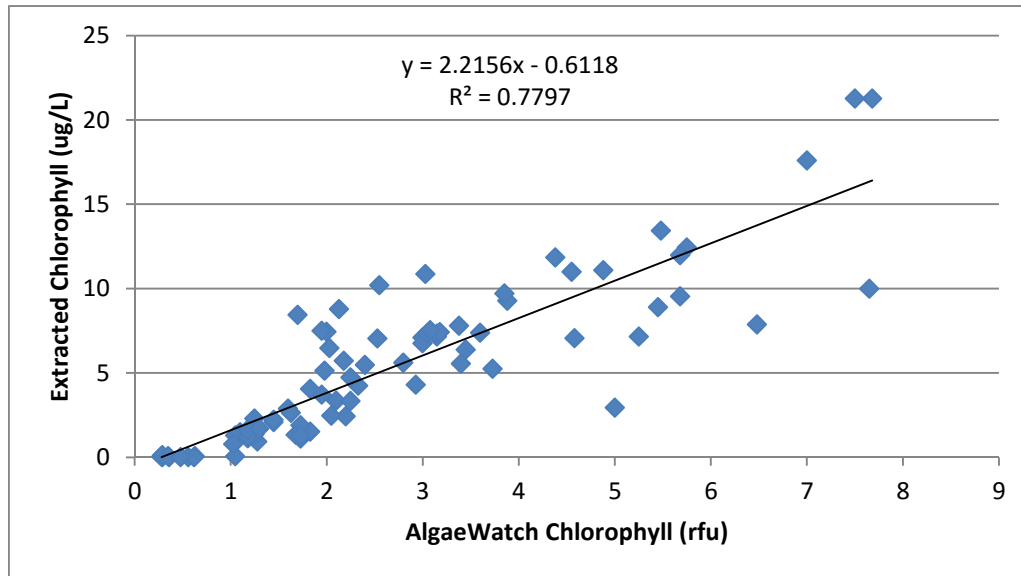


SATURN-03 Chlorophyll Sensor Field Calibration (January – December 2014)

NOTICE: This calibration was revised and replaced on August 5, 2016



Calibration Details:

This sensor was calibrated against extracted chlorophyll samples taken from weekly field samples collected between January and December 2014. The corresponding sensor reading was determined by interpolating the *in situ* sensor data to the grab sample time point. Several samples were excluded because there was not corresponding station data. Data from 72 grab samples and 19 in-situ DI readings made at SATURN-03 were used to calculate the relationship between sensor response and extracted chlorophyll concentration (see table below). The resulting calibration equation is: Chlorophyll (ug/L) = 2.22 * rfu – 0.61. The calibration quality has been flagged as good (QL1).

Field Sample Data for calibration:

Date & Time	Station Chl (rfu)	Sample Chl (ug/L)	Depth (m)	Filter Type	Turbidity
1/9/2014 11:38	1.45	2.09	8	GF/F	2.42
1/9/2014 11:43	1.83	1.51	13	GF/F	2.81
1/9/2014 11:47	1.28	0.93	2	GF/F	2.31
1/15/2014 10:55	1.1	1.48	8	GF/F	3.06
1/15/2014 10:57	1.05	1.29	2	GF/F	2.66
1/15/2014 11:01	1.45	2.22	13	GF/F	4.04
1/23/2014 10:45	1.25	2.29	2	GF/F	2.61

1/23/2014 10:47	1.23	1.49	8	GF/F	2.73
1/23/2014 10:49	1.25	1.34	13	GF/F	3.12
2/4/2014 11:34	2.2	2.43	8	GF/F	2.89
2/4/2014 11:38	2.05	2.46	2	GF/F	2.83
2/4/2014 11:55	1.6	2.87	13	GF/F	2.98
2/11/2014 14:40	1.18	1.11	8	GF/F	2.47
2/11/2014 14:46	1.73	1.9	13	GF/F	3.03
4/14/2014 10:55	5.75	12.43	2	GF/F	3.76
4/14/2014 11:03	7.5	21.25	8	GF/F	5.89
4/14/2014 11:08	7.65	9.99	13	GF/F	6.58
4/23/2014 15:56	5.45	8.89	2	GF/F	2.78
4/23/2014 16:00	3.15	7.15	13	GF/F	2.69
4/23/2014 16:06	4.58	7.05	8	GF/F	2.81
4/30/2014 14:05	3.4	5.54	2	GF/F	2.59
4/30/2014 14:15	3.6	7.38	8	GF/F	2.91
4/30/2014 15:43	0.29	0.05	DI	GF/F	0
5/22/2014 9:26	3	7.1	13	GF/F	2.61
5/22/2014 9:29	2.53	7.03	8	GF/F	2.3
5/22/2014 9:32	5.68	9.54	2	GF/F	2.35
5/22/2014 10:37	0.29	0	DI	GF/F	0
6/6/2014 10:19	3	6.75	2	GF/F	2.26
6/6/2014 10:23	2.8	5.59	8	GF/F	2.28
6/6/2014 10:25	3.05	7.33	13	GF/F	2.81
6/6/2014 11:29	0.36	0	DI	GF/F	0
6/12/2014 13:00	3.15	7.32	2	GF/F	2.19
6/12/2014 13:01	4.38	11.84	13	GF/F	3
6/12/2014 13:05	3.88	9.27	8	GF/F	2.45
6/12/2014 14:53	0.28	0.03	DI	GF/F	0
6/16/2014 15:03	5.48	13.42	2	GF/F	2.99
6/16/2014 15:07	7	17.58	8	GF/F	3.96
6/16/2014 15:10	7.68	21.25	13	GF/F	4.64
6/16/2014 16:11	0.29	-0.01	DI	GF/F	0
7/1/2014 15:16	1.05	0.05	DI	GF/F	0
7/10/2014 15:03	1.95	3.7	2	GF/F	NaN
7/10/2014 15:05	2	7.44	13	GF/F	NaN
7/10/2014 15:07	2.4	5.46	8	GF/F	NaN
7/10/2014 16:06	0.63	0.06	DI	GF/F	0
7/16/2014 10:04	3.18	7.41	2	GF/F	NaN
7/16/2014 10:07	3.38	7.79	8	GF/F	3.68
7/16/2014 10:09	3.85	9.71	13	GF/F	4.06
7/16/2014 11:14	0.3	-0.01	DI	GF/F	0
7/24/2014 10:24	4.55	10.99	8	GF/F	3.06
7/24/2014 10:27	3.73	5.24	2	GF/F	2.58
7/24/2014 10:29	6.48	7.86	13	GF/F	4
7/24/2014 11:49	0.29	0.11	DI	GF/F	0
7/29/2014 12:00	3.03	10.85	2	GF/F	2.59

7/29/2014 13:07	0.35	0.05	DI	GF/F	0
7/29/2014 13:27	5.68	11.97	13	GF/F	4.99
8/6/2014 10:29	3.45	6.37	2	HAWP	2.13
8/6/2014 10:34	4.88	11.08	13	HAWP	2.72
8/13/2014 10:16	1.98	5.13	8	HAWP	2.83
8/13/2014 10:19	2.55	10.19	13	HAWP	2.93
8/13/2014 10:21	2.03	6.46	2	HAWP	2.79
8/13/2014 11:26	0.31	-0.01	DI	HAWP	0
8/18/2014 11:20	5	2.93	8	HAWP	2.14
8/18/2014 11:23	1.7	8.43	2	HAWP	2.02
8/18/2014 11:25	5.25	7.14	13	HAWP	2.3
8/18/2014 12:47	0.28	-0.01	DI	HAWP	0
8/27/2014 9:40	2.93	4.3	2	GF/F	2.41
8/27/2014 9:43	3.08	7.52	13	HAWP	2.86
8/27/2014 10:47	0.33	-0.01	DI	HAWP	0
9/9/2014 8:45	1.63	2.63	2	HAWP	2.24
9/9/2014 8:47	1.83	4.05	8	HAWP	2.26
9/9/2014 8:49	2.1	3.35	13	HAWP	NaN
9/9/2014 9:53	0.29	-0.01	DI	HAWP	0
9/18/2014 13:54	2.33	4.23	2	GF/F	2.1
9/18/2014 13:55	2.13	8.78	8	HAWP	2.14
9/18/2014 13:57	2.18	5.71	13	HAWP	2.18
9/18/2014 15:06	0.5	-0.01	DI	HAWP	0
9/25/2014 11:41	2.25	3.33	13	GF/F	3.05
9/25/2014 11:43	2.25	4.72	8	HAWP	2.84
9/25/2014 11:45	1.95	7.48	2	HAWP	2.47
9/25/2014 13:42	0.56	0	DI	GF/F	0
9/30/2014 14:24	1.18	1.15	2	HAWP	2.27
9/30/2014 14:26	1.18	1.22	8	HAWP	2.37
9/30/2014 14:28	1.18	1.62	13	HAWP	2.43
9/30/2014 15:44	0.91	-0.01	DI	HAWP	0
10/23/2014 9:15	1.3	1.68	2	HAWP	2.62
10/23/2014 9:19	1.73	1.1	8	HAWP	3.25
10/23/2014 10:22	0.62	0	DI	GF/F	0
11/18/2014 10:33	1.03	0.77	2	HAWP	2.37
11/18/2014 10:45	1.68	1.32	8	HAWP	2.43
11/18/2014 10:54	1.73	1.26	13	HAWP	2.38
11/18/2014 10:59	0.48	0	DI	HAWP	0