

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 77 55

LATITUDE 34 53.6 N LONGITUDE 121 11.7 W DAY/MO/YR 10/ 2/98 CAST TIME 1849 UTC SECCHI 32 m FOREL 02 INCUBATION TIME 1218 - 1807 PST LAN 1219 PST CIVIL TWILIGHT 1807 PST INTEGRATED VALUE 216.2 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK
1	15.23	33.292	24.606	5.75	100.5	1.9	0.28	0.0	0.01	0.30	0.11	95. A	3.5	3.9	3.7	0.03
11	15.14	33.293	24.627	5.75	100.3	1.9	0.28	0.0	0.01	0.33	0.12					
21	15.13	33.294	24.630	5.76	100.5	1.9	0.27	0.0	0.01	0.33	0.12	37.	4.0	4.2	4.1	0.07
32	15.13	33.292	24.629	5.77	100.6	1.9	0.27	0.0	0.01	0.34	0.13					
44	15.13	33.293	24.630	5.75	100.3	1.9	0.27	0.0	0.01	0.35	0.14	12.	2.8	2.9	2.8	0.03
55	15.13	33.293	24.630	5.74	100.1	1.9	0.27	0.0	0.01	0.49 U	-0.02 U					
65	15.13	33.292	24.630	5.76	100.5	1.9	0.27	0.0	0.01	0.36	0.12	4.4	1.0	1.1	1.0	0.03
76	15.10	33.296	24.640	5.74	100.0	1.9	0.27	0.0	0.01	0.13 B	0.10 B					
87	13.97	33.330	24.906	5.63	95.9	2.4	0.37	1.2	0.07	0.11	0.16	1.5	0.13	0.17	0.15	0.03
97	13.16	33.332	25.072	5.38	90.1	4.6	0.59	4.2	0.03	0.09	0.09					
110	11.78	33.464	25.441	4.68	76.2	9.7	1.00	10.7	0.04	0.08	0.10					
119	11.60	33.472	25.480	4.64	75.3	10.4	1.02	11.2	0.05	0.08	0.09	0.33	0.02	0.00	0.01	0.01

B) SECOND FLUOROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPIGMENT CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 77 90

LATITUDE 33 43.4 N LONGITUDE 123 40.1 W DAY/MO/YR 9/ 2/98 CAST TIME 1850 UTC SECCHI 32 m FOREL 02 INCUBATION TIME 1229 - 1817 PST LAN 1229 PST CIVIL TWILIGHT 1818 PST INTEGRATED VALUE 165.6 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK
1	14.81	33.153	24.590	5.79	100.3	2.2	0.27	0.1	0.00	0.26	0.06	95. A	1.3	1.3	1.3	0.03
10	14.80	33.153	24.593	5.79	100.2	2.1	0.27	0.1	0.00	0.27	0.07					
20	14.85	33.177	24.601	5.78	100.2	2.1	0.26	0.1	0.00	0.27	0.08	38.	2.8	2.9	2.8	0.03
31	14.97	33.197	24.590	5.79	100.6	2.1	0.25	0.0	0.00	0.25	0.07					
44	15.02	33.227	24.603	5.75	100.0	2.0	0.25	0.0	0.00	0.28	0.07	12.	2.4	2.3	2.3	0.02
54	15.12	33.256	24.604	5.74	100.1	2.0	0.25	0.0	0.00	0.29	0.09					
64	15.19	33.285	24.612	5.74	100.2	1.9	0.25	0.1	0.00	0.28	0.08	4.6	1.3	1.5	1.4	0.02
76	15.27	33.352	24.646	5.68	99.4	2.0	0.25	0.2	0.02	0.25	0.09					
86	14.48	33.502	24.932	5.58	96.2	3.0	0.31	1.1	0.11	0.22	0.15	1.6	0.44	0.41	0.42	0.02
97	12.58	33.291	25.154	5.39	89.2	5.4	0.63	5.1	0.03	0.15	0.14					
108	12.15	33.489	25.391	5.16	84.7	7.0	0.69	6.7	0.02	0.08	0.11					
119	11.76	33.520	25.488	4.99	81.3	8.2	0.80	8.5	0.02	0.07	0.08	0.33	0.01	0.01	0.01	0.01

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 80 90

LATITUDE 33 8.9 N LONGITUDE 123 13.4 W DAY/MO/YR 8/ 2/98 CAST TIME 1828 UTC SECCHI 27 m FOREL 02 INCUBATION TIME 1227 - 1816 PST LAN 1227 PST CIVIL TWILIGHT 1818 PST INTEGRATED VALUE 162.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK
1	15.09	33.190	24.558	5.77	100.5	2.0	0.27	0.1	0.00	0.24	0.08	94. A	2.2	2.4	2.3	0.04
18	15.10	33.196	24.561	5.76	100.3	2.0	0.27	0.0	0.00	0.25	0.08	36.	3.2	3.0	3.1	0.03
28	15.11	33.198	24.561	5.76	100.4	1.9	0.27	0.0	0.00	0.28	0.09					
37	15.12	33.205	24.564	5.77	100.6	1.9	0.27	0.0	0.00	0.28	0.10	12.	2.3	2.6	2.4	0.03
45	15.14	33.209	24.563	5.75	100.3	1.9	0.27	0.0	0.00	0.29	0.10					
56	15.16	33.221	24.569	5.75	100.3	1.9	0.27	0.0	0.00	0.42	0.06	4.1	1.2	1.0	1.1	0.02
63	14.98	33.330	24.692	5.64	98.1	2.3	0.31	0.5	0.05	0.30	0.21					
72	14.69	33.443	24.842	5.47	94.6	3.0	0.43	1.8	0.10	0.31	0.51	1.7	0.83	0.85	0.84	0.03
82	13.54	33.407	25.054	5.21	88.0	5.1	0.63	5.0	0.04	0.19	0.37					
94	12.68	33.402	25.221	5.03	83.5	7.0	0.78	7.3	0.03	0.16	0.29					
102	12.17	33.410	25.325	4.94	81.1	7.7	0.86	8.4	0.03	0.16	0.29	0.30	0.04	0.03	0.04	0.02

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 83 40.6

LATITUDE 34 13.7 N LONGITUDE 119 24.7 W DAY/MO/YR 5/ 2/98 CAST TIME 1905 UTC SECCHI 3 m FOREL 04 INCUBATION TIME 1210 - 1759 PST LAN 1212 PST CIVIL TWILIGHT 1759 PST INTEGRATED VALUE 40.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK
1	16.72	33.740	24.614	5.41	97.7	3.2	0.49	0.8	0.51	0.58	0.28	60. A	13.6	13.4	13.5	0.13
2	16.73	33.734	24.607	5.41	97.7	3.2	0.49	0.8	0.51	0.59	0.27	36.	9.6	10.1	9.9	0.08
3	16.71	33.734	24.612	5.42	97.8	3.2	0.49	0.8	0.51	0.60	0.27	22.	3.6	3.9	3.8	0.07

6	16.71	33.734	24.612	5.42	97.8	3.2	0.50	0.8	0.51	0.60	0.28	4.6	1.1	1.1	1.1	0.06
7	16.71	33.735	24.613	5.41	97.6	3.2	0.50	0.8	0.51	0.61	0.28	2.8	0.27	0.29	0.28	0.05
11	16.71	33.735	24.613	5.41	97.6	3.1	0.49	0.8	0.51	0.56	0.28	0.36	0.01	0.00	0.01	0.05

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 83 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 35.7 N	122 49.0 W	2/ 2/98	1846 UTC	34 m	01	1225 - 1805 PST	1225 PST	1807 PST	115.7 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
1	16.03	33.459	24.557	5.69	101.2	2.0	0.27	0.1	0.00	0.13	0.02	96. A	1.5	1.5	1.5	0.04
12	16.03	33.459	24.557	5.65	100.4	2.0	0.26	0.1	0.00	0.13	0.02					
22	16.03	33.458	24.557	5.71	101.5	2.0	0.26	0.1	0.00	0.12	0.03	37.	1.3	1.3	1.3	0.07
36	15.82	33.448	24.597	5.72	101.2	1.9	0.27	0.1	0.00	0.16	0.04					
45	15.55	33.436	24.648	5.76	101.4	1.9	0.28	0.1	0.00	0.25	0.09	13.	1.4	1.4	1.4	0.08
58	15.14	33.432	24.735	5.74	100.2	2.1	0.30	0.1	0.01	0.53	0.31					
69	14.52	33.434	24.871	5.51	95.0	3.1	0.41	1.4	0.10	0.50 B	0.40 B	4.4	1.4	1.2	1.3	0.04
81	13.65	33.418	25.040	5.27	89.2	5.0	0.60	4.5	0.05	0.30	0.27					
92	12.48	33.419	25.273	4.84	80.0	8.4	0.90	9.1	0.03	0.20	0.20	1.6	0.20	0.22	0.21	0.02
103	11.94	33.476	25.420	4.74	77.5	9.7	0.97	10.3	0.03	0.11	0.11					
118	10.75	33.544	25.689	4.21	67.1	14.9	1.32	16.0	0.02	0.08	0.09					
130	10.31	33.600	25.809	3.97	62.7	17.3	1.44	18.1	0.02	0.05	0.05	0.28	0.00	0.00	0.00	0.02

A) INCUBATION LIGHT INTENSITIES WERE 95, 36, 12, 4.4, 1.6, 0.31 PERCENT RESPECTIVELY.

B) CHLOROPHYLL AND PHAEOPIGMENT SAMPLES FROM 69 TO 118 METERS WERE NUMBERED AND ANALYZED IN REVERSE ORDER. REORDERED VALUES HERE ARE SUPPORTED BY ESTIMATED VALUES FROM CTD FLUOROMETER PROFILE.

PRIMARY PRODUCTIVITY CASTS

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 19.6 N	119 39.7 W	30/ 1/98	1914 UTC	27 m	02	1211 - 1755 PST	1212 PST	1755 PST	376.3 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	16.16	33.699	24.712	5.58	99.6	2.5	0.37	0.6	0.15	0.68	0.24	89. A	12.8	13.4	13.1	0.05
18	16.07	33.699	24.733	5.58	99.4	2.4	0.37	0.6	0.15	0.76	0.30	36.	11.4	11.4	11.4	0.05
29	16.04	33.698	24.739	5.57	99.2	2.4	0.37	0.6	0.15	0.75	0.32					
36	15.59	33.663	24.813	5.36	94.6	3.2	0.45	1.7	0.23	0.33	0.23	13.	2.5	2.7	2.6	0.03
45	14.88	33.607	24.926	5.00	86.9	5.2	0.63	4.4	0.20	0.17	0.15					
55	14.64	33.619	24.987	4.93	85.3	5.8	0.68	5.0	0.19	0.16	0.14	4.4	0.38	0.35	0.36	0.05

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STATION 87 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 39.8 N	121 1.9 W	31/ 1/98	1838 UTC	49 m	01	1218 - 1806 PST	1217 PST	1806 PST	194.7 mg C/m2

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	16.07	33.308	24.432	5.66	100.6	2.0	0.24	0.1	0.00	0.13	0.05	94. A	1.2	1.2	1.2	0.05
18	16.06	33.463	24.553	5.69	101.2	2.0	0.24	0.1	0.00	0.15	0.04					
33	16.06	33.472	24.561	5.67	100.9	1.9	0.24	0.1	0.00	0.17	0.05	36.	1.8	1.8	1.8	0.06
44	16.05	33.472	24.564	5.67	100.8	1.9	0.24	0.1	0.00	0.16	0.04					
55	16.03	33.465	24.563	5.68	101.0	1.9	0.24	0.1	0.00	0.18	0.05					
66	15.89	33.468	24.597	5.69	100.9	1.9	0.24	0.1	0.00	0.22	0.06	13.	1.8	1.7	1.7	0.04
77	15.82	33.467	24.613	5.72	101.2	1.9	0.25	0.1	0.00	0.31	0.11					
89	15.53	33.476	24.685	5.66	99.6	1.9	0.28	0.1	0.05	0.32	0.18					
100	15.50	33.480	24.695	5.66	99.5	2.0	0.28	0.2	0.05	0.31	0.18	4.4	1.2	1.7	1.5	0.04
110	14.15	33.394	24.919	5.49	93.9	3.4	0.46	2.4	0.07	0.21	0.19					
122	12.59	33.391	25.231	5.10	84.5	6.7	0.75	6.9	0.02	0.14	0.14					
132	12.25	33.400	25.303	5.00	82.2	7.5	0.82	8.2	0.02	0.11	0.14	1.6	0.22	0.23	0.22	0.01
145	10.93	33.488	25.614	4.58	73.2	11.8	1.11	12.8	0.01	0.06	0.08					
157	10.24	33.589	25.813	4.06	64.0	15.8	1.35	16.4	0.01	0.04	0.07					
169	9.67	33.683	25.982	3.79	59.0	21.2	1.59	20.7	0.01	0.01	0.04					
185	9.34	33.775	26.108	3.48	53.8	24.3	1.72	22.5	0.01	0.00	0.03	0.30	0.00	0.01	0.01	0.01

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CALCOFI CRUISE 9802

STATION 87 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 19.5 N	123 44.6 W	1/ 2/98	1856 UTC	50 m	01	1229 - 1817 PST	1229 PST	1816 PST	139.5 mg C/m2

128 10.54 33.606 25.774 4.14 65.7 16.2 1.36 16.6 0.01 0.02 0.04 0.31 0.00 0.00 0.00 0.02

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CALCOFI CRUISE 9802

STATION 93 26.8

LATITUDE LONGITUDE DAY/MO/YR CAST TIME SECCHI FOREL INCUBATION TIME LAN CIVIL TWILIGHT INTEGRATED VALUE
 32 57.2 N 117 18.5 W 23/ 1/98 1920 UTC 27 m 02 1201 - 1742 PST 1201 PST 1742 PST 378.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK
1	17.95	34.049	24.557	5.30	98.2	2.1	0.40	0.5	0.32	0.80	0.26	94. A	12.1	12.4	12.3	0.05
11	17.85	34.047	24.580	5.30	98.0	2.1	0.40	0.5	0.32	0.68	0.29					
18	17.85	34.048	24.581	5.29	97.8	2.1	0.40	0.5	0.32	0.70	0.31	36.	9.3	9.3	9.3	0.06
28	17.84	34.049	24.585	5.28	97.6	2.1	0.41	0.4	0.33	0.70	0.31					
37	17.83	34.047	24.586	5.28	97.6	2.1	0.41	0.5	0.34	0.71	0.35	12.	4.6	5.0	4.8	0.05
46	17.83	34.047	24.587	5.27	97.4	2.1	0.41	0.6	0.33	0.63	0.31					
56	16.94	33.897	24.685	4.65	84.4	4.5	0.66	4.2	0.20	0.19	0.16	4.1	0.36	0.36	0.36	0.02 B

B) DARK VALUE ESTIMATED, MEASURED VALUE LOST.

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 93 50

LATITUDE LONGITUDE DAY/MO/YR CAST TIME SECCHI FOREL INCUBATION TIME LAN CIVIL TWILIGHT INTEGRATED VALUE
 32 10.7 N 118 53.8 W 24/ 1/98 1751 UTC 18 m 02 1208 - 1747 PST 1208 PST 1749 PST 115.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK
2	16.30	33.598	24.602	5.62	100.5	1.8	0.29	0.1	0.00	0.39	0.14	84. A	3.3	3.1	3.2	0.05
13	16.26	33.598	24.612	5.62	100.4	1.7	0.29	0.1	0.00	0.37	0.15	33.	4.0	4.0	4.0	0.10
25	16.26	33.598	24.612	5.62	100.4	1.7	0.29	0.1	0.00	0.37	0.15	12.	2.3	2.5	2.4	0.05
36	16.26	33.598	24.612	5.63	100.6	1.7	0.30	0.1	0.00	0.37	0.16	4.6	0.85	0.88	0.86	0.06
42	16.26	33.598	24.613	5.62	100.4	1.7	0.30	0.1	0.00	0.37	0.16					
48	16.24	33.620	24.634	5.60	100.1	1.8	0.30	0.2	0.01	0.50	0.22	1.7	0.50	0.46	0.48	0.03
58	16.14	33.647	24.678	5.61	100.0	1.9	0.32	0.2	0.01	0.63	0.26					
68	15.94	33.592	24.682	5.62	99.8	1.9	0.32	0.2	0.02	0.43	0.23	0.30	0.04	0.02	0.03	0.02

PRIMARY PRODUCTIVITY CASTS

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CALCOFI CRUISE 9802

STATION 93 80

LATITUDE LONGITUDE DAY/MO/YR CAST TIME SECCHI FOREL INCUBATION TIME LAN CIVIL TWILIGHT INTEGRATED VALUE
 31 11.1 N 120 56.9 W 25/ 1/98 1834 UTC 30 m 01 1215 - 1803 PST 1216 PST 1805 PST 76.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK
2	16.69	33.567	24.488	5.59	100.7	0.6	0.23	0.1	0.00	0.19	0.05	90. A	1.4	1.4	1.4	0.02
10	16.68	33.569	24.492	5.61	101.1	0.6	0.24	0.0	0.00	0.17	0.05					
20	16.68	33.568	24.492	5.60	100.9	0.6	0.24	0.0	0.00	0.02 U	0.21 U	36.	1.5	1.5	1.5	0.03
30	16.68	33.565	24.490	5.59	100.7	0.6	0.24	0.0	0.00	0.19	0.03					
41	16.68	33.58	24.502	5.60	100.9	0.6	0.24	0.0	0.00	0.18	0.04	12.	0.89	0.84	0.86	0.03
51	16.68	33.565	24.491	5.60	100.9	0.6	0.23	0.0	0.00	0.18	0.04					
60	16.65	33.560	24.494	5.60	100.8	0.6	0.24	0.0	0.00	0.19	0.07	4.6	0.40	0.59	0.50	0.02
71	16.52	33.540	24.509	5.60	100.5	0.6	0.24	0.0	0.00	0.22	0.07					
81	16.43	33.517	24.513	5.62	100.7	0.6	0.24	0.0	0.00	0.20	0.06	1.6	0.15	0.14	0.15	0.01
92	16.01	33.463	24.567	5.63	100.0	0.8	0.26	0.0	0.03	0.28	0.13					
101	15.20	33.439	24.729	5.54	96.8	2.7	0.36	0.8	0.12	0.28	0.21					
113	14.22	33.440	24.940	5.45	93.4	3.5	0.45	2.0	0.06	0.20	0.25	0.31	0.03	0.02	0.03	0.01

RV DAVID STARR JORDAN

CALCOFI CRUISE 9802

STATION 93 120

LATITUDE LONGITUDE DAY/MO/YR CAST TIME SECCHI FOREL INCUBATION TIME LAN CIVIL TWILIGHT INTEGRATED VALUE
 29 50.9 N 123 35.9 W 26/ 1/98 1844 UTC 44 m 01 1227 - 1811 PST 1227 PST 1812 PST 91.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN mL/L	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAE0 ug/L	LIGHT PCT	UPTAKE (mg C/m3)			
													1	2	MEAN	DARK

3	17.86	33.720	24.327	5.48	101.1	1.6	0.22	0.1	0.00	0.09	0.02	90. A	1.3	0.84	1.1	0.05 B
17	17.78	33.717	24.345	5.49	101.1	1.6	0.23	0.1	0.00	0.10	0.02					
29	17.78	33.718	24.346	5.49	101.1	1.6	0.23	0.1	0.00	0.08	0.03	36.	0.98	0.98	0.98	0.05
44	17.66	33.704	24.365	5.49	100.9	1.6	0.23	0.2	0.00	0.11	0.03					
61	17.65	33.688	24.356	5.50	101.0	1.6	0.23	0.2	0.00	0.12	0.04	12.	0.65	0.66	0.65	0.05
69	17.66	33.695	24.359	5.47	100.5	1.6	0.23	0.2	0.00	0.13	0.04					
78	17.66	33.694	24.359	5.49	100.9	1.7	0.23	0.2	0.00	0.16	0.05					
89	17.63	33.684	24.359	5.50	101.0	1.8	0.23	0.2	0.00	0.18	0.05	4.5	0.44	0.42	0.43	0.01
100	17.59	33.681	24.367	5.48	100.5	1.8	0.23	0.2	0.00	0.18	0.07					
110	16.74	33.522	24.446	5.57	100.4	1.8	0.23	0.2	0.01	0.26	0.17					
118	15.97	33.476	24.587	5.60	99.4	1.9	0.25	0.2	0.07	0.25	0.19	1.6	0.38	0.34	0.36	0.01
130	14.52	33.429	24.869	5.58	96.2	2.7	0.35	1.2	0.10	0.20	0.19					
141	13.82	33.412	25.002	5.42	92.1	3.9	0.49	3.0	0.02	0.15	0.17					
153	12.86	33.399	25.185	5.20	86.6	5.4	0.66	5.6	0.01	0.11	0.14					
165	11.66	33.468	25.467	4.82	78.3	9.1	0.94	10.1	0.00	0.05	0.07	0.32	0.02	0.00	0.01	0.01

A) INCUBATION LIGHT INTENSITIES WERE 95, 36, 12, 4.4, 1.6, 0.31 PERCENT RESPECTIVELY.

B) DARK VALUE ESTIMATED, MEASURED VALUE LOST.