

DATE	4/19			4/20			4/21		
TIME	11am			8:00 AM			12:00		
INITIALS	MG			LTR			LTR		
	TEMP*	PH	SAL	TEMP	PH	SAL	TEMP	PH	SAL
HEAD 1	12.9	7.80	30.50	12.9	7.79	30.64	14.0	7.81	30.48
HEAD 2	12.9	7.43	30.51	13.4	7.41	30.48	14.1	7.44	30.52
HEAD 3	12.9	7.41	30.51	10.9	7.37	30.41	14.2	7.45	30.53
HEAD 4	13.0	7.84	30.52	10.8	7.71	30.41	14.1	7.85	30.52
REP 1	12.9	7.80	30.49	13.3	7.56	30.54	13.9	7.80	30.52
REP 2	12.9	7.83	30.50	13.3	7.61	30.53	13.9	7.80	30.53
REP 3	12.9	7.43	30.50	13.5	7.20	30.53	13.9	7.41	30.52
REP 4	12.9	7.38	30.51	13.5	7.20	30.52	13.9	7.40	30.53
REP 5	12.9	7.41	30.49	13.3	7.33	30.51	13.9	7.38	30.51
REP 6	12.9	7.40	30.50	13.3	7.33	30.51	13.9	7.39	30.52
REP 7	12.9	7.81	30.49	13.4	7.69	30.51	13.9	7.80	30.52
REP 8	12.9	7.81	30.50	13.4	7.69	30.50	13.9	7.78	30.52
REP 9	12.8	7.83	30.52	13.3	7.60	30.45	13.8	7.81	30.56
REP 10	12.8	7.82	30.51	13.3	7.55	30.51	13.8	7.78	30.54
REP 11	12.9	7.44	30.51	13.4	7.24	30.50	13.9	7.38	30.51
REP 12	12.9	7.42	30.51	13.3	7.22	30.49	13.9	7.40	30.53
REP 13	12.9	7.41	30.49	13.2	7.32	30.52	13.9	7.41	30.52
REP 14	12.9	7.42	30.51	13.3	7.31	30.50	13.9	7.43	30.53
REP 15	12.9	7.80	30.48	13.4	7.70	30.50	13.9	7.81	30.54
REP 16	12.9	7.83	30.51	13.4	7.69	30.51	13.9	7.81	30.53

*Vice pH probe	duralet 1	7.35	1	7.38
(recalibrated pH probe)	2	7.35	2	7.37
duralet 1	7.36	3	7.67	7.76
2	7.37	4	7.85	7.39
3	7.75	* see note on back.		
4	7.88			

NOTE: reminder to A filter tomorrow

for spec

7.35  
7.38  
7.69  
7.82

Header 3 & 4 empty on arrival at facility  
Header 2 partly empty (water level below  
durafet probe)

Readings were taken in each bucket, then all  
buckets were dumped and fast filled

temp was low on headers 3 & 4, so once  
headers heated for some time (30 min), Reps  
1-4 and 9-12 were fast-filled until temp  
came up to  $12^{\circ}\text{C}$



DATE	4/22/22			4/23/22			4/24/22		
TIME	9:30 am			3:00 pm			11:00 AM		
INITIALS	MC			RC			RC		
	TEMP*	PH	SAL	TEMP*	PH	SAL	TEMP	PH	SAL
HEAD 1	14.6	7.82	30.53	15.0	7.82	30.46	15.55	7.83	30.54
HEAD 2	14.4	7.45	30.48	15.2	7.38	30.51	15.55	7.38	30.56
HEAD 3	14.5	7.45	30.50	15.13	7.39	30.50	15.37	7.39	30.56
HEAD 4	14.4	7.82	30.51	14.81	7.90	30.49	15.49	7.88	30.55
REP 1	14.4	7.72	30.52	14.72	7.83	30.58	15.00	7.77	30.61
REP 2	14.4	7.73	30.52	14.31	7.77	30.52	14.57	7.75	30.50
REP 3	14.4	7.37	30.52	14.53	7.41	30.55	14.91	7.37	30.60
REP 4	14.4	7.34	30.51	14.75	7.36	30.57	15.04	7.35	30.61
REP 5	14.4	7.34	30.50	14.81	7.35	30.53	15.04	7.35	30.58
REP 6	14.4	7.31	30.50	14.82	7.36	30.53	14.98	7.37	30.60
REP 7	14.4	7.72	30.52	14.80	7.81	30.52	15.05	7.79	30.60
REP 8	14.4	7.69	30.51	14.78	7.82	30.53	15.13	7.80	30.59
REP 9	14.3	7.72	30.54	14.76	7.85	30.55	14.89	7.79	30.56
REP 10	14.4	7.73	30.52	14.82	7.83	30.55	14.68	7.67	30.54
REP 11	14.4	7.37	30.52	14.79	7.37	30.53	15.08	7.31	30.62
REP 12	14.4	7.32	30.51	14.86	7.35	30.54	15.12	7.34	30.59
REP 13	14.4	7.34	30.51	14.83	7.35	30.53	15.09	7.35	30.58
REP 14	14.4	7.35	30.51	14.75	7.37	30.53	15.02	7.33	30.57
REP 15	14.4	7.70	30.51	14.79	7.75	30.55	15.08	7.74	30.59
REP 16	14.4	7.70	30.51	14.84	7.82	30.52	15.08	7.81	30.58

\* data from  
pH probe

\* from temp probe →

draft 1 7.35

2 7.37

3 7.35

4 7.88



DATE	4/25			4/26			4/27		
TIME	1:30 pm			4:00 PM			10:14 AM		
INITIALS	LTR			LTR			LTR		
	TEMP	PH	SAL	TEMP	PH	SAL	TEMP	PH	SAL
HEAD 1	16.0	7.90	30.46	16.3	8.07	30.54	17.0	8.08	30.62
HEAD 2	16.1	7.45	30.51	16.3	7.62	30.53	16.9	7.61	30.65
HEAD 3	16.1	7.45	30.51	16.5	7.63	30.52	17.1	7.62	30.63
HEAD 4	16.0	7.89	30.52	16.2	8.08	30.56	16.9	8.07	30.62
REP 1	15.9	7.81	30.54	16.3	7.97	30.55	16.7	7.93	30.63
REP 2	15.9	7.81	30.52	16.2	7.97	30.56	16.7	7.94	30.67
REP 3	15.9	7.40	30.54	16.3	7.53	30.55	16.8	7.50	30.63
REP 4	15.9	7.35	30.54	16.3	7.51	30.53	16.8	7.49	30.63
REP 5	15.9	7.36	30.53	16.3	7.53	30.54	16.8	7.51	30.64
REP 6	15.9	7.38	30.53	16.3	7.51	30.54	16.7	7.48	30.60
REP 7	15.9	7.83	30.53	16.2	7.99	30.56	16.6	7.92	30.64
REP 8	16.0	7.84	30.53	16.2	7.96	30.57	16.5	7.94	30.69
REP 9	15.8	7.84	30.52	16.2	7.92	30.54	16.8	7.93	30.63
REP 10	15.8	7.81	30.54	16.3	7.96	30.58	16.8	7.95	30.64
REP 11	15.8	7.34	30.54	16.2	7.54	30.59	16.6	7.52	30.67
REP 12	15.9	7.36	30.55	16.3	7.53	30.56	16.8	7.51	30.65
REP 13	15.9	7.42	30.54	16.3	7.52	30.54	16.8	7.50	30.67
REP 14	15.9	7.45	30.54	16.3	7.52	30.55	16.8	7.51	30.63
REP 15	15.8	7.78	30.53	16.3	7.96	30.56	16.8	7.96	30.64
REP 16	15.9	7.87	30.55	16.3	7.93	30.54	16.8	7.95	30.62

disinfat	1. 7.36	1. 7.36	1. 7.37
	2. 7.36	2. 7.38	2. 7.38
	3 7.81	3 7.76	3 7.72
	4. 7.94	4 7.90	4 7.87



DATE	4.28.22			4/29			4/30		
TIME	11am			2PM			12 PM		
INITIALS	MG			LTK			LTK		
	TEMP	PH	SAL	TEMP	PH	SAL	TEMP	PH	SAL
HEAD 1	17.4	8.03	30.57	17.9	8.08	30.61	17.9	8.04	30.59
HEAD 2	17.6	7.65	30.64	17.8	7.61	30.59	17.8	7.62	30.65
HEAD 3	17.6	7.64	30.64	18.0	7.63	30.59	18.0	7.64	30.63
HEAD 4	17.6	8.01	30.64	18.0	8.07	30.58	17.9	8.01	30.64
REP 1	17.2	7.80	30.64	17.7	7.93	30.62	17.4	7.95	30.63
REP 2	17.3	7.90	30.65	17.7	7.93	30.64	17.3	7.93	30.64
REP 3	17.3	7.59	30.64	17.8	7.49	30.62	17.8	7.55	30.65
REP 4	17.3	7.54	30.65	17.8	7.51	30.63	17.8	7.55	30.66
REP 5	17.3	7.54	30.62	17.9	7.50	30.61	17.6	7.57	30.62
REP 6	17.3	7.52	30.64	17.8	7.48	30.61	17.5	7.56	30.66
REP 7	17.1	7.90	30.59	17.6	7.90	30.61	17.5	7.96	30.69
REP 8	17.2	7.90	30.63	17.6	7.89	30.67	17.6	7.96	30.66
REP 9	17.1	7.93	30.73	17.8	7.93	30.60	17.3	7.95	30.64
REP 10	17.2	7.91	30.64	17.7	7.88	30.65	17.4	7.94	30.64
REP 11	17.2	7.62	30.66	17.7	7.50	30.65	17.6	7.56	30.71
REP 12	17.3	7.56	30.64	17.8	7.48	30.65	17.7	7.57	30.66
REP 13	17.3	7.55	30.63	17.8	7.49	30.62	17.6	7.57	30.62
REP 14	17.3	7.56	30.64	17.8	7.47	30.63	17.5	7.59	30.64
REP 15	17.3	7.94	30.62	17.7	7.87	30.62	17.6	7.93	30.64
REP 16	17.2	7.93	30.62	17.7	7.83	30.61	17.6	7.93	30.63

duraft	17.35	1.	7.36	1.	7.37
	22.36	2.	7.35	2.	7.37
	37.72	3.	7.72	3.	7.71
	47.87	4.	7.87	4.	7.25

one in bucket 5

approved to begin

spawning after

cleaning

(isolated, did not resume)



DATE	5/1/22			5/2/22			5/3/22		
TIME	8:30am			1 pm			11am		
INITIALS	MC			MC			MC		
	TEMP	PH	SAL	TEMP	PH	SAL	TEMP	PH	SAL
HEAD 1	17.8	8.02	30.62	17.9	8.05	30.55	17.2	8.03	30.62
HEAD 2	18.1	7.66	30.64	18.0	7.03	30.60	17.8	7.65	30.71
HEAD 3	18.0	7.63	30.61	18.2	7.63	30.61	18.0	7.63	30.68
HEAD 4	18.0	8.01	30.61	18.0	8.03	30.60	17.6	8.02	30.57
REP 1	17.7	7.79	30.61	17.4	7.89	30.60	17.5	7.95	30.67
REP 2	17.7	7.84	30.61	17.4	7.94	30.62	17.5	7.98	30.66
REP 3	17.7	7.53	30.61	17.7	7.61	30.70	17.8	7.61	30.69
REP 4	17.8	7.48	30.62	17.8	7.57	30.67	17.9	7.60	30.66
REP 5	17.7	7.49	30.59	17.7	7.55	30.62	17.9	7.59	30.63
REP 6	17.7	7.48	30.62	17.8	7.57	30.63	17.9	7.61	30.63
REP 7	17.7	7.82	30.61	17.4	7.94	30.56	17.5	7.96	30.60
REP 8	17.7	7.83	30.62	17.4	7.98	30.60	17.3	7.99	30.63
REP 9	17.6	7.81	30.65	17.4	7.96	30.66	17.3	7.95	30.66
REP 10	17.7	7.81	30.63	17.4	7.95	30.64	17.4	7.98	30.64
REP 11	17.7	7.51	30.62	17.7	7.57	30.70	17.8	7.64	30.70
REP 12	17.7	7.47	30.62	17.8	7.57	30.66	17.9	7.61	30.68
REP 13	17.7	7.51	30.62	17.8	7.54	30.63	17.8	7.59	30.63
REP 14	17.7	7.49	30.62	17.6	7.55	30.64	17.8	7.55	30.65
REP 15	17.7	7.76	30.61	17.4	7.96	30.57	17.4	7.95	30.59
REP 16	17.7	7.80	30.62	17.3	7.93	30.62	17.3	7.99	30.63

duration 1	7.35	1	7.37	1	7.37
2	7.35	2	7.38	2	7.38
3	7.70	3	7.74	3	7.73
4	7.85	4	7.87	4	7.87



DATE	5/4			5/5			5/6		
TIME	2:30			10:30			10:30		
INITIALS	LJR			LJR			LJR		
	TEMP	PH	SAL	TEMP	PH	SAL	TEMP	PH	SAL
HEAD 1	17.9	8.03	30.62	17.8	8.05	30.63	18.0	8.05	30.64
HEAD 2	18.1	7.63	30.62	18.0	7.63	30.66	17.9	7.62	30.63
HEAD 3	18.2	7.63	30.61	18.1	7.65	30.64	18.0	7.63	30.63
HEAD 4	17.5	8.01	30.58	17.7	8.04	30.65	17.9	8.05	30.64
REP 1	17.1	7.94	30.62	17.8	7.99	30.66	17.8	7.97	30.64
REP 2	17.1	7.95	30.62	17.8	7.98	30.67	17.8	7.98	30.66
REP 3	17.6	7.58	30.64	17.9	7.60	30.65	17.9	7.61	30.65
REP 4	17.6	7.57	30.64	17.9	7.58	30.67	17.9	7.60	30.65
REP 5	17.7	7.58	30.65	17.9	7.59	30.65	17.9	7.61	30.63
REP 6	17.8	7.56	30.65	17.9	7.62	30.66	17.9	7.61	30.65
REP 7	17.5	7.98	30.70	17.8	8.01	30.65	17.8	8.01	30.66
REP 8	17.8	7.98	30.64	17.7	8.00	30.74	17.7	8.00	30.66
REP 9	17.3	7.95	30.61	17.9	8.00	30.65	17.8	7.99	30.64
REP 10	17.4	7.95	30.54	17.8	7.99	30.67	17.6	7.96	30.74
REP 11	17.6	7.60	30.65	17.7	7.61	30.71	17.8	7.61	30.67
REP 12	17.7	7.59	30.64	17.8	7.58	30.69	17.9	7.61	30.65
REP 13	17.7	7.57	30.65	17.8	7.59	30.67	17.8	7.65	30.64
REP 14	17.8	7.61	30.65	17.8	7.61	30.67	17.9	7.62	30.64
REP 15	17.8	7.98	30.64	17.9	8.01	30.65	17.8	7.99	30.64
REP 16	17.8	7.99	30.63	17.9	8.01	30.65	17.8	7.95	30.65

	1	7.36		1	7.36
	2	7.36		2	7.35
	3	7.74		3	7.73
	4	7.87		4	7.86



DATE	5/7			5/8			5/14		
TIME	1:1PM			2pm			12:40		
INITIALS	LTR			MG			LTR		
	TEMP	PH	SAL	TEMP	PH	SAL	TEMP	PH	SAL
HEAD 1							17.8	8.05	30.65
HEAD 2							18.1	7.63	30.66
HEAD 3							18.0	7.61	30.62
HEAD 4							17.9	8.04	30.65
REP 1	16.4	7.73	30.56	17.7	7.91	30.63	18.0	8.00	30.68
REP 2	16.5	7.82	30.64	17.8	8.01	30.63	18.0	7.99	30.70
REP 3	16.8	7.38	30.69	17.8	7.62	30.63	18.0	7.59	30.70
REP 4	16.9	7.39	30.66	17.8	7.54	30.62	18.0	7.61	30.70
REP 5	16.9	7.44	30.63	17.9	7.56	30.61	18.0	7.56	30.71
REP 6	16.8	7.46	30.58	17.9	7.57	30.60	18.0	7.59	30.70
REP 7	16.4	7.82	30.63	17.9	8.0	30.58	17.9	8.00	30.68
REP 8	16.4	7.77	30.62	17.9	8.01	30.59	17.9	7.99	30.70
REP 9	16.1	7.83	30.62	17.6	7.98	30.65	17.9	8.00	30.69
REP 10	16.3	7.80	30.65	17.7	8.01	30.62	17.9	7.99	30.71
REP 11	17.0	7.45	30.79	17.7	7.54	30.62	17.9	7.60	30.71
REP 12	16.9	7.44	30.67	17.8	7.57	30.62	18.0	7.62	30.70
REP 13	17.0	7.52	30.68	17.8	7.54	30.62	18.0	7.62	30.69
REP 14	17.0	7.52	30.64	17.9	7.55	30.62	18.0	7.64	30.71
REP 15	16.3	7.80	30.65	17.9	7.98	30.59	17.9	8.02	30.69
REP 16	16.2	7.83	30.61	17.9	8.03	30.59	17.9	8.01	30.70

\* main seawater pump 1 7.36  
 off when arrived 2 7.37  
 -breaker 12 flipped 3 7.78  
 values taken after 4 7.90  
 30 min. later  
 temps in buckets  
 down to 15.7-15.8  
 pH down by ~0.2