

ROSETTE LOG

MISSION ID: 2002-16 STATION: SI03 CAST NUMBER: 1 UTC DATE (dd/mm/yyyy): 30/06/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												DO ml/L
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		CI3						
							OXY			ALK		CHL						
1	1	255	Bot -10		/	✓		✓										0.030
2	2	255	200		/	✓		✓									0.030	0.030
3	3	364	175		/	✓		✓									0.005	- 0.005
4	4	534	150		/	✓		✓									0.007	0.007
5	5	535	150		/	✓		✓									0.007	0.007
6	6	572	125		/	✓		✓									0.622	0.622
7	7	588	100		/	✓		✓									1.534	1.534
8	8	657	75	146.01	/	✓		✓									2.571	2.571
9	9	695	50	141.02	/	✓		✓									4.601	unforgiving program, hence incorrect flask & sample no. 107
10	10	697	25		/	✓		✓									6.159	6.159
11	11	707	10		/	✓		✓									8.378	8.378
12	12	708	0		/	✓		✓										
13																		
14																		
15																		2 / 255 .718
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments: OXY FLASK #84 - stopper broken
H2S smelled in #1-4
Nutrients sampled in green test tubes.

SHIP: JOHN P TULLY
ENTERED BY: MK
CHECKED BY:

Bottom Depth: 228

Cast # down: 1
Cast # up: 1

Time	LOC	UTC
Begin:	48 35.93	0020
Bottom:	123 29.98	0029
End:		

START POSITION (GPS)
LAT: 48 35.93
LONG: 123 29.98

BOTTOM POSITION (GPS)
LAT: 48 35.96
LONG: 123 30.03

END POSITION (GPS)
LAT: 48 35.93
LONG: 123 29.85

1720 .004
10.02 .01013365

ROSETTE LOG

MISSION ID: 2002-16 STATION: P4 CAST NUMBER: 6 UTC DATE (dd/mm/yyyy): 01/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		DMS				
							OXY			ALK		CHL		2000				
1	16	1244	0.528	Bot-20	✓	✓	✓	✓		✓								
2	17	1247	—	1250	✓													Program error - "Subscript out of range" restarting program Cause: large bubble on line.
3	18	1248	0.298	1000	✓					✓✓								
4	19	1249	0.276	1000	✓													
5	20	1254	0.235	800	✓													
6	21	1258	0.387	600	✓													
7	22	1260	1.048	400	✓													
8	23	1261	1.596	300	✓													
9	24	1264	1.935	250	✓													
10	25	1267	2.456	200	✓									✓				
11	26	1268	2.583	175	✓									✓				
12	27	1270	2.859	150	✓									✓				
13	28	1271	3.580	125	✓									✓				
14	29	1272	4.490	100	✓									✓	✓			
15	30	1273	5.856	75	✓									✓	✓			
16	31	1274	6.869	50	✓									✓	✓			
17	32	1276	6.928	25	✓									✓	✓			
18	33	1277	7.002	10	✓									✓	✓	✓		
19	34	1279	6.676	0		✓	✓	✓		✓				✓	✓			
20																		
21																		
22																		
23																		
24																		

Comments:

SHIP:
ENTERED BY: MR
CHECKED BY: DA

Bottom Depth: 1320

Cast # down: 6
Cast # up: 6

Time	LOC	UTC
Begin:		0400
Bottom:		0106
End:		0148

START POSITION (GPS)
LAT: 48 39 . 48
LONG: 126 39 . 80

BOTTOM POSITION (GPS)
LAT: 48 39 . 65
LONG: 126 39 . 60

END POSITION (GPS)
LAT: 48 39 . 87
LONG: 126 39 . 19

ROSETTE LOG

MISSION ID: 2002-16 STATION: P8 CAST NUMBER: 10 UTC DATE (dd/mm/yyyy): 01/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		2000				
1	38	1148	2.054	Bot-20	✓ 2540	✓		✓										
2	39	1153	2.048	2000	✓ 1999													
3	40	1158	0.676	1500	✓ 1499													
4	41	1241	0.711	1500	✓ 1499													
5	42	1175	0.428	1250	✓ 1249													
6	43	1176	0.291	1000	✓ 999													
7	44	1188	0.279	800	✓ 800													
8	45	1189	0.772	600	✓ 600													
9	46	1192	1.464	400	✓ 400													
10	47	1193	2.182	300	✓ 300													
11	48	1195	2.797	250	✓ 250													
12	49	1201	3.142	200	✓ 200													
13	50	1203	3.726	175	✓ 175													
14	51	1206	5.246	150	✓ 150													
15	52	1209	5.840	125	✓ 125													
16	53	1210	6.647	100	✓ 100													
17	54	1212	6.909	75	✓ 75													
18	55	1215	7.153	50	✓ 50													
19	56	1216	6.580	25	✓ 25													
20	57	1222		10	✓ 10													
21	58	1223	6.479	0	✓ 1.6													→ did not dip
22																		
23																		
24																		

Comments: Corals taken from Am. #58

SHIP: JOHN P TULLY
ENTERED BY: MR
CHECKED BY: TS

Bottom Depth: 2531

Cast # down: 10
Cast # up: 10

Time	LOC	UTC
Begin:		1431
Bottom:		1510
End:		1616

START POSITION (GPS)
LAT: 48°49.00
LONG: 128°40.05

BOTTOM POSITION (GPS)
LAT: 48°49.01
LONG: 128 40 13

END POSITION (GPS)
LAT: 48 49.04
LONG: 128 40.44

ROSETTE LOG

MISSION ID: 2002-16 STATION: P12 CAST NUMBER: 15 UTC DATE (dd/mm/yyyy): 02/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		CO2		N2O		
							OXY		NH4	3	ALK		CHL		DO			
1	62	364	2.331	Bot-20	✓	3264	✓	✓	✓	✓	✓							
2	63	255	2.432	3000	✓													
3	64	535	2.072	2500	✓													
4	65	534	1.588	2000	✓					✓								
5	66	588	2.241	2000	✓													Probably is error
6	67	572	0.756	1500	✓													
7	68	695	0.648	1250	✓													
8	69	657	0.414	1000	✓													
9	70	697	0.436	800	✓													
10	71	707	0.649	600	✓													
11	72	708	1.701	400	✓													
12	73	709	2.432	300	✓													
13	74	712	2.952	250	✓													
14	75	715	3.896	200	✓										✓			
15	76	727	4.450	175	✓										✓			
16	77	730	5.439	150	✓										✓			
17	78	1105	5.925	125	✓				✓						✓	✓		
18	79	1110	6.364	100	✓				✓				✓		✓	✓		
19	80	1126	6.933	75	✓				✓				✓		✓	✓		
20	81			50	✓				✓				✓		✓	✓		→ did not close!
21	82	1130	6.768	25	✓				✓				✓		✓	✓		
22	83	1134	6.530	70	✓				✓				✓	✓	✓	✓		
23	84	1135	6.494	0	✓			✓	✓	✓	✓		✓		✓	✓		
24																		

Comments: NUTS: Green rack

SHIP: JAW P TULLY
ENTERED BY: MK
CHECKED BY: MK

Bottom Depth: 3244

Cast # down: 15
Cast # up: 15

Time	LOC	UTC
Begin:		0721
Bottom:		0810
End:		0917

START POSITION (GPS)
LAT: 48°58'16"
LONG: 130°39'81"

BOTTOM POSITION (GPS)
LAT: 48°58'17"
LONG: 130°39'81"

END POSITION (GPS)
LAT: 48°58'20"
LONG: 130°39'89"

ROSETTE LOG

MISSION ID: 2002-16 STATION: P16 CAST NUMBER: 20 UTC DATE (dd/mm/yyyy): 3/7/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		collo		DMS	CFM	
						OXY		NAH		ALK		CHL						pH
1	88	1244	2.841	Bot-20	✓ 3685	✓	✓	✓	✓	✓								✓
2	89	1247	2.723	3500	✓													
3	90	1249	2.479	3000	✓												✓	
4	91	1248	1.973	2500	✓												✓	Sample no 910 Flask no. 1244 in file
5	92	1254	1.327	2000	✓												✓	
6	93	1258	1.323	2000	✓					✓								
7	94	1260	0.613	1500	✓												✓	
8	95	1261	0.374	1250	✓													
9	96	1267	0.518	1000	✓												✓	
10	97	1264	0.638	800	✓													
11	98	1268	0.864	600	✓												✓	
12	99	1270	1.334	400	✓													
13	100	1272	2.079	300	✓												✓	
14	101	1271	2.702	250	✓													
15	102	1273	3.111	200	✓											✓	✓	
16	103	1274	3.669	175	✓											✓		
17	104	1276	5.197	150	✓											✓		
18	105	1277	6.546	125	✓											✓		
19	106	1279	6.945	100	✓								✓			✓	✓	
20	107	1280		25	✓								✓			✓		Did not close
21	108	1278	7.213	50	✓								✓			✓	✓	
22	109	1281	6.788	25	✓								✓			✓		
23	110	1282	6.561	10	✓								✓	✓		✓		
24	111	1285	6.618	0						✓			✓			✓		

Comments: O2 bottles need to be cleaned!

SHIP: JOHN P TULLY
ENTERED BY: MR
CHECKED BY: MR

Bottom Depth: 3636

Cast # down: 20
Cast # up: 20

Time	LOC	UTC
Begin:		0859
Bottom:		0953
End:		1110

START POSITION (GPS)
LAT: 49°16'96
LONG: 134°39'81

BOTTOM POSITION (GPS)
LAT: 49°16'97
LONG: 134°40'07

END POSITION (GPS)
LAT: 49°16'93
LONG: 134°40'04

ROSETTE LOG

MISSION ID: 2002-16 STATION: P20 CAST NUMBER: 25 UTC DATE (dd/mm/yyyy): 4/7/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13					pH?	
						OXY		NH4		ALK		CHL	POCCO	DMS	CEM			
1	115	1148	3.100	3010	✓ 4013	✓	✓	✓	✓	✓	✓						✓	
2	116	1153	2.908	3500	✓	✓	✓	✓	✓	✓	✓							
3	117	1158	2.519	3000	✓	✓	✓	✓	✓	✓	✓					✓		
4	118	1241	1.925	2500	✓	✓	✓	✓	✓	✓	✓					✓		
5	119	1175	1.265	2000	✓	✓	✓	✓	✓	✓	✓					✓		
6	120	1176	0.540	1500	✓	✓	✓	✓	✓	✓	✓					✓		
7	121	1188	0.364	1250	✓	✓	✓	✓	✓	✓	✓					✓		
8	122	1189	0.299	1000	✓	✓	✓	✓	✓	✓	✓					✓		
9	123	1192	0.426	800	✓	✓	✓	✓	✓	✓	✓					✓		
10	124	1193	0.580	600	✓	✓	✓	✓	✓	✓	✓					✓		
11	125	1195	1.313	400	✓	✓	✓	✓	✓	✓	✓					✓		
12	126	1238	1.755	300	✓	✓	✓	✓	✓	✓	✓					✓		
13	127	1203	2.020	250	✓	✓	✓	✓	✓	✓	✓					✓		
14	128	1206	2.879	200	✓	✓	✓	✓	✓	✓	✓					✓	✓	
15	129	1209	3.638	175	✓	✓	✓	✓	✓	✓	✓					✓		
16	130	1210	4.907	150	✓	✓	✓	✓	✓	✓	✓					✓		
17	131	1212	6.136	125	✓	✓	✓	✓	✓	✓	✓					✓		
18	132	1215	6.912	100	✓	✓	✓	✓	✓	✓	✓					✓		
19	133	1223	7.149	75	✓	✓	✓	✓	✓	✓	✓					✓		
20					✓	✓	✓	✓	✓	✓	✓					✓		
21	134	1222	7.156	50	✓	✓	✓	✓	✓	✓	✓					✓		
22	135	1216	6.523	25	✓	✓	✓	✓	✓	✓	✓					✓		
23	136	1224	6.530	10	✓	✓	✓	✓	✓	✓	✓					✓		
24	137	1225	6.522	0		✓	✓	✓	✓	✓	✓					✓		

Comments:

SHIP: JOHN P TULLY
ENTERED BY: D.A.
CHECKED BY: M.R.

Bottom Depth: 3921

Cast # down: 25
Cast # up: 25

Time	LOC	UTC
Begin:		0956
Bottom:		1053
End:		1208

START POSITION (GPS)
LAT: 49° 33.98
LONG: 138° 39.80

BOTTOM POSITION (GPS)
LAT: 49° 33.98
LONG: 138° 39.90

END POSITION (GPS)
LAT: 49° 34.03
LONG: 138° 39.94

ROSETTE LOG

MISSION ID: 2002-16 STATION: EDDY ? CAST NUMBER: 33 UTC DATE (dd/mm/yyyy): 06/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken													
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		000					
1	144	1148	0.524	1500	✓ 1500	✓	✓	✓	✓				✓	✓					
2	145	1153	0.448	1250	✓ 1250														
3	146	1158	0.389	1000	✓ 1000														
4	147	1241	0.409	1000	✓ 1000														
5	148	1175	0.480	800	✓ 801														
6	149	1176	0.671	600	✓ 600														
7	150	1188	1.276	400	✓ 400														
8	151	1189	1.835	300	✓ 300														
9	152	1192	2.422	250	✓ 249														
10	153	1193	2.716	200	✓ 200														
11	154	1195	3.378	175	✓ 175														
12	155	1238	5.386	150	✓ 150														
13	156	1203	6.826	125	✓ 124														
14	157	1206	7.142	100	✓ 100														
15	158	1210	7.171	75	✓ 75														
16	159	1209	7.151	50	✓ 50														
17	160	1212	6.841	25	✓ 24														
18	161	1237	6.797	10	✓ 9														
19	162	1223	6.797	0															
20																			
21																			
22																			
23																			
24																			

Comments:

SHIP: JOHN P TULLY
ENTERED BY: MR
CHECKED BY: TS

Bottom Depth:

Cast # down: 33
Cast # up: 33

Time	LOC	UTC
Begin:		1626
Bottom:		1655
End:		

START POSITION (GPS)
LAT: 49° 14' 41"
LONG: 145° 41' 89"

BOTTOM POSITION (GPS)
LAT: 49° 41' 40"
LONG: 145° 41' 94"

END POSITION (GPS)
LAT: 49° 14' 42"
LONG: 145° 41' 98"

ROSETTE LOG

MISSION ID: 2002-16 STATION: P26 CAST NUMBER: 34 UTC DATE (dd/mm/yyyy): 07/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		Cl3						
							OXY		NH4		ALK		CHL	CO2		CFE	PH	
1	163	1247	3.399	Bot-10	✓	✓	✓	✓	✓	✓	✓	✓				✓		
2	164	1244	3.211	4000	✓	✓	✓	✓	✓	✓	✓	✓				✓		
3	165	1248	2.967	3500	✓	✓	✓	✓	✓	✓	✓	✓				✓		
4	166	1249	2.535	3000	✓	✓	✓	✓	✓	✓	✓	✓				✓		
5	167	1254	2.329	2500	✓	✓	✓	✓	✓	✓	✓	✓				✓		Nylon trapped in bottle when tripped.
6	168	1258	1.311	2000	✓	✓	✓	✓	✓	✓	✓	✓				✓		
7	169	1260	0.619	1500	✓	✓	✓	✓	✓	✓	✓	✓				✓		
8	170	1261	0.408	1250	✓	✓	✓	✓	✓	✓	✓	✓				✓		
9	171	1267	0.411	1000	✓	✓	✓	✓	✓	✓	✓	✓				✓		
10	172	1264	0.502	800	✓	✓	✓	✓	✓	✓	✓	✓				✓		
11	173	1268	0.618	600	✓	✓	✓	✓	✓	✓	✓	✓				✓		
12	174	1270	0.980	400	✓	✓	✓	✓	✓	✓	✓	✓				✓		
13	175	1272	1.313	300	✓	✓	✓	✓	✓	✓	✓	✓				✓		
14	176	1271	1.632	250	✓	✓	✓	✓	✓	✓	✓	✓				✓		
15	177	1273	2.362	200	✓	✓	✓	✓	✓	✓	✓	✓				✓		
16	178	1274	3.177	175	✓	✓	✓	✓	✓	✓	✓	✓				✓		
17	179	1276	4.667	150	✓	✓	✓	✓	✓	✓	✓	✓				✓		
18	180	1277	6.669	125	✓	✓	✓	✓	✓	✓	✓	✓				✓		
19	181	1279	7.183	100	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		
20	182	1280	7.406	75	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		
21	183	1278	7.386	50	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		
22	184	1281	6.788	25	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		
23	185	1282	6.736	10		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		
24	186	1285	6.703	0		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		

Comments: 500 ml 250 ml

SHIP:
ENTERED BY: DA
CHECKED BY: DA

Bottom Depth: 4250

Cast # down: 34
Cast # up:

Time	LOC	UTC
Begin:		0130
Bottom:		0241
End:		0428

START POSITION (GPS)
LAT: 49 59.94
LONG: 144 59.95

BOTTOM POSITION (GPS)
LAT: 49 59.95
LONG: 144 59.90

END POSITION (GPS)
LAT: 49 59.95
LONG: 144 57.61

ROSETTE LOG

MISSION ID: 2002-16 STATION: P26 CAST NUMBER: 36 UTC DATE (dd/mm/yyyy): 07/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. m/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY			ALK		CHL					p#	
1	187			1500	✓	✓				✓✓		✓✓					✓	
2	188			1500	✓					✓✓		✓✓						
3	189			"	✓					✓✓		✓✓						
4	190			"	✓					✓✓		✓✓						
5	191			"	✓					✓✓		✓✓					✓	
6	192			"	✓													
7	193			"	✓													
8	194			"	✓													
9	195			"	✓													
10	196			"	✓												✓	
11	197			"	✓													
12	198			"	✓													
13	199			"	✓													
14	200			"	✓													
15	201			"	✓												✓	
16	202			"	✓													
17	203			"	✓													
18	204			"	✓													
19	205			"	✓													
20	206			"	✓												✓	
21	207			"	✓													
22	208			"	✓													
23	209			"	✓													
24	210			1500	✓	✓												

SHIP: TULLY

ENTERED BY: MR

CHECKED BY: MR

Bottom Depth: 4250

Cast # down: 36

Cast # up: 36

Time	LOC	UTC
Begin:		0725
Bottom:		0748
End:		0808

START POSITION (GPS)

LAT: 50.00.02

LONG: 145.00.09

BOTTOM POSITION (GPS)

LAT: 50.00.02

LONG: 145.00.03

END POSITION (GPS)

LAT: 50.00.04

LONG: 145.00.06

Comments: CALIBRATION CAST TO 1500 m

ROSETTE LOG

MISSION ID: 2002-16 STATION: P26 CAST NUMBER: 37 UTC DATE (dd/mm/yyyy): 07/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		calc				
							OXY		444	ALK		CHL		DMS				
1	211	364	2.572	200	✓	✓	✓	✓	✓					✓				
2	212	255	3.656	150	✓													
3	213	535	7.003	100	✓							✓						
4	214	534	7.132	80	✓							✓						
5	215	572	7.165	60	✓							✓						
6	216	588	7.206	50	✓							✓						
7	217	657	7.225	40	✓							✓						
8	218	695	7.097	30	✓							✓						
9	219	707	6.741	20	✓							✓						
10	220	697	6.768	15	✓							✓						
11	221	709	6.685	10	✓							✓	✓					
12	222	708	6.672	5	✓							✓						
13	223	715	6.652	0								✓		✓				
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

SHIP: JOHN P TULLY

ENTERED BY: MR

CHECKED BY: MR

Bottom Depth: 4250

Cast # down: 37

Cast # up: 37

Time	LOC	UTC
Begin:		0958
Bottom:		1003
End:		1018

START POSITION (GPS)

LAT: 49°59'39"

LONG: 144°59'31"

BOTTOM POSITION (GPS)

LAT: 49°59'37"

LONG: 144°59'33"

END POSITION (GPS)

LAT: 49°59'31"

LONG: 144°59'39"

Comments: NIGHT DMS CAST

ROSETTE LOG

MISSION ID: 2002-16 STATION: P26 CAST NUMBER: 38 UTC DATE (dd/mm/yyyy): 07/07/02

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		HC	TG		TEP	
							OXY			ALK		CHL				P16		
1	224			200	✓ 199	✓	✓							1	2	2	1	
2	225			150	✓ 150													
3	226			100	✓ 99													
4	227			80	✓ 80													
5	228			65	✓ 65													
6	229			50	✓ 50													
7	230			40	✓ 40													
8	240 231			30	✓ 30													
9	250 232			25	✓ 25													
10	251 233			10	✓ 10													
11	252 234			0	✓ 1													
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments:

SHIP: Tully

ENTERED BY: TS

CHECKED BY: TS

Bottom Depth: 4250

Cast # down: 38

Cast # up: 38

Time	LOC	UTC
Begin:		1544
Bottom:		
End:		1605

START POSITION (GPS)

LAT: 49 59 99

LONG: 145 00 12

BOTTOM POSITION (GPS)

LAT:

LONG:

END POSITION (GPS)

LAT: 49 59 94

LONG: 145 00 18

ROSETTE LOG

MISSION ID: 2002-16 STATION: P26 CAST NUMBER: 42 UTC DATE (dd/mm/yyyy): 07/07/02

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY		NH4		ALK		CHL	DN4	CO2			
1	256	712	2.491	200	✓ 200	✓	✓	✓	✓					✓				→ vent open
2	257	727	4.228	150	✓ 150													
3	258	730	7.072	100	✓ 100								✓					
4	259	1105	7.146	80	✓ 79													
5	260	1110	7.210	60	✓ 61													
6	261	1130	7.320	50	✓ 50													
7	262	1128	7.270	40	✓ 40													
8	263	1126	6.888	30	✓ 30													
9	264	1134	6.750	20	✓ 20													
10	265	1135	6.743	15	✓ 15													
11	266	1136	6.716	10	✓ 10										✓			
12	267	1137	6.770	5	✓ 5													
13	268	1138	6.768	0	✓ 1													
14		✓																
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

SHIP: J. P. TULLY
ENTERED BY: T.S
CHECKED BY: T.S

Bottom Depth: 4250

Cast # down: 42
Cast # up: 42

Time	LOC	UTC
Begin:		2204
Bottom:		2209
End:		2223

START POSITION (GPS)
LAT: 50 00 08
LONG: 145 00 03

BOTTOM POSITION (GPS)
LAT: 50 00 14
LONG: 145 00 01

END POSITION (GPS)
LAT: 50 00 33
LONG: 144 59 31

ROSETTE LOG

MISSION ID: 2002-16

STATION: 1N

CAST NUMBER: 60

UTC DATE (dd/mm/yyyy): 11-20 10/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												MeH	TEPS
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		CI3		HOLL		DMS			
								OXY		PPR		ALK		CHL		SF6		PH	
1	286			200	/			✓		✓		✓	✓	✓			✓	✓	
2	287	1247	2.661	200	/			✓								✓			
3	288			150	/			✓		✓		✓	✓	✓			✓	✓	
4	289	1244	4.236	150	/			✓								✓			
5	290			100	/			✓		✓		✓	✓	✓			✓	✓	✓
6	291	1248	7.174	100	/			✓		✓						✓	✓		
7	292			75	/			✓		✓		✓	✓	✓			✓	✓	✓
8	293	1249	7.160	75	/			✓		✓						✓	✓		
9	294			55	/	53		✓		✓		✓	✓	✓			✓	✓	✓
10	295	1254	7.290	55	/	53		✓		✓						✓	✓		
11	296			45	/		RS/RB			CL									
12	297			45	/			✓		✓		✓	✓	✓			✓	✓	✓
13	298	1258	6.319	45	/			✓		✓						✓	✓		
14	299			35	/			✓		✓		✓	✓	✓			✓	✓	✓
15	300	1260	5.411	35	/			✓		✓						✓	✓		
16	301			20	/			✓		✓		✓	✓	✓			✓	✓	✓
17	302	1261	4.347	20	/			✓		✓						✓	✓		
18	303			10	/		RS/RB			CL									
19	304			10	/			✓		✓		✓	✓	✓			✓	✓	✓
20	305	1262	3.906	10	/	COCCO		✓	✓	✓						✓	✓		
21	306			5	/		CL			EMH									
22	307			5	/		RS/RB												
23	308			5	/			✓		✓		✓	✓	✓			✓	✓	✓
24	309	1264	5.250	5	/			✓		✓						✓	✓		

Comments:

SHIP: JOHN P TULLY

ENTERED BY:

CHECKED BY: DA (I tried, but it was too much)

Bottom Depth: 418'

Cast # down: 60

Cast # up: 60

Time	LOC	UTC
Begin:		2143
Bottom:		2148
End:		2204

START POSITION (GPS)

LAT: 50 11.65

LONG: 144 44.01

BOTTOM POSITION (GPS)

LAT: 50 11.64

LONG: 144 44.09

END POSITION (GPS)

LAT: 50 11.58

LONG: 144 44.27

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT CAST NUMBER: 61 UTC DATE (dd/mm/yyyy): 11/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY				ALK		CHL					
1	310			100	✓													
2	311			75	✓													
3	312			55	✓													
4	313			45	✓													
5	314			35	✓													
6	315			20	✓													
7	316			10	✓													
8	317			10	✓													
9	318			10	✓													
10	319			5	✓													
11	320			5	✓													
12	321			0	✓													
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

SHIP:

ENTERED BY:

CHECKED BY:

Bottom Depth: 4219

Cast # down: 61

Cast # up: 61

Time

LOC

UTC

Begin: 02541

Bottom: 0257

End: 0308

START POSITION (GPS)

LAT: 50 20 60

LONG: 144 45 78

BOTTOM POSITION (GPS)

LAT: 50 20 62

LONG: 144 45 83

END POSITION (GPS)

LAT: 50 20 63

LONG: 144 45 90

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN 2 CAST NUMBER: 62 UTC DATE (dd/mm/yyyy): 11/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												N ₂ O	Mn	PIGS	TEPS
				Sample Depth	Confirmed pressure	SAL		NUT		TEO		CH		SF6		pH					
1	322			200	/																
2	323			200	/			✓								✓	✓				
3	324			150	/														✓		
4	325			150	/			✓								✓	✓				
5	326			100	/													✓	✓	✓	✓
6	327			100	/			✓				✓	✓	✓	✓						
7	328			75	/													✓	✓	✓	✓
8	329			75	/			✓				✓	✓	✓	✓						
9	330			55	/													✓	✓	✓	✓
10	331			55	/			✓				✓	✓	✓	✓						
11	332			45	/																
12	333			45	/													✓	✓	✓	✓
13	334			45	/			✓				✓	✓	✓	✓						
14	335			35	/													✓	✓	✓	✓
15	336			35	/			✓				✓	✓	✓	✓						
16	337			20	/													✓	✓	✓	✓
17	338			20	/			✓				✓	✓	✓	✓						
18	339			10	/																
19	340			10	/													✓	✓	✓	✓
20	341			10	/	✓		✓				✓	✓	✓	✓						
21	342			5																	
22	343			5																	
23	344			5														✓	✓	✓	✓
24	345			5				✓				✓	✓	✓	✓						

Comments: NUTS - GREEN RACK

SHIP: J.P Tully
ENTERED BY:
CHECKED BY:

Bottom Depth: 4142

Cast # down: 62
Cast # up: 62

Time	LOC	UTC
Begin:		1806
Bottom:		1812
End:		1831

START POSITION (GPS)
LAT: 50 12 79
LONG: 144 45 65

BOTTOM POSITION (GPS)
LAT: 50 12 79
LONG: 144 45 67

END POSITION (GPS)
LAT: 50 12 81
LONG: 144 45 67

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT 2 CAST NUMBER: 63 UTC DATE (dd/mm/yyyy): 11/07/2006

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken													
				Sample Depth	Confirmed pressure	SAL	OXY	NUT	PH	TEO	ALK	CL3	CHL	DMS	PAR	N2O	Met	PIGS	TEPS
1	346			200	/														
2	347			200	/			✓	✓					✓					
3	348			150	/												✓		
4	349			150	/			✓	✓					✓					
5	350			100	/												✓		
6	351			100	/			✓	✓				✓	✓	✓				
7	352			75	/											✓	✓	✓	✓
8	353			75	✓			✓	✓				✓	✓	✓				
9	354			55	/											✓	✓	✓	✓
10	355			55	/			✓	✓				✓	✓	✓				
11	356			45	/	ROBERT				CLIFF				PHIL					
12	357			45	/											✓	✓	✓	✓
13	358			45	/			✓	✓				✓	✓	✓				
14	359			35	/											✓	✓	✓	✓
15	360			35	✓			✓	✓				✓	✓	✓				
16	361			20	/											✓	✓	✓	✓
17	362			20	/	✓		✓	✓				✓	✓	✓				
18	363			10	/	ROBERT				CLIFF				PHIL				✓	✓
19	364			10	/											✓	✓		
20	365			10	/	✓		✓	✓				✓	✓	✓			4 COCCO	
21	366			5		CLIFF													
22	367			5		ROBERT													
23	368			5												✓	✓	✓	✓
24	369			5		✓		✓	✓				✓	✓	✓				

Comments: NUTS - YELLOW

SHIP: Tully
ENTERED BY:
CHECKED BY:

Bottom Depth: 38 31

Cast # down: 63
Cast # up: 63

Time	LOC	UTC
Begin:		2206
Bottom:		2213
End:		2230

START POSITION (GPS)
LAT: 50 20 . 42
LONG: 144 56 . 34

BOTTOM POSITION (GPS)
LAT: 50 20 . 42
LONG: 144 56 . 52

END POSITION (GPS)
LAT: 50 20 . 42
LONG: 144 56 . 45

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN3 CAST NUMBER: 64 UTC DATE (dd/mm/yyyy): 12/10/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
1	370			100	✓													
2	371			75	✓													
3	372			55	✓													
4	373			45	✓													
5	374			35	✓													
6	375			20	✓													
7	376			15	✓													
8	377			10	✓													
9	378			10	✓													
10	379			10	✓		✓											
11	380			5	✓													
12	381			5	✓													
13	382			5	✓													
14	383			5	✓													
15	384			0														
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments:

SHIP: TULLY
ENTERED BY: DA
CHECKED BY: DA

Bottom Depth: 4149

Cast # down: 64
Cast # up: 64

Time	LOC	UTC
Begin:		0104
Bottom:		0109
End:		0124

START POSITION (GPS)
LAT: 50 16 . 09
LONG: 144 45 . 53

BOTTOM POSITION (GPS)
LAT: 50 16 . 11
LONG: 144 45 . 55

END POSITION (GPS)
LAT: 50 16 . 19
LONG: 144 45 . 63

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N4 CAST NUMBER: 65 UTC DATE (dd/mm/yyyy): 12/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												N ₂ O	P ₁₆ S		
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		HP2C		DMS					
							OXY		PART	ALK		CHL		SF6		pH		MeH		TEPS	
1	385			200	✓			✓		✓						✓		✓			
2	386	1247	2.672	200	✓		✓									✓					
3	387			150	✓			✓		✓								✓			
4	388	1244	2.844	150	✓		✓									✓					
5	389			100	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
6	390	1248	6.603	100	✓		✓		✓						✓	✓					
7	391			75	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
8	392	1249	6.925	75	✓		✓		✓						✓	✓					
9	393			55	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
10	394	1254	7.177	55	✓		✓		✓						✓	✓					
11	395			45	✓				RS/RB	CL		LAU	YART	CAUGHT				DIDN'T	TRIP		
12	396			45	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
13	397	1258	7.243	45	✓		✓		✓						✓	✓					
14	398			35	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
15	399	1260	7.007	35	✓		✓		✓						✓	✓					
16	400			20	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
17	401	1261	6.730	20	✓		✓		✓						✓	✓					
18	402			10	✓				RS/RB	CL											
19	403			10	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
20	404	1267	6.777	10	✓	COCCO	✓	✓		✓					✓	✓					
21	405			5	✓				CL	8	MH										
22	406			5	✓				RS/RB	CL											
23	407			5	✓			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
24	408	1264	6.712	5	✓		✓		✓						✓	✓					

Comments: NUTS in red rack

SHIP:
ENTERED BY: JBC/TS
CHECKED BY: TS/JBC

Bottom Depth: 4087

Cast # down: 65
Cast # up: 65

Time	LOC	UTC
Begin:		18 14
Bottom:		18 22
End:		18 42

START POSITION (GPS)
LAT: 50 16 52
LONG: 144 47 34

BOTTOM POSITION (GPS)
LAT: 50 16 52
LONG: 144 47 34

END POSITION (GPS)
LAT: 50 16 52
LONG: 144 47 34

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT 3 CAST NUMBER: 66 UTC DATE (dd/mm/yyyy): 12/07/02

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken													
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13							
							OXY			ALK		CHL		P166	U2D	HEX	TEPS.		
1	409			200	/												✓		
2	410			150	/												✓		
3	411			100	/										✓	✓	✓	✓	
4	412			75	/										✓	✓	✓	✓	
5	413			55	/										✓	✓	✓	✓	
6	414			45	/										✓	✓	✓	✓	
7	415			35	/										✓	✓	✓	✓	
8	416			20	/										✓	✓	✓	✓	
9	417			10	/	✓									✓	✓	✓	✓	
10	418			5	/										✓	✓	✓	✓	
11	419			5	/					PHIL									
12	420			5	/					CHIFF									
13	421			0	/					MIKE									
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Comments:

SHIP: TULLY
ENTERED BY:
CHECKED BY:

Bottom Depth: 4018

Cast # down: 66
Cast # up: 66

Time	LOC	UTC
Begin:		22:22
Bottom:		22:28
End:		22:45

START POSITION (GPS)
LAT: 50 18.60
LONG: 144 38.97

BOTTOM POSITION (GPS)
LAT: 50 18.66
LONG: 144 58.96

END POSITION (GPS)
LAT: 50 18.79
LONG: 144 59.01

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N5 CAST NUMBER: 67 UTC DATE (dd/mm/yyyy): 13/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY				ALK		CHL					
1	422			100	✓													
2	423			75	✓													
3	424			55	✓													
4	425			45	✓													
5	426			30	✓													
6	427			20	✓													
7	428			15	✓													
8	429			10	✓													
9	430			10	✓													
10	431			10	✓													
11	432			5	✓													
12	433			5	✓													
13	434			5	✓													
14	435			5	✓													
15	436			0	✓													
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments:

SHIP: Tully
ENTERED BY:
CHECKED BY:

Bottom Depth: 4158

Cast # down: 67
Cast # up: 67

Time	LOC	UTC
Begin:		0156
Bottom:		0201
End:		0215

START POSITION (GPS)
LAT: 50 17.61
LONG: 144 46.78

BOTTOM POSITION (GPS)
LAT: 50 17.63
LONG: 144 46.83

END POSITION (GPS)
LAT: 50 17.70
LONG: 144 46.92

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N6 CAST NUMBER: 68 UTC DATE (dd/mm/yyyy): 13/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												N2O MEH DIS TERS			
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		SFB							
1	437			200	/													✓			
2	438			200	/			✓													
3	439			150	/													✓			
4	440			150	/			✓													
5	441			100	/													✓	✓	✓	✓
6	442			100	/			✓						✓	✓						
7	443			75	/													✓	✓	✓	✓
8	444			75	/			✓						✓	✓						
9	445			55	/													✓	✓	✓	✓
10	446			55	/			✓						✓	✓						
11	447			45	/			RS/RB		CL								✓	✓	✓	✓
12	448			45	/																
13	449			45	/			✓						✓	✓						
14	450			35	/													✓	✓	✓	✓
15	451			35	/			✓						✓	✓						
16	452			20	/													✓	✓	✓	✓
17	453			20	/			✓						✓	✓						
18	454			10	/			RS/RB		CL											
19	455			10	/													✓	✓	✓	✓
20	456			10	/	COCCO	✓	✓						✓	✓						
21	457			5	/			PB													
22	458			5	/			RS/RB		CL											
23	459			5	/													✓	✓	✓	✓
24	460			5	/			✓						✓	✓						

Comments: GREEN NUT TUBES Bottle 19 didn't trip

SHIP:

ENTERED BY:

CHECKED BY:

Bottom Depth: 3975

Cast # down: 68
Cast # up: 68

Time	LOC	UTC
Begin:		1830
Bottom:		1838
End:		1855

START POSITION (GPS)
LAT: 50 20.38
LONG: 144 48.87

BOTTOM POSITION (GPS)
LAT: 50 20 38
LONG: 144 48 92

END POSITION (GPS)
LAT: 50 20.35
LONG: 144 48 91

ROSETTE LOG

MISSION ID: 2002-16 STATION: 0074 CAST NUMBER: 69 UTC DATE (dd/mm/yyyy): 13/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken															
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		HPLC		DMS		pH	N ₂ O		PIGS
							OXY		PAR		ALK		CHL		SF6			MeH		TEPS	
1	461			200	/			✓		✓							✓		✓		
2	462	1270	2.024	200	/		✓									✓					
3	463			150	/			✓		✓							✓		✓		
4	464	1272	3.646	150	✓		✓									✓					
5	465			100	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
6	466	1271	7.022	100	/		✓		✓						✓	✓					
7	467			75	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
8	468	1273	7.216	75	✓		✓		✓						✓	✓					
9	469			55	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
10	470	1274	7.344	55	/		✓		✓						✓	✓					
11	471			45	/																
12	472			45	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
13	473	1276	7.234	45	✓		✓		✓						✓	✓					
14	474			35	✓			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
15	475	1277	2.052	35	/		✓		✓						✓	✓					
16	476			20	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
17	477	1279	6.725	20	/		✓		✓						✓	✓					
18	478			10	/																
19	479			10	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
20	480	1280	6.639	10	/	COCCO	✓	✓		✓					✓	✓					
21	481			5																	
22	482			5																	
23	483			5				✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
24	484	1278	6.661	5			✓		✓						✓	✓					

Comments: NUTS in Blue Rack

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3814

Cast # down: 69
Cast # up: 69

Time	LOC	UTC
Begin:		21 09
Bottom:		21 16
End:		21 33

START POSITION (GPS)
LAT: 50 19.95
LONG: 144 54.68

BOTTOM POSITION (GPS)
LAT: 50 19.92
LONG: 144 54.58

END POSITION (GPS)
LAT: 50 19.82
LONG: 144 54.48

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN7 CAST NUMBER: 70 UTC DATE (dd/mm/yyyy): 14/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. m/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY			ALK		CHL						
1	485			100	/													
2	486			75	/													
3	487			55	/													
4	488			45	/													
5	489			30	/													
6	490			20	/													
7	491			15	/													
8	492			10														
9	493			10														
10	494			10														
11	495			5														
12	496			5														
13	497			5														
14	498			5														
15	499			5														
16	500			0														
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments:

SHIP: TULLY
ENTERED BY: DA
CHECKED BY: DA

Bottom Depth: 422.3

Cast # down: 70
Cast # up: 70

Time	LOC	UTC
Begin:		0321
Bottom:		0326
End:		0339

START POSITION (GPS)
LAT: 50 22.14
LONG: 144 45.96

BOTTOM POSITION (GPS)
LAT: 50 22.13
LONG: 144 45.99

END POSITION (GPS)
LAT: 50 22.10
LONG: 144 46.03

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN 8 CAST NUMBER: 71 UTC DATE (dd/mm/yyyy): 14/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken													
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		HPAC		DMS		N ₂ O	PICs
						OXY		PART		ALK		CHL		X	SFG		pH	MeH	TEPS
1	501			200	/			✓		✓						✓		✓	
2	502	1148	2.726	200	/		✓									✓			
3	503			150	✓			✓		✓							✓	✓	
4	504	1153	4.151	150	/		✓									✓			
5	505			100	/			✓		✓		✓	✓	✓			✓	✓	✓
6	506	1158	7.049	100	/		✓		✓						✓	✓			
7	507			75	✓			✓		✓		✓	✓	✓			✓	✓	✓
8	508	1241	7.248	75	✓		✓		✓						✓	✓			
9	509			55	✓			✓		✓		✓	✓	✓			✓	✓	✓
10	510	1175	7.358	55	/		✓		✓						✓	✓			
11	511			45	✓														
12	512			45	✓							✓	✓	✓			✓	✓	✓
13	513	1176	7.248	45	✓		✓		✓						✓	✓			
14	514			35	✓			✓		✓		✓	✓	✓			✓	✓	✓
15	515	1188	6.839	35	✓		✓		✓						✓	✓			
16	516			20	✓			✓		✓		✓	✓	✓			✓	✓	✓
17	517	1189	6.814	20	/		✓		✓						✓	✓			
18	518			10	/														
19	519			10	✓			✓		✓		✓	✓	✓			✓	✓	✓
20	520	1192	6.809	10	✓	✓	✓		✓						✓	✓			
21	521			5															
22	522			5															
23	523			5				✓		✓		✓	✓	✓			✓	✓	✓
24	524	1193	6.784	5			✓		✓						✓	✓			

Comments:

SHIP:

ENTERED BY:
CHECKED BY:

Bottom Depth: 3947

Cast # down: 71

Cast # up: 71

Time	LOC	UTC
Begin:		17:45
Bottom:		17:51
End:		18:09

START POSITION (GPS)

LAT: 50 23 21
LONG: 144 46 21

BOTTOM POSITION (GPS)

LAT: 50 23 20
LONG: 144 46 18

END POSITION (GPS)

LAT: 50 23 20
LONG: 144 46 20

ROSETTE LOG

MISSION ID: STATION: OUT 5 CAST NUMBER: 72 UTC DATE (dd/mm/yyyy): 14/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. m/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY			ALK		CHL	P165	HEH	N20	TEP		
1	525			200	/													
2	526			150	/													
3	527			100	/									✓		✓	✓	
4	528			75	/													
5	529			55	/													
6	530			45	/													
7	531			35	/													
8	532			20	/													
9	533			10	/	✓												
10	534			5	/									✓	✓	✓	✓	
11	535			5	/													
12	536			5	/													
13	537			0														
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments:

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3973

Cast # down: 72
Cast # up: 72

Time	LOC	UTC
Begin:		22:01
Bottom:		22:08
End:		22:24

START POSITION (GPS)
LAT: 50 22.84
LONG: 144 29.98

BOTTOM POSITION (GPS)
LAT: 50 22.86
LONG: 144 30.06

END POSITION (GPS)
LAT: 50 22.94
LONG: 144 30.20

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN9 CAST NUMBER: 73 UTC DATE (dd/mm/yyyy): 15/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken													
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13							
							OXY				ALK		CHL						
1	538			60	✓														
2	539			75	✓														
3	540			55	✓														
4	541			45	✓														
5	542			40	✓														
6	543			30	✓														
7	544			20	✓														
8	545			15	✓														
9	546			10	✓														
10	547			10	✓														
11	548			10	✓														
12	549			5	✓														
13	550			5	✓														
14	551			5	✓														
15	552			5	✓														
16	553			5	✓														
17	554			0															
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Comments:

SHIP:

ENTERED BY:

CHECKED BY:

Bottom Depth: 4169

Cast # down: 73
Cast # up: 73

Time	LOC	UTC
Begin:		0248
Bottom:		0253
End:		0308

START POSITION (GPS)	
LAT:	50 23 .19
LONG:	144 46 .06

BOTTOM POSITION (GPS)	
LAT:	50 23 .18
LONG:	144 46 .08

END POSITION (GPS)	
LAT:	50 23 26
LONG:	144 46 .03

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1U 10 CAST NUMBER: 74 UTC DATE (dd/mm/yyyy): 15/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken															
				Sample Depth	Confirmed pressure	SAL		NUT		TGO		CIB		HPAC		DMS		pH	H ₂ O		PIGS
							OXY		PAR		ALK		CHL		SFG			MeH		TEPS	
1	555			200	/			✓		✓							✓		✓		
2	556	1244	2.841	200	/		✓									✓					
3	557			150	/			✓		✓							✓		✓		
4	558	1247	4.476	150	/		✓									✓					
5	559			100	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
6	560	1248	6.715	100	/		✓		✓						✓	✓					
7	561			75	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
8	562	1249	7.255	75	/		✓		✓						✓	✓					
9	563			55	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
10	564	1254	7.256	55	/		✓		✓						✓	✓					
11	565			45	/	CL															
12	566			45	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
13	567	1258	7.136	45	/		✓		✓	20					✓	✓					
14	568			35	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
15	569	1261	6.916	35	/		✓		✓						✓	✓					
16	570			20	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
17	571	1260	6.870	20	/		✓		✓						✓	✓					
18	572			10	/																
19	573			10	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
20	574	1264	6.860	10	/	COCCO	✓	✓		✓					✓	✓					
21	575			5	/																
22	576			5	/																
23	577			5	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
24	578	1267	6.850	5	/		✓		✓						✓	✓					

Comments: KNOTS IN GREEN RACK
* Sample no's reversed in OXY fls.

SHIP: Tully

ENTERED BY:

CHECKED BY:

Bottom Depth: 3875

Cast # down: 74

Cast # up: 74

Time

LOC

UTC

Begin: 1720

Bottom: 1726

End: 1746

START POSITION (GPS)

LAT: 50 25.15

LONG: 144 44.85

BOTTOM POSITION (GPS)

LAT: 50 25.14

LONG: 144 44.98

END POSITION (GPS)

LAT: 50 25.13

LONG: 144 45.08

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT 6 CAST NUMBER: 75 UTC DATE (dd/mm/yyyy): 15/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY				ALK		CHL	PIGS	MEH	N2O	TEFS	
1	579			200	/			✓										
2	580			150	/			✓										
3	581			100	/			✓						✓		/	/	
4	582			75	/			✓										
5	583			55	/			✓										
6	584			45	/			✓										
7	585			35	/			✓										
8	586			30	/	✓		✓										
9	587			20	/			✓										
10	588			10	✓	✓		✓						✓	✓	✓	✓	
11	589			5	✓			✓						✓	✓	✓	✓	
12	590			5	/													
13	591			5	/													
14	592			0				✓										
15																		
16																		
17																		
18																		
19						✓												
20																		
21																		
22																		
23																		
24																		

Comments:

NUTS IN WHITE

SHIP:

ENTERED BY: DA

CHECKED BY:

Bottom Depth: 3875

Cast # down: 75

Cast # up: 75

Time	LOC	UTC
Begin:		20 49
Bottom:		20 56
End:		21 14

START POSITION (GPS)

LAT: 50 37.16

LONG: 144 44.87

BOTTOM POSITION (GPS)

LAT: 50 37.17

LONG: 144 44.92

END POSITION (GPS)

LAT: 50 37.15

LONG: 144 45.06

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN11 CAST NUMBER: 76 UTC DATE (dd/mm/yyyy): 15/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY				ALK		CHL					
1	593			100	✓													
2	594			75	✓													
3	595			55	✓													
4	596			45	✓													
5	597			35	✓													
6	598			30	✓													
7	599			20	✓			HH										
8	600			20	✓			HH										
9	601			20	✓													
10	602			15	✓													
11	603			10	✓			HH										
12	604			10	✓			HH										
13	605			10	✓													
14	606			10	✓													
15	607			10	✓			HH										
16	608			5	✓			HH										
17	609			5	✓													
18	610			5	✓													
19	611			5	✓													
20	612			5	✓													
21	613			0				HH										
22	614			0				HH										
23	615			0														
24																		

Comments:

SHIP:

ENTERED BY:

CHECKED BY:

Bottom Depth: 3861

Cast # down: 76

Cast # up: 76

Time	LOC	UTC
Begin:		0237
Bottom:		0242
End:		0256

START POSITION (GPS)

LAT: 50 25 20

LONG: 144 44.93

BOTTOM POSITION (GPS)

LAT: 50 25 23

LONG: 144 44.95

END POSITION (GPS)

LAT: 50 25 27

LONG: 144 45.03

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1W 12 CAST NUMBER: 77 UTC DATE (dd/mm/yyyy): 16/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken															
				Sample Depth	Confirmed pressure	SAL	OXY	NUT	TCO	CI3	HP2C	DMS	pH	Na2O	NaOH	PI69	TEPS				
1	615a			200	/			✓	✓				✓		✓						
2	616	1148	2.390	200	/		✓					✓									
3	617			150	✓			✓	✓				✓		✓						
4	618	1153	3.788	150	/		✓					✓									
5	619			100	/			✓	✓	✓	✓		✓	✓	✓	✓	✓				
6	620	1158	6.725	100	/		✓		✓			✓	✓								
7	621			75	/			✓	✓	✓	✓		✓	✓	✓	✓	✓				
8	622	1241	7.248	75	/		✓		✓			✓	✓								
9	623			55	✓			✓	✓	✓	✓		✓	✓	✓	✓	✓				
10	624	1176	7.321	55	/		✓		✓			✓	✓								
11	625			45	/																
12	626			45	/			✓	✓	✓	✓		✓	✓	✓	✓	✓				
13	627	1175	7.323	45	/ 1168		✓		✓			✓	✓								
14	628			35	/			✓	✓	✓	✓		✓	✓	✓	✓	✓				
15	629	1188	6.635*	35	/		✓		✓			✓	✓		7.052						
16	630			20	/			✓	✓	✓	✓		✓	✓	✓	✓	✓				
17	631	1189	6.904	20	/		✓		✓			✓	✓		6.830						
18	632			10	/																
19	633			10	/			✓	✓	✓	✓		✓	✓	✓	✓	✓				
20	634	1192	6.899	10	/ COCCO	✓	✓		✓			✓	✓								
21	635			5	/																
22	636			5	/																
23	637			5	/			✓	✓	✓	✓		✓	✓	✓	✓	✓				
24	638	1193	6.897	5	/		✓		✓			✓	✓								

Comments: BLUE NUTS * Trouble with sample, flask & sample re-injected, analysis not done properly. 0.93 1.172 = 1.965

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth:

Cast # down: 77
Cast # up: 77

Time	LOC	UTC
Begin:		1836
Bottom:		1843
End:		1904

START POSITION (GPS)
LAT: 50 28 07
LONG: 144 46 60

BOTTOM POSITION (GPS)
LAT: 50 28 06
LONG: 144 46 50

END POSITION (GPS)
LAT: 50 28 05
LONG: 144 46 72

10.02 10.04
10/013/27 1.720

ROSETTE LOG

MISSION ID: STATION: IN 13 CAST NUMBER: 78 UTC DATE (dd/mm/yyyy): 17/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		Cl3		PIGS		N2O		
1	639			200	✓			✓							✓			
2	640			150	✓													
3	641			100	✓									✓		✓	✓	
4	642			75	✓													
5	643			55	✓				✓									
6	644			45	✓			✓	✓					✓	✓	✓	✓	
7	645			45	✓													
8	646			35	✓													
9	647			30	✓													
10	648			20	✓													
11	649			10	✓	COCO	✓	✓	✓					✓	✓	✓	✓	
12	650			10	✓													
13	651			5				✓	✓					✓	✓	✓	✓	
14	652			5														
15	653			5														
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments: NUTS - white + + in green racks

SHIP:

ENTERED BY:

CHECKED BY:

Bottom Depth: 4212

Cast # down: 78

Cast # up: 78

Time	LOC	UTC
Begin:		18 08
Bottom:		18 15
End:		18 33

START POSITION (GPS)

LAT: 50 30 20

LONG: 144 45 27

BOTTOM POSITION (GPS)

LAT: 50 30 18

LONG: 144 45 28

END POSITION (GPS)

LAT: 50 30 01

LONG: 144 45 32

ROSETTE LOG

MISSION ID: 2002-16

STATION: OUT 7

CAST NUMBER: 79

UTC DATE (dd/mm/yyyy): 17/7/2002

SERESOUT
Template

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken														
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		SFE		pH		MeH	TEPS	PIGS
						OXY		PART		XXX		CHL		DNIS		N2O				
1	654	364	2.681	200	/		✓	✓		✓				✓	✓		✓			
2	655	255	4.008	150	/		✓	✓		✓				✓	✓		✓			
3	656			100	/			✓		✓		✓	✓			✓		✓	✓	✓
4	657	535	6.611	100	/		✓		✓					✓						
5	658			75	/			✓		✓		✓	✓			✓	✓	✓	✓	✓
6	659	534	7.084	75	/		✓		✓					✓						
7	660			55	/			✓		✓		✓	✓			✓	✓	✓	✓	✓
8	661	572	7.176	55	/		✓		✓					✓						
9	662			45	/			✓		✓		✓	✓			✓	✓	✓	✓	✓
10	663	588	7.184	45	/		✓		✓					✓						
11	664			35	/			✓		✓		✓	✓			✓	✓	✓	✓	✓
12	665	657	6.823	35	/		✓		✓					✓						
13	666			30	/	cliff												✓		
14	667			20	/			✓		✓		✓	✓			✓	✓	✓	✓	✓
15	668	695	6.653	20	/		✓		✓					✓						
16	669			20	/	m.H.														
17	670			10	/			✓		✓		✓	✓			✓	✓	✓	✓	✓
18	671	707	6.629	10	/	Cocco	✓	✓		✓				✓	✓					
19	672			10	/	m.H.														
20	673			10	/	graham														
21	674			5				✓		✓		✓	✓			✓	✓	✓	✓	✓
22	675	697	6.675	5			✓		✓					✓						
23	676			5		m.H.														
24	677			5		m.H.														

Comments: Graham - 10 m bottle outside from now on.

NUTS from YELLOW tubes

SHIP: Tully

ENTERED BY:

CHECKED BY:

Bottom Depth: 4172

Cast # down: 79

Cast # up: 79

Time	LOC	UTC
Begin:		2257
Bottom:		2302
End:		2318

START POSITION (GPS)

LAT: 50 33.22

LONG: 144 36.72

BOTTOM POSITION (GPS)

LAT: 50 33.25

LONG: 144 36.76

END POSITION (GPS)

LAT: 50 33.36

LONG: 144 36.80

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN 14 CAST NUMBER: 80 UTC DATE (dd/mm/yyyy): 18/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY				ALK		CHL					
1	616	678		100	/													Small sample no's correct.
2	617	679		75	/													
3	618	680		55	/													
4	619	681		45	/													
5	620	682		35	/													
6	621	683		30	/													
7	622	684		20	/													
8	623	685		20	/													
9	624	686		20	/	Boyd												
10	625	687		20	/													
11	626	688		15	/													
12	627	689		10	/													
13	628	690		10	/													
14	629	691		10	/													
15	630	692		10	/													
16	631	693		10	/													
17	632	694		5	/													
18	633	695		5	/													
19	634	696		5	/													
20	635	697		5	/													
21	636	698		5	/													
22	637	699		5	/	Boyd												
23	638	700		0														
24	639	701		0														

Comments:

SHIP: Tully
ENTERED BY:
CHECKED BY:

Bottom Depth: 4175

Cast # down: 80
Cast # up: 80

Time	LOC	UTC
Begin:		0205
Bottom:		0211
End:		0228

START POSITION (GPS)
LAT: 50 30.13
LONG: 144 45.31

BOTTOM POSITION (GPS)
LAT: 50 30.12
LONG: 144 45.32

END POSITION (GPS)
LAT: 50 30.08
LONG: 144 45.34

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N 15 CAST NUMBER: 81 UTC DATE (dd/mm/yyyy): 18/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												N2O	NEH	PIBS	TEPS
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		CI3		HPAL		DMS					
							OXY		PART		ALK		CHL		SF6		PH				
1	640	702		200	/			✓		✓							✓		✓		
2	641	703 1195	2.451	200	/		✓									✓					
3	642	704		150	/			✓		✓							✓		✓		
4	643	705 1238	3.964	150	/		✓									✓					
5	644	706		100	/			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓
6	645	707 1206	6.603	100	/		✓		✓						✓	✓					
7	646	708		75	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
8	647	709 1203	7.025	75	/		✓		✓						✓	✓					
9	648	710		55	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
10	649	711 1210	7.154	55	/		✓		✓						✓	✓					
11	650	712		45	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
12	651	713 1209	7.257	45	/		✓		✓						✓	✓					
13	652	714		35	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
14	653	715 1212	7.084	35	/		✓		✓						✓	✓					
15	654	716		30	/	CLIFF															
16	655	717		20	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
17	656	718 1237	6.837	20	/		✓		✓						✓	✓					
18	657	719		10	/																
19	658	720		10	/			✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
20	659	721 1223	6.933	10	/	COLLO					✓	✓			✓	✓					
21	660	722		5		CLIFF															
22	661	723		5		PHILLIPE															
23	662	724		5				✓		✓		✓	✓	✓			✓	✓	✓	✓	✓
24	663	725 1222	7.015	5			✓		✓						✓	✓					

Comments: NUTS - GREEN TUBES in green rack

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 4175

Cast # down: 81
Cast # up: 81

Time	LOC	UTC
Begin:		1742
Bottom:		1748
End:		1807

START POSITION (GPS)
LAT: 50 34.82
LONG: 144 48.03

BOTTOM POSITION (GPS)
LAT: 50 34.78
LONG: 144 48.07

END POSITION (GPS)
LAT: 50 34.82
LONG: 144 48.16

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT 8 CAST NUMBER: 82 UTC DATE (dd/mm/yyyy): 18/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. m/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY			ALK		CHL	P169	HEH	N2O	TEMP		
1	726			200	/									✓				
2	727			150	/													
3	728			100	/								✓		✓	✓		
4	729			75	/													
5	730			55	/													
6	731			45	/													
7	732			35	/													
8	733			30	/													
9	734			20	/													
10	735			10	/													
11	736			5	/								✓	✓	✓	✓		
12	737			5	/													
13	738			5	/													
14	739			0														
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Comments:

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3853

Cast # down: 82
Cast # up: 82

Time	LOC	UTC
Begin:		2100
Bottom:		2107
End:		2125

START POSITION (GPS)
LAT: 50 41.20
LONG: 144 37.99

BOTTOM POSITION (GPS)
LAT: 50 41.14
LONG: 144 38.01

END POSITION (GPS)
LAT: 50 40.98
LONG: 144 38.13

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN16 CAST NUMBER: 83 UTC DATE (dd/mm/yyyy): 19/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY			ALK		CHL		SF6				
1	740			100	/													
2	741			75	/													
3	742			55	/									✓				
4	743			45	/									✓				
5	744			35	✓									✓				
6	745			30	✓									✓				
7	746			20	✓									✓				
8	747			20	✓													
9	748			20	✓													
10	749			15	✓													
11	750			10	✓									✓				
12	751			10	✓													
13	752			10	✓													
14	753			5	✓									✓				
15	754			5	✓													
16	755			5	✓													
17	756			5	✓													
18	757			5	✓	M14												
19	758			5	✓	M14												
20	759			0	✓													
21	760			0	✓													
22																		
23																		
24																		

Comments:

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3975

Cast # down: 83
Cast # up: 83

Time	LOC	UTC
Begin:		0252
Bottom:		0257
End:		0312

START POSITION (GPS)
LAT: 50 35.15
LONG: 144 48.85

BOTTOM POSITION (GPS)
LAT: 50 35.17
LONG: 144 48.90

END POSITION (GPS)
LAT: 50 25.25
LONG: 144 49.12

ROSETTE LOG

MISSION ID: 2002-16 STATION: GUT9 CAST NUMBER: 84 UTC DATE (dd/mm/yyyy): 19/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken													
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13							
							OXY				ALK		CHL	P165	MEH	N20	TEPS		
1	761			200	/										/				
2	762			150	/														
3	763			100	/								/	/		/	/		
4	764			75	/														
5	765			55	/														
6	766			45	/														
7	767			35	/														
8	768			30	/														
9	769			20	/														
10	770			10	/	COCCO	✓	✓					✓	✓	✓	✓	✓		
11	771			10	/	Graham													
12	772			10	/	Graham													
13	773			5	/			✓					✓	✓	✓	✓	✓		
14	774			5	/														
15	775			5	/														
16	776			0															
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Comments: NUTS- Blue tubes in green sack

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3983

Cast # down: 84
Cast # up: 84

Time	LOC	UTC
Begin:		2029
Bottom:		2036
End:		2053

START POSITION (GPS)
LAT: 50 39. 83
LONG: 144 35. 66

BOTTOM POSITION (GPS)
LAT: 50 39. 87
LONG: 144 35 48

END POSITION (GPS)
LAT: 50 39 92
LONG: 144 35 09

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N 17 CAST NUMBER: 85 UTC DATE (dd/mm/yyyy): 20/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												MEH	P166	TEF9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		SF6		PH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

Comments:

SHIP:

ENTERED BY:

CHECKED BY:

Bottom Depth: 4235

Cast # down: 85

Cast # up: 85

Time	LOC	UTC
Begin:		0044
Bottom:		0051
End:		0108

START POSITION (GPS)

LAT: 50 37 47

LONG: 144 47 16

BOTTOM POSITION (GPS)

LAT: 50 37 46

LONG: 144 47 17

END POSITION (GPS)

LAT: 50 37 45

LONG: 144 47 12

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN 18 CAST NUMBER: 86 UTC DATE (dd/mm/yyyy): 20/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken													
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		CH3		SF6		PH	N2O		
							OXY		PAR	✓	ALK	H2O2	CHL		DMG			MEH	P164
1	801			100	✓		✓			✓					✓	✓		✓	
2	802	1148	7.109	100	✓		✓			✓					✓	✓		✓	
3	803			100	✓			✓		✓		✓	✓			✓	✓	✓	✓
4	804	1158	6.737	100	✓		✓		✓					✓	✓				
5	805			75	✓			✓		✓		✓	✓			✓	✓	✓	✓
6	806	1241	7.086	75	✓		✓		✓					✓	✓				
7	807			55	✓			✓		✓		✓	✓			✓	✓	✓	✓
8	808	1176	7.191	55	✓		✓		✓					✓	✓				
9	809			45	✓			✓		✓		✓	✓			✓	✓	✓	✓
10	810	1175	7.238	45	✓		✓		✓					✓	✓				
11	811			35	✓			✓		✓		✓	✓			✓	✓	✓	✓
12	812	1189	7.016	35	✓		✓		✓					✓	✓				
13	813			30	✓					✓								✓	
14	814			20	✓			✓		✓		✓	✓			✓	✓	✓	✓
15	815	1188	6.885	20	✓		✓		✓					✓	✓				
16	816			20	✓														
17	817			10	✓			✓		✓		✓	✓			✓	✓	✓	✓
18	818	1193	6.953	10	✓	COCCO	✓	✓		✓				✓	✓				
19	819			10	✓														
20	820			10	✓														
21	821			5	✓			✓		✓		✓	✓			✓	✓	✓	✓
22	822	1192	6.894	5	✓		✓		✓					✓	✓				
23	823			5	✓														
24	824			5	✓														

Comments: * Bottle 19 didn't trip

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 4275

Cast # down: 86
Cast # up: 86

Time	LOC	UTC
Begin:		1708
Bottom:		1715
End:		1728

START POSITION (GPS)
LAT: 50 41 81
LONG: 144 43 07

BOTTOM POSITION (GPS)
LAT: 50 41 77
LONG: 144 43 07

END POSITION (GPS)
LAT: 50 41 73
LONG: 144 43 08

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT-10 CAST NUMBER: 87 UTC DATE (dd/mm/yyyy): 20/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY				ALK		CHL	P165	HEH	N20		
1	825			200	/										✓			
2	826			150	/													
3	827			100	/									✓		✓		
4	828			75	/													
5	829			55	/													
6	830			45	/													
7	831			35	/													
8	832			30	/													
9	833			20	/													
10	834			10	/									✓	✓	✓		
11	835			10	/													
12	836			10	/													
13	837			10	/	GRAHAM												
14	838			5										✓	✓	✓		
15	839			5														
16	840			5														
17	841			0														
18	842			0														
19	843			0		PB												
20	844			0		PB												
21	845			0		PB												
22																		
23																		
24																		

Comments:

SHIP:

ENTERED BY:

CHECKED BY:

Bottom Depth: 4275

Cast # down: 87
Cast # up: 87

Time	LOC	UTC
Begin:		19:50
Bottom:		19:57
End:		20:16

START POSITION (GPS)

LAT: 50 46.99
LONG: 144 34.15

BOTTOM POSITION (GPS)

LAT: 50 46.95
LONG: 144 34.15

END POSITION (GPS)

LAT: 50 46.84
LONG: 144 34.14

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N 19 CAST NUMBER: 88 UTC DATE (dd/mm/yyyy): 26/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
						OXY				ALK		CHL						
1	846			100	/													
2	847			75	/													
3	848			55	/													
4	849			45	/													
5	850			35	/													
6	851			30	/													
7	852			20	/													
8	853			20	/													
9	854			20	/													
10	855			15	/													
11	856			10	/													
12	857			10	/													
13	858			10	/													
14	859			5														
15	860			5														
16	861			5														
17	862			5														
18	863			5	PH													
19	864			5	PH													
20	865			0														
21	866			0														
22																		
23																		
24																		

Comments:

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 4013

Cast # down: 88
Cast # up: 88

Time	LOC	UTC
Begin:		23 47
Bottom:		23 52
End:		00 05

START POSITION (GPS)
LAT: 50 41.35
LONG: 144 43.45

BOTTOM POSITION (GPS)
LAT: 50 41.35
LONG: 144 43.51

END POSITION (GPS)
LAT: 50 41.24
LONG: 144 43.80

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N 20 CAST NUMBER: 89 UTC DATE (dd/mm/yyyy): 21/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. m/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT	TEMP	TCO		C13		SF6		MEAN		
							OXY	✓			ALK		CHL		N2O		P165	
1	866a			200	✓			✓	✓							✓		
2	867			150	✓			✓	✓							✓		
3	868			100	✓			✓							✓	✓	✓	
4	869			100	✓				✓					✓				
5	870			75	✓			✓							✓	✓	✓	
6	871			75	✓				✓					✓				
7	872			55	✓			✓							✓	✓	✓	
8	873			55	✓				✓					✓				
9	874			45	✓			✓							✓	✓	✓	
10	875			45	✓				✓					✓				
11	876			35	✓			✓							✓	✓	✓	
12	877			35	✓				✓					✓				
13	878			30	✓													
14	879			20	✓			✓							✓	✓	✓	
15	880			20	✓				✓					✓				
16	881			20	✓													
17	882			10	✓			✓							✓	✓	✓	
18	883			10	✓	COCCO	✓		✓					✓				
19	884			10	✓													
20	885			10	✓													
21	886			5				✓							✓	✓	✓	
22	887			5					✓					✓				
23	888			5														
24	889			5														

Comments: NUTS - yellow in red node

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3886

Cast # down: 89
Cast # up: 89

Time	LOC	UTC
Begin:		1809
Bottom:		1815
End:		

START POSITION (GPS)
LAT: 50 51.02
LONG: 144 40.82

BOTTOM POSITION (GPS)
LAT: 50 50.99
LONG: 144 40.87

END POSITION (GPS)
LAT: 50 50.95
LONG: 144 40.93

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT 11 CAST NUMBER: 90 UTC DATE (dd/mm/yyyy): 22/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												PRG
				Sample Depth	Confirmed pressure	SAL		NUT		TCO	PH	OPS		PMS		N2O		
										PAR	ALK		CHL		SF6		MEH	
1	890	1153	2.608	200				✓	✓	✓	✓			✓			✓	
2	891	1148	4.365	150				✓	✓	✓	✓			✓			✓	
3	892			100					✓	✓			✓			✓	✓	✓
- 4	893	1158	6.437	100				✓		✓				✓	✓			
5	894			75					✓	✓			✓			✓	✓	✓
- 6	895	1241	7.041	75				✓		✓				✓	✓			
7	896			55					✓	✓			✓			✓	✓	✓
- 8	897	1176	7.157	55				✓		✓				✓	✓			
9	898			45					✓	✓			✓			✓	✓	✓
- 10	899	1189	7.236	45				✓		✓				✓	✓			
11	900			35					✓	✓			✓			✓	✓	✓
- 12	901	1175	7.005	35				✓		✓				✓	✓			
13	902	1195	6.760	30						20								
14	903			20					✓	✓			✓			✓	✓	✓
- 15	904	1188	6.788	20				✓		✓				✓	✓			
16	905			20														
17	906			10					✓	✓			✓			✓	✓	✓
- 18	907	1193	6.874	10	COCCO	✓	✓		✓					✓	✓			
19	908			10	broken													
20	909			10	broken													
21	910			5					✓	✓			✓			✓	✓	✓
- 22	911	1192	6.843	5				✓		✓				✓	✓			
23	912			5														
24	913			5	mlt													

Comments: NUTS IN WHITE

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3785

Cast # down: 90
Cast # up: 90

Time	LOC	UTC
Begin:		0042
Bottom:		0046
End:		0108

START POSITION (GPS)
LAT: 50 55.78
LONG: 144 31.28

BOTTOM POSITION (GPS)
LAT: 50 55.75
LONG: 144 31.20

END POSITION (GPS)
LAT: 50 55.67
LONG: 144 31.18

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN21 CAST NUMBER: 91 UTC DATE (dd/mm/yyyy): 22/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. m/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13						
							OXY				ALK		CHL					
1	914			100	/													
2	915			75	/													
3	916			55	/													
4	917			45	/													
5	918			35	/													
6	919			30	/													
7	920			20	/													
8	921			20	/													
9	922			20	/													
10	923			15	/													
11	924			10	/													
12	925			10	/													
13	926			10	/													
14	927			5	/													
15	928			5	/													
16	929			5	/													
17	930			5	/													
18	931			5	PB													
19	932			5	PB													
20	933			0														
21	934			0														
22																		
23																		
24																		

Comments: * #19 didn't trip.

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3975

Cast # down: 91
Cast # up: 91

Time	LOC	UTC
Begin:		02:34
Bottom:		02:39
End:		02:53

START POSITION (GPS)
LAT: 50 52 32
LONG: 144 37 67

BOTTOM POSITION (GPS)
LAT: 50 52 28
LONG: 144 37 68

END POSITION (GPS)
LAT: 50 52 16
LONG: 144 37 62

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN22 CAST NUMBER: 92 UTC DATE (dd/mm/yyyy): 22/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												P165
				Sample Depth	Confirmed pressure	SAL	OXY	NUT	PAR	TCO	PH	CI3	CHL	SF6	DMG	N2O	HEW	
1	935			100	/			✓		✓	✓	✓	✓			✓	✓	✓
2	936	255	7.069	100	/		✓		✓					✓	✓			
3	937			75	/			✓		✓	✓	✓	✓			✓	✓	✓
4	938	364	7.135	75	/		✓		✓					✓	✓			
5	939			55	/			✓		✓	✓	✓	✓			✓	✓	✓
6	940	535	7.221	55	/		✓		✓					✓	✓			
7	941			45	/			✓		✓	✓	✓	✓			✓	✓	✓
8	942	534	7.181	45	/		✓		✓					✓	✓			
9	943			45	/													
10	944			35	/			✓		✓	✓	✓	✓			✓	✓	✓
11	945	572	—	35	/		✓		✓					✓	✓			Smeg in oxy sample didn't titrate correctly.
- 12	946			32.5	/													
- 13	947			30	/												✓	6.829
- 14	948			27.5	/													
15	949			20	/			✓		✓	✓	✓	✓			✓	✓	✓
16	950	588	6.866	20	/		✓		✓					✓	✓			
17	951			10	/			✓		✓	✓	✓	✓			✓	✓	✓
18	952	695	6.895	10	/	COCCO	✓	✓		✓				✓	✓			
19	953			10	/													
20	954			5				✓		✓	✓	✓	✓			✓	✓	✓
21	955	657	7.202	5			✓		✓					✓	✓			
22	956			5														
23	957			5														
24	958			0														

Comments:

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 3975

Cast # down: 92
Cast # up: 92

Time	LOC	UTC
Begin:		20:10
Bottom:		20:16
End:		20:32

START POSITION (GPS)
LAT: 50 53.83
LONG: 144 36.72

BOTTOM POSITION (GPS)
LAT: 50 53.82
LONG: 144 36.69

END POSITION (GPS)
LAT: 50 53.78
LONG: 144 36.65

ROSETTE LOG

MISSION ID: 2002-16 STATION: OUT12 CAST NUMBER: 93 UTC DATE (dd/mm/yyyy): 22/07/02

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13				MEH		
							OXY		DAIS		ALK	SFG	CHL	P165		N20		
1	959			200	/											✓		
2	960			150	/													
3	961			100	/									✓		✓		
4	962			75	/													
- 5	963			55	/				✓			✓						
- 6	964			45	/				✓			✓						
- 7	965			35	/				✓			✓						
- 8	966			30	/							✓		✓	✓	✓		
9	967			30	/													
-10	968			20	✓	COCCO	✓		✓					✓	✓	✓		
-11	969			10	/				✓									
12	970			10	/													
13	971			10	/													
14	972			10	✓													
15	973			5	/				✓					✓	✓	✓		
16	974			5	/													
17	975			5	/													
18	976			5	/	MH												
19	977			0														
20	978			0														
21	979			0		PB/RS												
22	980			0		PB/RS												
23	981			0		PB/RS												
24																		

Comments:

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 4207

Cast # down: 93
Cast # up: 93

Time	LOC	UTC
Begin:		2314
Bottom:		2322
End:		2341

START POSITION (GPS)
LAT: 51 02.12
LONG: 144 23.92

BOTTOM POSITION (GPS)
LAT: 51 02.09
LONG: 144 23.58

END POSITION (GPS)
LAT: 51 02.03
LONG: 144 23.56

ROSETTE LOG

MISSION ID: 2002-16 STATION: IN23 CAST NUMBER: 94 UTC DATE (dd/mm/yyyy): 23/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		Cl3						
							OXY			ALK		CHL	SFC					
1	982			100	/													
2	983			75	/													
3	984			55	/								✓					
4	985			45	/								✓					
5	986			35	/								✓					
6	987			30	/								✓					
7	988			20	/								✓					
8	989			20	/													
9	999	990		20	/													
10	1000	991		15	/													
11	1001	992		10	/								✓					
12	1002	993		10	/													
13	1003	994		10	/													
14	1004	995		5	/								✓					
15	1005	996		5	/													
16	1006	997		5	/													
17	1007	998		5	/													
18	1008	999		5	/													
19	1009	1000		5	/													
20	1010	1001		5	/													
21	1011	1002		0														
22	1012	1003		0														
23																		
24																		

Comments:

SHIP:
ENTERED BY: DA
CHECKED BY:

Bottom Depth: 4975

Cast # down: 94
Cast # up: 94

Time	LOC	UTC
Begin:		0252
Bottom:		0256
End:		0312

START POSITION (GPS)
LAT: 50 54.89
LONG: 144 36.05

BOTTOM POSITION (GPS)
LAT: 50 54.89
LONG: 144 36.01

END POSITION (GPS)
LAT: 50 54.92
LONG: 144 35.94

ROSETTE LOG

MISSION ID: 2002-16 STATION: 1N 24 CAST NUMBER: 95 UTC DATE (dd/mm/yyyy): 23/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												P166	SF6	
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		C13		PH		REL				
							OXY		PART		ALK		CHL	DMS		N2O				
1	1013			100	-			✓		✓		✓	✓		✓	✓	✓	✓		
2	1014	1244	6.902	100	✓		✓		✓					✓				✓		
3	1015			75	✓			✓				✓	✓		✓	✓	✓	✓		
4	1016	1247	7.096	75	✓		✓		✓					✓				✓		
5	1017			55	✓			✓		✓		✓	✓		✓	✓	✓	✓		
6	1018	1248	7.208	55	✓		✓		✓					✓				✓		
7	1019			45	✓			✓				✓	✓		✓	✓	✓	✓		
8	1020	1249	7.222	45	✓		✓		✓					✓				✓		
9	1021			35	✓			✓		✓		✓	✓		✓	✓	✓	✓		
10	1022	1254	7.177	35	✓		✓		✓					✓				✓		
11	1023			30	✓															
12	1024			30	✓			✓									✓			
13	1025			20	✓															
14	1026			20	✓			✓		✓		✓	✓		✓	✓	✓	✓		
15	1027	1258	6.829	20	✓		✓		✓					✓				✓		
16	1028			10	✓			✓		✓		✓	✓		✓	✓	✓	✓		
17	1029	1261	6.877	10	✓	COCCO	✓	✓	✓					✓				✓		
18	1030			10	✓															
19	1031			10	✓															
20	1032			5	✓			✓				✓	✓		✓	✓	✓	✓		
21	1033	1260	6.841	5	✓		✓		✓					✓				✓		
22	1034			5	✓															
23	1035			5	✓															
24	1036			0																

Comments: NUTS - gear t.t. a gear rack
Loop CMC when rosette at sfc. for calibration

SHIP:
ENTERED BY:
CHECKED BY:

Bottom Depth: 4128

Cast # down: 95
Cast # up: 95

Time	LOC	UTC
Begin:		19:27
Bottom:		19:32
End:		19:46

START POSITION (GPS)
LAT: 50 57 24
LONG: 144 21. 26

BOTTOM POSITION (GPS)
LAT: 50 57. 24
LONG: 144 21. 25

END POSITION (GPS)
LAT: 50 57. 24
LONG: 144 21. 22

ROSETTE LOG

MISSION ID: 2002-16 STATION: 00T 13 CAST NUMBER: 96 UTC DATE (dd/mm/yyyy): 24/07/2002

Niskin No.	Sample No.	OXY. Flask	OXY. ml/l	ROSETTE OPERATION		Samples taken												9164	
				Sample Depth	Confirmed pressure	SAL		NUT		TCO		CLD		DMS		N2O			
							OXY		PART	ALK	PH	CHL		SF6		MEH			
1	1037	1264	2.634	200	/		✓	✓		✓		✓		✓			✓		
2	1038	1267	4.738	150	/		✓	✓			✓		✓				✓		
3	1039			100	/			✓		✓	✓	✓				✓	✓	✓	
4	1040	1268	7.146	100	/		✓		✓				✓	✓					
5	1041			75	/			✓			✓	✓				✓	✓	✓	
6	1042	1272	7.133	75	/		✓		✓				✓	✓					
7	1043			55	/			✓		✓	✓	✓				✓	✓	✓	
8	1044	1270	7.175	55	/		✓		✓				✓	✓					
9	1045			45	/			✓			✓	✓				✓	✓	✓	
10	1046	1271	6.978	45	/		✓		✓				✓	✓					
11	1047			35	/			✓		✓	✓	✓				✓	✓	✓	
12	1048	1273	6.707	35	/		✓		✓				✓	✓					
13	1049			30	/												✓		
14	1050			20	/			✓		✓	✓	✓				✓	✓	✓	
15	1051	1274	6.522	20	/		✓		✓				✓	✓					
16	1052			20	/														
17	1053			10	/			✓		✓	✓	✓				✓	✓	✓	
18	1054	1276	6.511	10	/	COCCO	✓	✓		✓			✓	✓					
19	1055			10	/														
20	1056			10	/														
21	1057			5				✓			✓	✓				✓	✓	✓	
22	1058	1279	6.506	5			✓		✓				✓	✓					
23	1059			5															
24	1060			5															

Comments: NUTS in white T.T. in green rack

SHIP: Tuly
ENTERED BY:
CHECKED BY:

Bottom Depth: 2088

Cast # down: 96
Cast # up: 96

Time	LOC	UTC
Begin:		0134
Bottom:		0142
End:		0159

START POSITION (GPS)
LAT: 50 53.95
LONG: 143 38.51

BOTTOM POSITION (GPS)
LAT: 50 53.95
LONG: 143 38.59

END POSITION (GPS)
LAT: 50 53.93
LONG: 143 38.82