

Rosette Log for IOS Cruise ID 2007-20

Cast # 68 UTC Date (dmy) 15 Aug 2007 UTC Time 1:35
Station CB-15 Lat (N) 76° 59.891
CTD File 200720-68 Lon (W) 140° 11.186 W

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.4 Water Depth 3725+9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1480 (setting in Knudsen)
Start Scan Sorry... Watch day

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)												RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS	
1337		5	1														✓	✓	✓	✓	✓	✓	✓	✓			
1338		5	2																								
1339		5	3																								
1340		5	4																								
			5																								
			6																								
			7																								
			8																								
			9																								
			10																								
			11																								
			12																								
			13																								
			14																								
			15																								
			16																								
			17																								
			18																								
			19																								
			20																								
			21																								
			22																								
			23																								
			24																								

Comments:

Rosette Log for IOS Cruise ID 2007-20

Cast # 69 UTC Date (dmy) 15 Aug 2007 UTC Time 1:54
 Station CB-15 Lat (N) 76° 59.938' N
 CTD File 200720- 69 Lon (W) 140° 11.243' W

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.5 Water Depth 3725.9 (Knudsen, w/o +9 for ship hull)
 Ice Coverage 9/10 Sound Speed 1480 (setting in Knudsen)
 Start Scan Sorry... Watch day

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)													RNA/DNA (Karen Scarcella/C. Lovejoy)							J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS	
K 1341		1000	✓ 1															2	2			1	2	1			
K 1342		1000	✓ 2																								
K 1343		400	✓ 3															2	2			1	2	1			
K 1344		400	✓ 4																								
K 1345		150	✓ 5															2	2	2		1	2	1			
K 1346		150	✓ 6																								
K 1347		100	✓ 7															2	2	2		1	2	1			
K 1348		100	✓ 8																								
K 1349		99	✓ 9		✓	✓	✓	✓	✓	✓			✓	✓	✓												
K 1350		99	✓ 10													✓											
K 1351		63	✓ 11		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓												
K 1352		63	✓ 12													✓											
K 1353		57	✓ 13														2	2	2	2	2	1	2	1			
K 1354		57	✓ 14																								→ 15 - 057?
K 1355		25	15		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓												
K 1355	25	25	16		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											→ 25m ✓
K 1356	25	25	17		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											→ 25m ✓
K 1357	12	12	18		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											→ 12m ✓
K 1358	12	12	19		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											→ 12m ✓
K 1359	7	7	20		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											→ 7m ✓
K 1360	7	7	21		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											→ 7m ✓
K 1361	2	2	22		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓											→ 2m ✓
K 1362	2	2	23													✓											→ 2m ✓
			24																								

Comments: Niskin did not close after command. After ~1 minute, Deck unit 'Fire' used → then PC shows 2 bottles closed. Serial port problem again? Bottle file shows the two closed almost simultaneously.

Rosette Log for IOS Cruise ID 2007-20

Cast # 70 UTC Date (dmy) 15 08 2007 UTC Time 0831
Station CR-15 Lat (N) 77 01.94
CTD File 200720-070 Lon (W) 140 14.79

Cast Type: **Geochemistry**

In Air pressure 0.6/0.5 Water Depth 3728⁺⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1480 (setting in Knudsen)
Start Scan 10200 Watch TE/MD/HD/RN

27:30

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salintiy	Nutrients	NH4	Barium	O-18	POC	TSS	CS-137	CS-137	PUJAM	Comments
1364	1000		✓ 1	✓✓													✓							✓			
1365	1000		✓ 2	✓✓																				✓			
1366	1000		✓ 3	✓✓																				✓			
1367	1000		✓ 4	✓✓																				✓			
1368	800		✓ 5	✓✓													✓							✓			
1369	800		✓ 6	✓✓																				✓			
1370	800		✓ 7	✓✓																				✓			
1371	800		✓ 8	✓✓																				✓			
1372	600		✓ 9	✓✓													✓							✓			
1373	600		✓ 10	✓✓																				✓			
1374	600		✓ 11	✓✓																				✓			
1375	600		✓ 12	✓✓																				✓			
1376	400		✓ 13	✓✓													✓							✓			
1377	400		✓ 14	✓✓																				✓			
1378	400		✓ 15	✓✓																				✓			
1379	400		✓ 16	✓✓																				✓			
1380	300		✓ 17	✓✓													✓							✓			
1381	300		✓ 18	✓✓																				✓			
1382	300		✓ 19	✓✓																				✓			
1383	300		✓ 20	✓✓																				✓			
1384	5		✓ 21	✓✓													✓							✓			
1385	5		✓ 22	✓✓																				✓			
1386	5		✓ 23	✓✓																				✓			
1387	5		✓ 24	✓✓																				✓			

Comments:

↑
See previous cast
Winch change gears 602m↓
300↑
79

Rosette Log for IOS Cruise ID 2007-20

Cast # 71 UTC Date (dmy) 15 08 2007 UTC Time 0955
Station C13-15 Lat (N) 77 02.47
CTD File 200720-071 Lon (W) 140 15.26

Cast Type: Geochemistry
In Air pressure 6.5/6.4 Water Depth 3728⁺⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1480 (setting in Knudsen)
Start Scan 9000 Watch JE/MD/HD/RN

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box #	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity Green	Nutrients Orange/Yellow	NO3	Barium	O-18	POC	TSS	<u>I-129</u>	CS-137	PU/AM	Comments
1388	Bottom-5	3681 ^{15P}	✓ 1	✓✓	✓✓	3182	3100	3198	✓						✓		W	✓✓									
1389	3100		✓ 2	✓✓	✓	3160			✓						✓		13	✓					✓				→ Please SAVE because for IOS
1390	2500		✓ 3	✓✓	✓	3151			✓						✓								✓				Draw I-129 before
1391	2000		✓ 4	✓✓	✓	3174			✓						✓								✓				Salts
1392	1500		✓ 5	✓✓	✓	3196			✓						✓								✓				
1393	1000		✓ 6	✓✓	✓	3206			✓		✓	✓			✓	✓				✓	✓		✓				
1394	800		✓ 7	✓✓	✓	3012			✓		✓	✓			✓					✓			✓				
1395	600		✓ 8	✓✓	✓	3161			✓						✓								✓				
1396	500		✓ 9	✓✓	✓	3096			✓		✓	✓			✓								✓				
1397	tmax	400	✓ 10	✓✓	✓	3028			✓		✓	✓			✓								✓				
1398	34.75	305	✓ 11	✓✓	✓	3047			✓						✓								✓				
1399	34.7	298	✓ 12	✓✓	✓	3052			✓						✓								✓				
1400	34.6	270	✓ 13	✓✓	✓	3193			✓						✓	✓							✓				
1401	34.4	231	✓ 14	✓✓	✓	3063			✓		✓	✓			✓	✓				✓	✓		✓				
1402	34	188	✓ 15	✓✓	✓	3033			✓		✓	✓			✓	✓				✓	✓		✓				
1403	33.5	168/167	✓ 16	✓✓	✓	3191			✓						✓	✓	✓	✓		✓	✓						
1404	33.1	154	✓ 17	✓✓	✓✓	3166	3057		✓		✓	✓			✓	✓	✓✓	✓✓		✓	✓						
1405	32.9	145	✓ 18	✓✓	✓	2059			✓		✓	✓			✓	✓	✓	✓✓		✓	✓						
1406	32.6	127	✓ 19	✓✓	✓	3003			✓						✓	✓	✓	✓		✓	✓						
1407	32.3	103	✓ 20	✓✓	✓	3157			✓		✓	✓			✓	✓	✓	✓		✓	✓			✓			
1408	tmax	61	✓ 21	✓✓	✓	3188			✓		✓	✓			✓	✓	✓	✓		✓	✓			✓			
1409	tmin	43	✓ 22	✓✓	✓	3180			✓		✓	✓			✓	✓	✓	✓		✓	✓			✓			
1410	20		✓ 23	✓✓	✓	3113			✓		✓	✓			✓	✓	✓	✓		✓	✓						
1411	5		✓ 24	✓✓	✓✓	3006	2087		✓	✓	✓	✓			✓	✓	✓	✓✓		✓	✓			✓			

Comments: 13 Add wind change speeds 602↓, 599↑
I-129 @ 50, 100, 200, 250, 300, 350, 400.
22 32-3 15 12 11
40

Rosette Log for IOS Cruise ID 2007-20

Cast # 72
Station CB-16
CTD File 200720-72

UTC Date (dmy) 16 Aug 2007
Lat (N) 77° 59.658
Lon (W) 140° 0.936

UTC Time 2-57

Cast Type: Geochemistry

In Air pressure 0.5
Ice Coverage 8/10
Start Scan 8950

Water Depth 3747+9m (Knudsen, w/o +9 for ship hull)
Sound Speed 1479 (setting in Knudsen)
Watch day team

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients *2	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1412	Bo Hum	3695	✓ 1	✓✓	✓✓	3004	3061	3034							✓✓	✓✓								
1413	3100	3100	✓ 2	✓✓	✓	3051									✓	✓								
1414	2500	2500	✓ 3	✓✓		3019																		
1415	2000	2000	✓ 4	✓✓		3027																		
1416	1500	1500	✓ 5	✓✓		3177																		
1417	1000	1000	✓ 6	✓✓		3040			✓	✓							✓	✓						
1418	800	800	✓ 7	✓✓		3119			✓	✓					✓									
1419	600	600	✓ 8	✓✓		3069									✓✓									
1420	500	500	✓ 9	✓✓		3130			✓	✓					✓									
1421	tmax	398	✓ 10	✓✓		3164			✓	✓														
1422	341.75	304	✓ 11	✓✓		2063																		
1423	341.7	294	✓ 12	✓✓		3204																		
1424	341.6	265	✓ 13	✓✓		3107							✓											
1425	341.4	225	✓ 14	✓✓		2064			✓	✓			✓				✓	✓						
1426	34	183	✓ 15	✓✓		3084			✓	✓			✓				✓	✓						
1427	33.5	163	✓ 16	✓✓	✓	3121							✓				✓	✓						
1428	33.1	151	✓ 17	✓✓	✓✓	3181	3171		✓	✓			✓		✓	✓✓	✓	✓						
1429	32.9	143	✓ 18	✓✓	✓	3123			✓	✓			✓		✓✓	✓✓	✓	✓						
1430	32.6	124	✓ 19	✓✓		3108							✓		✓	✓✓	✓	✓						
1431	32.3	103	✓ 20	✓✓		3019			✓	✓			✓				✓	✓						
1432	tmax (tmax)	55	✓ 21	✓✓		3024			✓	✓	✓	✓	✓	✓			✓	✓						
1433	tmin	43	✓ 22	✓ x		3207					✓	✓	✓	✓			✓	✓						slow drip - air vent not quite tight
1434	20 (tmax)		✓ 23	✓✓		2047			✓	✓	✓	✓	✓	✓		✓✓	✓	✓						
1435	5		✓ 24	✓✓	✓	3016			✓	✓	✓	✓	✓	✓	✓	✓✓	✓	✓						

Comments:
old bottle 22?
overflow + bottle error at bottom - so stop agur and restart 41

B-50
 3100
 2500
 2000
 1500
 1000
 800
 600
 500

Tmax

34.75

34.7

34.6

34.4

34

33.5

33.1

32.9

32.6

32.3

Tmax/ Chl-max

TmTN

20

5

tmax 22

q-max 55

tmin 43

w

/h

0.69 317m

0.755 ~~322~~ 338

0.79 345

0.85 373

0.888 398

Rosette Log for IOS Cruise ID 2007-20

Cast # 73
 Station CB16N
 CTD File 200720-073

UTC Date (dmy) 16 08 2007 UTC Time 13:01
 Lat (N) 38° 57.09 N
 Lon (W) 139° 56.552

Cast Type: Geochemistry

In Air pressure 0.5/0.4 Water Depth 3763¹⁹ (Knudsen, w/o +9 for ship hull)
 Ice Coverage 9/10 Sound Speed 1479 m/s (setting in Knudsen)
 Start Scan 9700 Watch JE-MD-KAL-HD

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1436	B0-50	3710	✓ 1	✓✓	✓✓	3182	3100	3057									✓✓	✓✓									
1437	3100		✓ 2	✓✓	✓	3160											✓	✓✓					✓				
1438	2500		✓ 3	✓✓		3151												✓✓									
1439	2000		✓ 4	✓✓		3174																	✓				
1440	1500		✓ 5	✓✓		3196																	✓				
1441	1000		✓ 6	✓✓		3206					✓	✓															
1442	800		✓ 7	✓✓		3012					✓	✓								✓	✓						
1443	600		✓ 8	✓✓		3161																					
1444	500		✓ 9	✓✓	✓	3096					✓	✓															
1445	Tmax	423	✓ 10	✓✓	✓	3082	3189				✓	✓															
1446	34.75	296	✓ 11	✓✓	✓	3047											✓	✓✓									
1447	34.7	289	✓ 12	✓✓		3052											✓✓	✓✓									
1448	34.6	260	✓ 13	✓✓		3193									✓		✓	✓✓					✓				loose air vent screw - slight drip
1449	34.4	220	✓ 14	✓✓		3063					✓	✓			✓					✓	✓		✓				
1450	34	175	✓ 15	✓✓		3033					✓	✓			✓					✓	✓						
1451	33.5	156	✓ 16	✓✓		3191									✓					✓	✓						
1452	33.1	145	✓ 17	✓✓		3166					✓	✓			✓					✓	✓						loose air vent screw - slight drip
1453	32.9	138	✓ 18	✓✓		2059					✓	✓			✓					✓	✓						
1454	32.6	122	✓ 19	✓✓		3003									✓					✓	✓						
1455	32.3	101	✓ 20	✓✓		3157					✓	✓			✓					✓	✓		✓				
1456	Tmax	65	✓ 21	✓✓		3188					✓	✓			✓			✓✓		✓	✓						
1457	Tmin	4145	✓ 22	✓✓	✓	3180							✓		✓	✓	✓	✓✓		✓	✓						
1458	20		✓ 23	✓✓	✓	3113	2087				✓	✓	✓		✓	✓	✓✓	✓✓		✓	✓						
1459	5		✓ 24	✓✓	✓	3008				✓	✓	✓	✓		✓	✓	✓	✓		✓	✓						

Comments: helen in training lots of chunks of ice

* 1° trans upcast plot
 begins to deviate @ ~2600 m

gear Δ @ 835.4 ↓
 @ 597 ↑

Rosette Log for IOS Cruise ID 2007-20

Cast # 74
Station CB-16N
CTD File 200720-74

UTC Date (dmy) 16 Aug 2007 UTC Time 20:32
Lat (N) 78°56.287
Lon (W) 139°57.050

Cast Type: **Geochemistry**

In Air pressure 0.6 Water Depth 3763 +9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 7361 Watch day team (Hugh, Tim, Rick, Motoyo)

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salintiy	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1460	1000	998	✓ 1																						✓		
1461	1000	998	✓ 2																						✓		
1462	1000	998	✓ 3																						✓		
1463	1000	998	✓ 4														✓							✓	✓		
1464	800	796	✓ 5																						✓		
1465	800	796	✓ 6																						✓		
1466	800	796	✓ 7																						✓		
1467	800	796	✓ 8														✓							✓	✓		
1468	600	600	✓ 9																						✓		
1469	600	600	✓ 10																						✓		
1470	600	600	✓ 11																						✓		
1471	600	600	✓ 12														✓							✓	✓		
1472	400	399	✓ 13																						✓		
1473	400	399	✓ 14																						✓		
1474	400	399	✓ 15																						✓		
1475	400	399	✓ 16														✓							✓	✓		
1476	300	300	✓ 17																						✓		
1477	300	300	✓ 18																						✓		
1478	300	300	✓ 19																						✓		
1479	300	300	✓ 20														✓							✓	✓		
1480	5	5	✓ 21																						✓		
1481	5	5	✓ 22																						✓		
1482	5	5	✓ 23																						✓		
1483	5	5	✓ 24														✓							✓	✓		

Comments:

Rosette Log for IOS Cruise ID 2007-20

Cast # 75
Station TK-1
CTD File 200720-75

UTC Date (dmy) 16 Aug 2007
Lat (N) 78° 43.945' N
Lon (W) 138° 53.645' W

UTC Time 1=20

Cast Type: **Geochemistry**
In Air pressure _____
Ice Coverage 9/10
Start Scan 8800

Water Depth 3750+9m (Knudsen, w/o +9 for ship hull)
Sound Speed 1479 (setting in Knudsen)
Watch Hugh, Tr, Jen, Motoyo

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1484	Bottom	3747	✓ 1	✓✓	✓✓	3009	3135	3142									✓	✓✓									
1485	3500	3500	✓ 2	✓✓	✓	3219											✓	✓✓									
1486	3300	3300	✓ 3	✓✓	✓	2017																					
1487	3100	3100	✓ 4	✓✓	✓	3048																					
1488	2900	2900	✓ 5	✓✓	✓	2069																					
1489	2700	2700	✓ 6	✓✓	✓	2086																					
1490	2500	2500	✓ 7	✓✓	✓	2088																					
1491	2300	2298	✓ 8	✓✓	✓	2025																					
1492	2100	2100	✓ 9	✓✓	✓	3104																					
1493	1900	1900	✓ 10	✓✓	✓	2092											✓	✓✓									
1494	1700	1700	✓ 11	✓✓	✓	2074											✓	✓✓									
1495	1500	1500	✓ 12	✓✓	✓	3116											✓	✓✓									
1496	1300	1300	✓ 13	✓✓	✓	3190																					
1497	500		✓ 14	✓✓	✓✓	2060	2027																				
1498	480		✓ 15	✓✓	✓✓	3107	3182																				
1499	460		✓ 16	✓✓	✓✓	3201	3160										✓	✓✓									
1500	440	435	✓ 17	✓✓	✓✓	3178	3151										✓✓	✓✓									
1501	435	430	✓ 18	✓✓	✓✓	3019	3174										✓	✓✓									
1502	422		✓ 19	✓✓	✓✓	3055	3196																				
1503	390		✓ 20	✓✓	✓✓	2051	3206																				
1504	377	375	✓ 21	✓✓	✓✓	3118	3012																				
1505	358		✓ 22	✓✓	✓✓	2014	3161																				
1506	335		✓ 23	✓✓	✓✓	2007	3096																				
1507	320		✓ 24	✓✓	✓✓	3106	3028										✓	✓✓									

Comments:

Box #1
Some duplicates
in box #4 (they are labeled)

NOTES - WHITE
OXY-BOX 1 - DOPS BOX 1 & 4
SALIN - WHITE



14

Bottom

10

3500

33

31

29

27

25

23

21

19

17

15

13

1100

Rosette Log for IOS Cruise ID 2007-20

Cast Type: Productivity, RNA/DNA, POC/TSS

Cast # 76 UTC Date (dmy) 18 08 2007 UTC Time 1253
Station CB-15 Lat (N) 76 58.13
CTD File 200720-076 Lon (W) 140 04.50

In-Air Pressure 0.5/0.5 Water Depth 3717 (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 0 Watch TE/MD/HD/RN

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)												RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments		
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS			
1508		5	1																										
1509		↑	2																										
1510			3																										
1511			4																										
1512			5																										
1513			6																										
1514			7																										
1515			8																										
1516			9																										
1517			10																										
1518			11													✓													
1519			12																										
1520			13																										
1521			14																										
1522			15																										
1523			16																										
1524			17																										
1525			18																										
1526			19																										
1527			20																										
1528			21																										
1529			22																										
1530		↓	23																										
1531		5	24																										

Comments:

↑↑ notice!

24 bottles for
Prod & RNA/DNA
experiment

Rosette Log for IOS Cruise ID 2007-20

Cast # 77 UTC Date (dmy) 19 Aug 2007 UTC Time 2:10
Station LS-28 Lat (N) 77° 0.726' N
CTD File 200720-77 Lon (W) 136° 30.811' W

Cast Type: **Geochemistry**
In Air pressure 0.5 Water Depth 3605 + 9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 7/10 Sound Speed 1463 (setting in Knudsen)
Start Scan 13600 Watch Jen, Tim, Hugh, Motoyo

Samp #	Target Property	Actual Depth(m)	Niskin # ✓	Bottle Integrity ✓	Oxygen ✓	Oxy Flask # ✓	Oxy Dup Flask # ✓	Oxy Trip Flask # ✓	BIC	C-13	DOC ✓	CDOM ✓	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity ✓	Nutrients ✓	NH4	Barium ✓	O-18 ✓	POC ✓	TSS ✓	129	CS-137	PU/AM ✓	Comments
1532	Bottom	503580	✓ 1	✓✓	✓✓	3004	3061	3124									✓✓	✓✓									
1533	3100	3100	✓ 2	✓✓	✓	3051											✓	✓✓									
1534	2500	2500	✓ 3	✓✓		3109																					
1535	2000	2000	✓ 4	✓✓		3097																					
1536	1500	1500	✓ 5	✓✓		3177																					
1537	1000	1000	✓ 6	✓✓		3090					✓	✓								✓	✓						
1538	800	800	✓ 7	✓✓		3119					✓	✓															
1539	600	600	✓ 8	✓✓		3069																					
1540	500	500	✓ 9	✓✓	✓	3130					✓	✓					✓	✓✓									
1541	tmax	410	✓ 10	✓✓	✓✓	3164	3171				✓	✓					✓✓	✓✓									
1542	34.8	351	✓ 11	✓✓	✓	2063											✓	✓✓									
1543	34.7	300	✓ 12	✓✓		3204																					
1544	34.6	271	✓ 13	✓✓		3107									✓												
1545	34.4	236	✓ 14	✓✓		2064					✓	✓			✓					✓	✓						
1546	34	187	✓ 15	✓✓		3084					✓	✓			✓					✓	✓						
1547	33.5	165	✓ 16	✓✓		3121									✓					✓	✓						
1548	33.1	151	✓ 17	✓✓		3181					✓	✓			✓					✓	✓						
1549	32.9	147	✓ 18	✓✓		3123					✓	✓			✓					✓	✓						
1550	32.6	130	✓ 19	✓✓		3108									✓					✓	✓						
1551	32.3	109	✓ 20	✓✓	✓	3019					✓	✓			✓		✓	✓✓		✓	✓						
1552	tmax	67	✓ 21	✓✓	✓✓	3024	3038				✓	✓	✓	✓	✓		✓✓	✓✓		✓	✓						
1553	tmin	46	✓ 22	✓✓	✓	3207					✓	✓			✓	✓	✓	✓✓		✓	✓						
1554	20		✓ 23	✓✓	✓	2047					✓	✓			✓	✓	✓	✓✓		✓	✓						
1555	5		✓ 24	✓✓	✓	3016				✓	✓	✓	✓	✓	✓	✓	✓	✓✓		✓	✓						

Comments:
20 turn
+ min
50 turn

NOTS - Red
SAL - BLUE
OXY - Box # 3

T_{max} 4/0

T_{min} 46 -

T_{max} 6'7

$C_{-max} = T_{max}$

Rosette Log for IOS Cruise ID 2007-20

Cast # 78
Station PP-7
CTD File 200720-078

UTC Date (dmy) 19 08 2007 UTC Time 10:48
Lat (N) 76°26.272
Lon (W) 135°20.286

Cast Type: **Geochemistry**

In Air pressure 0.5/0.5 Water Depth 3543⁺⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 5/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 15800 Watch JE-HD-RN-4D.

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box 4	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7µm	Chl-a 0.3µm	Bacteria	FW-Alkalinity	Salinity Green	Nutrients Blue/White	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1556	1500		✓ 1	✓✓	✓✓	3182	3198										✓✓	✓✓						✓			
1557	1000		✓ 2	✓✓	✓	3160					✓	✓					✓	✓		✓	✓			✓			
1558	800		✓ 3	✓✓	✓	3151					✓	✓					✓	✓						✓			
1559	600		✓ 4	✓✓	✓	3174											✓	✓						✓			
1560	500		✓ 5	✓✓	✓	3196					✓	✓					✓	✓						✓			
1561	Tmax	395	✓ 6	✓✓	✓✓	3206	2073				✓	✓					✓	✓						✓			
1562	34.75	301	✓ 7	✓✓	✓	3012											✓	✓						✓			
1563	34.7	295	✓ 8	✓✓	✓	3161											✓	✓									
1564	34.6	264	✓ 9	✓✓	✓	3096								✓	✓		✓	✓						✓			
1565	34.4	229	✓ 10	✓✓	✓	3028					✓	✓		✓	✓		✓✓	✓✓		✓	✓						
1566	34	184	✓ 11	✓✓	✓	3047					✓	✓		✓	✓		✓	✓		✓	✓			✓			
1567	33.5	163	✓ 12	✓✓	✓✓	3052	3189	3100						✓	✓		✓	✓		✓	✓						
1568	33.1	148	✓ 13	✓✓	✓	3193					✓	✓		✓	✓		✓	✓		✓	✓						estimate z from graph
1569	32.9	140	✓ 14	✓✓	✓	3063					✓	✓		✓	✓		✓	✓		✓	✓						
1570	32.6	125	✓ 15	✓✓	✓	3033								✓	✓		✓	✓		✓	✓						
1571	32.3	106	✓ 16	✓✓	✓	3191					✓	✓		✓	✓		✓	✓		✓	✓			✓			
1572	Tmax	66	✓ 17	✓✓	✓	3166					✓	✓		✓	✓		✓	✓		✓	✓						
1573	Tmin	43	✓ 18	✓✓	✓	2059							✓		✓	✓	✓	✓		✓	✓						
1574	Tmax	18	✓ 19	✓✓	✓	3003					✓	✓	✓	✓	✓	✓	✓	✓		✓	✓			✓			
1575	5		✓ 20	✓✓	✓	3157				✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓			✓			C13 taken after CDOM/DOC/I129
			21																								
			22																								
			23																								
			24																								

Comments: at 60m/min 25m before target z. 02 Box 4 Δ gear @ 585m ↓ 599m ↑

PP6.5

Rosette Log for IOS Cruise ID 2007-20

Cast # 79
 Station Prod-Ex-Open
 CTD File 200720-079

UTC Date (dmy) 19 Aug 2007 UTC Time 14:06
 Lat (N) 76 15.576
 Lon (W) 133 52.981

Cast Type: Productivity, RNA/DNA, POC/TSS

In-Air Pressure 0.5/0.5 Water Depth 3333+9 m (Knudsen, w/o +9 for ship hull)
 Ice Coverage 0/10 open Sound Speed 1479 (setting in Knudsen)
 Start Scan 9080 Watch CE/HD/RN/HD/NO/KB

open water site

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)													RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments		
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS				
1576	5	5m	1																											24 bottles for Productivity - DNA/RNA
			2																											
			3																											
			4																											
			5																											
			6																											
			7																											
			8																											
			9																											
			10																											
			11																											
			12																											
			13																											
			14																											
			15																											
			16																											
			17																											
			18																											
			19																											
			20																											
			21																											
			22																											
			23																											
1599	5		24																											

24 bottles for Productivity - DNA/RNA

Comments:

Rosette Log for IOS Cruise ID 2007-20

Cast # 80
Station PP-6
CTD File 200720-080

UTC Date (dmy) 19 Aug 2007 UTC Time 1717
Lat (N) 76 2.39
Lon (W) 132 28.91

Cast Type: **Geochemistry**

In Air pressure 0.5 Water Depth 3030⁺9m (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1477 (setting in Knudsen)
Start Scan 10396 Watch JE/HD/HD/RN/CB

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1600	B ₀ -10	3005	✓1	✓✓	vv	3009	3135	2027									✓	✓						✓			
1601	2500	2500	✓2	✓✓	✓	3209											✓	✓						✓			
1602	2000	1999	✓3	✓✓		2017											✓	✓						✓			
1603	1500	1500	✓4	✓✓		3048											✓	✓						✓			
1604	1000	1000	✓5	✓✓		20109					✓	✓								✓	✓			✓			
1605	800	800	✓6	✓✓		20816					✓	✓												✓			
1606	600	600	✓7	✓✓		2088																		✓			
1607	500	500	✓8	✓✓		2025					✓	✓												✓			~1L for Knstina (ammonium)
1608	Tmax	394	✓9	✓✓		3104					✓	✓							vv					✓			
1609	34.8	378	✓10	✓✓		2092																		✓			
1610	34.7	296	✓11	✓✓		3074																		✓			
1611	34.6	263	✓12	✓✓		3116												✓						✓			
1612	34.4	225	✓13	✓✓	✓	3190					✓	✓			✓		✓	✓						✓			
1613	34	184	✓14	✓✓	vv	2060	3088				✓	✓			✓		✓	✓	✓	✓	✓			✓			
1614	33.7	171	✓15	✓✓	✓	3187									✓		✓	✓	✓	✓	✓						
1615	33.4	158	✓16	✓✓		3201									✓		✓	✓	✓	✓	✓						
1616	33.1	146	✓17	✓✓		3178					✓	✓			✓		✓	✓	✓	✓	✓						
1617	32.9	137	✓18	✓✓		3018					✓	✓			✓			✓	✓	✓	✓						
1618	32.6	120	✓19	✓✓		3055									✓			✓	✓	✓	✓						
1619	32.3	104	✓20	✓✓		2051					✓	✓			✓			✓	✓	✓	✓			✓			
1620	Tmax	70	✓21	✓✓		3118					✓	✓			✓	✓	✓	✓	✓	✓	✓						
1621	Tmin	39	✓22	✓✓		2014							✓		✓	✓	✓	✓	✓	✓	✓			✓			
1622	Tmax	20	✓23	✓✓	✓	2007					✓	✓	✓		✓	✓	✓	✓	✓	✓	✓						
1623	5		✓24	✓✓	vv	3186	2087			✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓			

Comments:

T
40-50m
18-20m
55-70m

51
63
69-72
143 chl spike
225 chl spike

1620m Δ gears

make 2 labels for
but 24

I-129, add bottles nearest
50, 100, 200, 250, 300, 350, 400

@ 2000 m

Rosette Log for IOS Cruise ID 2007-20

Cast # 81 UTC Date (dmy) 20 Aug 2007 UTC Time 0=10
 Station PP-4 Lat (N) 75° 57.200' N
 CTD File 200720-81 Lon (W) 130° 0.812' W

Cast Type: Geochemistry

In Air pressure 0.51 Water Depth 1981+9 (Knudsen, w/o +9 for ship hull)
 Ice Coverage 2/10 Sound Speed 1479 (setting in Knudsen)
 Start Scan 4735 Watch Sarah, Tim, Jen, Hugh, Moteno

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen <i>Box 4</i>	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	BIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1624	Bottom	1945	V1	✓✓	✓✓	3182	3198	2073									✓✓	✓✓					✓				
1625	1500	1500	V2	✓✓	✓	3160											✓	✓✓					✓				
1626	1200	1200	V3	✓✓	✓	3151											✓	✓									
1627	1000	1000	V4	✓✓	✓	3174					✓	✓				✓				✓	✓		✓				
1628	800	800	V5	✓✓	✓	3196					✓	✓											✓				
1629	600	600	V6	✓✓	✓	3206																	✓				
1630	500	500	V7	✓✓	✓	3112					✓	✓											✓				extra ammonium for knudsen
1631	450	450	V8	✓✓	✓	3161											✓	✓									
1632	tmax	399	V9	✓✓	✓✓	3096	3189				✓	✓					✓✓	✓✓	✓✓				✓				
1633	34.8	384	V10	✓✓	✓	3028											✓	✓✓					✓				
1634	34.7	315	V11	✓✓	✓	3047																					
1635	34.6	288	V12	✓✓	✓	3052									✓	✓				✓	✓		✓				
1636	34.4	249	V13	✓✓	✓	3193					✓	✓			✓	✓			✓✓	✓	✓		✓				
1637	34	208	V14	✓✓	✓	3063					✓	✓			✓	✓			✓✓	✓	✓		✓				
1638	33.5	186	V15	✓✓	✓	3033																					
1639	33.1	165	V16	✓✓	✓	3191					✓	✓			✓	✓			✓✓	✓	✓						
1640	32.9	154	V17	✓✓	✓	3166					✓	✓			✓	✓			✓✓	✓	✓						
1641	32.6	130	V18	✓✓	✓	2059									✓	✓	✓	✓✓	✓✓	✓	✓						
1642	32.3	111	V19	✓✓	✓✓	3003	3142				✓	✓			✓	✓	✓✓	✓✓	✓✓	✓	✓		✓				
1643	tmax ch-max	83	V20	✓✓	✓	3157					✓	✓			✓	✓	✓	✓	✓✓	✓	✓						
1644	t-min ch-min	56	V21	✓✓	✓	3188					✓	✓			✓	✓			✓✓	✓	✓		✓				
1645	Some signal ch-a	40	V22	✓✓	✓	3180																					
1646	20		V23	✓✓	✓	3113					✓	✓			✓	✓			✓✓	✓	✓						
1647	5		V24	✓✓	✓	3006				✓	✓	✓			✓	✓	✓	✓✓	✓✓	✓	✓						

Comments: ↑ # tmax / chlmax

↑

tmin
tmax / 20 m
5

room for
1 more
bottle? or skip

↑

(12)

↑

(12)

↑
I add
350, 300, 250, 200, 100, 50

Rosette Log for IOS Cruise ID 2007-20

Cast Type: Productivity, RNA/DNA, POC/TSS

Cast # 82 UTC Date (dmy) 20 08 2007 UTC Time 0521
Station PP-2 Lat (N) 75 50.68
CTD File 200720- 082 Lon (W) 128 38.53

In-Air Pressure 10.5 Water Depth 996.2 (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1479 (setting in Knudsen)
Start Scan _____ Watch Day start
Night finish

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)												RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS	
1648	900		✓ 1	✓✓												2	2			1	2	1					
1649	900		✓ 2	✓✓																							
1650	810		✓ 3	✓✓																			✓✓	✓✓			
1651	530		✓ 4	✓✓																			✓✓	✓✓			
1652	480		✓ 5	✓✓												2	2			1	2	1					
1653	480		✓ 6	✓✓																							
1654	231		✓ 7	✓✓																			✓✓	✓✓			
1655	200		✓ 8	✓✓												2	2	2		1	2	1					
1656	200		✓ 9	✓✓																							
1657	155		✓ 10	✓✓																			✓✓	✓✓			
1658	147		✓ 11	✓✓																			✓✓	✓✓			
1659	129		✓ 12	✓✓																			✓✓	✓✓			
1660	112		✓ 13	X✓																			✓✓	✓✓		spigot leaks, air vent not cranked	
1661	100		✓ 14	✓✓												2	2	2		1	2	1					
1662	100		✓ 15	✓✓																							
1663	70		✓ 16	✓✓												2	2	2	2	2	1	2	1				
1664	70		✓ 17	✓✓																							
1665	70		✓ 18	✓✓																			✓✓	✓✓			
1666	50		✓ 19	✓✓																			✓✓	✓✓			
1667	20		✓ 20	✓✓																			✓✓	✓✓			
1668	5		21	✓✓																			✓✓	✓✓			
1669	5		22	✓✓												2	2	2	2	2	1	2	1				
1670	5		23	✓✓																							
			24																								

Comments:

Rosette Log for IOS Cruise ID 2007-20

Cast # 83 UTC Date (dmy) 20 08 2007 UTC Time 0724
 Station PP-2 Lat (N) 75 50.24
 CTD File 200720-083 Lon (W) 128 42.58

Cast Type: Geochemistry

In Air pressure 0.5/0.5 Water Depth 1020^{±9} (Knudsen, w/o +9 for ship hull)
 Ice Coverage 5/10 Sound Speed 1456 (setting in Knudsen)
 Start Scan 20600 Watch JE/MD/KD/RN

28.00

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7ur	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients Green	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1671	B ₀ -10	1025±8	✓ 1	✓✓	✓✓✓	3009	3135	2087			✓	✓					✓✓	✓✓									
1672	900		✓ 2	✓✓	✓	3209											✓	✓✓	✓✓								
1673	800		✓ 3	✓✓	✓	2017					✓	✓				✓		✓✓		✓	✓						
1674	700		✓ 4	✓✓	✓	3048																					
1675	600		✓ 5	✓✓	✓	2069																					
1676	500		✓ 6	✓✓	✓	2086					✓	✓															
1677	Tmax	437	✓ 7	✓✓	✓	2088					✓	✓					✓										
1678	400		✓ 8	✓✓	✓	2025					✓	✓					✓✓										
1679	34.75	343	✓ 9	✓✓	✓	3104											✓										
1680	34.7	310	✓ 10	✓✓	✓	2092																					
1681	34.6	271	✓ 11	✓✓	✓	2074																					
1682	34.4	234	✓ 12	✓✓	✓	3116					✓	✓							✓✓	✓	✓						
1683	34	196	✓ 13	✓✓	✓	3190					✓	✓							✓✓	✓	✓						
1684	33.7	181	✓ 14	✓✓	✓	2060												✓✓									
1685	33.4	169	✓ 15	✓✓	✓	3187											✓	✓✓	✓✓	✓	✓						
1686	33.1	156	✓ 16	✓✓	✓✓	3201	2058				✓	✓					✓	✓✓	✓✓	✓	✓						
1687	32.9	146	✓ 17	✓✓	✓	3178					✓	✓					✓		✓✓	✓	✓						
1688	32.6	129	✓ 18	✓✓	✓	3018											✓		✓✓	✓	✓						
1689	32.3	110	✓ 19	✓✓	✓	3055											✓		✓✓	✓	✓						
1690	32	94	✓ 20	✓✓	✓	2051					✓	✓					✓		✓✓	✓	✓						
1691	CHLMax	73	✓ 21	✓✓	✓	3118					✓	✓					✓		✓	✓	✓						
1692	Tmin	55	✓ 22	✓✓	✓✓	2014	3057				✓	✓					✓	✓	✓✓	✓✓	✓	✓					
1693	5		✓ 23	✓✓	✓	2007				✓	✓	✓					✓	✓✓	✓✓	✓	✓						
---	ISUS		24								✓	✓	✓														

Comments: pumps left off for 1st try to 118 m - start scan gives beginning of second time down
 primary xmissometer went noisy @ 700m on ↓, came back on ↑

Winch change gears 605↓ 598↑

Rosette Log for IOS Cruise ID 2007-20

Cast # 84 UTC Date (dmy) 20 08 2007 UTC Time 1040
Station PP-1 Lat (N) 75 50.78
CTD File 200720-084 Lon (W) 127 47.57

Cast Type: **Geochemistry**

In Air pressure 0.4/0.5 Water Depth 434 +9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 6/10 Sound Speed 1456 (setting in Knudsen)
Start Scan 9900 Watch JE/MD/HO/RA

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box 3	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity Green & White	Nutrients Blue	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1694	Bo	437+7	1	vv	✓	3004										✓	✓	✓									- no confirmation when this fired.
5	Bo	437+7	2	vv	✓	3051	3061				✓	✓					✓	✓									
6		380	3	vv	✓	3109					✓	✓				✓	✓	✓	✓	✓							
7	34.75	334	4	vv		3097																					
8	34.7	303	5	vv		3177										✓	✓	✓									
9	34.6	270	6	vv		3040										✓	✓	✓									
10	34.4	229	7	vv		3119					✓	✓				✓	✓	✓	✓	✓							
11	34	193	8	vv	✓	3069						✓	✓			✓	✓	✓	✓	✓							
12	33.1	152	9	vv	✓	3130	3171				✓	✓				✓	✓	✓	✓	✓							
13	32.9	144	10	✓	✓	3164					✓	✓				✓	✓	✓	✓	✓							
14	32.6	127	✓ 11	✓		2063										✓	✓	✓	✓	✓							
15	32.3	109	✓ 12	✓		3004					✓	✓				✓	✓	✓	✓	✓							
16	32	96	✓ 13	✓		3107										✓	✓	✓	✓	✓							
17	ChlMax	82	✓ 14	✓	✓	2061	3034									✓	✓	✓	✓	✓							
18	Tmin	56	✓ 15	✓	✓	3084	3034				✓	✓					✓	✓	✓	✓							
19		20	✓ 16	✓	✓	3121					✓	✓				✓	✓	✓	✓	✓							
1710		5	✓ 17		✓	3181				✓	✓	✓				✓	✓	✓	✓	✓							
			18																								
			19																								
			20																								
			21																								
			22																								
			23																								
			24																								

Comments: O₂ flask has crack in neck: #3004

Rosette Log for IOS Cruise ID 2007-20

Cast # 85 UTC Date (dmy) 21 08 2007 UTC Time 9:19
Station CB-17 Lat (N) 75° 59.515
CTD File 200720-085 Lon (W) 139° 58.712

Cast Type: **Geochemistry**

In Air pressure 0.4/6.5 Water Depth 3694 (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 8760 Watch JE/MD/RN/HD

TSS / POC cast
+ Test/compre SBE 19+
600m depth limit

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7ur	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	(Nutrients	NH4	Barium	Q-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1711	S34.4	248m	✓ 1																			2	3				
1712	fmin	204m	✓ 2																			2	3				
1713	fmin	204m	✓ 3																			2	3				
1714	S33.1	170m	✓ 4																			2	3				
1715	S=32.9	156m	✓ 5																			2	3				
1716	S=32.6	129m	✓ 6																			2	3				
1717	S=32.3	104m	✓ 7																			2	3				
1718	chl. max	58m	✓ 8																			2	3				
1719	fmin	33m	✓ 9																			2	3				
1720	fmin	33m	✓ 10																			2	3				
1721	WSTML	21m	✓ 11																			2	3				
1722	5m	5m	✓ 12																			2	3				
			13																								
			14																								
			15																								
			16																								
			17																								
			18																								
			19																								
			20																								
			21																								
			22																								
			23																								
			24																								

Comments: please wait 2 min @ bottom depth for CTD comparison 97

Rosette Log for IOS Cruise ID 2007-20

Cast # 86
Station CB-17
CTD File 200720-086.dat
UTC Date (dmy) 21 08 2007
Lat (N) 75° 59.070
Lon (W) 139° 59.124

UTC Time 11:03

Cast Type: Geochemistry

In Air pressure 0.5/0.5
Ice Coverage 7/10
Start Scan 12000
Water Depth 3688⁺9 (Knudsen, w/o +9 for ship hull)
Sound Speed 1479 (setting in Knudsen)
Watch JE/MD/RN/HD.

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box 1	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7ur	Chl-a 0.3um	Bacteria	FW-Alkalinity	Reg Salinity	Reg Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PUJAM	Comments
1723		3610	1														✓✓	✓✓									did not fire-error message
1724		3610	2	✓✓	✓✓	3209	3135	3058									✓✓	✓✓									
1725		3100	3	✓✓		2017																					
1726		2500	4	✓✓		3048																					
1727		2000	5	✓✓		2069																					
1728		1500	6	✓✓		2086																					
1729		1000	7	✓✓		2028					✓	✓								✓	✓						
1730		800	8	✓✓		2025					✓	✓															
1731		600	9	✓✓		3104											↓		⑥								
1732		500	10	✓✓		2092					✓	✓					✓✓		⑥								
1733	Tmax	445	11	✓✓	✓	2074					✓	✓					✓	✓✓									
1734	34.7	312	12	✓✓	✓✓	3116	3057										↓	✓✓✓									
1735	34.6	286	13	✓✓	✓	3190									✓			✓✓		✓	✓						-drew oxy 3x's Alkaline iodide bubbly??
1736	34.4	247	14	✓✓		2060					✓	✓			✓					✓	✓						
1737	34	207	15	✓✓		3187					✓	✓			✓					✓	✓						
1738	33.5	187	16	✓✓		3201									✓												
1739	33.1	169	17	✓✓	✓	3178					✓	✓			✓					✓	✓						
1740	32.9	155	18	✓✓	✓✓	3018	3100				✓	✓			✓					✓	✓						
1741	32.6	129	19	✓✓	✓	3055									✓					✓	✓						
1742	32.3	104	20	✓✓		2051					✓	✓			✓					✓	✓						
1743	Tmax	51	21	✓✓		3118					✓	✓	✓		✓	✓				✓	✓						
1744	Tmin	35	22	—									✓		✓	✓		✓✓		✓	✓						did not close - lanyard on wrong side of strut.
1745	Tmax	18	23	✓✓		2007					✓	✓	✓		✓	✓	✓	✓✓		✓	✓						
1746	5	5	24	✓✓	✓	3186				✓	✓	✓	✓		✓	✓	✓✓	✓✓		✓	✓						

Comments:
• Stopped @ 210m ↓ pressure sensor splice
• stopped @ 3836 m↑ as 1st bottle did not fire
graph read 2nd bottle - first. i.e. same changed depths.

gen Δ 600 ↓ 600 ↑

Rosette Log for IOS Cruise ID 2007-20

Cast Type: Productivity, RNA/DNA, POC/TSS

Cast # 87 UTC Date (dmy) 21 08 07 UTC Time 15:35
Station C817.5 Lat (N) 25 39.004
CTD File 200720-087 Lon (W) 139 43.008

In-Air Pressure 0.5/0.5 Water Depth 3693 +9m (Knudsen, w/o +9 for ship hull)
Ice Coverage 8/10 Sound Speed 1479 m/s (setting in Knudsen)
Start Scan 11377 Watch SE/RN/HQ/AD/ILP

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Productivity (Ian Wrohan/Diana Varela)												RNA/DNA (Karen Scarcella/C. Lovejoy)								J.Jackson		Comments
					Pro NC	Pro NH ₄	Pro U	PON POC	Bio Si	Chl a	PID _L	PID _F	Nut NH ₄	Nut Urea	Nut NPS	DIC	Fish E	DNA	Chl a	RNA	HP LC	Bac	Nut	Bio mas	POC	TSS	
1747	5m	5m	✓ 1														2	2	2	20			2	1			
48			✓ 2																								
49			✓ 3																								
50			✓ 4																								
51			✓ 5																								
52			✓ 6																								
53			✓ 7																								
54			✓ 8																								
55			✓ 9																								
56			✓ 10																								
57			✓ 11																								
58			✓ 12												✓												
59			✓ 13																								
60			✓ 14																								
61			✓ 15																								
62			✓ 16																								
63			✓ 17																								
64			✓ 18																								
65			✓ 19																								
66			✓ 20																								
67			✓ 21																								
68			✓ 22																								
69			✓ 23																								
1770			✓ 24																								

Comments:

Rosette Log for IOS Cruise ID 2007-20

Cast # 88 UTC Date (dmy) 21 Aug 2007 UTC Time 19:59
Station CB-18 Lat (N) 75° 0.065'N
CTD File 200720-088 Lon (W) 140° 0.252'W

Cast Type: Geochemistry

In Air pressure 0.5 Water Depth 3621+9m (Knudsen, w/o +9 for ship hull)
Ice Coverage 7/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 1040 Watch Tim, Hugh, Motoyo, Sarah

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DOC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1771	3010	3566	✓ 1	✓✓	✓✓	3182	2013	3142									✓ 6										
1772	3100	3080	✓ 2	✓✓	✓	3160											✓ 14										* Save 12 for IOS
1773	2500	2500	✓ 3	✓✓		3151											✓										
1774	2000	2000	✓ 4	✓✓		3174																					
1775	1500	1500	✓ 5	✓✓		3196																					
1776	1000	1000	✓ 6	✓✓		3206					✓	✓				✓				✓	✓						
1777	800	800	✓ 7	✓✓	✓	3012					✓	✓					✓										
1778	600	600	✓ 8	✓✓	✓	3161	3189										✓✓										
1779	500	500	✓ 9	✓✓	✓	3096											✓										
1780	450	450	✓ 10	✓✓		3028					✓	✓															
1781	tmax	420	✓ 11	✓✓		3047					✓	✓															
1782	34.8	368	✓ 12	✓✓		3052																					
1783	34.7	324	✓ 13	✓✓		3193																					
1784	34.6	295	✓ 14	✓✓		3063									✓					✓	✓						
1785	34.4	257	✓ 15	✓✓		3033					✓	✓				✓				✓	✓						
1786	34	214	✓ 16	✓✓		3191					✓	✓				✓				✓	✓						
1787	33.1	176	✓ 17	✓✓		3166					✓	✓				✓				✓	✓						
1788	32.9	162	✓ 18	✓✓		2059					✓	✓				✓				✓	✓						
1789	32.6	130	✓ 19	✓✓		3003										✓				✓	✓						
1790	32.3	108	✓ 20	✓✓		3157					✓	✓	✓			✓				✓	✓						
1791	tmax / chl-a	59	✓ 21	✓✓		3188					✓	✓	✓			✓				✓	✓						
1792	tmin	35	✓ 22	✓✓	✓	3186										✓				✓	✓						
1793	20		✓ 23	✓✓	✓✓	3113	3124				✓	✓	✓			✓	✓			✓	✓						
1794	5		✓ 24	✓✓	✓	3006				✓	✓	✓	✓			✓	✓✓	6		✓	✓						

Comments:

34.8

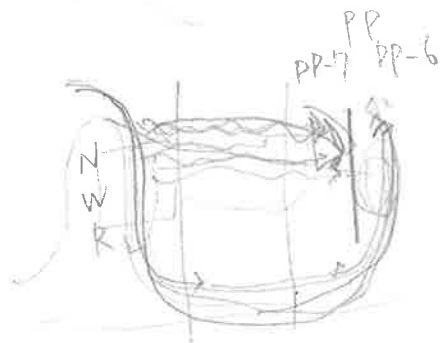
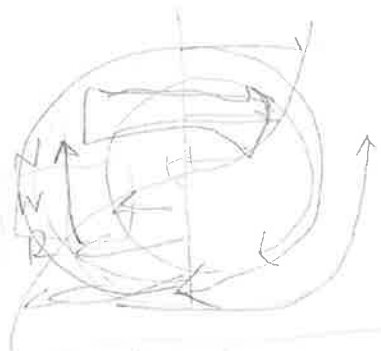
↑
Label 3 sets (2x Glass, 1x Plastic ⇒ freeze)
The other 3 sets ~~keep on~~ into plastic for on board

100

~~0.70 358~~

~~0.80 380~~

0.813 420



Rosette Log for IOS Cruise ID 2007-20

Cast # 89 UTC Date (dmy) 22 08 2007 UTC Time 6:59
Station C13-19W Lat (N) 74°30.225
CTD File 200720-089 Lon (W) 144°58.563

Cast Type: **Geochemistry**
In Air pressure 0.6/0.5 Water Depth 3731 +9 (Knudsen, w/o +9 for ship hull)
Ice Coverage 6/10 (?) Sound Speed 1479 (setting in Knudsen)
Start Scan 8300 Watch JE/MD/RN/HD

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen Box #1	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7µm	Chl-a 0.3µm	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1795	Bot-50	3680	✓ 1	✓✓	✓✓	3009	3057	3198									✓✓	✓✓									
1796	3100		✓ 2	✓✓	✓	3209											✓	✓									
1797	2500		✓ 3	✓✓		2017																					
1798	2000		✓ 4	✓✓		3048																					
1799	1500		✓ 5	✓✓		2069																					
1800	1000		✓ 6	✓✓		2086														✓	✓						
1801	800		✓ 7	✓✓		2088																					
1802	600		✓ 8	✓✓		2025																					
1803	500		✓ 9	✓✓	✓	3104											✓	✓✓									
1804	tmax	440	✓ 10	✓✓	✓✓	2092	3100										✓✓	✓✓									
1805	341.8	397	✓ 11	✓✓	✓	2074											✓	✓✓									
1806	341.7	333	✓ 12	✓✓		3116																					
1807	341.6	301	✓ 13	✓✓		3190																					
1808	341.4	266	✓ 14	✓✓		2060														✓	✓						
1809	24	235	✓ 15	✓✓		3187														✓	✓						(no 2m margin)
1810	33.1	194	✓ 16	✓✓		3201														✓	✓						
1811	32.9	180	✓ 17	X✓		3178														✓	✓						air vent was loose
1812	32.3	135	✓ 18	✓✓	✓	3018											✓	✓✓		✓	✓						
1813	32	98	✓ 19	✓✓	✓✓	2087	3055						✓				✓✓	✓✓		✓	✓						
1814	chlmax	57	✓ 20	✓✓	✓	2051							✓				✓	✓✓		✓	✓						
1815	tmax	51	✓ 21	✓✓		3118										✓				✓	✓						
1816	tmin	2734	✓ 22	X✓		2014										✓				✓	✓						spigot leak w/ air vent shut
1817	20		✓ 23	✓✓		2007							✓			✓				✓	✓						
1818	5		✓ 24	✓✓	✓	3186				✓	✓	✓	✓			✓	✓	✓✓		✓	✓						

Comments: gear @ 657 ↓ 430.5 ↑ 102

Rosette Log for IOS Cruise ID 2007-20

Cast # 90 UTC Date (dmy) 22 Aug 2007 UTC Time 22:42
Station CB-21 Lat (N) 73° 58.523' N
CTD File 200720-090 Lon (W) 140° 3.685' W

Cast Type: Geochemistry

In Air pressure 0.5 Water Depth 3498+9m (Knudsen, w/o +9 for ship hull)
Ice Coverage 9/10 Sound Speed 1479 (setting in Knudsen)
Start Scan 13700 Watch Hugh, Tim, Jen, Motow

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask #	Oxy Dup Flask #	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	L129	CS-137	PU/AM	Comments
1819	Bottom	3444	✓ 1	✓✓	✓✓	2027	3061		✓✓						✓		✓✓	✓✓									
1820	3100	3100	✓ 2	✓✓	✓	3051			✓						✓		✓	✓✓									
1821	2500	2500	✓ 3	✓✓		3109			✓						✓												
1822	2000	2000	✓ 4	✓✓		3097			✓						✓												
1823	1500	1500	✓ 5	✓✓		3177			✓						✓												
1824	1000	1000	✓ 6	✓✓		3040			✓		✓	✓			✓					✓	✓						
1825	800	800	✓ 7	✓✓		3119			✓		✓	✓			✓												
1826	600	600	✓ 8	✓✓		3069			✓						✓												
1827	500	500	✓ 9	✓✓		3130			✓		✓	✓			✓				(24)								> please make label for 10
1828	tmax	422	✓ 10	✓✓		3164			✓						✓												
1829	34.8	378	✓ 11	✓✓		2063			✓		✓	✓			✓												
1830	34.7	325	✓ 12	✓✓		3204			✓						✓												
1831	34.6	299	✓ 13	✓✓		3107			✓						✓												
1832	34.4	258	✓ 14	✓✓	✓	2064			✓						✓		✓	✓✓		✓	✓						
1833	34	220	✓ 15	✓✓	✓✓	3084			✓		✓	✓			✓		✓✓	✓✓									
1834	33.1	176	✓ 16	✓✓	✓	3121			✓✓		✓	✓			✓		✓	✓✓									
1835	32.9	158	✓ 17	✓✓		3181			✓		✓	✓			✓												
1836	32.3	106	✓ 18	✓✓		3123			✓		✓	✓			✓												
1837	32	89	✓ 19	✓✓		3108			✓		✓	✓			✓												
1838	chlmax	68	✓ 20	✓✓		3019			✓						✓												
1839	tmax	62	✓ 21	✓✓	✓	3024			✓		✓	✓			✓	✓	✓	✓✓									
1840	tmin	40	✓ 22	✓✓	✓✓	3207			✓		✓	✓			✓	✓	✓✓	✓✓									
1841	20		✓ 23	✓✓	✓	2047			✓		✓	✓			✓	✓	✓	✓✓									
1842	5		✓ 24	✓✓	✓	3016			✓	✓	✓	✓			✓	✓	✓	✓✓		✓	✓						

Comments:

Box # 3

green green

tmax 0.724 395
0.744 422

Rosette Log for IOS Cruise ID 2007-20

Cast # 91 UTC Date (dmy) 23 08 2007 UTC Time 0612
Station CB-21 Lat (N) 73 57.43
CTD File 200720-091 Lon (W) 140 05.97

Cast Type: **Geochemistry**
In Air pressure 65/04 Water Depth 3489⁺⁹ (Knudsen, w/o +9 for ship hull)
Ice Coverage 4/10 Sound Speed 1979 (setting in Knudsen)
Start Scan 7700 Watch Je/MD/HD/RN

Samp #	Target Property	Actual Depth(m)	Niskin #	Bottle Integrity	Oxygen	Oxy Flask # Box 2. Blue	Oxy Dup Flask # Box 4.	Oxy Trip Flask #	DIC	C-13	DOC	CDOM	Total Chl-a 0.7um	Chl-a 0.3um	Bacteria	FW-Alkalinity	Salinity	Nutrients	NH4	Barium	O-18	POC	TSS	I-129	CS-137	PU/AM	Comments
1843	3500	3483 ⁺¹⁰	✓ 1	✓✓	✓✓	3007	3182										✓✓✓	✓✓✓									
1844	3400		✓ 2	✓✓	✓✓	3200	3160										✓	✓✓									
1845	3300		✓ 3	✓✓	✓✓	3067	3151										✓	✓✓									
1846	3200		✓ 4	✓✓	✓✓	2032	3174										✓	✓✓									
1847	3100		✓ 5	✓✓	✓✓	3043	3196										✓✓✓	✓✓✓									
1848	3000		✓ 6	✓✓	✓✓	3137	3206										✓	✓✓						✓			
1849	2900		✓ 7	✓✓		2049	3012											✓									
1850	2800		✓ 8	✓✓		2015	3161											✓									
1851	2700	2690	✓ 9	✓✓		2089	3096											✓									slow lower O-ring drip
1852	2600	2620	✓ 10	✓✓		2084	3028											✓									
1853	2500		✓ 11	✓✓		3203	3047											✓						✓			
1854	2400		✓ 12	✓✓		2099	3082																				
1855	2300		✓ 13	✓✓		3126	3193																				
1856	2200		✓ 14	✓✓		3075	3063																				
1857	2100		✓ 15	✓✓		2085	3033																				
1858	2000		✓ 16	✓✓		2068	3191																	✓			
1859	1900		✓ 17	✓✓		2061	3166																				
1860	1500		✓ 18	✓✓		3183	2059																	✓			
1861	1500		✓ 19	✓✓		2044	3003																	✓			
1862	1350		✓ 20	✓✓		2033	3157																	✓			
1863	250		✓ 21	✓✓		3094	3188																	✓			
1864	200		✓ 22	✓✓		2056	3180																	✓			
1865	100		✓ 23	✓✓	✓✓	2091	3113										✓	✓✓						✓			
1866	150		✓ 24		✓✓	3098	3006										✓✓✓	✓✓✓						✓			

Comments:

O.1 well
O₂ Box 4 - water left in neck before pickling
Box 2 - stoppered after drawing, excess discarded; pickled, restoppered. 1 set glass to freeze 1 set plastic
Winch change gears 603m ↓ 490m
105