

CRN

9113 : CSEX '91

DAILY LOG

INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

July 27 - Aug 9, 1991

VESSEL

PARIZEAU

PROJECT

COBB SEAMOUNT

Captain: John Anderson First Officer: Gilles
Second Officer: John Purdy Third Officer: _____

Cruise Participants/Agencies: Uvic/OP/Kimowski

Scientific Personnel:			Party Chief: <u>Verena Torndiffe</u>			_____ <u>F</u>		
name	watch	cabin	name	watch	cabin			
<u>Reg Bigham</u>		<u>G</u>	<u>Kim Juniper</u>					
<u>Doug Holland</u>		<u>Elec</u>	<u>Alain Vezina</u>					
<u>John Dwyer</u>			<u>Telephore Sime Ngando</u>					
<u>Kerry Wilson</u>			<u>Myriam</u>					
<u>Shawn McGuire</u>			<u>Luc</u>					
<u>Michael Ott</u>			<u>Ken Morgan</u>					

second leg of cruise: Party Chief: _____

third leg of cruise: Party Chief: _____

DATA LOGGING SYSTEM: Unit number: 343(OE) program ver. 1.16
CTD deck unit make: HP model: Vectra serial no.: _____
Computer make: _____ model: _____ serial no.: _____
monitor make: _____ model: _____ serial no.: _____
printer make: _____ model: _____ serial no.: _____

1st CTD make: Guideline - new rosette(OE) model: 7715 serial no.: 58,482
temperature sensor model: _____ serial no.: _____
coefficients: slope: _____ offset: _____
conductivity sensor model: _____ serial no.: 58,816
coefficients: slope: _____ offset: _____
pressure sensor range: 3000 psi serial no.: _____
coefficients: FSP: _____ dB offset: _____
transmissometer model: _____ serial no.: 136
coefficients: slope: _____ offset: _____
Comments: _____

2nd CTD make: _____ model: _____ serial no.: _____
 temperature sensor model: _____ serial no.: _____
 coefficients: slope: _____ offset: _____
 conductivity sensor model: _____ serial no.: _____
 coefficients: slope: _____ offset: _____
 pressure sensor range: _____ psi serial no.: _____
 coefficients: FSP: _____ dB offset: _____
 transmissometer model: _____ serial no.: _____
 coefficients: slope: _____ offset: _____
 Comments: _____

WINCHES:

CTD	make: _____	model: _____	serial no.: _____
counter	make: _____	model: _____	serial no.: _____
HYDRO	make: _____	model: _____	serial no.: _____
counter	make: _____	model: _____	serial no.: _____
Spooling	make: _____	model: _____	serial no.: _____
Drag	make: _____	model: _____	serial no.: _____
other	make: _____	model: _____	serial no.: _____

Salinometer make: _____ model: _____ serial no.: _____

SAIL System:

program version: _____ time zone: _____
 sampling interval: _____ sec.
 CTF module no.: _____ serial no.: _____
 remote temperature model: _____ serial no.: _____
 flow sensor model: _____ serial no.: _____
 Other sensors: (special for this cruise)
 name: _____ module I.D.: _____ serial no.: _____
 name: _____ module I.D.: _____ serial no.: _____
 Comments: _____

ADCP Setup:

Program version: 2.38 number of depth bins: 60
 time zone: UTC (checked DRY) bin length (2^x): 3
 sampling interval: 300 sec. pulse length: 8 m
 blank beyond transmit: 1.0 pings per ensemble: 1
 pulse cycle time: 1.00
 percent pings good threshold: 50
 Comments: Using GPS nav data bottom tracking on
(GPS/IRIDCON)

- (1:30 PDT)
- Depart Pat Bay Sat. July 27/91, after delay waiting for seals for 100 HP winch
 - steaming toward P20 to pick up drifting QEP morning

QEP

49 54.36
138 31.08

J. Bay

48 30.15
124 42.90

PDT July 27/91

2000 (0300 UTC July 28) - shut down seawater pump to pass through area of oil from sunken boat

2400 (approx) started loop again

July 28/91 PDT

1700 - fluorometer calib sample #1 (sail flourouder)
SFC 1

1900 - covered LICOR sensor (squall coming)

July 29/91

~~10~~ 0915 PDT ~~10~~ SFC-2

1012 (1712 UTC) - found ADCP stopped - restarted data collection (probably wash + long)

~1500 - spotted 2 steel spheres + 10 qs on surface

1600 - all on board

July 29/91

1615 PDT - opening RCM4 # 6357

1615 - Proceed to latest position from Argos.

July 30

1735 UTC

SFC-3

DAILY LOG

GPS Pos'ns

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	91	MONTH	July	TIME ZONE	UTC	SHIP	Parizeau	CRUISE	9113	PAGE	1	OF	
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
27	Dock				1	1027							
29				138 38.05	2	1930							test cast of REP mooring
29				138 38.05	3	2003							second half of test cast
31	COBB17	3000	1010	46 58.06 130 55.88	4	1034							First cast on Cobb
31	COBB16		1138	46 53.82 130 55.35	5	1146							Cast 1 @ this sta to 500m
31	COBB16	2875		46 53.90 130 55.35	6	1241							Cast 2 @ this sta
31	COBB15	1315	1355 1430	46 49.45 130 51.76	7	1400							49 49.4877 sent up 130 51.869
31	COBB14	1160	1440	46 48.62 130 51.15	8	1523							reset clock (2min slow) Cast ① to 500m
31	"	1160		46 48.75 130 51.60	9	1633							Cast ② @ this sta Tag 2 too soon
31	COBB13	710		46 47.73 130 50.37	10	1705							CTD only
31	COBB12	210	1750	46 46.61 130 49.63	11	1751							Cast ① to 200m computer crash!
31	"	210		46 46.61 130 49.63	12	1806							cast ① (cont) for last 2 bottles (9+10) to 40m

July 31/91 PDT

- 1108 - computer crashed (CP's)
- had tripped 2 bottles @ 40 m, tagged only one
- finished last 2 bottles on second cast to 40 m

1330 - SFC-4

Aug
July 1/91 PDT

1852 m ~~2100~~

2152 (PDT) 0152 (UTC) ~~SFC~~ SFC-6

- $\frac{3}{8}$ wind for camera work failed at surface (couldn't bring camera aboard)
- 2 box cores unsuccessful.
- dredge bag fell off at surface

Aug
July 2/91

0512 (01212 UTC) SFC-7

Aug
July 5/91

1036 (1736 UTC) SFC-8

Aug 8/91 PDT

- 1745 (0045 UTC Aug 9/91) - stopping ADCP recording to change parameters
- making new setup & data files etc.
- new setup called DP9113B

$$SI = 120$$

$$NB = 30$$

$$BL = 3 \quad (2^3)$$

$$PL = 8$$

- started profiling 01:23 UTC Aug 9/91

$$1852 \frac{\text{metres}}{\text{min}} = 1.852 \times 10^5 \frac{\text{cm}}{\text{min}}$$

$$10 \frac{\text{min}}{\text{hr}} = 2.78 \times 10^{-3} \frac{\text{min}}{\text{sec}}$$

$$= 514.976 \frac{\text{cm}}{\text{sec}} = 10 \text{ knots}$$

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		TIME ZONE		SHIP		CRUISE		PAGE		OF	
91		July/Aug		UTC		P'earu		9113		2		OF	
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
31	COBB12	220	46 46.84 130 50.01	13	1836								cast ③ this sta.
31	COBB11	150	1900 46 46.14 130 48.92	14	1940								CTD only to 140 m
1	COBB37	2680	1115 46 45.23 130 26.90	15	1128								CTD only to 500 m Station incorrectly named at
1	COBB36	2760	1220 46 45.22 130 34.00	16	1227								cast ① to 500 m
1	"	"	46 45.22 130 34.00	17	1335								Cast ② to 50 m
1	COBB35	1140	46 45.22 130 41.36	18	1421								CTD only
1	COBB34	740	1510 46 45.06 130 42.74	19	1522								Cast ① to 500 m
1	"	740	46 45.24 130 42.90	20	1618								Cast ② to 50 m
1	COBB33	380	46 45.21 130 44.10	21	1718								
1	COBB32	200	46 45.16 130 45.68	22	1759								
1	COBB31	240	46 45.22 130 45.53	23	1828								
1	COBB31	146	46 45.18 130 47.03	24	1914								
2	COBB57	1140	46 32.19 130 58.62	25	1131								

Aug
July 2/91 PDT

- large, long swell today
- temperature causing Sal spikes etc
(pressures sensor can't keep up to T, neither can cond)

Aug
July 4/91 PDT

- 0715 discovered conductivity cell loop had been shut down (on July 30?) to supply more water to stuff on deck -
- surface temp should be OK if we keep minimal flow through the side loop.

See previous pages for Aug 5

Aug 6

- recovered marker buoy 1330 PDT
- lifted buoy & chain & cut poly ~ 3 m below chain
- heading for M2 (southeasterly)
- 1354 released code 31 ch 4 - good responses range 333 m
- responses faded in prop noise
- 1354 - released it again - good response
- double pinging
- 1400 - on surface

56	14:08	} out of water
69	14:10	
50	14:13	

~~26~~ Aug 6/91

- 1431 - heading to M3 (Southwesterly)
- 1444 - interrogate 446 m
- 1445 - released - double ping

# 52	14:52
70	14:54
46	14:56

} out of water

70 : ① bp partly open
② growth on thermometer

- 1514 - heading for M1 (Northeast)
- 1517 - intermediate - 288 m - very strong signal
- moving farther away
- 1522 - interrogate - 357
- 1524 - released 390 m - double ping

57	15:33
55	15:35
51	15:37

} out of water

YEAR	91	MONTH	Aug	TIME ZONE	UTC	SHIP	P'zeau	CRUISE	9113	PAGE	3 OF		
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
2	COBB56	2360	1239	46 36.57 130 55.42	26	1242							Cast ① to 500m
2	"	2365		46 36.65 130 55.50	27	1330							Cast ② to 50m computer crashed while reprogramming deck unit
2	COBB55	1500	1450	46 40.67 130 51.87	28	1509							CTD only
2	COBB54	1110	1556	46 41.78 130 51.00	29	1600							Cast ③ to 500m -single cast for water
2	COBB53	680	1710	46 42.58 130 50.28	30	1721							-single cast for water
2	COBB52	230	1800	46 43.55 130 49.65	31	1808							Cast ① to 500m
2	"	210		46 43.63 130 49.32	32	1842							Cast ② to 50m
2	COBB51	166	1915	46 44.32 130 49.25	33	1926							CTD only
2	COBB10	33	2011	46 45.35 130 48.44	34	2012							CTD only - on pinnacle
2	COBB14	210		46 44.05 130 45.27	35	2301							CTD 104% 1
2	"	"		46 44.02 130 45.27	36	2312							" 2 (in record)
2	"	"		"	37	2320							" 3

Aug 8/91 cont from previous page somewhere

- 04:57 UTC Aug 9/91 - 5 miles from site of

Tanaka Maru sinking

- ADCP profiling

- will stop for 2 XBT drops.

48 28.5 N

125 17.3 W

155 m (chart depth)

SST = 10.1 °C

- 0525 - stopping at sinking site

2 XBT's (002, 003)

- 0542 - leave station

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

[illegible]

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

INSTITUTE OF OCEAN SCIENCES																
YEAR	31	MONTH	Aug	TIME_ZONE	UTC	SHIP	PARIZEAU	CRUISE	CSEX '91	PAGE 5 OF						
DAY		STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES		
3	CoBBYY	210		46° 44.03'	50	0109									404016	- only one in profile
				30° 45.36'												
3	"	210		- 44.01'	51	0117									404017	ΔT
				- 45.42'												
3	"	"		- 43.96	52	0128									404018	
				- 45.37												
3	"	"		44.03	53	0153									404019	
				45.40												
3	"	"		- 44.01	54	0201									404020	ΔT
				- 45.32												
3	"	"		- 44.01	55	0209									404021	
				- 45.29												
3	"	"		- 44.01	56	0218									404022	
				- 45.31												
3				44.00	57	0226									404023	
				45.36												
3				44.00	58	0234									404024	
				45.32												
3	"	"		43.97	59	0244									404025	
				45.36												
3				43.97	60	0252									404026	
				45.36												
					END CoBBYY 4040 Cont 1											

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	MONTH	TIME ZONE	SHIP	CRUISE	PAGE	OF							
91	Aug	UTC	Parizian	9113									
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
3					61	0256							
3					62	0438							station 442 #1.
3	COBB 10 but should be 442	3000m		46°45.240 130°26.928	63	0442							station 442 #1 V ₀ V ₀ #1
3	"	300		46°45.233 130°27.042	64	0500							ΔT " 2
3	"	"		46°45.246 130°27.134	65	0516							" 3
3	"	"		46°45.318 130°27.400	66	0540							AT " 4
3	"	"		46°45.428 130°27.542	67	0557							" 5
3	"	"		46°45.447 130°27.640	68	0614							" 6
3	"	"		46°45.435 130°27.641	69	0630							" 7
3	"	"		46°45.401 130°27.688	70	0646							" 8
3	"	"		46°45.407 130°27.688	71	0702							" 9
3	"	"		46°45.401 130°27.620	72	0718							ΔT " 10

YEAR		MONTH		TIME ZONE		SHIP		CRUISE		PAGE		OF	
91		Aug		UTC		Panagau		9113					
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
3	COBB20 should be 442	3000		46° 45.356 130° 27.487	73	0734							1040 11
3	"	"		46° 45.212 130° 27.440	74	0750							" 12
3	"	"		46° 45.215 130° 27.402	75	0805							" 13
3	"	"		46° 45.207 130° 27.401	76	0821							" 14
3	"	"		46° 45.292 130° 27.384	77	0837							" 15
3	"	"		46° 45.273 130° 27.323	78	0855		finished 0814 (2:14 AM)					" 16
3	COBB27	2980	1045	46° 58.08 130° 37.52	79	1110							CTD only this str
3	COBB26	2450	1215	46° 53.70 130° 41.17	80	1215							Cast ① to 500m
3	"	"		46° 53.81 130° 41.28	81	1259							Cast ② - bottle 1 did not open will switch to
3	COBB25	1340	1410	46° 49.43 130° 44.69	82	1413							CTD only
3	COBB24	1025	1510	46° 48.41 130° 45.42	83	1526							Cast ④ to 500m
3	COBB24	"		46° 48.29 130° 45.82	84	1618							Cast ② to 50m

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 91

MONTH

A. 2.

TIME ZONE

1575

SHIP

P'_{mean}

CRUISE

913

PAGE

OF

[illegible]

OCEANOGRAPHY																	INSTITUTE OF OCEAN SCIENCES	
YEAR	91	MONTH	AUG	TIME_ZONE	UTC	SHIP	PARIZEAU				CRUISE	CSEX '91		PAGE	OF			
DAY		STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES				
4	3-2	190	1805	46°45.19	96	0505												
				130°45.32														
4	3-4	825		46°45.18	97	0535									Food!			
				130°42.54														
4	3-8	965		46°45.11	98	0616												
				130°39.72														
Aug 4	3-9	2710		- 45.23	99	0701									I'm tired			
				- 35.31														
	X				100		no data								Forgot to erase garbage file			
4	3-10	2790		- 45.28	101	0747									Programme glitch on upcast			
				130130.80														
4	3-7	2725		- 45.26	102	0827												
				- 26.43														
4	CORB47	3450	11:10	46 32.17	103	1117									CTD only			
				130 37.49														
4	CORB46	2410	1221	46 36.65	104	1223									Cast ① to 500m			
				130 41.00	105	1313									Cast ② to 50m			
4	CORB45	1410	1420	46 40.84	106	1425									CTD only to 500m			
				130 44.70														
4	6644	1170	1520	46 41.67	107	1531									CTD to 500 m			
				130 45.56											-swell increasing again			
4	CORB43	750	1647	46 42.57	108	1649									Bongo cancelled			
				130 46.30														

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 91

MONTH 08

TIME ZONE

SHIP

CRUISE 91-13

PAGE OF

DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/LONGITUDE	STD CONSEC #	STD TIME	HYDRO CONSEC #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/SALINITY	LOOP SALINITY #	NOTES
4	COBB42	215	1735	46° 43.43'	109	1737							Cast ① to 500m
				130° 46.91'									
4	"	215		46° 43.43'	110	1815							Cast ② to 50m
				130° 49.02'									
4	COBB41	130		46° 44.30'	111	1912							
				130° 47.64'									
4	COBB02	650		46° 46.97'	112	2011							CTD (250)
				130° 47.04'									
4	COBB24	1050		46° 48.60'	113	2051							CTD (250)
				130° 45.54'									
4	COBB28	1675		46° 50.37'	114	2131							CTD (250)
				130° 44.12'									
4	COBB29	2480		46° 52.96'	115	2213							CTD (250)
				130° 41.96'									
4	COB210	2795		46° 55.63'	116	2258							CTD (250)
				130° 39.75'									
4	COBB27	2995		46° 58.28'	117	2345							CTD (250)
				130° 37.44'									
5	COBB52	250		46° 43.42'	118	0257							CTD (250)
				130° 49.62'									
5	COBB 54	1060		- 41.68	119	0340							to 230m.
				- 51.09									
5	COBB58	2010		46° 40.00'	120	0413							
				130° 52.87'									

popcorn

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

OCEAN PHYSICS																INSTITUTE OF OCEAN SCIENCES	
YEAR	91	MONTH	Aug	TIME ZONE	UTC	SHIP	PARIZEAU					CRUISE	CSEX 91		PAGE	OF	
DAY		STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP-START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	TEMPERATURE/ MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES			
5		C0BB59	2025		46°37.47 130°55.08	121	0512										
5		C0BB510	1825		46°34.87 130°57.24	122	0451 0604										
5		C0BB57	1425		46°32.16 130°59.38	123	0702										
Aug 5		CORN44 C0BB	2735		46°33.23 131°12.93	124	0829										
5		CORN48	1810		- 37.60 131°16.60	125	0925										
5		CORN42	1295		46°39.30 131°18.12	126	0805 1006										
5		CORN40	376		46°41.89 131°20.32	127	1047							Started over pinnacle but drifted off			
5		C0BB67	2480	1200	46 45.20 131 10.40	128	1201							CTD only still a fairl., large swell/slow!			
5		"	"	"	"	129	1247	S/N 1574	Aux 22.6	Main 16.60 16.375 16.47				Calib cast to 12 m Calib #1			
5		C0BB66	2610	1227	46 45.26 130 03.06	130	1335							Cast ① to 500 m			
5		"	"	"	"	131	1426							Cast ② to 50 m program crashed on yeast @ 25 m			
5		"	"	"	"	132	1432							Cast ③ started at 25 m			

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	91	MONTH	Aug	TIME ZONE	UTC	SHIP	P'reau	CRUISE	9113	PAGE	OF		
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
5	COBB65	1115	1543	46° 45.24' 130° 55.44'	133	1543							CTD only to 500m
5	COBB64	785	1635	46° 45.11' 130° 54.37'	134	1634							Cast ① to 500m bombed @ 50m (tag @ end)
5	"	"	"	"	135	1705							Cast ② from 50m
5	COBB63	315	1746	46° 45.228' 130° 52.737'	136	1748							to 324m CTD only
5	COBB62	220	1825	46° 45.2' 130° 51.39'	137	1828							Cast ① to 500m computer crash @ 40m
5	COBB61	225		46° 45.13' 130° 51.59'	138	1902							
5	COBB61	170		46° 45.21' 130° 49.93'	139	1952							CTD voseff plankton haul
5	COBB60	35		46° 45.88' 130° 48.58'	140	2050							CTD (30m)
5	DEFSMT	2895		47° 10.04' 130° 48.09'	141	2340							mile 25 Drop 1 (230m) Drop 2 " Drop 3 " Drop 4 "
6	"	2900		47° 10.13' 130° 48.26'	142	0044							
6	"	2905		47° 10.01' 130° 48.20'	143	0150							
6	"	2900		47° 10.08' 130° 48.19'	144	0249							

not labelled on comment
line: it's 25 miles off

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	91	MONTH	AUG	TIME ZONE	UTC	SHIP	DARIZEAU	CRUISE	CSEX '91	PAGE	OF		
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
Aug 06	OFFSMT	2905		47° 10.15 130° 48.05	145	0352							mib 25 Drop 5 (250m) CTD
6	OFFSMT	2900		47° 10.00 130° 48.32	146	0446							" Drop 6
6	"	2910		47° 10.11 130° 48.16	147	0548							" 7
6	"	2910		47° 10.09 - 48.09	148	0655							" 8
6	"	2900		- 10.18 - 48.10	149	0746							Drop 9
6	"	2910		- 10.14 48.15	150	0843							" 10
6	"	"			151	0945							" 11
6	"	"		10.06 47 86	152	1046 1104							12 first cast for water (bottle failed to rise)
6	"	"			153	1128							second cast for water bottle OK.
6	CORBB7	2450	1443	46 45.17 131 10.40	154	1515							returned to Cobb spoke 6 to 300m
6	CORBB10	2740	1600	46 45.16 131 05.96	155	1600							CTD only - 300m
6	CORBB19	2575	1645	46 45.20 131 06.70	156	1643							" "

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR	91	MONTH	Aug	TIME ZONE	UTC	SHIP	P'zean	CRUISE	9113	PAGE	OF		
DAY	STATION IDENTIFICATION	DEPTH SOUNDING (m)	SHIP STOP/START TIME	LATITUDE/ LONGITUDE	STD CONSEC. #	STD TIME	HYDRO CONSEC. #	MESSENGER TIME	HYDRO SALINITY #	OXYGEN #	SURFACE TEMPERATURE/ SALINITY	LOOP SALINITY #	NOTES
6	COBB68	1540	1724	46 45.19	157	1727							CTD to 300m Depth wrong in file
				130 57.36									
6	COBB64	770	1805	46 45.19	158	1810							CTD to 300m
				130 54.6									
6	COBB62	223	1900	46 45.21	159	1920							CTD to 200m
				130 51.50									
garbage					160	2247	garbage						
6	COBB62	70 223		46 45.32	161	22:58							bottle cast
				130 47.33									
7	COBB42	205		46 43.40	162	03:28							CTD (200m)
				130 46.64									
7	COBB44	1150		46 41.70	163	0356							CTD (250m)
				130 45.40									
7	COBB48	2110		46 40 05	164	0408							CTD (250)
				130 43 64									
7	COBB44	2320		46 37 47	165	0508							CTD (250)
				130 41 25									
7	COB410	2700		46 34.90	166	0557							
				130 39.67		0552							
7	COBB47	3180		- 32.19	167	0641							
				- 37.41									
7	M2	210		- 44.09	168	0836							12-hour CTD station over SE mooring site: Drop 1
				- 45.38		0847							

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

[illegible]