

[illegible]

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION												
NOAAS MILLER FREEMAN		MF97-05, Leg 1		4-1												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 106	TIME (GMT)	WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN												
45821.52	N	16842.1	5W	16 APR 97	1816	0.8	3.5	12.2	8	12.5	9	301	666	4		
Port Side CTD		TIMES		JD / TIME		DATA LOCATION										
TYPE / SN SBE 9+ 91660		DATA ON		1800		Tape/Diskette ID File Name/Header										
PRESS SN 29772		START DOWN		1801		CTDOOH										
TEMP SN 1:889 2:701		AT DEPTH														
COND SN 1:480 2:303		AT SURFACE		1836		MAX. DEPTH = 500 m										
						529 MW/D										
SEA-BIRD 9/11+ CTD DATA																
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	TAPS6	TAPS4	SAMPLE BOTTLE DATA	SALINITY	SAL.	NUTRIENT	CHLOR	
1	300	303						34.3193			06		778			
2	200	202											777			
3	150	152											776			
4	100	101											775			
5	75	76											774			
6	50	51											773			
7	40	41											—			
8	—	31											—			
9	30	31											772			
10	20	20											771			
11	10	10											770			
12	0	2											769			

7Bx
from log

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION																							
NOAAS MILLER FREEMAN		MF97-05, Leg 1		1006.8 7-1																							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=107 ↓ DATE	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID										
	DEG	MIN	DEG	MIN														DAY	MO	YR	HR	MIN					
006	53	30	2N	16	8	55	37	W	17	A	P	9	7	08	41	4.0	2.7	0.7	4	8	2	1	8	0	0	7	
Port Side CTD		TIMES		JD / TIME		DATA LOCATION												REMARKS needed file created. updates by Seasoft slowed by output to Comm port									
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID		File Name/Header																			
PRESS SN 29772		START DOWN						CTD006																			
TEMP SN 1:889 2:701		AT DEPTH																									
COND SN 1:480 2:303		AT SURFACE														MAX. DEPTH = 1505 m											
SEA-BIRD 9/11+ CTD DATA																		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
POS.	TRIP	DEPTH	PRESSURE	PRI. TEMP	SFC TEMP	CHLOR	SALINITY	SAL.	NUTRIENT	CHLOR																	
1	1000	✓					34.3254	32	800																		
2	500	✓							799																		
3	300	✓							798																		
4	200	✓							799																		
5	150	✓							796																		
6	100	✓							795																		
7	75	✓							794																		
8	50	✓							793																		
9	20	✓							792																		
10	10	✓							791																		
11	0	✓							790																		
12	0	✓																									

NAK
from log

No Btl file pres
~1000db - 6C

No
data
file

VESSEL		PROJECT & LEG		STATION DESIGNATION																										
NOAAS MILLER FREEMAN		MF97-05, Leg 1		1005.5 8-1																										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=1003	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID													
	DEG	MIN	DEG	MIN														DAY	MO	YR	HR	MIN	°C	°C	(mb)	*	*	*	*	(m)
007	53	46.8	N	169	05	25	W	17	A	P	R	9	7	12	28	4.1	2.8	0.6	4	8	1	26	24	842						8
Port Side CTD		TIMES		JD / TIME		DATA LOCATION												REMARKS												
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID File Name/Header												Data export to												
PRESS SN 29772		START DOWN				CTD003												Comm Port interfaced with SeaSoft.												
TEMP SN 1:889 2:701		AT DEPTH																SeaSoft updates well												
COND SN 1:480 2:303		AT SURFACE																very slow. May need to												
																		MAX. DEPTH = 1495 m												
																		use backup tape												

SEA-BIRD 9/11+ CTD DATA													
TRIP POS.	DEPTH	PRESSURE	PRL TEMP	SEC TEMP	SALINITY	PAR	FLUOR	CHLOR	TAPS6	TAPS4	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	
												SAL	CHLOR
1	1000	1022									24.3593	27	811
2	500	498										810	
3	300	203										809	
4	200	201										808	
5	150	150										807	
6	100	102										806	
7	75	78										805	
8	50	53										804	
9	20	21										803	
10	10	11										802	
11	0	2.7										801	
12													

May need backup Tape

MSK
from
M.F. Log

[illegible]

004B - 808 in epic

[illegible]

Nuts@ 1000 - FOCI - #3 1153 → 1162
Whitledge #3 578 → 587

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION																			
NOAAS MILLER FREEMAN		MF97-05, Leg 1																					
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=108		TIME (GMT)		WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR												MIN			
1	12	54	57.3	3N	16	04	51.0	9W	18	APR	97	1	20	7	11.1	0257	070	24	86	22	106	13	
CTD A - Port Side				TIMES				JD / TIME				DATA LOCATION											
TYPE / SN SBE 9+ 91660				DATA ON				Tape/Diskette ID				File Name/Header											
PRESS SN 29772				START DOWN				1127															
TEMP SN 1:889 2:701				AT DEPTH				1205															
COND SN 1:480 2:303				AT SURFACE																			
				PAR				FLUOR				CHIAM				TAPS6				TAPS4			
SEA-BIRD 9/11+ CTD DATA																							
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SALINITY	SAL.	NUTRIENT	CHLOR									
1	1500	151889	2.3053	2.3056	34.4604	---	---	---	34.4840	71													
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

MAX. DEPTH = 1500 m

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION												
NOAAS MILLER FREEMAN		MF97-05, Leg 1		15-1												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 108	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN												
014	33	28.4	168	15.2	18	17	55	4.6	2.0	0657	0911	27	862	1277	15	
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION										
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID File Name/Header										
PRESS SN 29772		START DOWN														
TEMP SN 1:889 2:701		AT DEPTH														
COND SN 1:480 2:303		AT SURFACE														
		<input type="checkbox"/> PAR		<input type="checkbox"/> FLUOR		<input type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4						
SEA-BIRD 9/11+ CTD DATA																
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR			
1	5060	507.645							33.8162	35	1172					
2	300	302.600								1171						
3	200	203.879								1176						
4	150	152.801								1169						
5	100	101.808								1168						
6	50	51.195								1167			Y			
7	40	41.325								1166			Y			
8	20	31.416								—			Y			
9	20	20.413								1165			Y			
10	10	10.045								1164			Y			
11	0	1.543								1163			Y			
12													Y			

NAK

VESSEL		PROJECT & LEG		STATION DESIGNATION																			
NOAAS MILLER FREEMAN		MF97-05, Leg 1		16-1																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=108		TIME (GMT)		WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR											MIN				
015	55	22.31	N	168	10.38	W	18	A	P	9	7	2	0	19	2.5	1.3	0747	065	22	862	510	116	
CTD A - Port Side				TIMES				JD / TIME				DATA LOCATION											
TYPE / SN SBE 9+ 91660				DATA ON				Tape/Diskette ID				File Name/Header											
PRESS SN 29772				START DOWN																			
TEMP SN 1:889 2:701				AT DEPTH																			
COND SN 1:480 2:303				AT SURFACE																			
				<input checked="" type="checkbox"/> PAR				<input checked="" type="checkbox"/> FLUOR				<input type="checkbox"/> CHIAM				<input type="checkbox"/> TAPS6				<input type="checkbox"/> TAPS4			
SEA-BIRD 9/11+ CTD DATA																							
TRIP POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	TAPS6	TAPS4	SAMPLE BOTTLE DATA	SALINITY	SAL.	NUTRIENT	CHLOR								
1	500										32.8912	22	1182										
2	300												1181										
3	200												1180										
4	150												1179										
5	100												1178										
6	50												1177										
7	40												1176										
8	30																						
9	20																						
10	10																						
11	0																						
12																							

MAX. DEPTH = 495 m

W/O=513

[illegible]

VESSEL						PROJECT & LEG								STATION DESIGNATION												
NOAAS MILLER FREEMAN						MF97-05, Leg 1																				
CONSC CAST #		LATITUDE			LONGITUDE			DATE JD=			TIME (GMT)			WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
		DEG	MIN	N	DEG	M IN	E	DAY	MO	YR	HR	MIN	(°C)											(mb)	*	*
017	55	33	21	N	116	45	S	89	W	19	A	P	R	9	7	00	57	5.0	3.1	0967	071	20	66	1	137	18
CTD A - Port Side																										
TYPE / SN SBE 9+ 91660																										
PRESS SN 29772																										
TEMP SN 1:889 2:701																										
COND SN 1:480 2:303																										
DATA ON _____ File Name/Header																										
START DOWN CTD 017 CT0017																										
AT DEPTH _____																										
AT SURFACE _____																										
TAPPS4																										
SEA-BIRD 9/11 + CTD DATA																										
TRIP DEPTH																										
POS. 1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

[illegible]

[illegible]

[illegible]

VESSEL NOAAS MILLER FREEMAN		PROJECT & LEG MF97-05, Leg 1		STATION DESIGNATION 23-																							
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=109		TIME (GMT)		WET BULB		PRESSURE		SEA STATE		WIND DIRN.		WIND SPD.		CLOUD (amt)		WEATHER		BOTTOM DEPTH		STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	.	.	(deg)	(kts)	(m)						
022	55	59.03	N	166	35.06	W	19	A	P	R	97	09	37	2.0	1.1	1238	040	19	731				130		23		
CTD A - Port Side		TIMES		JD / TIME		DATE		Tape/Diskette ID		DATA LOCATION														REMARKS			
TYPE / SN SBE 9+ 91660		DATA ON		0931		0931		Tape/Diskette ID		Tape/Diskette ID																	
PRESS SN 29772		START DOWN		0931		0931		Tape/Diskette ID		Tape/Diskette ID																	
TEMP SN 1:889 2:701		AT DEPTH						Tape/Diskette ID		Tape/Diskette ID																	
COND SN 1:480 2:303		AT SURFACE		09		09		Tape/Diskette ID		Tape/Diskette ID														MAX. DEPTH = 125 m			
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4																127.0%	
SEA-BIRD 9/11+ CTD DATA																											
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR															
1	120																										
2	85	86									1204																
3	65	65									1203																
4	50	51									1202																
5	40	40									1201																
6	30	31									—																
7	20	20									1200																
8	10	10									—																
9	0	3.3									1199																
10											1198																
11											24																
12																											

55-67
67-85 inversion

24

VESSEL		PROJECT & LEG		STATION DESIGNATION													
NOAAS MILLER FREEMAN		MF97-05, Leg 1															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= \09	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN													
0235610.08N	16605.63W	19	43	11	43	2.1	1.2	133	80	5	19	73	1	107	24		
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION											
TYPE / SN SBE 9+ 91660		DATA ON		1137		Tape/Diskette ID File Name/Header											
PRESS SN 29772		START DOWN															
TEMP SN 1:889 2:701		AT DEPTH		1141													
COND SN 1:480 2:303		AT SURFACE															
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4		MAX. DEPTH = m					
SEA-BIRD 9/11+ CTD DATA																	
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER						
100	1																
75	2	76								1211	✓						
50	3	51								1210	✓						
45	4	47								1209	✓						
40	5	41								1208	✓						
30	6	30								1207	✓						
20	7	20								1206	✓						
10	8	10								1205	✓						
2	9	2								16	✓						
	10																
	11																
	12									16							

VESSEL		PROJECT & LEG		STATION DESIGNATION																										
NOAAS MILLER FREEMAN		MF97-05, Leg 1		25-1																										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=109	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID														
	DEG	MIN	DEG	MIN																										
024	56	12	61	N	16	02	9	58	W	19	A	P	R	9	7	13	24	2.0	1.3	1	33	80	52	1	57	3	1	11	13	25
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS												
TYPE / SN SBE 9+ 91660		DATA ON		1317		Tape/Diskette ID File Name/Header																								
PRESS SN 29772		START DOWN																												
TEMP SN 1:889 2:701		AT DEPTH																												
COND SN 1:480 2:303		AT SURFACE		1331														MAX. DEPTH = 108 m												
				<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHAM	<input type="checkbox"/> TAPS6	<input type="checkbox"/> TAPS4																						
SEA-BIRD 9/11+ CTD DATA																														
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR																
1	108		109										1282																	
2	75		76										1281																	
3	60		61										1216																	
4	50		50										1215																	
5	40		40										1214																	
6	30		30																											
7	20		21										1213																	
8	10		10																											
9	0		2										1212																	
10																														
11																														
12																														

23

1317

VESSEL		PROJECT & LEG		STATION DESIGNATION																
NOAAS MILLER FREEMAN		MF97-05, Leg 1		26-1																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=109	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	DEG	MIN																
025	56	03.44	N	166	19.29	W	14	49	21.2	11.0	133	80	55	18	73	1	21	26		
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS		
TYPE / SN SBE 9+ 91660		DATA ON		1435		Tape/Diskette ID												M3 before		
PRESS SN 29772		START DOWN		1435														recovery		
TEMP SN 1:889 2:701		AT DEPTH																		
COND SN 1:480 2:303		AT SURFACE		1450														MAX. DEPTH = 13 m		
				<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHIAM	<input type="checkbox"/> TAPS6	1.334											470 121	
SEA-BIRD 9/11+ CTD DATA																				
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR							
1	110	111										1290								
2	80	81										1289								
3	65	66										1288								
4	50	50										1287								
5	40	44										1286								
6	30	37										1285								
7	20	20																		
8	10	16										1284								
9	0	2								31.9998	33	1283								
10																				
11																				
12																				

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION																						
NOAAS MILLER FREEMAN		MF97-05, Leg 1		31-3																						
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= \ \ O	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID										
	DEG	MIN	DEG	MIN																						
027	56	03.76	N	166	19.74	W	20	A	P	R	9	7	06	45	0.2	-0.5	15	38	00	5	14	76	1/2	12	1	31
CTD A - Port Side																										
TYPE / SN		SBE 9+ 91660		DATA ON		Tape/Diskette ID		File Name/Header		REMARKS																
PRESS SN		29772		START DOWN		CTD 027		CTD 027		w/o=113																
TEMP SN		1:889 2:701		AT DEPTH																						
COND SN		1:480 2:303		AT SURFACE										MAX. DEPTH = 114 m												
<div> <input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR <input checked="" type="checkbox"/> CHIAM <input type="checkbox"/> TAPS6 <input type="checkbox"/> TAPS4 </div>																										
SEA-BIRD 9/11+ CTD DATA																										
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR											
1	12.5									31.9996	19															
2	12.5																									
3	12.5																									
4	5																									
5	5																									
6	5																									
7	0																									
8	0																									
9																										
10																										
11																										
12																										

- Nats # 1891-1300 for POCF
588-597 for whiteledge

VESSEL		PROJECT & LEG		STATION DESIGNATION													
NOAAS MILLER FREEMAN		MF97-05, Leg 1		32-1													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= \ \ C DAY MO YR	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN													
0285616.27	N	16546.26	W	20	A	P	0926	-0.8	-1.1	1144	4	007	20	765	*	94	32
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION											
TYPE / SN SBE 9+ 91660		DATA ON		0919		Tape/Diskette ID File Name/Header											
PRESS SN 29772		START DOWN		0919		CTD 028 CTD 028											
TEMP SN 1:889 2:701		AT DEPTH		0924													
COND SN 1:480 2:303		AT SURFACE		0926													
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input type="checkbox"/> CHAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4		MAX. DEPTH = 86 m					
SEA-BIRD 9/11+ CTD DATA																	
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR				
86	1	86.804	16.223	16.224	32.0882	2.29	0.01649	1.6106	32.1219	09							
	2																
	3																
	4																
	5																
	6																
	7																
	8																
	9																
	10																
	11																
	12																

9:16

VESSEL		PROJECT & LEG		STATION DESIGNATION																
NOAAS MILLER FREEMAN		MF97-05, Leg 1		33-1																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN											
0295623.33	N	16523.36	W	20	A	P	R	9	7	11	04	-1.4	-1.8	144	8	013	237	61	86	33
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION														
TYPE / SN SBE 9+ 91660		DATA ON		1059		Tape/Diskette ID File Name/Header														
PRESS SN 29772		START DOWN		1059																
TEMP SN 1:889 2:701		AT DEPTH																		
COND SN 1:480 2:303		AT SURFACE		1105																
						MAX. DEPTH = 82 m														
						82/46														
SEA-BIRD 9/11+ CTD DATA																				
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHLOR	CHLOR	FLUOR	CHLOR	CHLOR	CHLOR	CHLOR	CHLOR	CHLOR	CHLOR			
82	1	83.190	0.8819	0.8803	32.0226	2.29	0.04213	1.999	32.0553	2.1										
	2																			
	3																			
	4																			
	5																			
	6																			
	7																			
	8																			
	9																			
	10																			
	11																			
	12																			

VESSEL		PROJECT & LEG		STATION DESIGNATION														
NOAAS MILLER FREEMAN		MF97-05, Leg 1		34-1														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN									
0305630.61	N	16459.61	W	20	A	P	9	7	1245	-1.9	2.4	144	0350	22	761	81	34	
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID File Name/Header												Hit bottom
PRESS SN 29772		START DOWN		1238														
TEMP SN 1:889 2:701		AT DEPTH		1241														
COND SN 1:480 2:303		AT SURFACE		1244														
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4		MAX. DEPTH = 80 m						
SEA-BIRD 9/11+ CTD DATA																		
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR			
	1	78	78.855	0.5353	0.5353	30.5470	2.29	0.03341	1.9424	31.9863	29							
	2																	
	3																	
	4																	
	5																	
	6																	
	7																	
	8																	
	9																	
	10																	
	11																	
	12																	

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VESSEL		PROJECT & LEG		STATION DESIGNATION														
NOAAS MILLER FREEMAN		MF97-05, Leg 1		35-1														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR										
315637.68	N	16436.06	W	20	A	P	R	9	7	1457	-2.0	-2.8	1348	100	23	861	77	35
CTD A - Port Side																		
TYPE / SN		SBE 9+ 91660		DATA ON		1450		Tape/Diskette ID		File Name/Header		REMARKS						
PRESS SN		29772		START DOWN		1451						w/d 69						
TEMP SN		1:889 2:701		AT DEPTH														
COND SN		1:480 2:303		AT SURFACE								MAX. DEPTH = 71 m						
<div> <input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR <input checked="" type="checkbox"/> CHIAM <input type="checkbox"/> TAPS6 <input type="checkbox"/> TAPS4 </div>																		
SEA-BIRD 9/11+ CTD DATA																		
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SAMPLE BOTTLE DATA	SALINITY	SAL.	NUTRIENT	CHLOR					
70	1	71.582	-0.0366	-0.0366	31.7603	2.29	0.03619	1.9354	31.7951	28								
	2																	
	3																	
	4																	
	5																	
	6																	
	7																	
	8																	
	9																	
	10																	
	11																	
	12																	

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VESSEL		PROJECT & LEG		STATION DESIGNATION													
NOAAS MILLER FREEMAN		MF97-05, Leg 1		36-2													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN													
33	56	52.6	N	164	01.9	20	18	16	20	2.3	1158	34	22	862		72	36
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION											
TYPE / SN SBE 9+ 91660		DATA ON		1809		Tape/Diskette ID File Name/Header											
PRESS SN 29772		START DOWN		1812													
TEMP SN 1:889 2:701		AT DEPTH															
COND SN 1:480 2:303		AT SURFACE															
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4		MAX. DEPTH = 65 m					
SEA-BIRD 9/11+ CTD DATA																	
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR			
1	43	43								31.5660	05			↑			
2	43	43															
3	43	43															
4	25	26															
5	26	26															
6	25	26															
7	12	12															
8	11	11															
9	11	11															
10	2	2								31.2523	40			↓			
11																	
12																	

VESSEL		PROJECT & LEG		STATION DESIGNATION																				
NOAAS MILLER FREEMAN		MF97-05, Leg 1		38-1																				
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	WET BULB (°C)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID										
	DEG	MIN	DEG	MIN											DAY	MO	YR	HR	MIN	(°C)	(mb)	*	*	*
0355	64	39	6N	163	52	47	W	21	A	P	R	9	7	0	17	-2.8	115	83	20	20	86	2	75	38
CTD A - Port Side																								
TYPE / SN		SBE 9+ 91660		DATA ON		Tape/Diskette ID		File Name/Header		REMARKS														
PRESS SN		29772		START DOWN		CTD035		CTD035		w/o = 68														
TEMP SN		1:889 2:701		AT DEPTH						FROZEN!														
COND SN		1:480 2:303		AT SURFACE						MAX. DEPTH = 69		m												
<div style="display: flex; justify-content: space-around;"> <input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR <input checked="" type="checkbox"/> CHIAM <input type="checkbox"/> TAPS6 <input type="checkbox"/> TAPS4 </div>																								
SEA-BIRD 9/11+ CTD DATA																								
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR							
1	68												31.6	35	1315									
2	50														1314									
3	40																							
4	35														1313									
5	30																							
6	20														1312									
7	10														1311									
8	0																							
9																								
10																								
11																								
12																								

FROZEN
30 sec

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VESSEL		PROJECT & LEG		STATION DESIGNATION																										
NOAAS MILLER FREEMAN		MF97-05, Leg 1		42-1																										
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= \ 12	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID													
	DEG	MIN	DEG	MIN																										
040	57	07.16	N	16	45	9.99	W	22	22	A	P	R	9	7	09	47	-0.9	-1.2	1.33	8	0	1	4	1	4	1	0	0	70	42
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS												
TYPE / SN SBE 9+ 91660		DATA ON		0944		Tape/Diskette ID File Name/Header																								
PRESS SN 29772		START DOWN																												
TEMP SN 1:889 2:701		AT DEPTH																												
COND SN 1:480 2:303		AT SURFACE																MAX. DEPTH = 66 m												
				<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHLOR	<input type="checkbox"/> TAPS6	<input type="checkbox"/> TAPS4											64 w/o											
SEA-BIRD 9/11+ CTD DATA																														
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHLOR	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR																	
65	1	66.180	-1.4249	-1.4248	31.3388	2.29	0.2349	4.5821	31.4136	13																				
	2																													
	3																													
	4																													
	5																													
	6																													
	7																													
	8																													
	9																													
	10																													
	11																													
	12																													

0941

VESSEL		PROJECT & LEG		STATION DESIGNATION																															
NOAAS MILLER FREEMAN		MF97-05, Leg 1		43-1																															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 112	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID																		
	DEG	MIN	DEG	MIN																															
041	57	25.12	N	165	51.96	W	22	A	P	R	9	7	1	30	6	-	0.8	-	1.2	1	3	3	8	0	4	0	1	8	1	0	0	6	8	4	3
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS																	
TYPE / SN SBE 9+ 91660		DATA ON		13:02		Tape/Diskette ID File Name/Header																													
PRESS SN 29772		START DOWN		13:03																															
TEMP SN 1:889 2:701		AT DEPTH																																	
COND SN 1:480 2:303		AT SURFACE																MAX. DEPTH = 62 m																	
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHLOR		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4								61 w/o																	
SEA-BIRD 9/11+ CTD DATA																		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER															
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHLOR	SALINITY									SAL.	NUTRIENT	CHLOR															
62	1	62.914	-1.3035	-1.3031	31.2931	2.29	0.2346	4.7502	31.2338									25																	
	2																																		
	3																																		
	4																																		
	5																																		
	6																																		
	7																																		
	8																																		
	9																																		
	10																																		
	11																																		
	12																																		

VESSEL		PROJECT & LEG		STATION DESIGNATION																
NOAAS MILLER FREEMAN		MF97-05, Leg 1		44-1																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR											MIN	
425732.02N	16643.82W	22	22	22	APR	97	16	28	0.0	0.0	14.5	4	8	0	10	6	6	1	69	44
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION														
TYPE / SN SBE 9+ 91660		DATA ON		1625		Tape/Diskette ID File Name/Header														
PRESS SN 29772		START DOWN		1626		CT0042														
TEMP SN 1:889 2:701		AT DEPTH		1628																
COND SN 1:480 2:303		AT SURFACE				MAX. DEPTH = 65 m														
				<input checked="" type="checkbox"/> PAR	<input checked="" type="checkbox"/> FLUOR	<input checked="" type="checkbox"/> CHLOR	<input type="checkbox"/> TAPS6	<input type="checkbox"/> TAPS4	w/o 64											
SEA-BIRD 9/11+ CTD DATA																				
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHLOR	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR							
1	65								31.5569		0.3									
2	65																			
3	65																			
4	65																			
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

[illegible]

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[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION												
NOAAS MILLER FREEMAN		MF97-05, Leg 1		51-1												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 113	TIME (GMT)	WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN												
0495651.99N	16958.09W	23	APR	97	1134	1134	11.0	3.0	1013.9	1013.9	007	14	66	1	73	51
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION										
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID										
PRESS SN 29772		START DOWN				File Name/Header										
TEMP SN 1:889 2:701		AT DEPTH				CTD049										
COND SN 1:480 2:303		AT SURFACE				MAX. DEPTH = 65 m										
						TAPS4										
						TAPS6										
						ChIAM										
						FLUOR										
						PAR										
SEA-BIRD 9/11+ CTD DATA																
TRIP DEPTH	POS	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	ChIAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR			
60	1								32.1224	08	2241					
50	2										1344					
40	3										1343					
30	4										1342					
20	5										1341					
10	6										1340					
0	7										1339					
	8															
	9															
	10															
	11															
	12															

0
10
20
30
40
5026 Nov 76
10/10
28 Nov 76
10/10
15

VESSEL NOAAS MILLER FREEMAN			PROJECT & LEG MF97-05, Leg 1			STATION DESIGNATION 52-1																																		
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 113		TIME (GMT)	WET BULB (°C)	SEA STATE 1013.0	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID																									
	DEG	MIN	DEG	MIN	DAY	MO										YR	HR	MIN	DRY BULB (°C)	PRESSURE (mb)	TYPE	STAR																		
050	56	41.34	N	16	9	47	7	5	W	23	A	P	R	9	7	1	4	0	2	1	8	2	0	1	3	4	8	0	1	0	1	5	6	6	1	8	6	1	5	2
CTD A - Port Side																DATA LOCATION										REMARKS														
TYPE / SN SBE 9+ 91660																Tape/Diskette ID										File Name/Header														
PRESS SN 29772																										CTD050														
TEMP SN 1:889 2:701																																								
COND SN 1:480 2:303																																								
<input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR <input checked="" type="checkbox"/> ChlAM <input type="checkbox"/> TAPS6 <input type="checkbox"/> TAPS4																										MAX. DEPTH = 76 m														
SEA-BIRD 9/11+ CTD DATA																																								
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	ChlAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR																									
1	50										32.1618		26																											
2	40																																							
3	30																																							
4	20																																							
5	10																																							
6	5																																							
7	0																																							
8																																								
9																																								
10																																								
11																																								
12																																								

135120

VESSEL NOAAS MILLER FREEMAN		PROJECT & LEG MF97-05, Leg 1		STATION DESIGNATION 53-1															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 113	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN														DAY	MO
0515640.84N	17012.06W	23	A	P	R	7	15	58	0.1	0.0	13	48	02	6	17	88	2	102	53
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS	
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID												File Name/Header	
PRESS SN 29772		START DOWN				CTD051													
TEMP SN 1:889 2:701		AT DEPTH																	
COND SN 1:480 2:303		AT SURFACE																MAX. DEPTH = 96 m	
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4									
SEA-BIRD 9/11+ CTD DATA																			
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR					
5	1	5.519	2.0493	2.0496	32.1361	4.73	0.0450	2.5332	32.2630										
	2																		
	3																		
	4																		
	5																		
	6																		
	7																		
	8																		
	9																		
	10																		
	11																		
	12																		

VESSEL		PROJECT & LEG		STATION DESIGNATION															
NOAAS MILLER FREEMAN		MF97-05, Leg 1		54-1															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 113	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN															
0525625.98	N	113013.05	W	23	A	P	R	9	7	17	58	-0.9	-0.9	1348	028	14	882	112	54
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS	
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID													
PRESS SN 29772		START DOWN				File Name/Header													
TEMP SN 1:889 2:701		AT DEPTH				CTD052													
COND SN 1:480 2:303		AT SURFACE																MAX. DEPTH = 104 m	
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4									
SEA-BIRD 9/11+ CTD DATA																			
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER								
1											SAL.	NUTRIENT	CHLOR						
2	5	4.985	2.1688	2.1688	32.0985	74.03	0.1453	3.3478			32.1419	2244							
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

175200

VESSEL		PROJECT & LEG		STATION DESIGNATION																								
NOAAS MILLER FREEMAN		MF97-05, Leg 1		55-1																								
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID												
	DEG	MIN	DEG	MIN													DAY	MO	YR	HR	MIN							
053	56	15.73	N	169	41	1997	W	23	A	P	R	9	7	20	29	3.8	2.0	13	48	0	15	14	8	4	2	23	8	53
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION		REMARKS																				
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID		File Name/Header																				
PRESS SN 29772		START DOWN						CTD 053																				
TEMP SN 1:889 2:701		AT DEPTH																										
COND SN 1:480 2:303		AT SURFACE																										
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4																		
SEA-BIRD 9/11+ CTD DATA																												
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR														
1	41		41.643	2.8613	2.8617	32.2485	2.29	0.5623	7.5395																			
2	5		5.138	2.5813	2.5819	32.1502	80.40	0.3447	6.0638	32.1942	28	2245																
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

MAX. DEPTH = 233 m

VESSEL		PROJECT & LEG		STATION DESIGNATION													
NOAAS MILLER FREEMAN		MF97-05, Leg 1		56-5													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN													
0545	66	31.35	N	166	44	17	13	48	2.0	0.5	0648	000	27	8/3		120	5
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION											
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID File Name/Header											
PRESS SN 29772		START DOWN				CTD054											
TEMP SN 1:889 2:701		AT DEPTH															
COND SN 1:480 2:303		AT SURFACE															
						<input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR <input checked="" type="checkbox"/> CHIAM <input type="checkbox"/> TAPS6 <input type="checkbox"/> TAPS4											
SEA-BIRD 9/11+ CTD DATA																	
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR			
1	60.068	2.2931	2.2931	32.0081	2.29	0.0487	13913										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

NAK
from
MF leg

00060

VESSEL		PROJECT & LEG		STATION DESIGNATION																				
NOAAS MILLER FREEMAN		MF97-05, Leg 1		58-1																				
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115	TIME (GMT)	WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID							
	DEG	MIN	DEG	MIN																				
055	55	03	21	N	165	05	28	W	25	A	P	9	7	02	04	11.0	11.0	01.58	350	28	3/8	3	113	58
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS						
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID File Name/Header												W/O = 105						
PRESS SN 29772		START DOWN				CTD055																		
TEMP SN 1:889 2:701		AT DEPTH																						
COND SN 1:480 2:303		AT SURFACE																MAX. DEPTH = 106 m						
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4														
SEA-BIRD 9/11+ CTD DATA																								
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR										
1	1	106										01												
2	2	50												✓										
3	3	40												✓										
4	4	30												✓										
5	5	20												✓										
6	6	10												✓										
7	7	0																						
8	8																							
9	9																							
10	10																							
11	11																							
12	12																							

Cond. cells rinsed with Triton X-100 solution prior to this cast.

VESSEL		PROJECT & LEG		STATION DESIGNATION																					
NOAAS MILLER FREEMAN		MF97-05, Leg 1		59-1																					
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	SEA STATE	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID												
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	VISIBILITY	(deg)	(kts)	*	*	(m)							
056	54	56.41	N	164	58.28	3	W	25	A	P	R	9	7	03	11	2.0	2.0	0158	325	25	8	3	91		59
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION		REMARKS																	
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID		File Name/Header																	
PRESS SN 29772		START DOWN				CT0056																			
TEMP SN 1:889 2:701		AT DEPTH																							
COND SN 1:480 2:303		AT SURFACE																							
		<input checked="" type="checkbox"/> PAR <input checked="" type="checkbox"/> FLUOR <input checked="" type="checkbox"/> CHIAM <input type="checkbox"/> TAPS6 <input type="checkbox"/> TAPS4																							
SEA-BIRD 9/11+ CTD DATA																									
TRIP	POS.	DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR										
51	1	52.256	2.5634	2.5680	31.9389	2.29	0.01266	1.5328					18												
	2																								
	3																								
	4																								
	5																								
	6																								
	7																								
	8																								
	9																								
	10																								
	11																								
	12																								

MAX. DEPTH = 86 m

[illegible]

VESSEL NOAAS MILLER FREEMAN		PROJECT & LEG MF97-05, Leg 1		STATION DESIGNATION 62-1																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID						
	DEG	MIN	DEG	MIN																			
059	54	29.75	N	164	59.85	W	25	A	P	R	97	07	41	1.5	1.1	103	47	33	02	0	77	57	62
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION												REMARKS					
TYPE / SN SBE 9+ 91660		DATA ON				Tape/Diskette ID												File Name/Header					
PRESS SN 29772		START DOWN				CDO59																	
TEMP SN 1:889 2:701		AT DEPTH																					
COND SN 1:480 2:303		AT SURFACE																MAX. DEPTH = 51 m					
				<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input checked="" type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4											
SEA-BIRD 9/11+ CTD DATA																							
POS.	TRIP	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR									
1	50											5											
2	40												12248										
3	30																						
4	20												12247										
5	10																						
6	0												12246										
7																							
8																							
9																							
10																							
11																							
12																							

[illegible]

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION															
NOAA MILLER FREEMAN		MF97-05, Leg 1		666-1															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
	DEG	MIN	DEG	MIN															DAY
0635421.72N	16556.67W	16556.67	16556.67	16556.67	1426	1426	1426	1426	1426	1426	1426	1426	1426	1426	1426	1426	1426	1426	
CTD A - Port Side																			
TYPE / SN		SBE 9+ 91660		DATA ON		Tape/Diskette ID		File Name/Header		REMARKS		MAX. DEPTH = 479 m		488					
PRESS SN		29772		START DOWN		1412		1412		1412		1412		1412		1412		1412	
TEMP SN		1:889 2:701		AT DEPTH		1424		1424		1424		1424		1424		1424		1424	
COND SN		1:480 2:303		AT SURFACE		1440		1440		1440		1440		1440		1440		1440	
SEA-BIRD 9/11+ CTD DATA																			
TRIP DEPTH	POS.	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHLOR	TAPS6	TAPS4	SAMPLE BOTTLE DATA	SALINITY	SAL.	NUTRIENT	CHLOR				
																1	2	3	4
300	1												20	2224					
200	2													2223					
150	3													2222					
100	4													2221					
75	5													2220					
50	6													2219					
40	7													2218					
30	8													2217					
20	9													2216					
10	10													2215					
0	11													2214					
	12													2213					

VESSEL NOAAS MILLER FREEMAN		PROJECT & LEG MF97-05, Leg 1		STATION DESIGNATION 67-1																			
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=115		TIME (GMT)		WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR											MIN				
064	54	28.02	N	166	01	91	W	25	A	P	R	19	7	16	45	1.0	0.0	0547	275	16	862	545	67
<div> <div>CTD A - Port Side</div> <div> <div>TYPE / SN SBE 9+ 91660</div> <div>PRESS SN 29772</div> <div>TEMP SN 1:889 2:701</div> <div>COND SN 1:480 2:303</div> </div> </div>																							
<div> <div>DATA LOCATION</div> <div> <div>Tape/Diskette ID</div> <div>File Name/Header</div> </div> </div>																							
<div> <div>TIMES</div> <div> <div>DATA ON</div> <div>START DOWN</div> <div>AT DEPTH</div> <div>AT SURFACE</div> </div> </div>																							
<div> <div>JD / TIME</div> <div> <div>PAR</div> <div>FLUOR</div> <div>CHAM</div> <div>TAPS6</div> <div>TAPS4</div> </div> </div>																							
<div> <div>MAX. DEPTH =</div> <div>m</div> </div>																							
<div> <div>SEA-BIRD 9/11+ CTD DATA</div> </div>																							
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHAM	SALINITY	SAMPLE BOTTLE DATA	SAL.	NUTRIENT	CHLOR										
1	300										71	2282											
2	200											2281											
3	150											2280											
4	100											2279											
5	75											2278											
6	50											2277	✓										
7	40											2276	✓										
8	30											2275	✓										
9	20											2274	✓										
10	10											2273	✓										
11	0											2272	✓										
12												2271	✓										

VESSEL		PROJECT & LEG		STATION DESIGNATION												
NOAAS MILLER FREEMAN		MF97-05, Leg 1		68-1												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115	TIME (GMT)	WET BULB (°C)	DRY BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN												
0655434.8	N	16607.3	W	25 APR 97	1923	1.0	0.0	0.0	0.0	4	73	14	05	862	419	68
CTD A - Port Side		JD / TIME		DATA LOCATION		REMARKS										
TYPE / SN SBE 9+ 91660		DATA ON		Tape/Diskette ID		File Name/Header										
PRESS SN 29772		START DOWN		CTD065												
TEMP SN 1:889 2:701		AT DEPTH														
COND SN 1:480 2:303		AT SURFACE														
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input type="checkbox"/> CHIAM										
		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4		MAX. DEPTH = 408 m										
SEA-BIRD 9/11+ CTD DATA																
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR		
1	300											15	290			
2	200															
3	150															
4	100															
5	75															
6	50															
7	40															
8	30															
9	20															
10	10															
11	2													283		
12																

only 10 bottles trapped - Repeat Cast

VESSEL		PROJECT & LEG		STATION DESIGNATION												
NOAAS MILLER FREEMAN		MF97-05, Leg 1		68-2												
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD= 115	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN (deg)	WIND SPD. (kts)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
	DEG	MIN	DEG	MIN												
665434.90N	16607.34W	25	APR	97	20	01	4.7	2.7	04	38	32	0	84	2	416	68
CTD A - Port Side		TIMES		JD / TIME		DATA LOCATION										
TYPE / SN SBE 9+ 91660		DATA ON		1948		Tape/Diskette ID File Name/Header										
PRESS SN 29772		START DOWN		1948		CTD066										
TEMP SN 1:889 2:701		AT DEPTH														
COND SN 1:480 2:303		AT SURFACE				MAX. DEPTH = 405 m										
		<input checked="" type="checkbox"/> PAR		<input checked="" type="checkbox"/> FLUOR		<input type="checkbox"/> CHIAM		<input type="checkbox"/> TAPS6		<input type="checkbox"/> TAPS4						
SEA-BIRD 9/11+ CTD DATA																
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP	SEC. TEMP	SALINITY	PAR	FLUOR	CHIAM	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	SAL.	NUTRIENT	CHLOR		
1	300										15	6290				
2	200										12289					
3	150										12288					
4	100										12287					
5	75										12286					
6	50										12285					
7	40										12284					
8	30										12283					
9	20															
10	10															
11	0															
12																

n814

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]