

VESSEL			PROJECT & LEG			STATION DESIGNATION													
NOAA R/V MILLER FREEMAN			MFO3-13			CB - new													
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD= 100		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA NAME/ID
661	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	.	.	.	(m)	
	57	42.8	152	18.05	09	04	03	17	44	41.5	3.8	0757	150	30	8	6	135		
SBE 9Plus	91220A		TIMES		JD/TIME		DATA LOCATION												
PRESS SN	80020		DATA ON				Tape/Diskette ID												
PRI COND	915		START DOWN				File Name/Header												
PRI TEMP	710		AT DEPTH				C0001												
SEC COND	304		AT SURFACE																
SEC TEMP	884		<input checked="" type="checkbox"/> WETStar S/N 868P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input checked="" type="checkbox"/> Cleaned air bleed valve										
CTD CONVERTED MONITOR VALUES																			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.								
1	5 m from bottom							48											
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

MAX. DEPTH = 122 m

VESSEL

PROJECT & LEG

STATION DESIGNATION

NOAA RV MILLER FREEMAN

MF03.13

CB-1A Reptiles

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION															
NOAA RV MILLER FREEMAN		MF04-04		GB-12 <i>see notes</i>															
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 101	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
003	58° 41' .06 N	148° 50' .33 W	10 APR 04	1438	5.0	4.0	24.38	150	11	8	2	205							
SBE 9Plus		91220A	TIMES		JD/TIME		DATA LOCATION										REMARKS		
PRESS SN		80020	DATA ON				Tape/Diskette ID										File Name/Header		
PRI COND		915	START DOWN														CTD 003		
PRI TEMP		710	AT DEPTH																
SEC COND		304	AT SURFACE														MAX. DEPTH = m		
SEC TEMP		884	<input checked="" type="checkbox"/> WETStar S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input checked="" type="checkbox"/> Cleaned air bleed valve												
CTD CONVERTED MONITOR VALUES																			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE DATA									SAMPLE BOTTLE NUMBER		
1	5 m from bottom						44												
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

VESSEL NOAA RV MILLER FREEMAN		PROJECT & LEG MF04-04		STATION DESIGNATION 04-68P-12A <i>DeSoto</i>														
CONSEC CAST #	LATITUDE	LONGITUDE		DATE JD= 101		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
004	58 40.42 N	114 58.59 W	10 APR 04	17	36	10.0	8.0	0.25	38	170	076	1	192					
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)				(m)	
SBE 9Plus 91220A		TIMES		JD/TIME		DATA LOCATION												
PRESS SN 80020		DATA ON		Tape/Diskette ID File Name/Header														
PRI COND 915		START DOWN		CTD004														
PRI TEMP 710		AT DEPTH																
SEC COND 304		AT SURFACE																
SEC TEMP 884		WETStar S/N 1036P		PAR S/N 4242		Cleared air bleed valve												
		CTD CONVERTED MONITOR VALUES																
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHITS	SAMPLE BOTTLE DATA						
1	5 m from bottom						none											
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

MAX. DEPTH = 183 m

[illegible]

VESSEL NOAA RV MILLER FREEMAN		PROJECT & LEG MF04-04		STATION DESIGNATION 04GAP-5A																													
CONSEC CAST #		LATITUDE		LONGITUDE		DATE JD= 101		TIME (GMT)		DRY BULB		WET BULB		PRESSURE		SEA STATE		VISIBILITY		WIND DIRN.		WIND SPD.		CLOUD (amt)		TYPE		WEATHER		BOTTOM DEPTH		STA. NAME/ID	
006		59 02.2		148 42.1		19 W 10 A P R 0 4		2233		8.0		7.5		52738		170		034		2.1		194											
SBE 9Plus		91220A		TIMES		JD/TIME		DATA LOCATION		Tape/Diskette ID		File Name/Header		REMARKS																			
PRESS SN		80020		DATA ON																													
PRI COND		915		START DOWN																													
PRI TEMP		710		AT DEPTH																													
SEC COND		304		AT SURFACE																													
SEC TEMP		894		<input checked="" type="checkbox"/> WET/Sat S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input checked="" type="checkbox"/> Cleaned air bleed valve																							
CTD CONVERTED MONITOR VALUES																																	
POS.		TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.		TEMP.		CHL.		NUTR.		WHIT'S									
1		188 5 m from bottom												46				3															
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Bottle set up wrong so no water samples
cast 007 no a repeat at 04h 10

[illegible]

VESSEL		NOAA RV MILLER FREEMAN		PROJECT & LEG		MF04-04		STATION DESIGNATION		04-G8-4A <i>Post</i> <i>Bayberry</i>						
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 102	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
009	59 06.70 N	148 44.70 W	11 11 A	0512	5.6	4.0	26.3	8	19	50	23	1	14	9		
SBE 9Plus		91220A	TIMES		JD/TIME		DATA LOCATION		REMARKS							
PRESS SN		80020	DATA ON		Tape/Diskette ID		File Name/Header									
PRI COND		915	START DOWN				CTD0029									
PRI TEMP		710	AT DEPTH													
SEC COND		304	AT SURFACE													
SEC TEMP		884	<input checked="" type="checkbox"/> WETS Star S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/> Cleaned air bleed valve									
CTD CONVERTED MONITOR VALUES																
POS	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S					
1	5 m from bottom						40									
2	17														138-4	
3	17														137-3	
4	17														138-4	
5																
6																
7																
8																
9																
10																
11																
12																

Wind didn't stop
CTD Touch Bottom

[illegible]

VESSEL				PROJECT & LEG				STATION DESIGNATION								
NOAA RV MILLER FREEMAN				MF04-04				04-GAM-3A Post Bay								
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD=103	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYP E	WEATHER	BOTTOM DEPTH	STA. NAME/D
	DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C) (mb)	" "	" "	" "	(deg)	(m/s)	" "	" "	" "	(m)	
SBE 9Plus	91220A	TIMES	JD/TIME													
PRESS SN	80020	DATA ON														
PRI COND	915	START DOWN														
PRI TEMP	710	AT DEPTH														
SEC COND	304	AT SURFACE														
SEC TEMP	884	<input checked="" type="checkbox"/> METStar S/N 1036P	<input checked="" type="checkbox"/> PAR S/N 4242													
		<input checked="" type="checkbox"/> Cleaned air bleed valve														
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
	5 m from bottom							SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.				
1	21							53	/							
2	16															
3	15															
4	15															
5	15															
6	11															
7																
8																
9																
10																
11																
12																

MAX. DEPTH = 181 m

CTD011

VESSEL NOAA RV MILLER FREEMAN		PROJECT & LEG MF04-04		STATION DESIGNATION 04-68P-3A <i>Post Deploy</i>	
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 103	TIME (GMT)	DRY BULB
DEG	MIN	DEG	MIN	DAY	MO
01259	17.42	1857.61	W	12	A
			HR	MIN	(°C)
			06	37	5.8
			(°C)	(mb)	(deg)
			4.7	18.38	33.00
			95	1	180
SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION	
PRESS SN	80020	DATA ON		Tape/Diskette ID	File Name/Header
PRI COND	915	START DOWN			CTD012
PRI TEMP	710	AT DEPTH			
SEC COND	304	AT SURFACE			
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar SN 1036P	<input checked="" type="checkbox"/> PAR S/N 4242	<input type="checkbox"/>	<input checked="" type="checkbox"/> Cleaned air bleed valve
CTD CONVERTED MONITOR VALUES					
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY
					SEC. SALINITY
1	5 m from bottom				SALINITY
2					49
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
REMARKS					
MAX. DEPTH = 172 m					
SAMPLE BOTTLE DATA					
SAMPLE BOTTLE NUMBER					
SAL. NUTR. CHL. WHITS					

VESSEL NOAA RV MILLER FREEMAN		PROJECT & LEG MF04-04		STATION DESIGNATION 03-68-28 <i>new</i>												
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 103	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
013	59 31.83 N	149 16.28 W	12 APR 04	1447	6.3	4.5	1013.83	55	065	1	209					
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)		(m)	
SBE 9Plus		91220A	TIMES		JD/TIME		DATA LOCATION									
PRESS SN		80020	DATA ON		Tape/Diskette ID File Name/Header CTD 013											
PRI COND		915	START DOWN													
PRI TEMP		710	AT DEPTH													
SEC COND		304	AT SURFACE													
SEC TEMP		884	<input checked="" type="checkbox"/> WETStar S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input checked="" type="checkbox"/> Cleaned air bleed valve									
CTD CONVERTED MONITOR VALUES																
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHITS					
1	5 m from bottom						42	✓								
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

MAX. DEPTH = 201 m

VESSEL NOAA RV MILLER FREEMAN		PROJECT & LEG ME04-04				STATION DESIGNATION 04-G8-2A <i>Post Bayberry</i>												
CONSEC CAST #	LATITUDE	LONGITUDE		DATE JD=103		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
014	59 32.22 N	119 11.37 W	12 APR 04	2200	7.3	6.9	1538	0700	3	1	212							
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)				(m)	
SBE 9Plus		91220A		TIMES		JD/TIME		DATA LOCATION		REMARKS								
PRESS SN		80020		DATA ON				Tape/Diskette ID		File Name/Header								
PRI COND		915		START DOWN						CTD014								
PRI TEMP		710		AT DEPTH														
SEC COND		304		AT SURFACE														
SEC TEMP		884		<input checked="" type="checkbox"/> METStar SN 1036P		<input checked="" type="checkbox"/> PAR SN 4242		<input type="checkbox"/>		<input checked="" type="checkbox"/> Cleaned air bleed valve								
CTD CONVERTED MONITOR VALUES																		
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER									
1	5 m from bottom								SAL.	NUTR.	CHL.	WHITS						
2	14								45									
3	14																	
4	14																	
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

MAX. DEPTH = 203 m

[illegible]

VESSEL

PROJECT & LEG

NOAA RV MILLER FREEMAN

MF-04-04

STATION DESIGNATION	04-68-1A	prod depo
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[illegible]

[illegible]

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION
NOAA R/V MILLER FREEMAN		MF04-04		04-GP-32A <i>Post Deploy</i>

[illegible]

SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION		REMARKS
PRESS SN	80020	DATA ON		Tape/Diskette ID		
PRI COND	915	START DOWN		File Name/Header		
PRI TEMP	710	AT DEPTH				
SEC COND	304	AT SURFACE				
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar S/N 1036P	<input checked="" type="checkbox"/> PAR S/N 4242	<input type="checkbox"/>	<input checked="" type="checkbox"/> Cleaned air bleed valve	MAX. DEPTH = 171 m

[illegible]

VESSEL	PROJECT & LEG	STATION DESIGNATION
NOAA R/V MILLER FREEMAN	MF04-04	63-6P-348 <i>Pre-recovery</i>

	CONSEC CAST #																																																																																					
	LATITUDE									LONGITUDE									DATE JD= 104										TIME (GMT)				DRY BULB				WET BULB				PRESSURE				SEA STATE				VISIBILITY				WIND DIR/N.				WIND SPD.				CLOUD (amt)				TYPE				WEATHER				BOTTOM DEPTH				STA NAME/D									
020	DEG				MIN					DEG				MIN					DAY				MO				YR				HR				MIN				(°C)				(°C)				(mb)				(deg)				(m/s)				• • •				• • •				(m)																			
019	58				57					92 N				50 S					56					32 W				13 A P R O 4				2031				6				5				6				5				1537				055				078				5				142																		

SBE 9Plus		TIMES		JD/TIME		DATA LOCATION		REMARKS
PRESS SN	80020	DATA ON				Tape/Diskette ID	File Name/Header	
PRI COND	915	START DOWN					CTD020	
PRI TEMP	710	AT DEPTH						
SEC COND	304	AT SURFACE						MAX. DEPTH = 135 m
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar S/N 1036P	<input checked="" type="checkbox"/> PAR S/N 4242	<input type="checkbox"/>	<input checked="" type="checkbox"/> Cleaned air bleed valve			

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION
NOAA R/V MILLER FREEMAN		MF04-04		04-GP-37A <i>Port Deeping</i>

[illegible]

VESSEL	PROJECT & LEG	STATION DESIGNATION
NOAA R/V MILLER FREEMAN	MF04-04	03-GP-368 <i>pre-recovery</i>

CONSEC 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)											
022	58	47	N	15	05	19	14	A	P	R	0	4	00	50	5	.5	S.O	173	83	06	19	8	5	17	8		
SBE 9Plus	91220A	TIMES	JD/TIME																								
PRESS SN	80020	DATA ON																									
PRI COND	915	START DOWN																									
PRI TEMP	710	AT DEPTH																									
SEC COND	304	AT SURFACE																									
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar S/N 1036P	<input checked="" type="checkbox"/> PAR S/N 4242	<input checked="" type="checkbox"/> Cleaned air bleed valve																							
CTD CONVERTED MONITOR VALUES																											
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLER DATA									SAMPLE BOTTLER NUMBER										
1	5 m from bottom																SAL.	NUTR.	CHL.	WHITS							
2																											
3																											
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

MAX. DEPTH = 170 m

VESSEL		NOAA RV MILLER FREEMAN		PROJECT & LEG		MF04-04		STATION DESIGNATION		0355P-1B NOROMWU	
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD=105	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN	WIND SPD.
024	57 40.47 N	155 12.38 W	14 APR 04	1643	5.5	5.0	026482	20	11	8	2
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)
										(deg)	(m/s)
											(m)
SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION		REMARKS					
PRESS SN	80020	DATA ON		Tape/Diskette ID		File Name/Header					
PRI COND	915	START DOWN				CTD024					
PRI TEMP	710	AT DEPTH									
SEC COND	304	AT SURFACE									
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar S/N 1036P	<input checked="" type="checkbox"/> PAR S/N 4242			<input checked="" type="checkbox"/> Cleaned air bleed valve					
CTD CONVERTED MONITOR VALUES											
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER			
							SALINITY	SAL.	NUTR	CHL.	WHITs
1	5 m from bottom										
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

MAX. DEPTH = 282 m

[illegible]

VESSEL		NOAA RV MILLER FREEMAN		PROJECT & LEG		MF04-04		STATION DESIGNATION		03 SEP-23 1040N after 104	
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY
026	57	37.40 N	155	04.55 W	14 APR 04	2015	5.3	5.0	2737	200	10812
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)
SBE 9Plus		91220A		TIMES		JD/TIME		DATA LOCATION			
PRESS SN		80020		DATA ON				Tape/Diskette ID			
PRI COND		915		START DOWN				File Name/Header			
PRI TEMP		710		AT DEPTH							
SEC COND		304		AT SURFACE							
SEC TEMP		884		<input checked="" type="checkbox"/> METStar S/N 1036P <input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input type="checkbox"/> Cleaned air bleed valve			
CTD CONVERTED MONITOR VALUES											
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE DATA			
1	5 m from bottom						59	SAMPLE BOTTLE NUMBER			
2								SAL.	NUTR.	CHL.	WHITS
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

MAX. DEPTH = m

REMARKS

[illegible]

VESSEL		PROJECT & LEG						STATION DESIGNATION																									
NOAA R/V MILLER FREEMAN		MF04-04						04-SSP-3A RSP Jepson																									
CONSEC 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)																	
028	57	29	55	N	15	4	59	.05	15	A	R	0	4	01	02	5.9	5.02827	180	16	8	4	205											
SBE 9Plus	91220A		TIMES	JD/TIME												DATA LOCATION					REMARKS												
PRESS SN	80020		DATA ON													Tape/Diskette ID					File Name/Header												
PRI COND	915		START DOWN																		CTD028												
PRI TEMP	710		AT DEPTH																														
SEC COND	304		AT SURFACE																		MAX. DEPTH = 196 m												
SEC TEMP	884		<input checked="" type="checkbox"/> METStar S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input checked="" type="checkbox"/> Cleaned air bleed valve																								
CTD CONVERTED MONITOR VALUES																																	
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHITS																						
1	5 m from bottom						32	✓																									
2																																	
3																																	
4																																	
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

[illegible]

VESSEL
NOAA RV MILLER FREEMAN

PROJECT & LEG
MF04-04

STATION DESIGNATION
LINE 2 STA 56

CONSEC CAST #

LATITUDE
DEG MIN DEG MIN

LONGITUDE
DEG MIN DAY MO YR HR MIN

DATE JD= 106

TIME (GMT)

DRY BULB (°C)

WET BULB (°C)

PRESSURE (mb)

SEA STATE

VISIBILITY (deg)

WIND DIRN (m/s)

WIND SPD (m/s)

CLOUD (amt)

TYPE

WEATHER

BOTTOM DEPTH (m)

STA NAME/ID

SBE 9Plus 91220A

TIMES

JD/TIME

PRESS SN 80020

DATA ON

PRI COND 915

START DOWN

PRI TEMP 710

AT DEPTH

SEC COND 304

AT SURFACE

SEC TEMP 884

WETStar S/N 1036P

PAR S/N 4242

Cleaned air bleed valve

MAX. DEPTH = 200 m

DATA LOCATION

Tape/Diskette ID

File Name/Header

CT0030

REMARKS

205

SEC TEMP		884		<input checked="" type="checkbox"/> WETStar S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input checked="" type="checkbox"/> Cleaned air bleed valve				
		CTD CONVERTED MONITOR VALUES					SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.	
1	5 m from bottom							29	8	203		
2	150								9	203		
3	125								10	203		
4	100								11	203		
5	75								12	289		
6	50								13	289		
7	40								14	289		
8	30								15	283		
9	20								16	283		
10	10								17	283		
11	0								18	283		
12												

VESSEL NOAA RV MILLER FREEMAN		PROJECT & LEG ME04-04		STATION DESIGNATION LINE 8 STA 57																
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD=106		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
631	57	32.97	N	154	52.88	W	15	A	P	0	4	03	20	6.2	5.8	28	38	17	6	15
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mt)	(deg)	(m/s)	.	.	.	(m)			
SBE 9Plus 91220A TIMES JD/TIME DATA LOCATION PRESS SN 80020 DATA ON PRI COND 915 START DOWN PRI TEMP 710 AT DEPTH SEC COND 304 AT SURFACE SEC TEMP 884 <input checked="" type="checkbox"/> WETStar S/N 1036P <input checked="" type="checkbox"/> PAR S/N 4242 <input type="checkbox"/> <input checked="" type="checkbox"/> Cleaned air bleed valve																				
CTD CONVERTED MONITOR VALUES POS. TRIP DEPTH PRESSURE PRI. TEMP. SEC. TEMP. PRI. SALINITY SEC. SALINITY SALINITY SAL. NUTR. CHL. WHITS NUTR.																				
1	5 m from bottom												28	✓	19					
2	175														20					
3	125														21					
4	100														22					
5	75														23	289				
6	50														24	287				
7	40														25	289				
8	30														26	285				
9	20														27	283				
10	10														28	283				
11	0														29	283				
12																				

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION													
NOAA RV MILLER FREEMAN		MF04-04		LINE 8, STA 59													
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD=106	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
033	57.38.77 N	155.03.99 W	15 APR 04	0504	5.3	4.8	28.3	7	175	04	1	250					
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)		(m)		
SBE 9Plus		91220A		TIMES		JD/TIME		DATA LOCATION								REMARKS	
PRESS SN		80020		DATA ON				Tape/Diskette ID								File Name/Header	
PRI COND		915		START DOWN												CTD033	
PRI TEMP		710		AT DEPTH													
SEC COND		304		AT SURFACE												MAX. DEPTH = 244 m	
SEC TEMP		884		<input checked="" type="checkbox"/> WETStar S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input checked="" type="checkbox"/> Cleaned air bleed valve							
CTD CONVERTED MONITOR VALUES																	
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			WHIT'S					
1	5 m from bottom							SALINITY		SAL.	NUTR.	CHL.	NUTR.				
2	200							35			41						
3	150										43						
4	100										44						
5	60										45	269					
6	50										46	289					
7	40										47	269					
8	30										46	283					
9	20										49	263					
10	10										50	263					
11	0										51	263					
12																	

VESSEL				PROJECT & LEG				STATION DESIGNATION													
NOAA R/V MILLER FREEMAN				MFO4-04				LINE 9 STA 10													
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD = 106		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	SEC	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	.	.	.	(m)			
034	57		48	89	N	15	10	09	W	15	A	P	04	05	57	5	8	4	2283	7125	
																		064	1		
																		284			
SBE 9Plus				91220A		TIMES		JD/TIME		DATA LOCATION										REMARKS	
PRESS SN				80020		DATA ON				Tape/Diskette ID										File Name/Header	
PRI COND				915		START DOWN														CTD034	
PRI TEMP				710		AT DEPTH															
SEC COND				304		AT SURFACE														MAX. DEPTH = 225 m	
SEC TEMP				884		<input checked="" type="checkbox"/> WETSUR S/N 1036P <input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input checked="" type="checkbox"/> Cleaned air bleed valve											
CTD CONVERTED MONITOR VALUES																					
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER			WHIT'S							
								SAL.	NUTR.	CHL.	NUTR.										
1	5 m from bottom							21	52												
2	225								53												
3	135								54												
4	125								55												
5	75								56												
6	40								57												
7	30								58												
8	30								59												
9	20								60												
10	10								61												
11	0								62												
12																					

2030

VESSEL		PROJECT & LEG		STATION DESIGNATION															
NOAA R/V MILLER FREEMAN		MF04-04		LINE 2 STA 61															
CONSEC CAST #	LATITUDE	LONGITUDE		DATE JD = 106		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
035	5743.11	15515.09	W15	A	P	R	014	0658	15.8	4.6	2837	153	074	1			270		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(ms)				(m)		
SBE 9Plus		91220A		TIMES		JD/TIME		DATA LOCATION											
PRESS SN		80020		DATA ON				Tape/Diskette ID		File Name/Header									
PRI COND		915		START DOWN						CTD035									
PRI TEMP		710		AT DEPTH															
SEC COND		304		AT SURFACE						MAX DEPTH = m									
SEC TEMP		884		<input checked="" type="checkbox"/> WET Star S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input type="checkbox"/> Cleaned air bleed valve									
POS.		TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S	
1		5 m from bottom												30		63		35	
2		200														64			
3		150														65			
4		100														66			
5		60														67		289	
6		50														68		289	
7		40																289	
8		30																283	
9		20																283	
10		10																283	
11		0																283	
12																			

[illegible]

[illegible]

[illegible]

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF04-04				STATION DESIGNATION Amurta Bay 3																									
CONSEC CAST #		LATITUDE		LONGITUDE		DATE JD= 110		TIME (GMT)		DRY BULB		WET BULB		PRESSURE		SEA STATE		VISIBILITY		WIND DIRN.		WIND SPD.		CLOUD (amt)		TYPE		WEATHER		BOTTOM DEPTH		STA. NAME/ID	
039		52 24.21 N		17 154.57 W		19 APR 04		04 31		4.4		4.4		1055		72.10		248		5		298											
SBE 9Plus		91220A		TIMES		JD/TIME																											
PRESS SN		80020		DATA ON																													
PRI COND		915		START DOWN																													
PRI TEMP		710		AT DEPTH																													
SEC COND		304		AT SURFACE																													
SEC TEMP		884		<input checked="" type="checkbox"/> WET Star S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>																									

VESSEL NOAA R/V MILLER FREEMAN		PROJECT & LEG MF04-04		STATION DESIGNATION <i>Amstar Pass 2</i>	
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= <i>110</i>	TIME (GMT)	DRY BULB
DEG	MIN	DEG	MIN	DAY	MO
<i>040522</i>	<i>25.19</i>	<i>117.46</i>	<i>08</i>	<i>19</i>	<i>APR 04</i>
SEC TEMP	884	<input checked="" type="checkbox"/> WET Star S/N 1036P	<input checked="" type="checkbox"/> PAR S/N 4242	<input type="checkbox"/>	<input checked="" type="checkbox"/> Cleaned air bleed valve
SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION	
PRESS SN	80020	DATA ON		Tape/Diskette ID	File Name/Header
PRI COND	915	START DOWN			<i>CTD040</i>
PRI TEMP	710	AT DEPTH			
SEC COND	304	AT SURFACE			
MAX. DEPTH = <i>458</i> m					
CTD CONVERTED MONITOR VALUES					
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY
1	5 m from bottom				
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHITS	
SAL.		NUTR.		CHL.	
<i>22</i>					

[illegible]

[illegible]

VESSEL	NOAA RV MILLER FREEMAN	PROJECT & LEG	MF04-04	STATION DESIGNATION	03558-9A
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CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 110	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
042052	10.47N	168.11.7W	19 APR 04	1930	5.0	3.9	1013.4	723	8	15	832	4	11	18		

SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION	REMARKS
PRESS SN	80020	DATA ON		Tape/Diskette ID	NO WEISSAC or PAR
PRI COND	915	START DOWN			
PRI TEMP	710	AT DEPTH			
SEC COND	304	AT SURFACE			
SEC TEMP	884				MAX. DEPTH = m

CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHITS	NUTR.	WHITS	NUTR.	CHL.	WHITS	NUTR.
1	5 m from bottom	didn't touch															
2	300							25	74								
3	200							75	75								
4	100							76	77								
5	75							78	259								
6	50							79	289								
7	40							80	299								
8	30							81	263								
9	20							82	263								
10	10							83	263								
11	0							84	263								
12																	

VESSEL		PROJECT & LEG		STATION DESIGNATION																							
NOAA R/V MILLER FREEMAN		MF04-04		02GSR-8A																							
CONSEC 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)												
043	52	23	36	N	16	8	26	7	1	20	A	P	R	0	4	00002	5.0	14.9	0347	225	11	8	1233	27			
SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION													REMARKS										
PRESS SN	80020	DATA ON		Tape/Diskette ID													File Name/Header										
PRI COND	915	START DOWN																									
PRI TEMP	710	AT DEPTH																									
SEC COND	304	AT SURFACE																									
SEC TEMP	884	WETSar S/N 1036P	PAR S/N 4242														MAX. DEPTH = 1500 m										
CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA																							
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE NUMBER								WHIT'S											
1	5 m from bottom						13									SAL.	NUTR.	CHL.	NUTR.								
2	400																										
3	300																										
4	200																										
5	100																										
6	75																										
7	50																										
8	40																										
9	30																										
10	20																										
11	10																										
12	0																										

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF04-04				STATION DESIGNATION 03657-7A																													
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD=111		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID																		
644	52	32.30	N	168	37.10	W	20	A	P	R	0	4	6	6	0	7	4	1.6	2.7	01	7	8	1	5	6	1	3	8	2	2	8	3	4				
SBE 9Plus	91220A		TIMES		JD/TIME		DATA LOCATION												REMARKS																		
PRESS SN	80020		DATA ON				Tape/Diskette ID												File Name/Header																		
PRI COND	915		START DOWN																CTD 044																		
PRI TEMP	710		AT DEPTH																																		
SEC COND	304		AT SURFACE																MAX. DEPTH = 1500 m																		
SEC TEMP	884		WET/Sat S/N 1036P		PAR S/N 4242														Cleared air bleed valve																		
CTD CONVERTED MONITOR VALUES																																					
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				WHITS																					
1	1500 5 m from bottom																																				
2	400																																				
3	300																																				
4	200																																				
5	100																																				
6	75																																				
7	50																																				
8	40																																				
9	30																																				
10	20																																				
11	10																																				
12	0																																				
										SAL.	NUTR.	CHL.	NUTR.																								
										14	97																										
											98																										
											99																										
											100																										
											101																										
											102	269																									
											103	269																									
											104	269																									
											105	263																									
											106	263																									
											107	283																									
											108	263																									

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF04-04				STATION DESIGNATION 036SP-1A										
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD= 111		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
45	52	40.32N	168	48.23W	20	4	0818	4.5	3.8	004	K	119	21	*	K	61073		
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	*	*	(m)		
SBE 9Plus				91220A		TIMES		JD/TIME		DATA LOCATION				REMARKS				
PRESS SN				80020		DATA ON		Tape/Diskette ID				File Name/Header						
PRI COND				915		START DOWN												
PRI TEMP				710		AT DEPTH												
SEC COND				304		AT SURFACE												
SEC TEMP				884		WETStar S/N 1036P		PAR S/N 4242						MAX. DEPTH = m				
						Cleaned air bleed valve												
CTD CONVERTED MONITOR VALUES																		
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S							
1	5 m from bottom																	
2	1400																	
3	300																	
4	200																	
5	100																	
6	75																	
7	50																	
8	40																	
9	30																	
10	20																	
11	10																	
12	0																	

NO WETStar or PAR

VESSEL
NOAA R/V MILLER FREEMAN

PROJECT & LEG
MF04-04

STATION DESIGNATION
Alaska Stream 350 m

CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 111	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
116	52.42.38 N	168.50.67 W	20 APR 04	0938	3.2	2.9	994	*	143	21	*16	362				

SBE 9Plus 91220A TIMES JD/TIME

PRESS SN 80020 DATA ON

PRI COND 915 START DOWN

PRI TEMP 710 AT DEPTH

SEC COND 304 AT SURFACE

SEC TEMP 884

WETStar S/N 1036P PAR S/N 4242

Cleaned air bleed valve

DATA LOCATION

Tape/Diskette ID File Name/Header

REMARKS
NO PAR

MAX. DEPTH = m

CTD CONVERTED MONITOR VALUES										SAMPLE BOTTLE DATA			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE NUMBER		SAMPLE BOTTLE DATA	SAMPLE BOTTLE NUMBER	WHITS	
1	5 m from bottom												
2	250												
3	200												
4	150												
5	100												
6	75												
7	50												
8	40												
9	30												
10	20												
11	10												
12	0												

135 9.8

VESSEL	NOAA RV MILLER FREEMAN	PROJECT & LEG	ME04-04	STATION DESIGNATION	Alaska Stream - 120
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CONSEC CAST #	47	LATITUDE	52 43.30 N	LONGITUDE	168 50.86 W	DATE JD = 11	MO	11	YR	20	APR	04	TIME (GMT)	1021	DRY BULB	3.1	WET BULB	2.8	PRESSURE	984	SEA STATE	*	VISIBILITY	138	WIND DIRN.	16	WIND SPD.	*16	CLOUD (amt)	127	WEATHER		BOTTOM DEPTH		STA. NAME/ID	
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SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION	REMARKS
PRESS SN	80020	DATA ON		Tape/Diskette ID	NO PAR
PRI COND	915	START DOWN		File Name/Header	
PRI TEMP	710	AT DEPTH			
SEC COND	304	AT SURFACE			
SEC TEMP	884	<input checked="" type="checkbox"/> WET/Sat S/N 1036P	<input type="checkbox"/> PAR S/N 4242	<input type="checkbox"/> Cleaned air bleed valve	MAX DEPTH = m

SEC TEMP		884		<input checked="" type="checkbox"/> WETStar S/N 1036P		<input type="checkbox"/> PAR S/N 4242		<input type="checkbox"/> Cleaned air bleed valve					
		CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S		
1	5 m from bottom							5	133				
2	100								134				
3	715								135	289			
4	50	Abate done properly							136	289			
5	40								137	289			
6	30								138	283			
7	20								139	283			
8	10								140	283			
9	0								141	283			
10													
11													
12													

142 97

VESSEL
NOAA RV MILLER FREEMAN

PROJECT & LEG
ME04-04

STATION DESIGNATION
Oblique Trawl - 50 m

CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 111	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
48	52	47.97 N	16855.95 W	20 APR 04	11 26	3.7	3.1	974	*109	16	*16	58				

SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION	REMARKS
PRESS SN	80020	DATA ON		Tape/Diskette ID	File Name/Header
PRI COND	915	START DOWN			CTD048
PRI TEMP	710	AT DEPTH			
SEC COND	304	AT SURFACE			
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar S/N 1036P	<input type="checkbox"/> PAR S/N 4242	<input type="checkbox"/> Cleaned air bleed valve	MAX. DEPTH = m

SEC TEMP		884		<input checked="" type="checkbox"/> WET Star S/N 1036P		<input type="checkbox"/> PAR S/N 4242		<input type="checkbox"/> Cleaned air bleed valve					
		CTD CONVERTED MONITOR VALUES						SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S		
1	5 m from bottom							10	142	289			
2	40								143	283			
3	30								144	283			
4	20								145	283			
5	10								146	283			
6	20												
7													
8													
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VESSEL		PROJECT & LEG		STATION DESIGNATION	
NOAA R/V MILLER FREEMAN		ME04-04		S. P. # 2	
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB
0495301170	DEG MIN	DEG MIN	DAY MO YR	HR MIN	WET BULB
					PRESSURE
					SEA STATE
					WIND DIRN.
					WIND SPD.
					CLOUD (amt)
					TYPE
					WEATHER
					BOTTOM DEPTH
					STA. NAME/ID
SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION	
PRESS SN	80020	DATA ON		Tape/Diskette ID	
PRI COND	915	START DOWN		File Name/Header	
PRI TEMP	710	AT DEPTH		CTD049	
SEC COND	304	AT SURFACE		MAX. DEPTH = 87 m	
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar S/N 1036P	<input checked="" type="checkbox"/> PAR S/N 4242	<input type="checkbox"/>	<input checked="" type="checkbox"/> Cleaned air bleed valve
CTD CONVERTED MONITOR VALUES					
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY
1	5 m from bottom				SEC. SALINITY
2					SALINITY
3					SAL.
4					NUTR.
5					CHL.
6					WHIT'S
7					
8					
9					
10					
11					
12					

VESSEL NOAA RV MILLER FREEMAN				PROJECT & LEG MF04-04				STATION DESIGNATION NE of Sander's Road																									
CONSEC CAST #		LATITUDE		LONGITUDE		DATE JD= 112		TIME (GMT)		DRY BULB		WET BULB		PRESSURE		SEA STATE		VISIBILITY		WIND DIRN		WIND SPD		CLOUD (amt)		TYPE		WEATHER		BOTTOM DEPTH		STA. NAME/ID	
050		53 05.45 N		168 59.28 W		21 APR 04		0809 3.6		B. 29758		155		117		1		107															
SBE 9Plus		91220A		TIMES		JD/TIME		DATA LOCATION		REMARKS																							
PRESS SN		80020		DATA ON				Tape/Diskette ID		File Name/Header																							
PRI COND		915		START DOWN						CTD 050																							
PRI TEMP		710		AT DEPTH																													
SEC COND		304		AT SURFACE																													
SEC TEMP		884		<input checked="" type="checkbox"/> WETSar S/N 1036P		<input checked="" type="checkbox"/> PAR S/N 4242		<input type="checkbox"/>		<input checked="" type="checkbox"/> Cleaned air bleed valve																							
POS.		TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		PRI. SALINITY		SEC. SALINITY		SALINITY		SAL.		NUTR.		CHL.		WHITS											
1		3 m from bottom														X		148															
2		100														11		149															
3		75																150		289													
4		50																151		289													
5		40																152		389													
6		30																153		283													
7		20																154		283													
8		10																155		283													
9		0																156		283													
10																																	
11																																	
12																																	

VESSEL	NOAA R/V MILLER FREEMAN	PROJECT & LEG	MF04-04	STATION DESIGNATION	NE of San Diego Pass
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CONSEC CAST #	051	LATITUDE	52° 59' 36" N	LONGITUDE	169° 08' 16" W	DATE JD=	112	TIME (GMT)	0916	DRY BULB	4.2	WET BULB	3.0	PRESSURE	973	SEA STATE	X	WIND DIRN.	45	WIND SPO.	06	CLOUD (amt)	X	TYPE	X	WEATHER	1	BOTTOM DEPTH	87	STA. NAME/ID	
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SBE 9Plus	91220A	TIMES	91220A	JD/TIME		DATA LOCATION		REMARKS	
PRESS SN	80020	DATA ON				Tape/Diskette ID		File Name/Header	
PRI COND	915	START DOWN							
PRI TEMP	710	AT DEPTH							
SEC COND	304	AT SURFACE							
SEC TEMP	884	<input checked="" type="checkbox"/> WETStar S/N 1036P	<input type="checkbox"/> PAR S/N 4242	<input type="checkbox"/>	<input type="checkbox"/>	Cleaned air bleed valve			

CTD CONVERTED MONITOR VALUES							SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.	
1	5 m from bottom						4			157 289		
2	75								158 289			
3	50								159 289			
4	40								160 283			
5	30								161 289			
6	20								162 283			
7	10								163 283			
8	0								164 283			
9												
10												
11												
12												

VESSEL		PROJECT & LEG		STATION DESIGNATION																
NOAA R/V MILLER FREEMAN		MF04-04		Catalina Seaboard Pinn CTD																
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD= 112	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA NAME/ID				
052	52	51.32 N	169	23.28 W	21	A	P	R	0	4	1131	14.2	2.8	973	3	17907	X	1	270	
SBE 9Plus	91220A	TIMES	JD/TIME	DATA LOCATION																
PRESS SN	80020	DATA ON		Tape/Diskette ID																
PRI COND	915	START DOWN		File Name/Header																
PRI TEMP	710	AT DEPTH		C2052																
SEC COND	304	AT SURFACE																		
SEC TEMP	884	<input checked="" type="checkbox"/> WET Star S/N 1036P	<input type="checkbox"/> PAR S/N 4242	<input type="checkbox"/> Cleaned air bleed valve																
CTD CONVERTED MONITOR VALUES																				
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAMPLE BOTTLE DATA												
1	5 m from bottom							SAL.	NUTR.	CHL.	WHITS									
2	200							1	165											
3	150								166											
4	100								167											
5	75								168											
6	50								169	287										
7	40								170	287										
8	30								171	289										
9	20								172	283										
10	10								173	283										
11	0								174	283										
12									175	283										

VESSEL		PROJECT & LEG		STATION DESIGNATION															
NOAA R/V MILLER FREEMAN		MF03-13		<i>Mid-Atlantic Bight</i> <i>Station 195</i>															
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD= 112		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIRN.	WIND SPD.	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA NAME/ID
054	52	50.54	N	169	33.05	W	21	13	03	4.1	3.2	003	*23	506	*1	167			
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(°C)	(°C)	(mb)	(deg)	(m/s)	(m)					
SBE 9Plus		91220A		TIMES		JD/TIME		DATA LOCATION											
PRESS SN		80020		DATA ON				Tape/Diskette ID											
PRI COND		915		START DOWN				File Name/Header											
PRI TEMP		710		AT DEPTH				CTD054											
SEC COND		304		AT SURFACE				MAX. DEPTH = m											
SEC TEMP		884		<input checked="" type="checkbox"/> WETStar S/N 868P <input type="checkbox"/> PAR S/N 4242		<input type="checkbox"/> Cleaned air bleed valve													
CTD CONVERTED MONITOR VALUES				SAMPLE BOTTLE DATA				SAMPLE BOTTLE NUMBER				WHIT'S							
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL.	NUTR.	CHL.	NUTR.	CHL.	NUTR.						
1	5 m from bottom							7	197										
2	100								198										
3	75								189	289									
4	50								190	289									
5	40								191	289									
6	30								192	283									
7	20								193	283									
8	10								194	283									
9	0								195	283									
10																			
11																			
12																			

1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355</
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VESSEL		PROJECT & LEG		STATION DESIGNATION												
NOAA RV MILLER FREEMAN		MFC04-04		03-56-5												
CONSEC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIR	WIND SPL	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA. NAME/ID
056	52 43.44 N	169 23.29 W	21 APR 04	1711	4.5 (C)	3.8 (C)	899.2 (mb)	2827	7046	1	1.00					
DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	(C)	(C)	(mb)	(deg)	(kts)		(m)	
SSE 8120A		TIMES		JD/TIME		DATA LOCATION		REMARKS								
PRESS SN 80020		DATA ON				Tape/Diskette ID		File Name/Header								
PRI COND 915		START DOWN						CT0056								
PRI TEMP 710		AT DEPTH														
SEC COND 304		AT SURFACE														
SEC TEMP 804		MET/Star SN 1038P		PAR SN 4242				Clear and air bland water								
CTD CONVERTED MONITOR VALUES																
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SAMP. E. BOTTLE DATA	SAMPLE BOTTLE NUMBER								
1	5 m from bottom						17	SAL.	NUTR.	CHL.	WHIT'S					
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA R/V MILLER FREEMAN				MFC04-04				03-56-3											
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIR	WIND SPD	CLOUD (amt)	TYPE	WEATHER	BOTTOM DEPTH	STA NUMBER
0375301	04	N	16900.17	W	21	A	1958	47.7	3.2	2001	87320	065	1	112					
DEG	MIN		DEG	MIN	DAY	MO	YR	H-R	MIN	(°C)	(°C)	(mb)	(kph)	(kph)				(m)	
SSE SPTS				912204		TIMES		JD TIME		DATA LOCATION				REMARKS					
PRESS SN				60020		DATA ON				Tape/Diskette ID				File Name/Header					
PRI COND				945		START DOWN								CTD057					
PRI TEMP				710		AT DEPTH													
SEC COND				304		AT SURFACE								MAX DEPTH = 106 m					
SEC TEMP				894		<input checked="" type="checkbox"/> METSIEP SN 1036P		<input checked="" type="checkbox"/> PAR SN 4242		<input checked="" type="checkbox"/> Cleaned air bleed valve									
CTD CONVERTED MONITOR VALUES																			
POS.	TRIP DEPTH	PRESSURE	PRI TEMP	SEC TEMP	PRI SALINITY	SEC SALINITY	SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER			VINT'S						
1	5 m from bottom						SALINITY			SAL			NUTR.		CHL.		NUTR.		
2							63												
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

VESSEL				PROJECT & LEG				STATION DESIGNATION											
NOAA R/V MILLER FREEMAN				MFM-04				03-RSP-6											
CONSEC CAST #	LATITUDE		LONGITUDE		DATE JD= 112		TIME (GMT)	DRY BULB	WET BULB	PRESSURE	SEA STATE	VISIBILITY	WIND DIR	WIND SPO	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA NAME/ID	
058	53	23.99 N	168	50.54 W	21	A	10:40	5.1	4.0	0.0	28	35	0	05	3	1	926		
DEG	MIN	SEC	DEG	MIN	SEC	DAY	MO	YR	HR	MIN	SEC	(mb)	(deg)	(m/s)	(%)	(in)	(m)		
SHE DEPTH 912204				TIMES				JOYTIME				DATA LOCATION				REMARKS			
PRESS SN 80020				DATA ON				Tape/Diskette ID				File Name/Number				Climate people			
PRI COND 915				START DOWN								CTD058				under can with			
PRI TEMP 730				AT DEPTH												4 bottles popped.			
SEC COND 304				AT SURFACE												MAX DEPTH = 835 m			
SEC TEMP 664				WET/SUR SN W39P				PAR SN 4242				Cleared air bleed valve							
CTD CONVERTED MONITOR VALUES																			
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	PRI. SALINITY	SEC. SALINITY	SALINITY	SAL. BOTTLE DATA	SAMPLE BOTTLE NUMBER				WHIT'S						
									SAL.	NUTR.	CH.	NUTR.							
1	835	5 m from bottom	Sea water + Sand						19										
2	835	Sea water																	
3	835	Sea water																	
4	835	Sea water																	
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Depth Sampling not 100% reliable