

### Pump Cast: Station 7 Deep

Dates Y/M/D and times in local time (and GMT)

GMT=LCL+ 5

Pump ID	Flow S/N	Prev. End	Start (l)	End (l)	Calc. Diff
1	19008653	28521.7	Not re-read	29445.1	923.4
	21973472	2962.8	Not re-read	3257.8	295.0
	19008655	46493.7	Not re-read	47762.5	1268.8
2	19008629	63580.0	Not re-read	64683.1	1103.1
	19008630	27313.1	Not re-read	27692.7	379.6
	19008631	90416.4	Not re-read	91894.6	1478.2
3	19008656	81249.0	Not re-read	82448.4	1199.4
	19008657	42881.8	Not re-read	43159.3	277.5
	19008658	131523.5	Not re-read	132992.0	1468.5
4	19008638	30446.6	Not re-read	31557.0	1110.4
	19008639	27936.2	Not re-read	28306.2	370.0
	19008640	59437.1	Not re-read	60922.9	1485.8
5	20007741	47471.4	Not re-read	48615.3	1143.9
	20007742	38754.8	Not re-read	39145.9	391.1
	20007743	87281.5	Not re-read	88810.0	1528.5
6	20008125	20425.2	Not re-read	21656.2	1231.0
	20008126	26384.7	Not re-read	26795.4	410.7
	20008127	47925.3	Not re-read	49563.8	1638.5
7	20007747	26214.5	Not re-read	27208.1	993.6
	20007748	12764.4	Not re-read	13106.1	341.7
	20007749	46948.3	Not re-read	48278.7	1330.4
8	20007750	69066.7	Not re-read	70126.4	1059.7
	20008101	43952.8	Not re-read	44325.7	372.9
	20008102	121474.4	Not re-read	122915.9	1441.5
9					
10					
11					
12					

Date 2013/11/05

Event 4086

Station 7

Cast 3

Water depth 4560m

Delay duration 03:00:00

Pump duration 04:00:00

Trigger time 09:53 (14:53)

Pumps on 12:53 (17:35)

Pumps off 16:35 (21:35)

CTD/first pump in water CTD 10:00:00 (15:00)

Last pump in water 11:58 (16:58)

Time at target depth 12:25 (17:25)

Water below pinger Unable to determine. Est 20m

Messenger drop 14:54 (19:54)

Recovery begins 17:00 (22:00)

2013-11-06

All aboard 19:36 (00:36)

**Post deployment download information**

Pump ID	Nisk	Nom depth	GT#	Low (rest) voltage	Error msg	Vol pumped (l)
CTD		4550	NA			
1	1	4535	3156	24.9	changed battery	1575
2	2	4500	3157	25.9		1621
3	3	4250	3158	29.6		1647
4	4	3625	3159	30.7		1647
5	5	3000	3160	29.3		1647
6	6	2250	3161	29.7		1647
7	7	1750	3162	23.8	changed battery	1422
8	8	1000	3163	23.5	changed battery	1363

**Notes**

O-rings replaced on niskins 2, 4, and 8 before station 7.  
 First offshore station with weak but noticeable BNL, OMZ, and strong secondary fluorescence maximum (prochlorococcus at oxygen=0).  
 DBs on Pump 5.  
 Actual final wire out: 4520m b/c pinger couldn't generate bottom echo. (Similar problem on ODF mid cast, when rosette altimeter had trouble locating bottom. Soft sediment likely, according to C. German.)  
 CTD rested on bottom, despite wire-out significantly < expected?  
 Winch wire-out reset during recovery of Pump 8. Went pump-to-pump after resetting while each was at the surface.  
 Niskins 8-5 successful. Nisk 4-1 not tripped b/c hang-up on wingnut.  
**Replace cracked top lid on Niskin 3. (Do not trip 30L bottles in air.) Hang messengers from non-wingnut side.**