

[illegible]

VESSEL Alpha Helix		PROJECT & LEG HX218 222		STATION DESIGNATION Wave 150° 0.3m																								
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=		TIME (GMT)		WET BULB (°C)	WIND DRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID											
	DEG	MIN	SEC	DEG	MIN	SEC	DAY	MO	YR	HR								MIN										
0102	59	50	71	N	149	27	9	4	W	18	0	4	4	1	2	0	4	782	293	GA2K1								
CTD		JD/TIME			TIMES			DATA LOCATION											REMARKS									
TYPE & SN		DATA ON			Tape/Diskette ID			File Name/Header																				
PRESS SN		START DOWN																										
TEMP SN		AT DEPTH																										
COND SN		AT SURFACE																	MAX. DEPTH = m									
TEMP SN																												
POS.		TRIP DEPTH			CTD CONVERTED MONITOR VALUES			FLUOR <input checked="" type="checkbox"/>			PAR <input checked="" type="checkbox"/>			CHAM <input checked="" type="checkbox"/>			TRANSMISSOMETER <input checked="" type="checkbox"/> 0.2			Cleaned air bleed valve								
					PRESSURE			PRI. TEMP.			SEC. TEMP.			SALINITY			SAMPLE BOTTLE DATA			SAMPLE BOTTLE NUMBER								
1		250															SAL.			NUTR.			CHL.			WHIT'S NUTR.		
2		200																										
3		150																										
4		100																										
5		50																										
6		25																										
7		20																										
8																												
9																												
10																												
11																												
12																												

Chlo features were reproduced

[illegible]

VESSEL		PROJECT & LEG		STATION DESIGNATION												
Alpha Helix		HX213 222		WC7												
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID	
00456	20.79 N	164.33 W	22 JUL 9	0156	8.3			2	6	140	07	782		89	WC7	
CTD		TIMES		JD/TIME		DATA LOCATION										
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header										
PRESS SN		START DOWN														
TEMP SN		AT DEPTH														
COND SN		AT SURFACE														
TEMP SN																
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.		
1		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY					SALINITY		SAL.		NUTR.	CHL.	NUTR.
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION Waves 210° 0.7m WC 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. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	DEG	MIN														DAY	MO	YR	HR	MIN
001	56	39	11	N	12	41	47	8	W	22	04	30	8.3	22.3	6	15	0	6	78	2	75	
CTD		TIMES		JD/TIME		DATA LOCATION												REMARKS				
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header																
PRESS SN		START DOWN																				
TEMP SN		AT DEPTH																				
COND SN		AT SURFACE																MAX. DEPTH = m				
TEMP SN																						
TRIP DEPTH						CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.						
POS.												SALINITY		SAL.		CHL.						
1	71											SALINITY										
2	50											SALINITY										
3	40											SALINITY										
4	30											SALINITY										
5	20											SALINITY										
6	10											SALINITY										
7	0											SALINITY										
8												SALINITY										
9												SALINITY										
10												SALINITY										
11												SALINITY										
12												SALINITY										

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION W 270° 0.7m		STATION DESIGNATION W 270° 0.7m														
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID				
	DEG	MIN	DEG	MIN													DAY	MO	YR	HR
0085	65	28	N	163	54	98	W	22	30	08	07	08	7.8	22.3	6	120	10	782	70	W 270° 0.7m
<div> <div>CTD</div> <div> <div>TYPE & SN</div> <div>DATA ON</div> <div>START DOWN</div> <div>AT DEPTH</div> <div>AT SURFACE</div> </div> <div> <div>COND SN</div> <div>TEMP SN</div> <div>PRESS SN</div> </div> </div>																				
<div> <div> <div>TIME</div> <div>JD/TIME</div> <div>FILE NAME/HEADER</div> </div> <div> <div>DATA LOCATION</div> <div>Tape/Diskette ID</div> <div>File Name/Header</div> </div> </div>																				
<div> <div> <div>TEMP SN</div> <div>COND SN</div> <div>PRESS SN</div> <div>TYPE & SN</div> </div> <div> <div>MAX. DEPTH =</div> <div>m</div> </div> </div>																				
<div> <div> <div>PAR</div> <div>FLUOR</div> <div>CHAM</div> <div>TRANSMISSOMETER</div> <div>Cleaned air bleed valve</div> </div> </div>																				
<div> <div>CTD CONVERTED MONITOR VALUES</div> <div> <div> <div>POS.</div> <div>TRIP DEPTH</div> </div> <div> <div>PRESSURE</div> <div>PRI. TEMP.</div> <div>SEC. TEMP.</div> <div>SALINITY</div> </div> <div> <div>SAMPLE BOTTLE DATA</div> <div>SAMPLE BOTTLE NUMBER</div> </div> <div> <div>SAL.</div> <div>NUTR.</div> <div>CHL.</div> <div>WHIT'S NUTR.</div> </div> </div> </div>																				
1	65																			
2	50																			
3	40																			
4	30																			
5	20																			
6	10																			
7	0																			
8																				
9																				
10																				
11																				
12																				

BOT. 1952

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION Waves 270° 0.7m WCI=CNC12	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=
	DEG	MIN	DEG	MIN	DAY
010	57	15.90	N	163	35.04
					W22 AUG 19 1059
CTD		TIMES		JD/TIME JUL 99	
TYPE & SN	DATA ON		Tape/Diskette ID		File Name/Header
PRESS SN	START DOWN				
TEMP SN	AT DEPTH				
COND SN	AT SURFACE				
TEMP SN					
				MAX. DEPTH = m	
REMARKS					
DATA LOCATION					
Cleaned air bleed valve					
CTD CONVERTED MONITOR VALUES					
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY
1	58				
2	40				
3	30				
4	20				
5	10				
6	0				
7					
8					
9					
10					
11					
12					

Batt = 1.65

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION 270 0.7 WC-002 CNG10																
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID			
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN											
011	57	20.61	N	16	33	0.02	W	22	Aug	98	1	50	6.6		20.4	140	12	2	53	WCB
CTD		TIMES		JD/TIME		REMARKS														
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header														
PRESS SN		START DOWN																		
TEMP SN		AT DEPTH																		
COND SN		AT SURFACE				MAX. DEPTH = m														
TEMP SN						Cleaned air bleed valve														
TRIP DEPTH		CTD CONVERTED MONITOR VALUES		PAR		FLUOR		CHAM		TRANSMISSOMETER		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.				
POS.		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY															
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

BOT T=7.26

$$B_{\text{eff}} T = 1.33$$

VESSEL		PROJECT & LEG		STATION DESIGNATION								
Alpha Helix		HX213 222		206 0.7								
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	WET BULB	DRY BULB	WIND DIRN.	WIND SPD.	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
	DEG MIN	DEG MIN	DAY MO YR	HR MIN	(°C)	(°C)	(deg)	(m/s)	• •	• •	(m)	
013	57.21	163.58	23 AUG 99	15 48	8.0	163	130	10	2	61	WAD	
CTD		JD/TIME		REMARKS								
TYPE & SN		DATA ON		Cocco Bloom								
PRESS SN		START DOWN										
TEMP SN		AT DEPTH										
COND SN		AT SURFACE		MAX. DEPTH = m								
TEMP SN				Cleaned air bleed valve								
TRIP DEPTH		CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.		
POS.		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY	SAL.	NUTR.	CHL.			
1	57											
2	40											
3	30											
4	20											
5	10											
6	0											
7												
8												
9												
10												
11												
12												

Bot 7 = 1.506

VESSEL		PROJECT & LEG		STATION DESIGNATION											
Alpha Helix		HX213 222		Waves 170° 0.7											
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH	STA. NAME/ID
0155713.20 N	16408.51 W	23 AUG 98	1729	8.9			1634	170	1	1	78		67	W 170	
CTD		TIMES		JD/TIME		SUL99		DATA LOCATION		REMARKS					
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header									
PRESS SN		START DOWN													
TEMP SN		AT DEPTH													
COND SN		AT SURFACE													
TEMP SN															
MAX. DEPTH =		m													
TRANSMISSOMETER		Cleaned air bleed valve													
CTD CONVERTED MONITOR VALUES		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER											
POS.	TRIP DEPTH	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.					
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															

Pos 2.54
- 307

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION WN3																									
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)		WET BULB (°C)		PRESSURE (mb)		SEA STATE		WIND DIRN. (deg)		WIND SPD. (m/s)		CLOUD (amt)		WEATHER		BOTTOM DEPTH		STA. NAME/ID	
016		57 04.52 N		164 18.58 W		23 AUG 08		18 45		9.0				163		617b		09782				69							
CTD		TIMES		JD/TIME		JUL 99																							
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header																							
PRESS SN		START DOWN																											
TEMP SN		AT DEPTH																											
COND SN		AT SURFACE																											
TEMP SN		PAR		FLUOR		CHAM		TRANSMISSOMETER		Cleaned air bleed valve																			
POS. TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SALINITY		SAL.		NUTR.		CHL.		WHIT'S NUTR.									
1 64																													
2 40																													
3 30																													
4 20																													
5 10																													
6 0																													
7																													
8																													
9																													
10																													
11																													
12																													

Bot 7 0.36

VESSEL		PROJECT & LEG		STATION DESIGNATION								
Alpha Helix		HX213 222		190° 0.7								
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	WET BULB (°C)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	WIND TYPE	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
145655.93	N 167 29.16 W 23	167 29.16 W 23	23 AUG 99	2033	10.9	153	180	10	782	4/	4/	4/
CTD		TIMES		JD/TIME		DATA LOCATION		REMARKS				
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header						
PRESS SN		START DOWN										
TEMP SN		AT DEPTH										
COND SN		AT SURFACE										
TEMP SN										MAX. DEPTH = m		
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE NUMBER		
				PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		WHIT'S NUTR.
1		66.8										
2		39.6										
3		29.9										
4		20.0										
5		10.3										
6		3.3										
7												
8												
9												
10												
11												
12												

[illegible]

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION waves 180 1.2m															
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN														DAY	MO
0195638.63	N	16449.60	W	24	AUG	99	03	04	10	3	13	4	15	0	10	1	77	WN6	
CTD		TIMES		JD/TIME		DATA LOCATION												REMARKS	
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header													
PRESS SN		START DOWN																	
TEMP SN		AT DEPTH																	
COND SN		AT SURFACE																MAX. DEPTH = m	
TEMP SN																			
TRIP DEPTH						CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER					
POS.												SALINITY		SAL.		NUTR.			
1	70											SALINITY				CHL.			
2	40											SALINITY				NUTR.			
3	30											SALINITY				CHL.			
4	20											SALINITY				NUTR.			
5	10											SALINITY				CHL.			
6	0											SALINITY				NUTR.			
7												SALINITY				CHL.			
8												SALINITY				NUTR.			
9												SALINITY				CHL.			
10												SALINITY				NUTR.			
11												SALINITY				CHL.			
12												SALINITY				NUTR.			

BT = 1.22

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION WNG																									
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)		WET BULB (°C)		PRESSURE (mb)		SEA STATE		WIND DIRN. (deg)		WIND SPD. (m/s)		CLOUD (amt)		WEATHER		BOTTOM DEPTH (m)		STA. NAME/ID	
DEG	MIN	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	°C	°C	(mb)			(deg)	(m/s)	*	*	*	*								
02	15	22	1.37	N	165	10.23	W	24	AUG	99	06	17	9.4	1.04	62	00	07	782	87										
CTD		TIMES		JD/TIME		JUL 99																							
TYPE & SN		DATA ON																											
PRESS SN		START DOWN																											
TEMP SN		AT DEPTH																											
COND SN		AT SURFACE																											
TEMP SN																													
MAX. DEPTH =																													
REMARKS																													
Cleansed air bleed valve																													
SAMPLE BOTTLE DATA																													
SALINITY																													
SAL.																													
CHL.																													
NUTR.																													
WHIT'S																													
NUTR.																													
SALINITY																													
SEC. TEMP.																													
PRI. TEMP.																													
PRESSURE																													
TRIP DEPTH																													
1		84																											
2		40																											
3		20																											
4		20																											
5		10																											
6		0																											
7																													
8																													
9																													
10																													
11																													
12																													

BSamp-1.34

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION WNG																									
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)		WET BULB (°C)		PRESSURE (mb)		SEA STATE		WIND DIRN. (deg)		WIND SPD. (m/s)		CLOUD (amt)		WEATHER		BOTTOM DEPTH (m)		STA. NAME/ID	
DEG	MIN	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN	°C	°C	(mb)			(deg)	(m/s)												
0225	61	2.69	N	165	20.45	W	24	AUG	8	07	33			10.4		22	00	9											
CTD		JD/TIME		JUL 99		DATA ON		Tape/Diskette ID		File Name/Header		REMARKS																	
TYPE & SN		START DOWN		AT DEPTH		AT SURFACE		TRANSMISSOMETER		Cleaned air bleed valve																			
PRESS SN		TEMP SN		COND SN		TEMP SN		CTD CONVERTED MONITOR VALUES		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY	
TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY	
1	88																												
2	50																												
3	40																												
4	30																												
5	20																												
6	10																												
7																													
8																													
9																													
10																													
11																													
12																													

712 1.957

VESSEL		PROJECT & LEG		STATION DESIGNATION																						
Alpha Helix		HX213 222		Waves 200 1.2 WN 10																						
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID									
	DEG	MIN	DEG	MIN														DAY	MO	YR	HR	MIN	SEC	WIND DIRN. (deg)	WIND SPD. (m/s)	WIND DIRN. (deg)
0235	604	09	N	165	30	64	W	24	A	0	G	9	A	0	8	5	5	8.6	11	4	2	20	1	2	98	WN10
CTD		JD/TIME		JUL 99		DATA LOCATION												REMARKS								
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header																				
PRESS SN		START DOWN																								
TEMP SN		AT DEPTH																								
COND SN		AT SURFACE																MAX. DEPTH = m								
TEMP SN																										
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES		PAR		FLUOR		CHAM		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER								
1	95	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY													SALINITY	SAL.	NUTR.	CHL.	WHIT'S NUTR.				
2	94																									
3	75																									
4	50																									
5	40																									
6	30																									
7	20																									
8	10																									
9	0																									
10																										
11																										
12																										

VESSEL Alpha Helix		PROJECT & LEG HX213 222		STATION DESIGNATION A Kutan Pass 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. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN													
027	54	04	19	44	N	16	22	07	W	25	A	08	18	23	34	8.4	1326096	07	782	89	AP2	
CTD		JD/TIME		JUL 99		DATA LOCATION												REMARKS				
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header																
PRESS SN		START DOWN																				
TEMP SN		AT DEPTH																				
COND SN		AT SURFACE																MAX. DEPTH = m				
TEMP SN																						
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES		PAR		FLUOR		GHAM		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER				
1		PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY													SALINITY	SAL.	NUTR.	CHL.	WHIT's NUTR.
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

in tidal rip

VESSEL		PROJECT & LEG		STATION DESIGNATION											
Alpha Helix		HX213 222		250° SEA AP11											
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID	
0375402.30N	16609.05W	26 AUG 99	2100	8.8	152	250	08	79	AP11						
CTD	DATA LOCATION														
TYPE & SN	Tape/Diskette ID File Name/Header														
PRESS SN	START DOWN														
TEMP SN	AT DEPTH														
COND SN	AT SURFACE														
TEMP SN	MAX: DEPTH = m														
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES													
1	Bot 76	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER							
2	40					SALINITY		SAL.	NUTR.	CHL.	WHIT'S NUTR.				
3	20														
4	10														
5	0														
6															
7															
8															
9															
10															
11															
12															

No slack after ebb in Akutan Pass

VESSEL		PROJECT & LEG		STATION DESIGNATION																				
Alpha Helix		HX213 222		AP12																				
CONSC CAST #	LATITUDE			LONGITUDE			DATE JD=		TIME (GMT)		DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID			
	DEG	MIN	SEC	DEG	MIN	SEC	DAY	MO	YR	HR												MIN		
038	54	06	14	N	166	12	58	W	26	AUG	99	21	37	8.6	15					4	85	AP12		
CTD		JD/TIME			JUL 99			9.4 DATA LOCATION																
TYPE & SN		DATA ON						Tape/Diskette ID			File Name/Header													
PRESS SN		START DOWN																						
TEMP SN		AT DEPTH																						
COND SN		AT SURFACE																						
TEMP SN								PAR			FLUOR			CHAM			TRANSMISSOMETER			Cleaned air bleed valve				
MAX. DEPTH =		m																						
POS.	TRIP DEPTH	SAMPLE BOTTLE DATA																				SAMPLE BOTTLE NUMBER		
1	82	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY																SAL.	NUTR.	CHL.	WHIT'S NUTR.
2	40																							
3	20																							
4	10																							
5	0																							
6																								
7																								
8																								
9																								
10																								
11																								
12																								

huge Fl signal 8-17m (5-45m)

VESSEL Alpha Helix		PROJECT & LEG HX218-222		STATION DESIGNATION 290° 1.2		STATION DESIGNATION UP2													
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	CLOUD (amt)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID		
	DEG	MIN	DEG	MIN	DAY	MO												YR	
0415427.06	N	16	52	7.29	W	27	Aug	1998	8.7		15.2	6	130	1.2	782	100	UP02		
CTD		JD/TIME		JUL 99		REMARKS													
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header													
PRESS SN		START DOWN																	
TEMP SN		AT DEPTH																	
COND SN		AT SURFACE				MAX. DEPTH = m													
TEMP SN						Cleaned air bleed valve													
POS.		TRIP DEPTH		CTD CONVERTED MONITOR VALUES		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SALINITY		SAL.		NUTR.		CHL.		WHIT'S NUTR.	
1	98																		
2	65																		
3	50																		
4	40																		
5	30																		
6	20																		
7	10																		
8	0																		
9																			
10																			
11																			
12																			

Major convergence on surface

VESSEL Alpha Helix		PROJECT & LEG HX213 HX222		STATION DESIGNATION UP3																									
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)		WET BULB (°C)		PRESSURE (mb)		SEA STATE VISIBILITY		WIND DIRN. (deg)		WIND SPD. (m/s)		CLOUD (amt)		TYPE WEATHER		BOTTOM DEPTH (m)		STA. NAME/ID	
0425431.56N		16522.51W		27		AUG 99		0252		8.5		15.2		61600		5782		144		UP3									
CTD		TIMES		JD/TIME		JUL 99																							
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header																							
PRESS SN		START DOWN																											
TEMP SN		AT DEPTH																											
COND SN		AT SURFACE																											
TEMP SN																													
MAX. DEPTH =		m																											
CLEANED AIR BLEED VALVE																													
CTD CONVERTED MONITOR VALUES																													
PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY		SALINITY	
TRIP DEPTH		141		50		40		30		20		10		0															
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

on S side of sill

VESSEL Alpha Helix		PROJECT & LEG HX219 #X222		STATION DESIGNATION waves 300 1.0 5BE10																	
CONSC CAST #	LATITUDE		LONGITUDE		DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	PRESSURE (mb)	SEA STATE	VISIBILITY	WIND DIRN. (deg)	WIND SPD. (m/s)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID					
	DEG	MIN	DEG	MIN	DAY	MO	YR	HR	MIN												
046552	24	99	N	164	19	27	Aug	1999	19	46	8.5				362	10	58E10				
CTD		TIMES		JD/TIME		DATA LOCATION		REMARKS													
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header		PRODCTP													
PRESS SN		START DOWN																			
TEMP SN		AT DEPTH																			
COND SN		AT SURFACE																			
TEMP SN								MAX. DEPTH = m													
TRIP DEPTH		PRESSURE		PRI. TEMP.		SEC. TEMP.		SALINITY		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		SAL.		NUTR.		CHL.		WHIT'S NUTR.	
1	30																				
2	50																				
3	23																				
4	23																				
5	23																				
6	23																				
7	20																				
8	10																				
9	0																				
10																					
11																					
12																					

VESSEL Alpha Helix		PROJECT & LEG HX213 HX222		STATION DESIGNATION SBE10																											
CONSC CAST #		LATITUDE		LONGITUDE		DATE JD=		TIME (GMT)		DRY BULB (°C)		WET BULB (°C)		PRESSURE (mb)		SEA STATE		VISIBILITY		WIND DIRN. (deg)		WIND SPD. (m/s)		CLOUD (amt)		WEATHER		BOTTOM DEPTH		STA. NAME/ID	
DEG MIN		DEG MIN		DEG MIN		DAY MO YR		HR MIN		°C		°C		(mb)		.		.		(deg)		(m/s)		.		.		(m)			
04855		25.00		N 164.19		08.00		2044		8.4				1.73		2.10		1.07		1.07		1.07		1.07		1.07		1.07		1.07	
CTD		TIMES		JD/TIME		JUL 99																									
TYPE & SN		DATA ON		Tape/Diskette ID		File Name/Header																									
PRESS SN		START DOWN																													
TEMP SN		AT DEPTH																													
COND SN		AT SURFACE																													
TEMP SN																															
TRIP DEPTH																															
POS.																															
1		8m																													
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

0.5 In

VESSEL		PROJECT & LEG		STATION DESIGNATION								
Alpha Helix		HX213 HX222		SBE10								
CONSC CAST #	LATITUDE	LONGITUDE	DATE JD=	TIME (GMT)	DRY BULB (°C)	WET BULB (°C)	SEA STATE	WIND DIRN. (deg)	WIND SPD. (m/s)	WEATHER	BOTTOM DEPTH (m)	STA. NAME/ID
0495525.02N	16419.73W	27 AUG 99	2145	8.3	16.3	62.1	08	782	100	58E10		
CTD	TIMES		JD/TIME	REMARKS								
TYPE & SN	DATA ON		File Name/Header									
PRESS SN	START DOWN											
TEMP SN	AT DEPTH											
COND SN	AT SURFACE		MAX. DEPTH = m									
TEMP SN												
POS.	TRIP DEPTH	CTD CONVERTED MONITOR VALUES		TRANSMISSOMETER		Cleaned air bleed valve		SAMPLE BOTTLE DATA		SAMPLE BOTTLE NUMBER		WHIT'S NUTR.
1 Bot	50	PRESSURE	PRI. TEMP.	SEC. TEMP.	SALINITY	SALINITY	SAL.	CHL.	NUTR.	WHIT'S NUTR.		
2 50												
3 40												
4 30												
5 20												
6 20												
7 20												
8 20												
9 10												
10 0												
11 0												
12 0												

Need to fix header = SBE10

T_{Bot} = 5.2

[illegible]