MIN												DAY	MO	YR	HR
	090	58	25.84	N	150	44.47	W	07	OCT	02	48	16	10.1	.	1136	1722	876	77	PX4
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID			File Name/Header										
PRESS SN	80020	START DOWN																	
TEMP SN	710/884	AT DEPTH																	
COND SN	915/530	AT SURFACE										MAX. DEPTH = m							
		<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	70															1084			
2	60															1085			
3	50															1086			
4	40															1087			
5	30															1088			
6	20															1089			
7	10															1090			
8	0															1091			
9																			
10																			
11																			
12																			

F1 Volt max ≈ 0.33

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	(deg)	(m/s)					
	49 15 82	8.59 N	15 10 1.25 W	47	OCT	02	09	29	11.1	.48	4718228	672	86	PX3					
CTD			TIMES		JD/TIME			DATA LOCATION						REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON						Tape/Diskette ID			File Name/Header			PX3				
PRESS SN	80020		START DOWN																
TEMP SN	710/884		AT DEPTH																
COND SN	915/530		AT SURFACE												MAX. DEPTH = 75 m				
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	75														1092				
2	60														1093				
3	50														1094				
4	40														1095				
5	30														1096				
6	20														1097				
7	10														1098				
8	0														1099				
9																			
10																			
11																			
12																			

fVolts max ≈ 0.4

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION											
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)	
	49 25 83	Φ. 37 N	15 14 9	.56 W	7	OCT	02	16 27	14.9	.	Φ 747	185	27	872	128	2	1				
CTD	TIMES		JD/TIME			DATA LOCATION							REMARKS								
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID			File Name/Header				PX2								
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE										MAX. DEPTH = m								
	<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	124															1100					
2	100															1141					
3	60															1142					
4	50															1143					
5	40															1144					
6	30															1145					
7	20															1146					
8	10															1147					
9	0															1148					
10																					
11																					
12																					

$\text{f1} V_{\text{max}} = \Phi. 4$

VESSEL NOAA RV MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION											
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)	
b935834.14N	15119.74W	151	19	74	OCT	02	11	40	10.9	.	46	47	22	122	8	75	164	pX11			
CTD	TIMES		JD/TIME		DATA LOCATION							REMARKS									
TYPE & SN	9+ S/N 91220		DATA ON		Tape/Diskette ID							File Name/Header									
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE																		
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	156																1109				
2	125																1110				
3	160																1111				
4	75																1112				
5	60																1113				
6	50																1114				
7	40																1115				
8	30																1116				
9	20																1117				
10	10																1118				
11	0																1119				
12																					

f) VOLTAGE MAX = 0.4

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*	*		
	49 45 81	8.18 N	150 56.93 W	7	OCT	02	14	35	10.5	.	49 47	21	9226	72	69	U5T1					
CTD			TIMES	JD/TIME			DATA LOCATION								REMARKS						
TYPE & SN	9+ S/N 91220		DATA ON				Tape/Diskette ID				File Name/Header				U5T1						
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE												MAX. DEPTH = m						
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	63															1120					
2	60															1121					
3	50															1122					
4	40															1123					
5	30															1124					
6	20															1125					
7	10															1126					
8	0															1127					
9																					
10																					
11																					
12																					

$$\ell_1 \text{ bits max} = 0.45$$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION												
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	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)			
49 55 21	17.16 N	151 41.37 W	07 OCT 02	15 22	14.2	.	.	49 37	22 02 1	36 2	137	UST 2										
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS								
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID				File Name/Header				UST 2								
PRESS SN	80020	START DOWN																				
TEMP SN	710/884	AT DEPTH												132 w/6								
COND SN	915/530	AT SURFACE												MAX. DEPTH = m								
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER									
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	130																1128					
2	100																1129					
3	75																1130					
4	60	wt sampled															1131					
5	50																1132					
6	40	wt sampled															1133					
7	30																1134					
8	20																1135					
9	10																1136					
10	0																1137					
11	-																					
12																						

ϵ_1 Volt max \approx 0.4

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*	*	
	φ 96° 50' 15.89 N		151° 46.13 W	67	OCT	02	16	22	14	.6	.	φ 937	21	422	262	106	45	31		
CTD	TIMES		JD/TIME			DATA LOCATION						REMARKS								
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID						File Name/Header								
PRESS SN	80020		START DOWN																	
TEMP SN	710/884		AT DEPTH																	
COND SN	915/530		AT SURFACE																	
	<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	103																			
2	75																			
3	60																			
4	50																			
5	40																			
6	30																			
7	20																			
8	10																			
9	0																			
10																				
11																				
12																				

U - underway sample bottle
 f_1 Volts (max) \approx 0.4

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION							
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)			
	49 58 00.8	N	150 23.92	W	97	OCT	02	19	03	10.4	.1	1158	22528	172	175	NAB11			
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS					
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID	File Name/Header							nab1					
PRESS SN	80020	START DOWN																	
TEMP SN	710/884	AT DEPTH																	
COND SN	915/530	AT SURFACE	Wetstar											MAX. DEPTH = m					
		<input checked="" type="checkbox"/> PAR 4242	<input checked="" type="checkbox"/> FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve											
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	172											u 245							
2	150											u 246							
3	125											u 247							
4	100											u 248							
5	75											u 249							
6	50											u 250							
7	40											u 251							
8	30											u 252							
9	20											u 253							
10	10											u 254							
11	8											u 255							
12																			

f1 Volt(max) ≈ .38

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) * * *	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*		
	098	S	75	8.64	N	150	30	.35	W	070	OCT	02	1956	10	.16	.	125824121	172	155	na612
CTD				TIMES		JD/TIME			DATA LOCATION								REMARKS			
TYPE & SN	9+ S/N 91220			DATA ON		19:56:00 GMT			Tape/Diskette ID								File Name/Header			
PRESS SN	80020			START DOWN		19:56:00 GMT														
TEMP SN	710/884			AT DEPTH		20:01:00 GMT														
COND SN	915/530			AT SURFACE		20:09:00 GMT											MAX. DEPTH = 150 m			
				<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve							
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.		PRI. SALINITY	SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.						
60	150																			
100	100																			
75	76																			
50	50																			
30	31																			
15	15																			
10	10																			
0	3																			
11																				
12																				

0.5 max f1

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION										
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)		
	09 95	7 55	.31	N	15 6 36	.66	W	07	OCT 02	20 44	10 .7	.	1258	24220	172	125	nab's					
CTD			TIMES		JD/TIME			DATA LOCATION								REMARKS						
TYPE & SN	9+ S/N 91220		DATA ON		20:45:00 GMT			Tape/Diskette ID								File Name/Header						
PRESS SN	80020		START DOWN		20:45:00 GMT																	
TEMP SN	710/884		AT DEPTH		20:50:00 GMT																	
COND SN	915/530		AT SURFACE		20:56:00 GMT											MAX. DEPTH = 122 m						
	<input type="checkbox"/> PAR 4242		<input type="checkbox"/> FLUOR 153		<input type="checkbox"/> CHIAM 109		<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
60t	1 122											✓	4264									
100	2 102												265									
75	3 75												266									
50	4 51												267	✓								
40	5 41												268	✓								
30	6 30												269	✓								
20	7 20												270	✓								
10	8 10												271	✓								
0	9 3												4272	✓								
10																						
11																						
12																						

O.S max f/

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION											
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)		
	10	06	75	2.43	N	15	41	.99	W	07	OCT	02	21	45	11.0	.	1358	23	719	172	87	nab4
CTD			TIMES		JD/TIME			DATA LOCATION								REMARKS						
TYPE & SN	9+ S/N 91220		DATA ON		21:47:00 gmt			Tape/Diskette ID								File Name/Header						
PRESS SN	80020		START DOWN		21:47:00 gmt																	
TEMP SN	710/884		AT DEPTH		21:49:00 wmt																	
COND SN	915/530		AT SURFACE		21:54:00 bmt											MAX. DEPTH = 83 m						
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
60	1 83											✓	4272									
50	2 51												274	✓								
30	3 30												275	✓								
20	4 20												276	✓								
10	5 10												277	✓								
0	6 3												4278	✓								
	7																					
	8																					
	9																					
	10																					
	11																					
	12																					

O. SS max f1

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION											
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)				
	10157	19.32 N	15048	44 W	07	OCT	02	22	47	16.7	.1	145	8	246	18	172	84	n965					
CTD				TIMES				JD/TIME				DATA LOCATION								REMARKS			
TYPE & SN	9+ S/N 91220			DATA ON	22:50:00			GMT	Tape/Diskette ID				File Name/Header										
PRESS SN	80020			START DOWN	22:50:00			GMT															
TEMP SN	710/884			AT DEPTH	22:53:00			GMT															
COND SN	915/530			AT SURFACE	22:57:00			GMT									MAX. DEPTH = 81 m						
				<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER											Cleaned air bleed valve					
b.t	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER					
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.						
		1	81											✓	4279								
		50	50											280	✓								
		40	41											281	✓								
		30	31											282	✓								
		20	20											283	✓								
		10	6	9										284	✓								
		0	7	3										42285	✓								
			8																				
			9																				
			10																				
			11																				
	12																						

0.5 max fl

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
																		DEG
102	57 46.54 N	150	S 41.33 W	07 OCT 02	23	43	11.1	.	1458	25314	172	81	h9616					
CTD		TIMES			JD/TIME			DATA LOCATION								REMARKS		
TYPE & SN	9+ S/N 91220	DATA ON			23:45:00 GMT			Tape/Diskette ID				File Name/Header						
PRESS SN	80020	START DOWN			23:45:00 MT													
TEMP SN	710/884	AT DEPTH			23:49:00 GMT													
COND SN	915/530	AT SURFACE			23:54:00 GMT											MAX. DEPTH = 7.6 m		
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL	WHIT's NUTR.							
bot	7.6																	
1	7.6																	
50	5.0																	
40	4.1																	
30	3.1																	
20	2.0																	
10	1.0																	
0	0.9																	
7	0.7																	
8																		
9																		
10																		
11																		
12																		

0.55 max f1

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION													
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)					
	103S	743.71	N	151	00	.23	W	08	OCT	02	0039	11.0	.	155	8	24920	172	76	1967						
CTD				TIMES				JD/TIME				DATA LOCATION								REMARKS					
TYPE & SN	9+ S/N 91220			DATA ON	00:41:00			GMT	Tape/Diskette ID	File Name/Header															
PRESS SN	80020			START DOWN	00:41:00			GMT																	
TEMP SN	710/884			AT DEPTH	00:45:00			GMT																	
COND SN	915/530			AT SURFACE	00:49:00			GMT									MAX. DEPTH = 72 m								
				<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER		<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.									
b/t	1	72										✓	4293												
50	2	50											294												
40	3	39											295												
30	4	29											296	✓											
20	5	19											297	✓											
10	6	10											298	✓											
0	7	3											299	✓											
	8																								
	9																								
	10																								
	11																								
	12																								

O, S max #1

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	*	*		
	104 57 40.77 N	151 06.38 W	OCT 02	01 36	10.9	.	15	823722	172	75	na618										
CTD			TIMES		JD/TIME			DATA LOCATION								REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON		01:38:00 GMT			Tape/Diskette ID				File Name/Header									
PRESS SN	80020		START DOWN		01:38:00 GMT																
TEMP SN	710/884		AT DEPTH		01:40:00 GMT																
COND SN	915/530		AT SURFACE		01:45:00 GMT											MAX. DEPTH = 70 m					
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	70											✓	296								
2	50												300	✓							
3	30												61	✓							
4	20												62	✓							
5	11												63	✓							
6	3												64	✓							
7																					
8																					
9																					
10																					
11																					
12																					

OSS max f1

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)				
	105 S	737.83 N	15112.49 W	08	OCT	02	0227	10.9	.1	1658	2410	22	172		66	19619								
CTD				TIMES		JD/TIME		DATA LOCATION								REMARKS								
TYPE & SN	9+ S/N 91220		DATA ON	02:29:00		GMT		Tape/Diskette ID	File Name/Header															
PRESS SN	80020		START DOWN	02:29:00		GMT																		
TEMP SN	710/884		AT DEPTH	02:32:00		GMT																		
COND SN	915/530		AT SURFACE	02:36:00		GMT										MAX. DEPTH = 63 m								
				<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER										
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
60	63											✓	665											
50	51												66	✓										
30	30												67	✓										
10	10												68	✓										
0	2												69	✓										
6																								
7																								
8																								
9																								
10																								
11																								
12																								

0.6 max f/

VESSEL NOAA RV MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (emt)	TYPE WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)
	106S	733.22N	15120	.01	W	08	OCT	02	0327	10.5	.	1758	225	19172	74	na	61.0		
CTD			TIMES		JD/TIME		DATA LOCATION								REMARKS				cb01
TYPE & SN	9+ S/N 91220		DATA ON		03:29:00		Tape/Diskette ID				File Name/Header								
PRESS SN	80020		START DOWN		03:29:00														
TEMP SN	710/884		AT DEPTH		03:31:00														
COND SN	915/530		AT SURFACE		03:35:00										MAX. DEPTH = 68 m				
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
b0t	68											✓	470						
1	52												71		✓				
2	28												72		✓				
3	10												73		✓				
4	2												474		✓				
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

0, 45max f/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD TYPE * (m)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	(deg)	(m/s)	*	*	(m)			
	107	57	32	.23	N	15	12	4	.54	W	08	OCT	02	0400	10.6	.	1748	23421	172	77	c69.2
CTD				TIMES		JD/TIME		DATA LOCATION								REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON		04:03:00		Tape/Diskette ID								File Name/Header						
PRESS SN	80020		START DOWN		04:03:00		6MT														
TEMP SN	710/884		AT DEPTH		04:07:00		6MT														
COND SN	915/530		AT SURFACE		04:09:00		6MT														
															MAX. DEPTH = 74 m						
															Cleaned air bleed valve						
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.				
b6t	1	74											✓	U75							
50	2	50												76	✓						
30	3	30												77	✓						
10	4	10												78	✓						
0	5	2												U79	✓						
	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				

O.SS max f/

VESSEL NOAA RV MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * (deg)	VISIBILITY (m)	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) * * (m)	TYPE WEATHER	BOTTOM DEPTH (m)		STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	(m)						
109 S	27.63 N	151 34.8 W	08 OCT 02	052910.6	.	1848	24	S22	171	1107	cba4										
CTD	TIMES		JD/TIME			DATA LOCATION						REMARKS									
TYPE & SN	9+ S/N 91220		DATA ON			Tape/Diskette ID						File Name/Header									
PRESS SN	80020		START DOWN			05:31:00 GMT															
TEMP SN	710/884		AT DEPTH			05:35:00 GMT															
COND SN	915/530		AT SURFACE			05:40:00 GMT											MAX. DEPTH = 100 m				
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.					
bot	100											✓	489								
75	72												90								
50	52												91	✓							
40	46												92	✓							
30	30												93	✓							
20	20												94	✓							
0	2												95	✓							
8																					
9																					
10																					
11																					
12																					

0.5 max pl

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*			
110 S	26.14 N	151 38.92 W	08 OCT 02	06 02	10.4	.	18	48	24	72	2171	64	cb95								
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON	06:04:00 GMT		Tape/Diskette ID								File Name/Header								
PRESS SN	80020	START DOWN	06:04:00 GMT																		
TEMP SN	710/884	AT DEPTH	06:07:00 GMT																		
COND SN	915/530	AT SURFACE	06:10:00 GMT																		
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve															
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER									
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.				
66	59											✓	u96								
40	40												97	✓							
20	20												98	✓							
10	11												99	✓							
0	2												u100	✓							
6																					
7																					
8																					
9																					
10																					
11																					
12																					

O, S max f1

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION												
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (arm) *	TYPE WEATHER	BOTTOM DEPTH (m)		STA. NAME/ID
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	(deg)	(m/s)	*	*			
111	S 72 8.22 N	151	14.80 W	08	OCT	02	0733	10.2	.	1948	258	23	171	87	CBBS					
CTD		TIMES		JD/TIME			DATA LOCATION						REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON	07:35:00 GMT			Tape/Diskette ID	File Name/Header													
PRESS SN	80020	START DOWN	07:35:00 GMT																	
TEMP SN	710/884	AT DEPTH	07:38:00 GMT																	
COND SN	915/530	AT SURFACE	07:43:00 GMT									MAX. DEPTH = 85 m								
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER									
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
bot	85															101				
60	60															102				
50	51															103				
40	40															104				
20	20															105				
0	3															106				
7																				
8																				
9																				
10																				
11																				
12																				

0.55 max fl

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * (deg)	VISIBILITY * (m)	WIND DIRN. 19	WIND SPD. (m/s)	CLOUD (amt) 272	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID C664
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	(deg)	(m/s)	*	*				
11 25 7 26.1 2 N	15 11 9.5 4 W	08 0 C	T 0 2	08 23	16.2	.	37	25 2	25	272	154	19	37	25 2	25	272	154	C664		
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS						
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID	File Name/Header													
PRESS SN	80020	START DOWN																		
TEMP SN	710/884	AT DEPTH																		
COND SN	915/530	AT SURFACE															MAX. DEPTH = m			
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.									
1	156											4	107							
2	125											4	108							
3	100											4	109							
4	75											4	110							
5	60											4	111							
6	40											4	112							
7	30											4	113							
8	20											4	114							
9	0																			
10																				
11																				
12																				

F1 Volts(max) ≈ \$.35

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION								
CONSC CAST #	LATITUDE	LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
		DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*
1145722.27	N	15127.46	W	8	OCT	02	14	06	10.1	.1	2	37	25	317	272	139	cb64	
CTD		TIMES		JD/TIME			DATA LOCATION								REMARKS			
TYPE & SN	9+ S/N 91220	DATA ON					Tape/Diskette ID	File Name/Header							<i>SOZ cb64</i>			
PRESS SN	80020	START DOWN																
TEMP SN	710/884	AT DEPTH																
COND SN	915/530	AT SURFACE														MAX. DEPTH = m		
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL	WHIT's NUTR.							
1	132											4	184					
2	100											4	185					
3	75											4	186					
4	40											4	187					
5	20											4	188					
6	0											4	189					
7																		
8																		
9																		
10																		
11																		
12																		

$$f_1 \text{ Volt(max)} \approx \phi, 5$$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * (deg)	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) * * *	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
																			DEG
11	55	72	4.52	N	15	13	4.63	W	80	OCT	02	1049	9.8	.	1937	25320	272	81	cbb5
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS							
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID	File Name/Header					cbb5							
PRESS SN	80020	START DOWN																	
TEMP SN	710/884	AT DEPTH																	
COND SN	915/530	AT SURFACE										MAX. DEPTH = m							
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	75										u	190							
2	50										u	191							
3	30										u	192							
4	20										u	193							
5	10										u	194							
6	0										u	195							
7																			
8																			
9																			
10																			
11																			
12																			

float (max) ≈ 0.5 / Cable jumped off forward slot which when bring up, after deck out slot down, fully fixed)

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE * * (deg)	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt) * * * (m)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
11 65 71	16.89 N	15 13 2.	23 W	48	OCT	02	12	15	9.6	.	1937	268	162	72	72	c6c11			
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS					
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID								File Name/Header					
PRESS SN		80020		START DOWN															
TEMP SN		710/884		AT DEPTH															
COND SN		915/530		AT SURFACE															
														MAX. DEPTH = m					
														Cleaned air bleed valve					
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.								
1	66										u 194								
2	40										u 197								
3	26										u 198								
4	0										u 199								
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

$$f_1 \text{ Volt(max)} \approx 4.6$$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								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	
																		DEG
1175715.63 N		15127.86 W		48 OCT 02		1343	9.5	.	1937	2642	22	272	82	c b c 2				
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS				
TYPE & SN	9+ S/N 91220	DATA ON				Tape/Diskette ID	File Name/Header				c b c 2							
PRESS SN	80020	START DOWN																
TEMP SN	710/884	AT DEPTH																
COND SN	915/530	AT SURFACE																
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	764						4	200										
2	60						4	201										
3	40						4	202										
4	26						4	203										
5	0						4	204										
6																		
7																		
8																		
9																		
10																		
11																		
12																		

$$f_1 \text{ Volts (max)} \approx 0.6^+$$

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11						STATION DESIGNATION								
CONSC CAST #	57 14 LATITUDE	151 23 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										DAY	MO
11 85 71	14.63 N	151 23.52 W	8 OCT 02	13 48	9.3	.	19 37	24 82 3	27 2	15 4	CB C3					
CTD		TIMES				JD/TIME				DATA LOCATION				REMARKS		
TYPE & SN	9+ S/N 91220	DATA ON								Tape/Diskette ID	File Name/Header				cb c3	
PRESS SN	80020	START DOWN														
TEMP SN	710/884	AT DEPTH														
COND SN	915/530	AT SURFACE													MAX. DEPTH = m	
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve										
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.					
1	100										u 245					
2	75										u 246					
3	60										u 247					
4	40										u 248					
5	20										u 249					
6	0										u 210					
7											u 211					
8																
9																
10																
11																
12																

$f1 \text{ Volt}(\text{max}) = \phi .5$ / Seven bottles closed, 6 marked as fired
 Assume 2 fired at surface/ bottle 6 located like 26m from
 chl samples - Dovlewisegarver

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF02-11								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	
																				DEG
119	57	13.51	N	151	18.88	W	6	30	OCT	02	14	40	9.1	.	1947	255	283	72	161	c6c4
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS						
TYPE & SN		9+ S/N 91220		DATA ON		Tape/Diskette ID				File Name/Header				c6c4						
PRESS SN		80020		START DOWN																
TEMP SN		710/884		AT DEPTH										w/o = 156						
COND SN		915/530		AT SURFACE										MAX. DEPTH = m						
						PAR 4242		FLUOR 153		ChlAM 109		TRANSMISSOMETER				Cleaned air bleed valve				
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	156											u	212							
2	150											u	214							
3	125											u	215							
4	100											u	213							
5	75											u	216							
6	50											u	217							
7	20											u	218							
8	0																			
9																				
10																				
11																				
12																				

$$f_1 \text{ Volts (max)} \approx \phi.55$$

VESSEL NOAA RV MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION											
CONSC CAST #	57 12		151 14					TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) *	TYPE *	WEATHER *	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*	*				
12 57 12.47 N		151 14.45 W		18	OCT	02	15	33	9.2	.	19	47	26	427	572	135	cbc	5			
CTD			TIMES			JD/TIME			DATA LOCATION							REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON						Tape/Diskette ID			File Name/Header									
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH																		
COND SN	915/530		AT SURFACE													MAX. DEPTH = m					
			<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	130																				
2	160																				
3	75																				
4	40																				
5	30																				
6	20																				
7	10																				
8	0																				
9																					
10																					
11																					
12																					

$$f_{\text{Vatt(max)}} = \phi.6$$

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION											
CONSC CAST #									TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * *	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	LATITUDE		LONGITUDE		DATE JD=																
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*	*	*	*	*	
121	57	24.76 N	150	32.64 W	48	OCT	02	18	21	9.6	.	184	727426	162	463	abx1					
CTD			TIMES		JD/TIME			DATA LOCATION								REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON					Tape/Diskette ID				File Name/Header				abx1					
PRESS SN	80020		START DOWN																		
TEMP SN	710/884		AT DEPTH													481					
COND SN	915/530		AT SURFACE													MAX. DEPTH = 456 m					
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.										
1	456										u 219										
2	356										u 220										
3	256										u 221										
4	156										u 222										
5	160										u 223										
6	75										u 224										
7	56										u 225										
8	40										u 226										
9	20										u 227										
10	10										u 228										
11	0										u 229										
12																					

$$\text{f1 Volt(max)} \approx \pm 6$$

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)	
1225724.91 N		15°38.58 W		08	OCT	02	19	35	9.7	.18	47	27	719	172	147	06	x2			
CTD		TIMES		JD/TIME			DATA LOCATION							REMARKS						
TYPE & SN	9+ S/N 91220	DATA ON					Tape/Diskette ID			File Name/Header				<i>abx2</i>						
PRESS SN	80020	START DOWN																		
TEMP SN	710/884	AT DEPTH																		
COND SN	915/530	AT SURFACE												MAX. DEPTH = m						
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	142														4230					
2	125														4231					
3	106														4232					
4	75														4233					
5	50														4234					
6	40														4235					
7	10														4236					
8	0														4237					
9																				
10																				
11																				
12																				

$$f_{V_{\text{lett}}(\max)} = \phi.5$$

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION									
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) TYPE WEATHER	BOTTOM DEPTH (m)		STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	*	*	(deg)	(m/s)	*	*	*	(m)
123	S 28' .72 N	15045	.14 W	18	OCT	02	20374	9.2		1848	270	22	172	100	96	K3			
CTD			TIMES			JD/TIME			DATA LOCATION							REMARKS			
TYPE & SN	9+ S/N 91220		DATA ON	20:36:08			GMT			Tape/Diskette ID	File Name/Header				abx3				
PRESS SN	80020		START DOWN	20:36:00			GMT												
TEMP SN	710/884		AT DEPTH	20:41:00			GMT												
COND SN	915/530		AT SURFACE	20:44:00			GMT								MAX. DEPTH = 96 m				
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
b ^o	96																		
75	75																		
50	51																		
30	31																		
15	14																		
0	4																		
7																			
8																			
9																			
10																			
11																			
12																			

0.6 max fl

Ran out of numbered labels - went
to just using Cast-bot

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) * * * TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)				
1245734.78 N	15055.46 W	08 OCT 02	2147	9.1	.	18	48	29	225	172	86	16 X 19						
CTD		TIMES		JD/TIME		DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220	DATA ON	21:50:00 GMT		Tape/Diskette ID	File Name/Header												
PRESS SN	80020	START DOWN	21:50:00 GMT															
TEMP SN	710/884	AT DEPTH	21:53:00 GMT															
COND SN	915/530	AT SURFACE	21:57:00 GMT								MAX. DEPTH = 23 m							
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.							
1	43									✓	124-1							
2	52										124-2	✓						
3	30										124-3	✓						
4	10										124-4	✓						
5	2										124-5	✓						
6																		
7																		
8																		
9																		
10																		
11																		
12																		

O.S maxf

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE * * (deg)	VISIBILITY (m/s)	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) * * (m)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
								DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*
125	S	40	.76	N	15	10	6	.14	W	08	OCT	02	2306	8.3	.	195	7293	34	172	176	a6x5	
CTD				TIMES			JD/TIME			DATA LOCATION						REMARKS						
TYPE & SN	9+ S/N 91220			DATA ON			23:09:00 GMT			Tape/Diskette ID			File Name/Header			ARX-5/nab8						
PRESS SN	80020			START DOWN			23:09:00 GMT															
TEMP SN	710/884			AT DEPTH			23:12:00 GMT															
COND SN	915/530			AT SURFACE			23:16:00 GMT									MAX. DEPTH = 72 m						
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER							
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
80+	72																					
50	51																					
30	38																					
15	15																					
0	2																					
	6																					
	7																					
	8																					
	9																					
	10																					
	11																					
	12																					

0.55 max f1

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF02-11								STATION DESIGNATION														
CONSC CAST #									TIME (GMT)		DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID		
		LATITUDE		LONGITUDE	DATE	JD=	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	*	(m)		
	DEG	MIN		DEG	MIN																			
126	57	45.71	N	151	14.04	W	09	OCT	02	00	15	8.9	.	185	72	99	27	172	68	a6	x6			
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS										
TYPE & SN	9+ S/N 91220	DATA ON	00:17:00 GMT		Tape/Diskette ID	File Name/Header																		
PRESS SN	80020	START DOWN	00:17:00 GMT																					
TEMP SN	710/884	AT DEPTH	00:19:00 GMT																					
COND SN	915/530	AT SURFACE	00:22:00 GMT										MAX. DEPTH = 65 m											
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChLAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																		
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.													
6+	65											✓	126-1											
30	30												126-2											
10	10												126-3											
0	4	2											126-4											
	5																							
	6																							
	7																							
	8																							
	9																							
	10																							
	11																							
	12																							

0.65 max f1

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11							STATION DESIGNATION										
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)	
	127S	750.61	N	151	21	.41	W	09	OCT	020	127	8.4	.	19	S730S	31122	61	a6x7			
CTD				TIMES		JD/TIME			DATA LOCATION							REMARKS					
TYPE & SN	9+ S/N 91220			DATA ON		01:30:00 6m			Tape/Diskette ID							File Name/Header					
PRESS SN	80020			START DOWN		01:30:00 GMT															
TEMP SN	710/884			AT DEPTH		01:32:00 GMT															
COND SN	915/530			AT SURFACE		01:34:00 GMT										MAX. DEPTH = 58 m					
				<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChlAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve								
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES											SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER					
		PRESSURE	PRI. TEMP.		SEC. TEMP.		PRI. SALINITY			SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.				
bef	58												✓	127-1	✓						
30	28													127-2	✓						
10	10													127-3	✓						
0	3													127-4	✓						
	5																				
	6																				
	7																				
	8																				
	9																				
	10																				
	11																				
	12																				

0.7 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11							STATION DESIGNATION											
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE *	VISIBILITY *	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt) *	WEATHER TYPE *	BOTTOM DEPTH (m)	STA. NAME/ID
		DEG	MIN		DEG	MIN		DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*			
128 57 SS .49 N	151	29 .07	W	09	OCT	02	02	33		8 .3	.	19	830	132172	70	70	a b x 8					
CTD				TIMES			JD/TIME			DATA LOCATION							REMARKS					
TYPE & SN	9+ S/N 91220			DATA ON			02:37:00 6MT			Tape/Diskette ID							File Name/Header					
PRESS SN	80020			START DOWN			02:37:00 6MT															
TEMP SN	710/884			AT DEPTH			02:39:00 6MT															
COND SN	915/530			AT SURFACE			02:43:00 6MT										MAX. DEPTH = 66 m					
				<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES											SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
bott	66																					
40	40																					
20	19																					
10	10																					
0	3																					
6																						
7																						
8																						
9																						
10																						
11																						
12																						

0.7 max f1

VESSEL NOAA R/V MILLER FREEMAN						PROJECT & LEG MF02-11								STATION DESIGNATION											
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)						
	129	S	7	58	.	79	N	15	135	.74	W	09	OCT	02	03	36	7.9	.	20	58	300	30	172	90	96X9
CTD			TIMES		JD/TIME		DATA LOCATION								REMARKS										
TYPE & SN	9+ S/N 91220		DATA ON		03:38:00 GMT		Tape/Diskette ID				File Name/Header														
PRESS SN	80020		START DOWN		03:38:00 GMT																				
TEMP SN	710/884		AT DEPTH		03:41:00 GMT																				
COND SN	915/530		AT SURFACE		03:46:00 GMT										MAX. DEPTH = 85 m										
			<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	CHIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve													
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER										
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	85												✓	129-1											
2	50												✓	-2											
3	30												✓	-3	✓										
4	20												✓	-4	✓										
5	3													129-5	✓										
6																									
7																									
8																									
9																									
10																									
11																									
12																									

0.45 max f/

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION								
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)	*	*
130	58.06.61 N	151	38.72 W	09 OCT 02	0409		7.7	.	2158	31231	172	107	a	b	x	y	0			
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS						
TYPE & SN	9+ S/N 91220	DATA ON	04:12:00 6MT		Tape/Diskette ID	File Name/Header														
PRESS SN	80020	START DOWN	04:12:00 6MT																	
TEMP SN	710/884	AT DEPTH	04:16:00 6MT																	
COND SN	915/530	AT SURFACE	04:20:00 6MT										MAX. DEPTH = 103 m							
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChlAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER						
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.									
1	103										✓	130-1								
2	76											-2								
3	50											-3	✓							
4	30											-4	✓							
5	3											130-5	✓							
6																				
7																				
8																				
9																				
10																				
11																				
12																				

0.25 max f/

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #			LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*	(m)		
131	15	801	.21	N	151	41	.71	W	09	OCT	02	0447	77.8	.	21	S8	29628	172	1309	bXLL	
CTD			TIMES		JD/TIME		DATA LOCATION								REMARKS						
TYPE & SN	9+ S/N 91220		DATA ON		04:49:00 6MT		Tape/Diskette ID								File Name/Header						
PRESS SN	80020		START DOWN		04:49:00 6MT																
TEMP SN	710/884		AT DEPTH		04:54:00 6MT																
COND SN	915/530		AT SURFACE		04:59:00 6MT										MAX. DEPTH = 128 m						
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY			SEC. SALINITY			SALINITY			SAL.	NUTR.	CHL.	WHIT's NUTR.				
1	128													✓	131-1						
2	101														-2						
3	75														-3						
4	50														-4	✓					
5	20														-5	✓					
6	11														-6	✓					
7	3															131-7	✓				
8																					
9																					
10																					
11																					
12																					

0.3 max fl

VESSEL NOAA R/V MILLER FREEMAN				PROJECT & LEG MF02-11								STATION DESIGNATION										
CONSC CAST #				LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	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)
132	S	803.	S8N	151	45	98W	09	OCT	02	0530	7.4	1.	21	S8	29328	172	166	96X	12			
CTD				TIMES			JD/TIME			DATA LOCATION								REMARKS				
TYPE & SN	9+ S/N 91220			DATA ON			05:32:00 6MT			Tape/Diskette ID				File Name/Header								
PRESS SN	80020			START DOWN			05:32:00 6MT															
TEMP SN	710/884			AT DEPTH			05:39:00 6MT															
COND SN	915/530			AT SURFACE			05:48:00 6MT											MAX. DEPTH = 163 m				
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> ChIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES												SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.						
1	163											✓	132-1									
2	126												1-2									
3	101												-3									
4	78												-4									
5	50												-5	✓								
6	30												-6	✓								
7	10												-7	✓								
8	2												132-8	✓								
9																						
10																						
11																						
12																						

0.3 max fl

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11							STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=			TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*			
133	58 06.33 N	151	48.23 W	09	OCT	02	06	15	6.9	.	225	830621	172	195	a b x 13						
CTD			TIMES			JD/TIME			DATA LOCATION							REMARKS					
TYPE & SN	9+ S/N 91220		DATA ON			06:17:00 6MT			Tape/Diskette ID				File Name/Header								
PRESS SN	80020		START DOWN			06:17:00 6MT															
TEMP SN	710/884		AT DEPTH			06:21:00 6MT															
COND SN	915/530		AT SURFACE			06:25:00 6MT										MAX. DEPTH = 91 m					
			<input type="checkbox"/>	PAR 4242	<input type="checkbox"/>	FLUOR 153	<input type="checkbox"/>	ChIAM 109	<input type="checkbox"/>	TRANSMISSOMETER	<input type="checkbox"/>	Cleaned air bleed valve									
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER						
		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.	NUTR.	CHL.	WHIT's NUTR.				
1	91												✓	133-1							
2	75													-2							
3	50													-3	✓						
4	30													-4	✓						
5	10													-5	✓						
6	3													133-6	✓						
7																					
8																					
9																					
10																					
11																					
12																					

0.3 max f1

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11								STATION DESIGNATION											
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB	WET BULB	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	(°C)	(°C)	(mb)	*	*	(deg)	(m/s)	*	*				
1345808.39 N	15150.48 W	09 OCT 02	0646	16.9	1.	22	58	31220	172	S 69° X 14°												
CTD		TIMES		JD/TIME		DATA LOCATION								REMARKS								
TYPE & SN	9+ S/N 91220	DATA ON	06:47:00		GMT	Tape/Diskette ID				File Name/Header												
PRESS SN	80020	START DOWN	06:47:00		GMT																	
TEMP SN	710/884	AT DEPTH	06:50:00		GMT																	
COND SN	915/530	AT SURFACE	06:53:06		GMT									MAX. DEPTH = 52 m								
		<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve																
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES								SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER								
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.											
1	52										✓	134-1	✓									
2	31											-2	✓									
3	3											134-3	✓									
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

0.3 max f1

VESSEL NOAA R/V MILLER FREEMAN			PROJECT & LEG MF02-11						STATION DESIGNATION <i>Chinook 02cB-1B</i>										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (m/s)	CLOUD (amt)	TYPE WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
																			DEG
<i>135</i>	<i>S</i>	<i>7</i>	<i>43.49</i>	<i>N</i>	<i>152</i>	<i>18.37</i>	<i>W</i>	<i>09</i>	<i>OCT</i>	<i>02</i>	<i>1339</i>	<i>7.0</i>	<i>1.</i>	<i>2458</i>	<i>29619</i>	<i>172</i>	<i>156</i>	<i>CB1B</i>	
CTD			TIMES		JD/TIME		DATA LOCATION								REMARKS				
TYPE & SN	9+ S/N 91220		DATA ON		<i>13:41:00</i> GMT		Tape/Diskette ID				File Name/Header								
PRESS SN	80020		START DOWN		<i>13:41:00</i> GMT														
TEMP SN	710/884		AT DEPTH		<i>13:45:00</i> GMT														
COND SN	915/530		AT SURFACE		<i>13:51:00</i> GMT										MAX. DEPTH = <i>151</i> m				
			<input type="checkbox"/> PAR 4242	<input type="checkbox"/> FLUOR 153	<input type="checkbox"/> CHIAM 109	<input type="checkbox"/> TRANSMISSOMETER	<input type="checkbox"/> Cleaned air bleed valve												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER				
		PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.								
1	<i>151</i>																		
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

0.3 max fl