cfe	dive	bottle	notes	PN mmol/filter raw	PN mmol/filter	PN error	POC mmol/filter raw	POC mmol/filter	POC error	PP mmols/filter raw	PP mmol/filter corrected	PP error	VA (mATN-cm2) A	VA (mATN-cm2) B	VA (mATN-cm2) C	VA (mATN-cm2) D	mATN stdev
2	41	2		0.01551	0.01261	0.001	0.157	0.125	0.019	1.46E-03	1.38E-03	4.90E-05	1358.97	1331.51	1431.33	1472.57	64.85
2	50	1		0.00705	0.00415	0.001	0.077	0.045	0.010	1.36E-04	4.69E-05	2.96E-06	376.68	365.38	437.69	465.15	47.97
2	60	1								1.96E-04	1.46E-04	1.62E-05	420.00	411.85	437.64	453.50	18.60
4	60	1	C:N >20	0.00583	0.00202	0.000	0.130	0.067	0.016	2.80E-04	1.59E-04	1.74E-05	211.90	194.07	228.52	223.86	15.37
2	61	2								1.70E-04	1.20E-04	1.59E-05	230.70	136.76	234.96	173.95	47.27
2	62	3								1.65E-04	1.15E-04	1.59E-05	276.91	255.22	292.57	306.25	21.91
4	62	3		0.00583	0.00202	0.000	0.047	0.011	0.009	1.23E-04	5.00E-05	1.55E-05	281.93	297.94	350.74	389.25	49.26
2	70	1								8.55E-05	3.55E-05	1.54E-05	528.79	527.93	557.52	576.73	23.72
4	70	1		0.01095	0.00555	0.001	0.118	0.059	0.015	6.67E-05	1.15E-05	1.53E-05	326.72	319.73	362.24	385.24	30.77
2	71	2		0.00580	0.00290	0.000	0.073	0.041	0.010	1.55E-04	1.05E-04	1.58E-05	542.68	524.79	543.49	552.86	11.73
4	71	2								1.26E-04	5.23E-05	1.56E-05	290.95	254.46	298.14	293.43	20.08
2	72	3								8.20E-05	3.20E-05	1.54E-05	536.39	552.96	561.02	613.06	33.09
4	72	3	C:N >20	0.00507	0.00149	0.000	0.079	0.033	0.011	1.39E-04	6.16E-05	1.56E-05	236.78	229.48	273.77	295.66	31.24
2	80	1		0.00318	0.00028	0.000	0.027	-0.005	0.008	1.06E-04	8.66E-05	6.50E-06	199.13	155.71	219.30	229.94	32.80
2	81	2								6.35E-05	4.41E-05	5.93E-06	114.46	133.41	173.29	219.71	46.62
2	82	3	C:N >20	0.00532	0.00241	0.000	0.084	0.052	0.011	3.85E-05	1.91E-05	5.76E-06	67.09	63.79	70.08	79.96	6.97
2	90	1								1.48E-04	1.28E-04	7.32E-06	151.91	151.96	153.28	160.32	4.02
4	90	1		0.00289	#######	0.000	0.042	0.007	0.008	4.91E-05	2.05E-05	5.82E-06	100.53	97.69	101.69	106.96	3.88
2	91	2		0.00309	0.00019	0.000	0.034	0.002	0.008	6.77E-05	4.83E-05	5.97E-06	85.43	86.09	86.54	92.78	3.41
4	91	2								7.16E-05	3.60E-05	6.02E-06	55.79	53.41	65.72	71.55	8.50
2	92	3								5.29E-05	3.35E-05	5.85E-06	34.10	21.03	34.91	27.72	6.47
4	92	3		0.00295	0.00003	0.000	0.036	0.003	0.008	3.97E-05	1.40E-05	5.77E-06	24.63	50.16	50.16	83.71	24.23
4	100	1								3.14E-04	1.82E-04	1.80E-05	1034.43	1043.35	1143.17	1186.13	74.79
2	101	2								4.35E-04	3.85E-04	2.05E-05	1001.29	982.04	1057.58	1043.60	35.38
4	101	2								1.49E-04	6.82E-05	1.57E-05	954.72	932.89	1072.53	1144.03	99.74
2	102	3		0.00759	0.00469	0.001	0.085	0.053	0.011	2.34E-04	1.84E-04	1.67E-05	518.71	535.28	600.90	638.44	56.07
4	102	3								1.54E-04	7.14E-05	1.58E-05	498.74	568.82	631.80	757.06	109.71
2	110	1								3.26E-04	2.76E-04	1.82E-05	818.42	855.87	1069.49	1150.72	161.77
4	110	1		0.01051	0.00761	0.001	0.095	0.063	0.012	2.66E-04	1.49E-04	1.71E-05	657.29	737.10	1034.83	1024.09	194.63
2	111	2	Jelly	0.00760	0.00470	0.001	0.068	0.035	0.010	4.34E-04	3.84E-04	1.78E-05	744.60	673.86	1393.22	1351.67	384.37
4	111	2								3.04E-04	1.75E-04	2.05E-05	757.06	724.43	849.03	960.80	106.04
2	112	3								2.07E-04	1.57E-04	1.63E-05	1055.91	998.30	1363.73	1331.35	186.96
4	112	3		0.00550	0.00260	0.000	0.066	0.033	0.010	1.03E-04	5.34E-05	1.54E-05	288.21	278.28	357.07	380.84	50.59
2	113	4								8.18E-05	3.18E-05	1.54E-05	469.61	472.65	494.64	548.60	36.56
4	113	4								1.42E-04	9.21E-05	1.57E-05	95.46	82.79	172.58	219.05	64.66

Table S1:
Data from this Table used to make figure 5
Cumulative VA was blank corrected in 4 different ways.
(A) was calculated by subtracting the clean at the beginning of the cycle from the final particle laden image of an imaging cycle (Bishop et al. 2016).
(B) was calculated by subtracting the clean image of the next image cycle from the final particle image of the previous cycle. Used in our regression analysis
(C) The lowest value of attenuance of cleaning image of a dive was subtracted from the particle laden image at the end of an imaging sequence.
Assumes all material above lowest blank transferred
(D) The attenuance of the final clean image for a dive was subtracted from the sum of the cumulative attenuance from each imaging sequence and the attenuance of the initial clean image.
Method B used in this paper yielded the highest r2 values and thus was determined to be the best measure of the amount of material entering the sample bottle.
The uncertainty of the attenunace measurement was the standard deviation of the methods A, B, C and D.

Sample Notes:
CFE 2 dive 111 were not included in any plots due to imagery contamination by a 1 cm scale gelatinous organism
Samples CFE 2 dive 82, CFE 4 dive 72, and CFE 4 dive 60 were not used in POC VA analysis.

mATN-cm2-cm2-day 20180619	mATN-CM2-cm-2 day-1 error	POC (1.45 scaled) mmol/m2/day	POC (1.45 scaled) error/m2/day	CFE	DIVE	BTL	DAYS
42.70	2.08	40.03	6.21	2	41	2	0.1674
9.63	1.26	11.81	2.75	2	50	1	0.2038
9.97	1.65	3.52	1.99	4	62	3	0.1605
7.69	0.74	14.24	2.43	4	70	1	0.2232
16.84	0.38	13.17	3.25	2	71	2	0.1673
4.74	1.00	-1.66	2.55	2	80	1	0.1764
2.50	0.10	1.68	1.50	4	90	1	0.2094
2.76	0.11	0.62	2.68	2	91	2	0.1673
6.32	3.05	3.22	7.27	4	92	3	0.0426
17.92	1.88	17.61	3.73	2	102	3	0.1604
13.19	3.48	11.22	2.17	4	110	1	0.3000
5.36	0.98	6.46	1.85	4	112	3	0.2785

Table S2:
Data from this table was used to make figure 6.