Appendix 1 Test results

Living free algal cells and $K_2Cr_2O_7$ replicate 1

sample	*concentration of algal cells (b/ml)*		*$K_2Cr_2O_7$ (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1537771	0	1.67850
control 2	10000	1552317	0	1.68164
control 3	10000	1570136	0	1.68544
control 4	10000	1558499	0	1.68296
control 5	10000	1549044	0	1.68094
control 6	10000	1584318	0	1.68844
sample 1.1	10000	1728687	0.3	1.71751
sample 1.2	10000	1708323	0.3	1.71356
sample 1.3	10000	1707595	0.3	1.71342
sample 1.4	10000	1715232	0.3	1.71491
sample 1.5	10000	1718868	0.3	1.71561
sample 1.6	10000	1706141	0.3	1.71313
sample 2.1	10000	915566	0.6	1.50565
sample 2.2	10000	920294	0.6	1.50737
sample 2.3	10000	923930	0.6	1.50868
sample 2.4	10000	943567	0.6	1.51569
sample 2.5	10000	912657	0.6	1.50459
sample 2.6	10000	910475	0.6	1.50379
sample 3.1	10000	256633	1.2	1.08169
sample 3.2	10000	256997	1.2	1.08216
sample 3.3	10000	264997	1.2	1.09238
sample 3.4	10000	266815	1.2	1.09466
sample 3.5	10000	272997	1.2	1.10229
sample 3.6	10000	264997	1.2	1.09238
sample 4.1	10000	54807	2.4	0.56708
sample 4.2	10000	56262	2.4	0.57581
sample 4.3	10000	61717	2.4	0.60666
sample 4.4	10000	52625	2.4	0.55354
sample 4.5	10000	62444	2.4	0.61056
sample 4.6	10000	65353	2.4	0.62574
sample 5.1	10000	42443	4.8	0.48186
sample 5.2	10000	64262	4.8	0.62013
sample 5.3	10000	65353	4.8	0.62574
sample 5.4	10000	39534	4.8	0.45819
sample 5.5	10000	38807	4.8	0.45201
sample 5.6	10000	52989	4.8	0.55583

Living free algal cells and $K_2Cr_2O_7$ replicate 2

sample	*concentration of algal cells (b/ml)*		*$K_2Cr_2O_7$ (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	2442169	0	1.83269
control 2	10000	2462896	0	1.83550
control 3	10000	2464714	0	1.83575
control 4	10000	2474533	0	1.83707
control 5	10000	2442896	0	1.83278
control 6	10000	2474896	0	1.83712
sample 1.1	10000	2106883	0.3	1.78346
sample 1.2	10000	2128338	0.3	1.78684
sample 1.3	10000	2122520	0.3	1.78592
sample 1.4	10000	2099246	0.3	1.78225
sample 1.5	10000	2122883	0.3	1.78598
sample 1.6	10000	2126884	0.3	1.78661
sample 2.1	10000	809017	0.6	1.46441
sample 2.2	10000	834109	0.6	1.47459
sample 2.3	10000	859200	0.6	1.48447
sample 2.4	10000	838109	0.6	1.47619
sample 2.5	10000	847564	0.6	1.47993
sample 2.6	10000	863564	0.6	1.48616
sample 3.1	10000	287543	1.2	1.11960
sample 3.2	10000	294089	1.2	1.12710
sample 3.3	10000	311180	1.2	1.14593
sample 3.4	10000	349000	1.2	1.18416
sample 3.5	10000	321726	1.2	1.15704
sample 3.6	10000	319908	1.2	1.15515
sample 4.1	10000	40989	2.4	0.47024
sample 4.2	10000	43170	2.4	0.48752
sample 4.3	10000	53353	2.4	0.55812
sample 4.4	10000	44989	2.4	0.50128
sample 4.5	10000	61353	2.4	0.60469
sample 4.6	10000	60989	2.4	0.60270
sample 5.1	10000	39534	4.8	0.45819
sample 5.2	10000	43898	4.8	0.49309
sample 5.3	10000	46080	4.8	0.50926
sample 5.4	10000	56262	4.8	0.57581
sample 5.5	10000	48625	4.8	0.52718
sample 5.6	10000	54807	4.8	0.56708

Living free algal cells and $K_2Cr_2O_7$ replicate 3

sample	*concentration of algal cells (b/ml)*		*$K_2Cr_2O_7$ (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	3394930	0	1.94248
control 2	10000	3427295	0	1.94565
control 3	10000	3418567	0	1.94480
control 4	10000	3454205	0	1.94825
control 5	10000	3458569	0	1.94868
control 6	10000	3422941	0	1.94522
sample 1.1	10000	1728324	0.3	1.71744
sample 1.2	10000	1767234	0.3	1.72486
sample 1.3	10000	1828327	0.3	1.73619
sample 1.4	10000	1860328	0.3	1.74197
sample 1.5	10000	1861419	0.3	1.74217
sample 1.6	10000	1869783	0.3	1.74366
sample 2.1	10000	2207250	0.6	1.79897
sample 2.2	10000	2265798	0.6	1.80770
sample 2.3	10000	2256343	0.6	1.80631
sample 2.4	10000	2283980	0.6	1.81036
sample 2.5	10000	2258525	0.6	1.80663
sample 2.6	10000	2265071	0.6	1.80759
sample 3.1	10000	1594500	1.2	1.69058
sample 3.2	10000	1679958	1.2	1.70798
sample 3.3	10000	1661048	1.2	1.70421
sample 3.4	10000	1661412	1.2	1.70428
sample 3.5	10000	1681413	1.2	1.70827
sample 3.6	10000	1661412	1.2	1.70428
sample 4.1	10000	45716	2.4	0.50662
sample 4.2	10000	43534	2.4	0.49032
sample 4.3	10000	54807	2.4	0.56708
sample 4.4	10000	74808	2.4	0.67078
sample 4.5	10000	85354	2.4	0.71474
sample 4.6	10000	87172	2.4	0.72177
sample 5.1	10000	51898	4.8	0.54890
sample 5.2	10000	36988	4.8	0.43600
sample 5.3	10000	30806	4.8	0.37504
sample 5.4	10000	30443	4.8	0.37109
sample 5.5	10000	32625	4.8	0.39416
sample 5.6	10000	32625	4.8	0.39416

Living free algal cells and TCS replicate 1

sample	*concentration of algal cells (b/ml)*		*TCS (µg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1617047	0	1.69526
control 2	10000	1731596	0	1.71807
control 3	10000	1730142	0	1.71779
control 4	10000	1725778	0	1.71695
control 5	10000	1741415	0	1.71996
control 6	10000	1749779	0	1.72155
sample 1.1	10000	2367256	1.5	1.82230
sample 1.2	10000	2543626	1.5	1.84625
sample 1.3	10000	2579264	1.5	1.85089
sample 1.4	10000	2584355	1.5	1.85155
sample 1.5	10000	2602174	1.5	1.85384
sample 1.6	10000	2613811	1.5	1.85533
sample 2.1	10000	93718	4.5	0.74590
sample 2.2	10000	76990	4.5	0.68036
sample 2.3	10000	87536	4.5	0.72316
sample 2.4	10000	88990	4.5	0.72865
sample 2.5	10000	86808	4.5	0.72037
sample 2.6	10000	95536	4.5	0.75231
sample 3.1	10000	49353	13.5	0.53214
sample 3.2	10000	45353	13.5	0.50396
sample 3.3	10000	44989	13.5	0.50128
sample 3.4	10000	44261	13.5	0.49584
sample 3.5	10000	56626	13.5	0.57796
sample 3.6	10000	54807	13.5	0.56708
sample 4.1	10000	23170	40.5	0.28009
sample 4.2	10000	28261	40.5	0.34630
sample 4.3	10000	27170	40.5	0.33318
sample 4.4	10000	40625	40.5	0.46727
sample 4.5	10000	33352	40.5	0.40151
sample 4.6	10000	34079	40.5	0.40870
sample 5.1	10000	43534	121.5	0.49032
sample 5.2	10000	42443	121.5	0.48186
sample 5.3	10000	39170	121.5	0.45511
sample 5.4	10000	38079	121.5	0.44569
sample 5.5	10000	38807	121.5	0.45201
sample 5.6	10000	38443	121.5	0.44886

Living free algal cells and TCS replicate 2

sample	*concentration of algal cells (b/ml)*		*TCS (µg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	2442169	0	1.83269
control 2	10000	2462896	0	1.83550
control 3	10000	2464714	0	1.83575
control 4	10000	2474533	0	1.83707
control 5	10000	2442896	0	1.83278
control 6	10000	2474896	0	1.83712
sample 1.1	10000	2101428	1.5	1.78260
sample 1.2	10000	2122520	1.5	1.78592
sample 1.3	10000	2125429	1.5	1.78638
sample 1.4	10000	2118883	1.5	1.78535
sample 1.5	10000	2102519	1.5	1.78277
sample 1.6	10000	2290162	1.5	1.81126
sample 2.1	10000	303180	4.5	1.13725
sample 2.2	10000	337363	4.5	1.17286
sample 2.3	10000	339909	4.5	1.17536
sample 2.4	10000	354091	4.5	1.18899
sample 2.5	10000	357364	4.5	1.19206
sample 2.6	10000	390456	4.5	1.22158
sample 3.1	10000	187176	13.5	0.97649
sample 3.2	10000	196631	13.5	0.99291
sample 3.3	10000	190812	13.5	0.98290
sample 3.4	10000	184994	13.5	0.97258
sample 3.5	10000	193358	13.5	0.98732
sample 3.6	10000	196994	13.5	0.99353
sample 4.1	10000	143538	40.5	0.88800
sample 4.2	10000	138447	40.5	0.87597
sample 4.3	10000	152265	40.5	0.90768
sample 4.4	10000	143901	40.5	0.88885
sample 4.5	10000	187539	40.5	0.97713
sample 4.6	10000	165720	40.5	0.93590
sample 5.1	10000	55898	121.5	0.57365
sample 5.2	10000	52262	121.5	0.55123
sample 5.3	10000	55898	121.5	0.57365
sample 5.4	10000	62808	121.5	0.61250
sample 5.5	10000	53353	121.5	0.55812
sample 5.6	10000	58080	121.5	0.58641

Living free algal cells and TCS replicate 3

sample	*concentration of algal cells (b/ml)*		*TCS (µg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1617047	0	1.69526
control 2	10000	1732596	0	1.71826
control 3	10000	1730142	0	1.71779
control 4	10000	1725142	0	1.71683
control 5	10000	1741415	0	1.71996
control 6	10000	1749779	0	1.72155
sample 1.1	10000	2471260	1.5	1.83663
sample 1.2	10000	2529808	1.5	1.84444
sample 1.3	10000	2550535	1.5	1.84716
sample 1.4	10000	2543262	1.5	1.84621
sample 1.5	10000	2520716	1.5	1.84324
sample 1.6	10000	2545808	1.5	1.84654
sample 2.1	10000	226814	4.5	1.04052
sample 2.2	10000	74081	4.5	0.66752
sample 2.3	10000	70444	4.5	0.65074
sample 2.4	10000	75172	4.5	0.67240
sample 2.5	10000	64535	4.5	0.62154
sample 2.6	10000	70808	4.5	0.65246
sample 3.1	10000	44625	13.5	0.49857
sample 3.2	10000	45352	13.5	0.50396
sample 3.3	10000	57716	13.5	0.58432
sample 3.4	10000	45716	13.5	0.50662
sample 3.5	10000	44989	13.5	0.50128
sample 3.6	10000	44261	13.5	0.49584
sample 4.1	10000	23897	40.5	0.29039
sample 4.2	10000	32261	40.5	0.39042
sample 4.3	10000	31534	40.5	0.38283
sample 4.4	10000	36261	40.5	0.42939
sample 4.5	10000	36988	40.5	0.43600
sample 4.6	10000	36625	40.5	0.43272
sample 5.1	10000	32624	121.5	0.39415
sample 5.2	10000	38807	121.5	0.45201
sample 5.3	10000	37716	121.5	0.44250
sample 5.4	10000	48262	121.5	0.52469
sample 5.5	10000	50080	121.5	0.53701
sample 5.6	10000	40626	121.5	0.46727

Living free algal cells and DCF replicate 1

sample	*concentration of algal cells (b/ml)*		*DCF (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1440313	0	1.65668
control 2	10000	1490860	0	1.66817
control 3	10000	1475951	0	1.66482
control 4	10000	1487587	0	1.66744
control 5	10000	1519225	0	1.67446
control 6	10000	1520316	0	1.67470
sample 1.1	10000	1042480	50	1.54892
sample 1.2	10000	1048662	50	1.55090
sample 1.3	10000	1050844	50	1.55159
sample 1.4	10000	1051571	50	1.55182
sample 1.5	10000	1053389	50	1.55239
sample 1.6	10000	1032298	50	1.54565
sample 2.1	10000	298453	100	1.13201
sample 2.2	10000	288998	100	1.12128
sample 2.3	10000	282088	100	1.11321
sample 2.4	10000	278088	100	1.10845
sample 2.5	10000	283545	100	1.11493
sample 2.6	10000	284624	100	1.11619
sample 3.1	10000	96263	200	0.75483
sample 3.2	10000	105718	200	0.78606
sample 3.3	10000	93718	200	0.74590
sample 3.4	10000	76626	200	0.67878
sample 3.5	10000	82081	200	0.70171
sample 3.6	10000	76263	200	0.67720
sample 4.1	10000	78445	400	0.68660
sample 4.2	10000	74808	400	0.67078
sample 4.3	10000	75535	400	0.67400
sample 4.4	10000	75899	400	0.67561
sample 4.5	10000	79535	400	0.69120
sample 4.6	10000	83172	400	0.70611
sample 5.1	10000	60989	800	0.60270
sample 5.2	10000	60262	800	0.59871
sample 5.3	10000	63535	800	0.61634
sample 5.4	10000	64626	800	0.62201
sample 5.5	10000	63171	800	0.61442
sample 5.6	10000	71172	800	0.65417

Living free algal cells and DCF replicate 2

sample	*concentration of algal cells (b/ml)*		*DCF (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	2513080	0	1.84223
control 2	10000	2599265	0	1.85347
control 3	10000	2572718	0	1.85004
control 4	10000	2603992	0	1.85407
control 5	10000	2618174	0	1.85588
control 6	10000	2605810	0	1.85430
sample 1.1	10000	1235942	50	1.60567
sample 1.2	10000	1271943	50	1.61524
sample 1.3	10000	1306853	50	1.62426
sample 1.4	10000	1326854	50	1.62933
sample 1.5	10000	1308308	50	1.62463
sample 1.6	10000	1328309	50	1.62969
sample 2.1	10000	101354	100	0.77201
sample 2.2	10000	105718	100	0.78606
sample 2.3	10000	111900	100	0.80501
sample 2.4	10000	134447	100	0.86619
sample 2.5	10000	115900	100	0.81671
sample 2.6	10000	121719	100	0.83304
sample 3.1	10000	87172	200	0.72177
sample 3.2	10000	95172	200	0.75103
sample 3.3	10000	87536	200	0.72316
sample 3.4	10000	94081	200	0.74719
sample 3.5	10000	95536	200	0.75231
sample 3.6	10000	91536	200	0.73805
sample 4.1	10000	178812	400	0.96125
sample 4.2	10000	76626	400	0.67878
sample 4.3	10000	83172	400	0.70611
sample 4.4	10000	87172	400	0.72177
sample 4.5	10000	88990	400	0.72865
sample 4.6	10000	146811	400	0.89552
sample 5.1	10000	83899	800	0.70901
sample 5.2	10000	82808	800	0.70465
sample 5.3	10000	76626	800	0.67878
sample 5.4	10000	83899	800	0.70901
sample 5.5	10000	118082	800	0.82293
sample 5.6	10000	79899	800	0.69273

Living free algal cells and DCF replicate 3

sample	*concentration of algal cells (b/ml)*		*DCF (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	3394930	0	1.94248
control 2	10000	3427295	0	1.94565
control 3	10000	3418567	0	1.94480
control 4	10000	3454205	0	1.94825
control 5	10000	3458569	0	1.94868
control 6	10000	3422941	0	1.94522
sample 1.1	10000	1262124	50	1.61266
sample 1.2	10000	1316308	50	1.62667
sample 1.3	10000	1328309	50	1.62969
sample 1.4	10000	1373401	50	1.64082
sample 1.5	10000	1377401	50	1.64179
sample 1.6	10000	1377038	50	1.64170
sample 2.1	10000	1625047	100	1.69690
sample 2.2	10000	1689049	100	1.70978
sample 2.3	10000	1708686	100	1.71363
sample 2.4	10000	1760325	100	1.72356
sample 2.5	10000	1768325	100	1.72507
sample 2.6	10000	173234	100	0.95069
sample 3.1	10000	190085	200	0.98163
sample 3.2	10000	156629	200	0.91710
sample 3.3	10000	150447	200	0.90368
sample 3.4	10000	153720	200	0.91085
sample 3.5	10000	145720	200	0.89303
sample 3.6	10000	169357	200	0.94314
sample 4.1	10000	46807	400	0.51448
sample 4.2	10000	51534	400	0.54655
sample 4.3	10000	44989	400	0.50128
sample 4.4	10000	60626	400	0.60071
sample 4.5	10000	102082	400	0.77440
sample 4.6	10000	40261	400	0.46427
sample 5.1	10000	51898	800	0.54890
sample 5.2	10000	61717	800	0.60666
sample 5.3	10000	68990	800	0.64379
sample 5.4	10000	59171	800	0.59262
sample 5.5	10000	50807	800	0.54182
sample 5.6	10000	52625	800	0.55354

Immobilized algae and $K_2Cr_2O_7$ replicate 1

sample	*concentration of algal cells (b/ml)*		*K2Cr2O7 (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	2877709	0	1.88739
control 2	10000	3025099	0	1.90404
control 3	10000	3002916	0	1.90158
control 4	10000	3056736	0	1.90751
control 5	10000	3037826	0	1.90544
control 6	10000	3006186	0	1.90195
sample 1.1	10000	1902512	0.3	1.74945
sample 1.2	10000	1952332	0.3	1.75806
sample 1.3	10000	1944331	0.3	1.75670
sample 1.4	10000	1945059	0.3	1.75682
sample 1.5	10000	1950150	0.3	1.75769
sample 1.6	10000	1943604	0.3	1.75657
sample 2.1	10000	631919	0.6	1.38206
sample 2.2	10000	597009	0.6	1.36312
sample 2.3	10000	589009	0.6	1.35862
sample 2.4	10000	597736	0.6	1.36352
sample 2.5	10000	585372	0.6	1.35655
sample 2.6	10000	738469	0.6	1.43400
sample 3.1	10000	74444	1.2	0.66915
sample 3.2	10000	77717	1.2	0.68350
sample 3.3	10000	105355	1.2	0.78492
sample 3.4	10000	70081	1.2	0.64902
sample 3.5	10000	70808	1.2	0.65246
sample 3.6	10000	76990	1.2	0.68036
sample 4.1	10000	22079	2.4	0.26401
sample 4.2	10000	30079	2.4	0.36708
sample 4.3	10000	26624	2.4	0.32641
sample 4.4	10000	29352	2.4	0.35893
sample 4.5	10000	28261	2.4	0.34630
sample 4.6	10000	30443	2.4	0.37109
sample 5.1	10000	23533	4.8	0.28527
sample 5.2	10000	26806	4.8	0.32868
sample 5.3	10000	23533	4.8	0.28527
sample 5.4	10000	21351	4.8	0.25284
sample 5.5	10000	21351	4.8	0.25284
sample 5.6	10000	22806	4.8	0.27481

Immobilized algae and $K_2Cr_2O_7$ replicate 2

sample	*concentration of algal cells (b/ml)*		*$K_2Cr_2O_7$ (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1519952	0	1.67462
control 2	10000	1538135	0	1.67858
control 3	10000	1550135	0	1.68117
control 4	10000	1523952	0	1.67549
control 5	10000	1531953	0	1.67724
control 6	10000	1538135	0	1.67858
sample 1.1	10000	2209068	0.3	1.79925
sample 1.2	10000	2237797	0.3	1.80355
sample 1.3	10000	2230524	0.3	1.80247
sample 1.4	10000	2243252	0.3	1.80437
sample 1.5	10000	2282526	0.3	1.81015
sample 1.6	10000	2268707	0.3	1.80813
sample 2.1	10000	752651	0.6	1.44034
sample 2.2	10000	765743	0.6	1.44609
sample 2.3	10000	791562	0.6	1.45714
sample 2.4	10000	790834	0.6	1.45683
sample 2.5	10000	816654	0.6	1.46754
sample 2.6	10000	773379	0.6	1.44939
sample 3.1	10000	47171	1.2	0.51706
sample 3.2	10000	62080	1.2	0.60861
sample 3.3	10000	83536	1.2	0.70756
sample 3.4	10000	99173	1.2	0.76476
sample 3.5	10000	99900	1.2	0.76719
sample 3.6	10000	110082	1.2	0.79955
sample 4.1	10000	29352	2.4	0.35893
sample 4.2	10000	29352	2.4	0.35893
sample 4.3	10000	37716	2.4	0.44250
sample 4.4	10000	32261	2.4	0.39042
sample 4.5	10000	32988	2.4	0.39785
sample 4.6	10000	30443	2.4	0.37109
sample 5.1	10000	27897	4.8	0.34198
sample 5.2	10000	48989	4.8	0.52967
sample 5.3	10000	78445	4.8	0.68660
sample 5.4	10000	30806	4.8	0.37504
sample 5.5	10000	26806	4.8	0.32868
sample 5.6	10000	28624	4.8	0.35055

Immobilized algae and $K_2Cr_2O_7$ replicate 3

sample	*concentration of algal cells (b/ml)*		*$K_2Cr_2O_7$ (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	2440350	0	1.83244
control 2	10000	2462896	0	1.83550
control 3	10000	2485806	0	1.83859
control 4	10000	2479987	0	1.83781
control 5	10000	2491988	0	1.83942
control 6	10000	2489079	0	1.83903
sample 1.1	10000	2132702	0.3	1.78752
sample 1.2	10000	2141066	0.3	1.78882
sample 1.3	10000	2119247	0.3	1.78541
sample 1.4	10000	2111247	0.3	1.78415
sample 1.5	10000	2124338	0.3	1.78621
sample 1.6	10000	2113065	0.3	1.78444
sample 2.1	10000	870474	0.6	1.48882
sample 2.2	10000	806471	0.6	1.46336
sample 2.3	10000	801744	0.6	1.46140
sample 2.4	10000	820654	0.6	1.46917
sample 2.5	10000	803562	0.6	1.46216
sample 2.6	10000	809380	0.6	1.46456
sample 3.1	10000	67535	1.2	0.63669
sample 3.2	10000	57716	1.2	0.58432
sample 3.3	10000	59171	1.2	0.59262
sample 3.4	10000	55535	1.2	0.57148
sample 3.5	10000	52989	1.2	0.55583
sample 3.6	10000	55171	1.2	0.56928
sample 4.1	10000	28988	2.4	0.35477
sample 4.2	10000	29352	2.4	0.35893
sample 4.3	10000	29715	2.4	0.36302
sample 4.4	10000	33352	2.4	0.40151
sample 4.5	10000	29715	2.4	0.36302
sample 4.6	10000	28261	2.4	0.34630
sample 5.1	10000	18806	4.8	0.21053
sample 5.2	10000	19170	4.8	0.21692
sample 5.3	10000	20261	4.8	0.23537
sample 5.4	10000	16260	4.8	0.16204
sample 5.5	10000	46080	4.8	0.50926
sample 5.6	10000	17351	4.8	0.18369

Immobilized algae and TCS replicate 1

sample	*concentration of algal cells (b/ml)*		*TCS (µg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	2877093	0	1.88732
control 2	10000	3025099	0	1.90404
control 3	10000	3002916	0	1.90158
control 4	10000	3056736	0	1.90751
control 5	10000	3037826	0	1.90544
control 6	10000	3006186	0	1.90195
sample 1.1	10000	1009751	1.5	1.53829
sample 1.2	10000	998842	1.5	1.53467
sample 1.3	10000	961750	1.5	1.52206
sample 1.4	10000	977750	1.5	1.52756
sample 1.5	10000	949749	1.5	1.51787
sample 1.6	10000	1017752	1.5	1.54092
sample 2.1	10000	100627	4.5	0.76961
sample 2.2	10000	95900	4.5	0.75357
sample 2.3	10000	109355	4.5	0.79734
sample 2.4	10000	98082	4.5	0.76107
sample 2.5	10000	105355	4.5	0.78492
sample 2.6	10000	123173	4.5	0.83700
sample 3.1	10000	44989	13.5	0.50128
sample 3.2	10000	64989	13.5	0.62388
sample 3.3	10000	40989	13.5	0.47024
sample 3.4	10000	51171	13.5	0.54420
sample 3.5	10000	41352	13.5	0.47318
sample 3.6	10000	54897	13.5	0.56762
sample 4.1	10000	35170	40.5	0.41920
sample 4.2	10000	27534	40.5	0.33761
sample 4.3	10000	35897	40.5	0.42602
sample 4.4	10000	32988	40.5	0.39785
sample 4.5	10000	34443	40.5	0.41224
sample 4.6	10000	24261	40.5	0.29543
sample 5.1	10000	28261	121.5	0.34630
sample 5.2	10000	39354	121.5	0.45667
sample 5.3	10000	24624	121.5	0.30038
sample 5.4	10000	29715	121.5	0.36302
sample 5.5	10000	30443	121.5	0.37109
sample 5.6	10000	24261	121.5	0.29543

Immobilized algae and TCS replicate 2

sample	*concentration of algal cells (b/ml)*		*TCS (µg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1519952	0	1.67462
control 2	10000	1538135	0	1.67858
control 3	10000	1550135	0	1.68117
control 4	10000	1523952	0	1.67549
control 5	10000	1531953	0	1.67724
control 6	10000	1538135	0	1.67858
sample 1.1	10000	1804690	1.5	1.73185
sample 1.2	10000	1860692	1.5	1.74204
sample 1.3	10000	1863238	1.5	1.74250
sample 1.4	10000	1870874	1.5	1.74386
sample 1.5	10000	1862874	1.5	1.74243
sample 1.6	10000	1897057	1.5	1.74849
sample 2.1	10000	268997	4.5	1.09737
sample 2.2	10000	263179	4.5	1.09008
sample 2.3	10000	304998	4.5	1.13924
sample 2.4	10000	290452	4.5	1.12295
sample 2.5	10000	294452	4.5	1.12751
sample 2.6	10000	298816	4.5	1.13241
sample 3.1	10000	57353	13.5	0.58221
sample 3.2	10000	52625	13.5	0.55354
sample 3.3	10000	56262	13.5	0.57581
sample 3.4	10000	55171	13.5	0.56928
sample 3.5	10000	55898	13.5	0.57365
sample 3.6	10000	53716	13.5	0.56038
sample 4.1	10000	30806	40.5	0.37504
sample 4.2	10000	27897	40.5	0.34198
sample 4.3	10000	29352	40.5	0.35893
sample 4.4	10000	30443	40.5	0.37109
sample 4.5	10000	53716	40.5	0.56038
sample 4.6	10000	25170	40.5	0.30769
sample 5.1	10000	10078	121.5	0.00259
sample 5.2	10000	12624	121.5	0.07767
sample 5.3	10000	18442	121.5	0.20402
sample 5.4	10000	15897	121.5	0.15452
sample 5.5	10000	27534	121.5	0.33761
sample 5.6	10000	24261	121.5	0.29543

Immobilized algae and TCS replicate 3

sample	*concentration of algal cells (b/ml)*		*TCS (µg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	2440350	0	1.83244
control 2	10000	2462896	0	1.83550
control 3	10000	2485806	0	1.83859
control 4	10000	2479987	0	1.83781
control 5	10000	2491988	0	1.83942
control 6	10000	2489079	0	1.83903
sample 1.1	10000	1613410	1.5	1.69451
sample 1.2	10000	1670503	1.5	1.70610
sample 1.3	10000	1672685	1.5	1.70653
sample 1.4	10000	1689776	1.5	1.70992
sample 1.5	10000	1666503	1.5	1.70530
sample 1.6	10000	1679231	1.5	1.70784
sample 2.1	10000	148265	4.5	0.89881
sample 2.2	10000	163539	4.5	0.93149
sample 2.3	10000	151174	4.5	0.90528
sample 2.4	10000	154084	4.5	0.91164
sample 2.5	10000	176630	4.5	0.95716
sample 2.6	10000	164629	4.5	0.93370
sample 3.1	10000	44625	13.5	0.49857
sample 3.2	10000	51534	13.5	0.54655
sample 3.3	10000	49353	13.5	0.53214
sample 3.4	10000	54444	13.5	0.56486
sample 3.5	10000	47898	13.5	0.52216
sample 3.6	10000	63899	13.5	0.61824
sample 4.1	10000	44625	40.5	0.49857
sample 4.2	10000	46080	40.5	0.50926
sample 4.3	10000	47534	40.5	0.51962
sample 4.4	10000	52625	40.5	0.55354
sample 4.5	10000	50807	40.5	0.54182
sample 4.6	10000	50807	40.5	0.54182
sample 5.1	10000	40989	121.5	0.47024
sample 5.2	10000	71172	121.5	0.65417
sample 5.3	10000	50080	121.5	0.53701
sample 5.4	10000	46443	121.5	0.51188
sample 5.5	10000	54807	121.5	0.56708
sample 5.6	10000	51898	121.5	0.54890

Immobilized algae and DCF replicate 1

sample	*concentration of algal cells (b/ml)*		*DCF (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1991969	0	1.76476
control 2	10000	2044335	0	1.77341
control 3	10000	2065063	0	1.77678
control 4	10000	2104337	0	1.78306
control 5	10000	2083609	0	1.77976
control 6	10000	2082518	0	1.77958
sample 1.1	10000	1028661	50	1.54448
sample 1.2	10000	1072299	50	1.55833
sample 1.3	10000	1073754	50	1.55878
sample 1.4	10000	1121028	50	1.57314
sample 1.5	10000	1151939	50	1.58221
sample 1.6	10000	1143211	50	1.57967
sample 2.1	10000	551189	100	1.33650
sample 2.2	10000	599191	100	1.36433
sample 2.3	10000	613373	100	1.37213
sample 2.4	10000	638829	100	1.38568
sample 2.5	10000	632647	100	1.38244
sample 2.6	10000	631919	100	1.38206
sample 3.1	10000	110082	200	0.79955
sample 3.2	10000	105718	200	0.78606
sample 3.3	10000	108264	200	0.79400
sample 3.4	10000	125355	200	0.84285
sample 3.5	10000	104627	200	0.78261
sample 3.6	10000	108264	200	0.79400
sample 4.1	10000	70808	400	0.65246
sample 4.2	10000	74808	400	0.67078
sample 4.3	10000	73717	400	0.66588
sample 4.4	10000	71899	400	0.65756
sample 4.5	10000	92990	400	0.74330
sample 4.6	10000	76626	400	0.67878
sample 5.1	10000	58807	800	0.59056
sample 5.2	10000	59171	800	0.59262
sample 5.3	10000	64989	800	0.62388
sample 5.4	10000	55898	800	0.57365
sample 5.5	10000	69353	800	0.64554
sample 5.6	10000	65717	800	0.62759

Immobilized algae and DCF replicate 2

sample	*concentration of algal cells (b/ml)*		*DCF (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1415585	0	1.65090
control 2	10000	1412675	0	1.65022
control 3	10000	1467950	0	1.66301
control 4	10000	1533771	0	1.67763
control 5	10000	1548680	0	1.68086
control 6	10000	1563954	0	1.68413
sample 1.1	10000	898838	50	1.49951
sample 1.2	10000	902475	50	1.50085
sample 1.3	10000	909020	50	1.50326
sample 1.4	10000	909748	50	1.50353
sample 1.5	10000	925021	50	1.50908
sample 1.6	10000	930476	50	1.51104
sample 2.1	10000	635556	100	1.38397
sample 2.2	10000	649738	100	1.39133
sample 2.3	10000	645738	100	1.38927
sample 2.4	10000	658102	100	1.39559
sample 2.5	10000	659557	100	1.39633
sample 2.6	10000	669375	100	1.40125
sample 3.1	10000	113719	200	0.81038
sample 3.2	10000	114446	200	0.81251
sample 3.3	10000	116264	200	0.81776
sample 3.4	10000	118810	200	0.82498
sample 3.5	10000	114082	200	0.81144
sample 3.6	10000	111900	200	0.80501
sample 4.1	10000	74444	400	0.66915
sample 4.2	10000	109718	400	0.79844
sample 4.3	10000	88627	400	0.72728
sample 4.4	10000	96991	400	0.75734
sample 4.5	10000	90081	400	0.73271
sample 4.6	10000	100627	400	0.76961
sample 5.1	10000	94809	800	0.74976
sample 5.2	10000	85717	800	0.71616
sample 5.3	10000	44261	800	0.49584
sample 5.4	10000	48989	800	0.52967
sample 5.5	10000	95900	800	0.75357
sample 5.6	10000	68626	800	0.64203

Immobilized algae and DCF replicate 3

sample	*concentration of algal cells (b/ml)*		*DCF (mg/l)*	*average growth rate*
	beginning	end		
time	0 h	72 h		
control 1	10000	1415585	0	1.65090
control 2	10000	1412675	0	1.65022
control 3	10000	1467950	0	1.66301
control 4	10000	1533771	0	1.67763
control 5	10000	1548680	0	1.68086
control 6	10000	1563954	0	1.68413
sample 1.1	10000	1795599	50	1.73017
sample 1.2	10000	1883238	50	1.74605
sample 1.3	10000	1937786	50	1.75557
sample 1.4	10000	1998151	50	1.76580
sample 1.5	10000	1994879	50	1.76525
sample 1.6	10000	2070154	50	1.77760
sample 2.1	10000	513006	100	1.31257
sample 2.2	10000	537007	100	1.32781
sample 2.3	10000	549735	100	1.33562
sample 2.4	10000	570099	100	1.34774
sample 2.5	10000	555553	100	1.33913
sample 2.6	10000	550462	100	1.33606
sample 3.1	10000	79899	200	0.69273
sample 3.2	10000	96991	200	0.75734
sample 3.3	10000	101718	200	0.77321
sample 3.4	10000	103173	200	0.77794
sample 3.5	10000	73717	200	0.66588
sample 3.6	10000	80990	200	0.69725
sample 4.1	10000	90445	400	0.73405
sample 4.2	10000	84627	400	0.71189
sample 4.3	10000	91536	400	0.73805
sample 4.4	10000	103173	400	0.77794
sample 4.5	10000	124628	400	0.84092
sample 4.6	10000	126810	400	0.84670
sample 5.1	10000	61353	800	0.60469
sample 5.2	10000	68262	800	0.64026
sample 5.3	10000	63899	800	0.61824
sample 5.4	10000	113355	800	0.80931
sample 5.5	10000	74081	800	0.66752
sample 5.6	10000	59898	800	0.59669