

Supplement of Biogeosciences, 15, 1093–1114, 2018
<https://doi.org/10.5194/bg-15-1093-2018-supplement>
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Supplement of

Carbon dynamics and CO₂ and CH₄ outgassing in the Mekong delta

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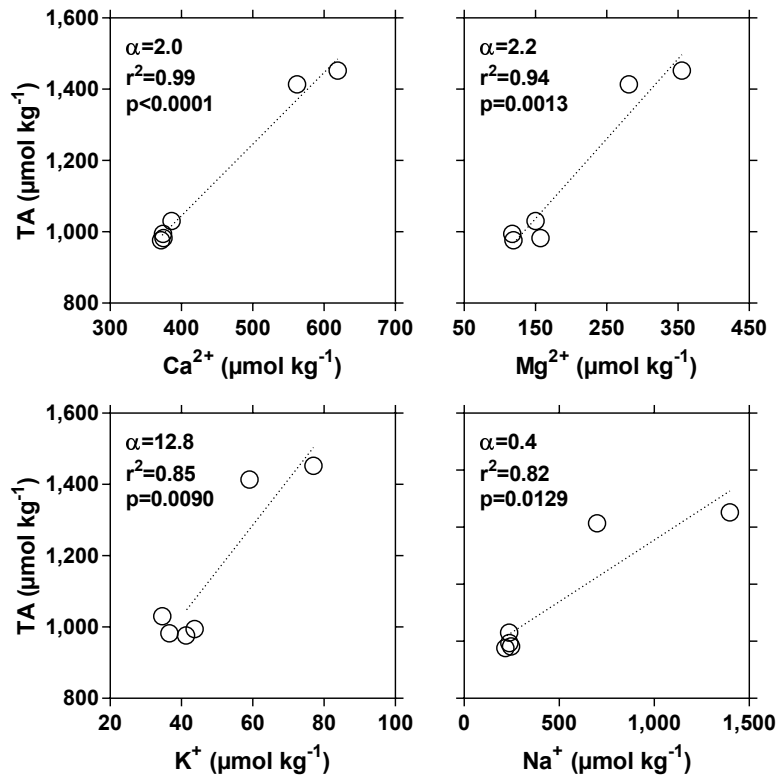


Figure S1 – Variations of total alkalinity (TA in $\mu\text{mol kg}^{-1}$) as a function of Ca^{2+} , Mg^{2+} , K^+ and Na^+ (all in $\mu\text{mol kg}^{-1}$) in the freshwaters (salinity 0) of the three branches of the Mekong delta (My Tho, Ham Luong and Co Chien), in December 2003, April 2004 and October 2004. α indicates the slope of the linear regression line (dotted line).

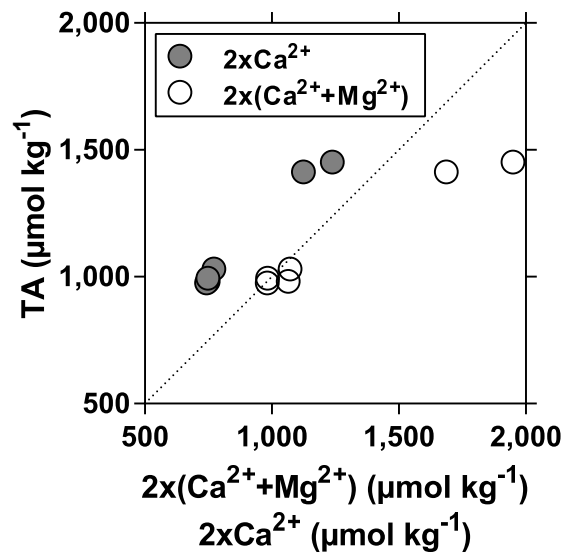


Fig. S2 - Variations of total alkalinity (TA in $\mu\text{mol kg}^{-1}$) as a function of $2x\text{Ca}^{2+}$ and $2x(\text{Ca}^{2+} + \text{Mg}^{2+})$ (both in $\mu\text{mol kg}^{-1}$) in the freshwaters (salinity 0) of the three branches of the Mekong delta (My Tho, Ham Luong and Co Chien), in December 2003, April 2004 and October 2004. Dotted line indicates the 1:1 line. If TA was due exclusively to weathering of calcite CaCO_3 the data points would fall on the 1:1 line. Deviation from the 1:1 line indicate a contribution of weathering of dolomite ($\text{MgCa}(\text{CO}_3)_2$) to TA.

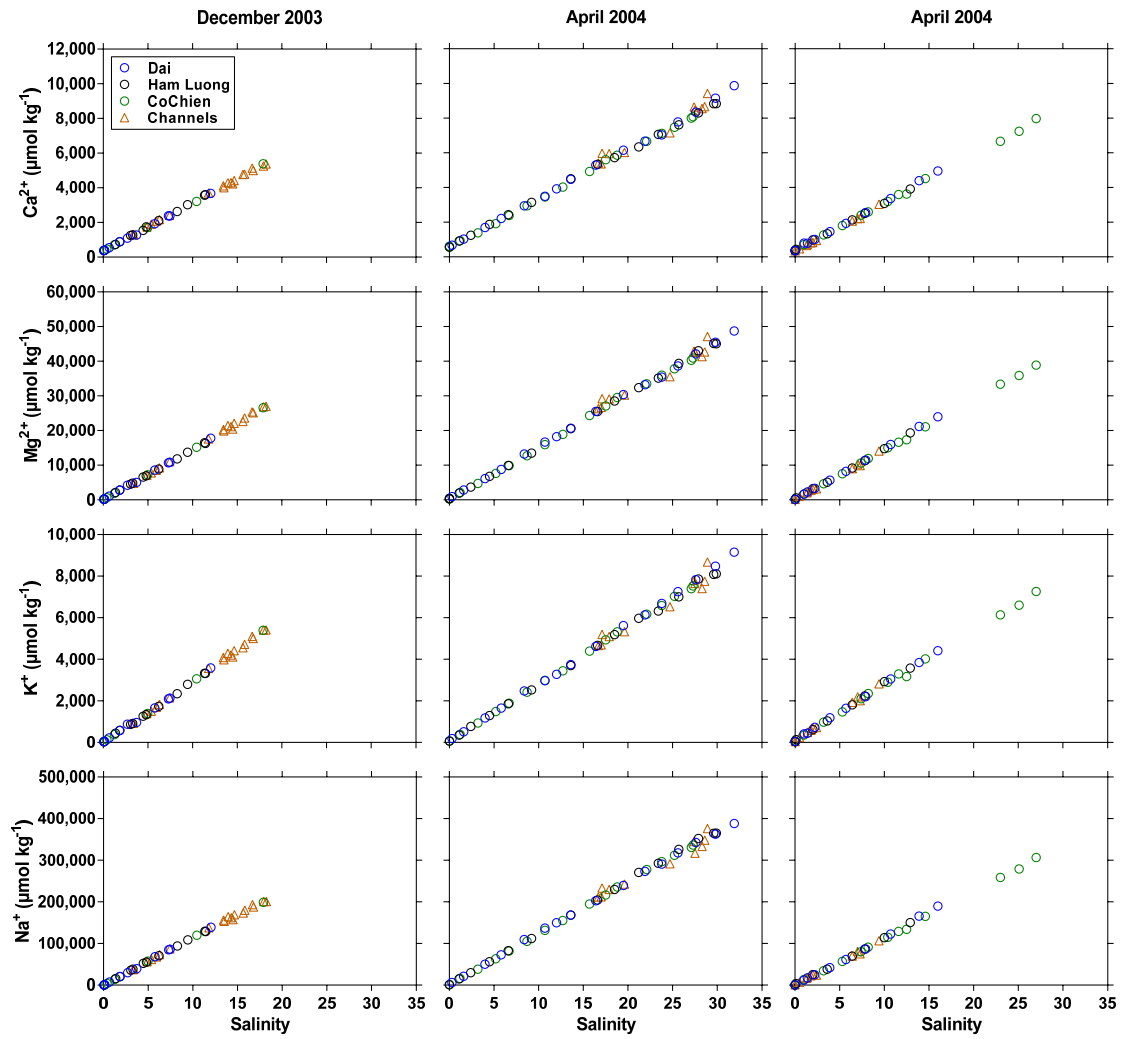


Fig. S3 - Distribution as a function of salinity of Ca^{2+} , Mg^{2+} , K^+ and Na^+ in the three branches of the Mekong delta (My Tho, Ham Luong and Co Chien) and side channels, in December 2003, April 2004 and October 2004.

Table S1: Geo-referenced and timestamped data-set

TA = total alkalinity, pCO₂ = partial pressure of CO₂, DIC = dissolved inorganic carbon, %O₂ = oxygen saturation level, TSM = total suspended matter, POC = particulate organic carbon, DSi= dissolved silica, DOC = dissolved organic carbon

dd-mm-yy hh:mm	Longitude	Latitude	Salinity	Water Temp. °C	TA μmol/kg	pH	Calculated pCO ₂ ppm	Calculated DIC μmol/kg	%O ₂ %	TSM mg/L	POC mg/L	PN mg/L	δ ¹³ C-POC ‰	δ ¹³ C-DIC ‰	Ca ²⁺ μmol/kg	K ⁺ μmol/kg	Mg ⁺ μmol/kg	Na ⁺ μmol/kg	DSi μmol/L	CH ₄ nmol/L	DOC mg/L	δ ¹³ C-DOC ‰
LT	°E	°N																				
04-12-2003 06:30	106.45045	10.29802	0.07	26.7	1009	7.536	1895	1068	76.0	36.2	0.99	0.13	-27.3	-9.9	386	34	159	261				
04-12-2003 07:20	106.52778	10.27153	0.07	28.5	997	7.477	2204	1063	73.0	41.3	0.96	0.13	-27.8	-10.9	383	36	156	230				
04-12-2003 08:00	106.61893	10.24000	0.14	28.6	1017	7.516	2026	1077	74.6	38.7	0.87	0.11	-27.3	-10.6	404	57	250	977				
04-12-2003 08:35	106.70920	10.20372	1.84	28.6	1076	7.547	1719	1122	77.4	36.5	0.84	0.12	-27.6	-9.3	892	572	2785	20487				
05-12-2003 09:05	106.71360	10.20225	0.67	28.6	1054	7.568	1736	1103	77.6	86.6	1.49	0.21	-26.9	-10.0	550	220	1052	7485				
05-12-2003 08:50	106.74002	10.18940	2.71	28.4	1112	7.594	1525	1151	77.6	34.9	0.81	0.13	-26.4	-10.1	1093	877	4226	29650				
05-12-2003 08:34	106.76617	10.18072	3.73	27.7	1162	7.646	1344	1193	78.8	28.6	0.83	0.13	-26.6	-10.1	1275	962	5000	39509				
05-12-2003 08:13	106.79362	10.16333	5.76	27.6	1207	7.755	1013	1219	82.3	28.1	0.71	0.10	-26.3	-7.5	1925	1660	8570	68202				
05-12-2003 07:56	106.81718	10.14265	7.30	27.4	1254	7.806	894	1254	83.2	29.3	0.72	0.11	-26.0	-7.8	2381	2097	10667	84618				
05-12-2003 07:00	106.83758	10.12867	7.45	27.3	1257	7.811	881	1257	84.2	18.3	0.85	0.13	-25.7	-7.5	2373	2129	10838	86212				
05-12-2003 07:19	106.84875	10.11020	12.02	27.2	1352	7.905	687	1320	85.2	25.6	0.81	0.12	-25.7	-6.3	3673	3589	17788	138913				
03-12-2003 15:25	106.13842	10.28063	0.07	28.7	982	7.412	2530	1058	74.0	21.6	0.75	0.11	-27.5	-11.7	375	37	157	247				
29-11-2003 10:10	106.34830	10.21448	0.07	29.8	1023	7.346	3120	1114	72.0	33.2	1.01	0.13	-26.8	-10.4	393	37	152	233				
05-12-2003 12:20	106.40857	10.10677	0.07	28.5	1013	7.448	2393	1085	71.7	22.5	0.70		-27.9	-10.4	377	32	157	244				
29-11-2003 12:35	106.45203	10.05237	0.10	29.5	1077	7.247	4085	1199	63.0	93.3	1.45	0.18	-26.4	-14.0	404	46	206	486				
05-12-2003 13:10	106.53482	10.00523	4.46	28.3	1175	7.634	1375	1204	80.8	30.0	0.59	0.09	-27.6	-9.5	1549	1265	6567	52093				
01-12-2003 17:29	106.60240	9.97820	3.06	29.1	1175	7.455	2219	1235	80.8	31.0	0.76	0.11	-26.0	-10.1	1254	867	4527	35693				
29-11-2003 14:55	106.63233	9.95358	1.37	29.4	1122	7.336	3039	1210	73.0	115.7	1.40	0.19	-26.6	-12.6	735	447	2118	15490				
01-12-2003 12:42	106.65077	9.95587	1.86	30.0	1164	7.443	2414	1230	81.0	33.5	1.04	0.15	-25.8	-9.9	888	590	2817	20138				
01-12-2003 13:08	106.68133	9.94703	3.30	29.7	1186	7.578	1681	1226	81.6	36.3	0.90	0.12	-26.2	-8.4	1286	916	4807	37989				
01-12-2003 11:55	106.72028	9.92897	4.81	29.8	1128	7.583	1666	1284	87.3	17.8	0.52	0.06	-25.7	-8.6	1740	1338	6947	55411				
01-12-2003 11:33	106.73330	9.92340	6.22	29.2	1263	7.633	1430	1288	88.8	13.0	0.36	0.05	-26.1	-8.3	2107	1734	8872	70558				
01-12-2003 11:19	106.73732	9.92258	8.27	28.9	1360	7.740	1135	1366	92.2	12.3	0.39	0.07	-25.4	-6.6	2634	2342	11806	93796				
01-12-2003 10:13	106.75618	9.90895	11.35	28.9	1438	7.888	790	1409	99.2	11.0	0.50	0.11	-24.6	-7.1	3579	3325	16458	129525				
01-12-2003 10:45	106.75670	9.90773	9.44	28.9	1396	7.760	1084	1394	95.0	10.6	0.43		-25.5	-7.1	3025	2792	13708	108589				
01-12-2003 10:27	106.75800	9.90542	11.44	28.9	1449	7.824	929	1430	98.0	9.7	0.44	0.10	-24.7	-6.2	3604	3318	16272	128607				
03-12-2003 13:25	106.21593	10.15380	0.07	29.9	1031	7.618	1678	1078	84.0	12.6	0.43	0.07	-28.0	-10.1	386	35	150	237				
03-12-2003 12:10	106.29467	10.05587	0.13	29.6	1039	7.577	1827	1091	83.0	12.8	0.49	0.08	-27.4	-10.3	387	36	149	238				
03-12-2003 11:00	106.40377	9.96890	0.08	29.9	1024	7.590	1776	1074	82.0	12.5	0.63	0.09	-27.6	-10.4	387	33	162	336				
03-12-2003 09:53	106.52748	9.87053	0.39	29.1	1034	7.536	1901	1088	81.0	15.4	0.66	0.09	-28.5	-9.9	468	133	633	4161				
03-12-2003 08:42	106.60432	9.78555	1.26	28.9	1076	7.551	1770	1125	81.0	17.6	0.49	0.07	-27.0	-9.1	705	382	1870	13709				
03-12-2003 08:27	106.61013	9.78293	4.97	28.3	1195	7.688	1214	1217	84.0	20.8	0.80	0.13	-26.7	-8.1	1701	1393	7236	57641				
03-12-2003 08:05	106.61632	9.78212	10.46	27.7	1393	7.906	732	1367	87.0	26.8	0.81	0.11	-25.8	-6.0	3210	3067	15184	119904				
03-12-2003 07:45	106.62007	9.78480	17.90	26.9	1636	8.062	509	1536	94.0	38.3	0.79	0.13	-25.0	-3.8	5386	5397	26596	198895				
02-12-2003 11:40	106.60537	9.81165	15.82	28.0	1841	7.281	3995	1936	64.0	59.5	1.30	0.17	-26.8	-10.0	4782	4722	23613	179850				
03-12-2003 07:00	106.60718	9.81220	13.50	26.0	1687	7.526	2054	1722	73.0	70.1	1.24		-26.2	-8.6	4002	3983	19900	153270				
02-12-2003 11:20	106.61065	9.81283	16.79	27.6	1899	7.386	3164	1962	71.0	97.1	1.62	0.22	-26.4	-9.4	4993	5004	25131	187891				
03-12-2003 06:45	106.61582	9.81305	13.45	25.8	1751	7.475	2401	1799	73.0	215.0	3.23	0.38	-25.8	-9.8	4113	4084	20288	156249				
02-12-2003 11:05	106.62370	9.81588	16.67	26.9	1887	7.621	1781	1893	83.0	52.0	1.07	0.16	-26.4	-8.6	5133	5105	25376	193258				
03-12-2003 06:30	106.62413	9.81598	14.66	25.6	1878	7.395	3053	1948	67.0	117.1	1.86	0.26	-26.3	-10.8	4416	4410	22053	169047				
02-12-2003 10:06	106.58453	9.85098	5.95	28.3	1359	7.594	1676	1394	83.0	23.6	1.22	0.20	-28.9	-8.4	2079	1691	8530	67728				
02-12-2003 09:50	106.59408	9.86700	5.37	28.1	1334	7.559	1808	1376	82.0	22.7	1.03	0.18	-28.8	-8.9	1910	1508	7751	61448				
02-12-2003 09:30	106.60220	9.89692	4.89	28.6	1308	7.580	1724	1347	85.0	20.9	1.37	0.21	-28.4	-9.4	1737	1384	7084	56127				
02-12-2003 08:00	106.63145	9.91253	6.29	27.3	1575	7.558	2067	1623	76.0	23.0	1.52	0.28	-29.3	-10.1	2167	1827	9245	73253				
02-12-2003 07:18	106.58005	9.92930	3.32	27.3	1237	7.393	2603	1313	75.0	37.1	1.21	0.17	-28.6	-10.1	1318	917	4758	37365				
02-12-2003 06:43	106.56003	9.94933	3.42	27.7	1229	7.382	2658	1305	74.0	32.0	1.08	0.18	-27.8	-9.5	1298	935	4816	37889				
04-12-2003 11:30	106.69780	10.05842	15.65	27.3	1549	7.990	601	1480	90.4	32.5	0.68	0.11	-26.1	-4.9	4762	4551	22647	173276				

04-12-2003 11:10	106.72035	10.07103	18.23	27.6	1710	7.771	1110	1676	80.8	25.3	0.86	0.15	-27.9	-5.7	5376	5414	26990	200740		
04-12-2003 12:00	106.67765	10.09603	17.93	28.2	1709	7.880	857	1650	92.1	13.4	1.02	0.20	-29.4	-6.2	5257	5401	26846	200778		
04-12-2003 10:45	106.73223	10.10272	14.31	27.4	1701	7.662	1510	1704	82.2	19.9	1.05	0.20	-30.8	-8.1	4296	4200	21109	161878		
04-12-2003 10:25	106.73505	10.12642	13.95	27.3	1670	7.594	1751	1687	78.0	19.5	0.76	0.14	-30.1	-8.1	4289	4290	21429	164466		
04-12-2003 12:40	106.72597	10.13585	14.50	27.4	1737	7.666	1523	1738	84.7	21.2	0.87	0.16	-30.5	-8.8	4221	4108	20428	157278		
04-12-2003 13:00	106.74697	10.13980	11.79	27.5	1517	7.719	1221	1516	82.9	20.6	0.55	0.08	-28.5	-7.9	3703	3560	17584	137564		
04-12-2003 13:30	106.73645	10.18368	7.44	28.0	1458	7.741	1220	1468	92.7	45.2	1.35	0.22	-29.7	-9.2	2403	2142	10960	86795		
06-04-2004 08:00	106.28757	10.33247	0.30	29.7	1370	7.718	1688	1415	82.7	73.6	1.30	0.15	-25.7	-9.1	671	185	930	6245	15.9	10.8
06-04-2004 08:36	106.36788	10.34478	1.60	29.4	1347	7.572	2082	1402	84.4	48.6	1.12	0.14	-25.7	-8.8	1028	513	2811	21246	23.3	10.0
06-04-2004 09:16	106.44447	10.30113	4.00	29.3	1364	7.618	1709	1402	84.1	176.0	2.51	0.31	-25.6	-8.9	1696	1180	6139	50384	44.2	11.1
06-04-2004 09:51	106.52590	10.26410	5.80	29.5	1422	7.717	1341	1440	88.1	68.4	1.62	0.19	-26.1	-8.4	2216	1657	8785	72587	47.3	9.1
06-04-2004 10:12	106.58308	10.24847	8.40	29.2	1548	7.735	1310	1555	86.4	141.6	1.97	0.24	-25.2	-8.0	2943	2481	13239	109291	46.7	8.3
06-04-2004 10:30	106.62242	10.23908	10.70	29.0	1570	7.754	1210	1565	85.9	144.4	2.12	0.25	-25.1	-6.7	3497	2970	16651	136870	38.5	9.4
06-04-2004 10:44	106.64968	10.23010	12.00	29.0	1521	7.797	1032	1504	86.1	153.6	2.18	0.27	-24.7	-6.8	3920	3283	18240	149594	42.8	9.2
06-04-2004 11:06	106.68923	10.21462	13.60	29.2	1626	7.712	1326	1618	84.6	49.0	0.98		-24.6	-6.6	4477	3745	20666	168321	30.6	9.5
06-04-2004 11:25	106.71355	10.20075	16.40	29.6	1686	7.900	837	1626	89.6	45.0	0.83	0.13	-24.1	-5.8	5295	4618	25533	202776	25.9	8.0
06-04-2004 12:35	106.71435	10.20028	19.50	30.1	1767	7.909	828	1687	87.3	21.8	0.93	0.13	-23.3	-4.8	6153	5621	30384	239464	21.4	8.7
06-04-2004 13:15	106.72973	10.19400	21.90	29.2	1828	7.971	702	1718	86.4	86.8	1.37	0.18	-24.1	-4.4	6680	6135	33249	273050	18.4	6.2
06-04-2004 13:32	106.74210	10.18998	23.80	29.2	1865	7.988	670	1738	85.0	188.4	2.34	0.29	-24.4	-4.1	7030	6691	35419	290605	14.8	4.9
06-04-2004 13:51	106.76272	10.18473	25.60	29.7	1928	8.046	587	1765	93.8	47.2	0.95	0.11	-23.2	-3.1	7789	7253	38630	317785	12.8	3.5
06-04-2004 14:06	106.77660	10.17665	27.60	29.3	1979	8.066	556	1794	94.2	54.8	0.92	0.13	-23.3	-2.4	8346	7830	42115	342783	9.2	4.4
06-04-2004 14:46	106.81652	10.15222	29.80	29.5	2052	8.100	516	1832	98.1	35.2	0.79	0.09	-22.6	-2.0	9157	8482	45494	362589	9.0	2.3
06-04-2004 15:09	106.84185	10.13118	31.90	29.5	2141	8.179	423	1860	110.0	9.2	0.49	0.06	-22.8	-1.0	9872	9156	48741	387969	5.3	1.9
05-04-2004 16:32	106.13185	10.28200	0.00	30.0	1414	8.119	753	1425	97.9	31.0	0.78		-26.2	-9.0	562	59	281	699	4.1	11.1
02-04-2004 09:06	106.32495	10.24333	0.00	29.7	1512	7.891	1363	1546	94.8	73.6	1.64	0.18	-25.8	-8.6	541	85	409	1878	9.2	7.9
02-04-2004 08:39	106.34902	10.21602	1.10	29.6	1367	7.653	1812	1414	85.6	60.7	1.57	0.17	-25.9	-8.3	914	357	1933	14796	22.1	11.0
02-04-2004 10:05	106.37323	10.14635	2.40	29.7	1395	7.627	1830	1439	87.3	29.5	0.88	0.09	-26.9	-8.5	1245	772	3696	29738	27.4	9.9
02-04-2004 10:46	106.40435	10.10387	4.50	29.7	1393	7.577	1902	1436	87.8	15.2	0.63	0.07	-26.9	-8.0	1873	1295	6780	56031	44.4	9.4
02-04-2004 11:21	106.43490	10.06873	6.60	29.7	1432	7.669	1487	1454	93.3	11.6	0.51	0.07	-27.2	-7.8	2438	1861	9944	82894	52.1	11.3
02-04-2004 12:28	106.43495	10.06902	9.20	29.7	1493	7.660	1497	1508	89.8	18.6	0.75	0.09	-25.8	-7.5	3148	2531	13471	112062	47.0	12.3
02-04-2004 13:32	106.43515	10.06873	10.90	29.6	1527	7.703	1336	1529	91.0	24.8	0.69	0.08	-25.8	-7.3					43.0	12.0
02-04-2004 14:00	106.44938	10.05458	13.60	29.5	1614	7.772	1143	1594	92.1	33.4	0.64	0.07	-25.2	-6.5	4509	3694	20545	168164	42.7	10.7
02-04-2004 14:37	106.49505	10.03280	16.60	29.3	1703	7.840	975	1656	92.3	42.0	0.74	0.09	-24.7	-5.8	5330	4670	25478	204366	39.8	11.1
02-04-2004 15:19	106.50500	10.03007	18.50	29.5	1754	7.917	810	1679	96.4	25.4	0.63	0.08	-24.3	-5.2	5721	5191	28546	229728	35.5	8.0
02-04-2004 15:50	106.55533	10.00260	21.20	29.3	1829	8.025	617	1705	105.6	16.4	0.60	0.08	-23.1	-4.6	6343	5971	32388	270447	29.0	5.3
03-04-2004 13:13	106.63830	9.95457	23.40	29.4	1895	8.076	545	1737	97.2	45.8	1.06	0.12	-24.1	-3.4	7067	6320	35123	292770	18.1	3.8
03-04-2004 13:35	106.64673	9.95498	25.70	29.3	1983	8.143	462	1777	99.5	32.8	0.85	0.11	-23.1	-2.9	7610	7005	39352	325863	11.9	3.4
03-04-2004 12:48	106.66290	9.94868	27.90	29.3	2039	8.185	413	1793	102.3	41.6	1.18	0.15	-23.4	-1.8	8310	7859	43020	352205	4.6	3.3
03-04-2004 12:13	106.68168	9.94993	29.60	29.5	2087	8.173	430	1830	99.2	71.2	1.65	0.19	-24.0	-1.8	8839	8086	45104	364865	2.6	2.6
03-04-2004 12:25	106.68538	9.94628	29.90	29.8	2115	8.207	396	1833	99.6	36.6	0.85	0.11	-22.9	-1.4	8838	8115	45042	365162	2.2	2.6
05-04-2004 15:45	106.15655	10.21278	0.00	29.9	1452	8.323	479	1449	106.2	21.8	0.68	0.10	-27.1	-8.2	619	77	355	1398	7.6	17.7
04-04-2004 13:16	106.23108	10.13885	0.00	30.2	1437	8.219	607	1441	105.4	25.6	0.76	0.10	-27.3	-8.7	562	59	269	655	13.9	9.6
04-04-2004 12:43	106.29055	10.05632	1.20	30.0	1432	7.843	1217	1456	92.4	25.6	0.67	0.08	-27.1	-8.4	935	390	2127	16019	41.7	8.8
04-04-2004 12:20	106.32227	10.02130	3.20	29.8	1461	7.795	1252	1480	89.9	38.6	0.86	0.10	-26.8	-8.1	1383	935	4725	38263	53.3	8.9
04-04-2004 11:57	106.37058	9.99075	5.20	29.6	1501	7.800	1185	1510	88.3	28.2	0.77	0.09	-26.6	-7.8	1915	1484	7628	63006	56.3	13.6
04-04-2004 11:08	106.42948	9.95062	6.70	29.4	1536	7.800	1161	1540	87.7	44.2	0.86	0.10	-26.4	-10.7	2381	1888	9877	81837		17.9
04-04-2004 10:25	106.49935	9.90763	8.70	29.3	1581	7.952	789	1552	95.0	16.1	0.54	0.07	-26.0	-6.2	2950	2424	12740	105017	48.0	12.8
04-04-2004 09:56	106.52572	9.87897	10.70	29.2	1630	7.992	706	1581	93.9	12.8	0.47	0.06	-25.5	-6.1	3460	2986	15930	131419	44.5	11.5
04-04-2004 09:27	106.54470	9.86223	12.70	29.2	1679	8.025	644	1611	95.3	10.7	0.59	0.09	-24.7	-5.8	4025	3447	18858	155107	43.9	10.1
04-04-2004 08:42	106.55490	9.85395	15.70	29.0	1753	8.066	574	1655	93.0	17.1	0.56	0.08	-24.5	-4.4	4925	4396	24328	194684	33.6	10.4
04-04-2004 08:18	106.55733	9.85410	18.80	28.9	1823	8.084	542	1697	92.5	24.3	0.66	0.09	-24.0	-4.3	5867	5318	29528	235577	29.4	7.9
04-04-2004 08:51	106.56270	9.84498	17.50	29.1	1799	8.078	556	1684	93.7	28.0	0.68	0.10	-23.9	-4.4	5606	4938	27058	216590	30.6	9.5
04-04-2004 07:49	106.57612	9.83428	22.10	28.8	1920	8.040	612	1783	88.6	50.8	1.11	0.15	-24.5	-4.0	6668	6169	33475	277873	23.4	8.6

16-10-2004 11:01	106.85874	9.76838	12.50	29.8	1350	8.251	292	1242	102.8	16.0	0.28	0.05	-24.6	-3.5	3622	3171	17312	133995						21.4	1.8	-26.9	
16-10-2004 10:51	106.85904	9.77093	10.40	29.6	1300	8.127	405	1236	98.5	8.0	0.25	0.04	-24.8	-5.7	3200	2895	15025	114733						19.4	1.6	-26.5	
16-10-2004 10:23	106.86297	9.76681	23.00	29.5	1740	8.301	270	1503	108.5	2.0	0.25	0.05	-22.4	-0.7	6665	6141	33355	258598						14.1	1.3	-24.6	
16-10-2004 11:48	106.90282	9.78981	8.20	30.8	1231	8.068	476	1190	97.4	9.9	0.29	0.05	-25.6	-5.4	2593	2353	11924	90946						19.1	2.4	-28.0	
16-10-2004 10:00	106.90389	9.75883	25.10	29.5	1814	8.261	306	1571	103.5	1.7	0.22	0.04	-22.7	-0.4	7245	6605	35875	279122						19.8	1.2	-24.2	
16-10-2004 08:55	107.03442	9.74074	27.00	28.9	1877	8.254	314	1620	103.0	2.7	0.32	0.07	-22.3	0.0	7975	7264	38880	306332						17.3	1.3	-24.1	
17-10-2004 06:15	106.73242	9.78393	9.40	27.9	1358	7.563	1662	1388	76.5	196.4	2.89	0.35	-25.6	-8.2	3039	2817	14061	106522						121.3			
17-10-2004 06:49	106.60813	9.81259	2.40	28.3	1206	7.366	2844	1289	68.8	201.9	3.10	0.36	-26.6	-11.8	945	719	3179	24147						239.0			
17-10-2004 06:33	106.62440	9.81605	7.30	27.8	1402	7.398	2633	1470	66.5	80.0	1.24	0.17	-26.2	-10.7	2216	2015	9884	75292						258.1			
15-10-2004 12:47	106.59394	9.86747	0.00	29.4	974	7.468	2327	1043	73.6	175.2	2.29	0.30	-25.7	-10.2	347	50	147	427						99.5	1.2	-29.1	
15-10-2004 12:25	106.60384	9.89781	1.40	29.5	1190	7.467	2379	1257	66.8	333.3	4.49	0.63	-26.1	-10.7	713	497	2259	18087						255.7			
15-10-2004 11:20	106.62749	9.91506	2.00	29.8	1330	7.624	1794	1375	75.8	112.2	2.74	0.46	-28.6	-10.4	830	683	3032	25125						719.3	2.9	-27.8	
15-10-2004 10:09	106.60349	9.91546	1.30	29.2	1263	7.468	2523	1335	66.5	179.9	4.10	0.61	-26.6	-11.1	653	465	2048	16472						730.1	3.1	-27.1	
15-10-2004 09:33	106.56035	9.95719	0.50	28.8	1063	7.351	2951	1151	66.3	220.0	3.32	0.54	-26.6	-10.9	464	242	969	7059						2216.8	2.6	-27.8	
18-10-2004 10:45	106.74441	10.13363	6.40	28.1	1290	7.416	2381	1352	73.2	94.0	2.04	0.31	-28.3	-10.1	2063	1927	8971	69700						155.8	2.6	-27.6	
18-10-2004 11:04	106.72552	10.13609	7.00	28.9	1423	7.460	2365	1480	75.2	77.5	1.95	0.29	-29.9	-10.6	2205	2198	10304	80547						186.9			
18-10-2004 10:20	106.73421	10.17044	1.80	28.1	1078	7.490	1956	1134	85.8	293.5	4.16	0.59	-28.0	-10.8	812	591	2733	22264						374.9	2.6	-28.4	
10-04-2004 11:04	104.96463	8.71557	32.70	30.3	2204	7.863	1028	2061	68.0	171.2	3.00	0.39	-25.1	-2.7	9913	9113	50031	398425			13.7		13.8				
10-04-2004 11:26	104.90747	8.69107	32.90	30.4	2217	7.810	1185	2093	62.2	107.2	1.50	0.26	-24.9	-3.0	10108	9102	50275	399829			7.5		15.3				
11-04-2004 08:03	105.10807	8.76923	32.90	30.0	2206	7.964	785	2020	77.0	90.4	1.51	0.17	-24.9	-2.3	9622	9186	50438	402420			5.6		9.6				
11-04-2004 08:17	105.11625	8.78205	32.80	30.0	2208	7.926	870	2039	75.4	38.8	0.91	0.12	-24.6	-2.6	10190	9443	51748	411233			5.7		11.3				
11-04-2004 08:40	105.09752	8.73228	33.50	30.3	2316	7.400	3413	2335	61.2	24.2	0.82	0.12	-25.7	-6.9	10269	10150	54130	430244			29.2		22.6				
11-04-2004 09:07	105.15055	8.76998	32.70	30.5	2203	8.028	664	1985	85.5	62.0	1.17	0.13	-22.4	-2.0	9767	9961	52729	422080			3.0		6.2				
11-04-2004 09:35	105.14632	8.80938	33.20	30.0	2270	7.456	2914	2270	62.4	25.4	0.70	0.10	-25.2	-6.7	10119	9695	52427	416740			19.4		18.6				
11-04-2004 10:08	105.16095	8.76422	33.10	30.1	2197	7.725	1452	2106	74.0	18.0	0.58	0.08	-23.9	-4.4	10002	9566	51279	407490			14.3		13.4				
11-04-2004 10:37	105.20403	8.76940	32.40	30.3	2214	8.063	607	1980	92.9	32.4	0.71	0.10	-23.1	-2.1	9666	9441	50042	399877			1.5		5.2				
11-04-2004 11:20	105.21928	8.80668	32.80	30.8	2191	8.013	689	1979	89.3	14.4	0.57	0.08	-22.2	-2.0	9885	9736	51795	415182			4.6		7.6				
11-04-2004 11:37	105.21973	8.83895	33.60	28.2	2736	7.199	6334	2857	38.3	26.8	0.64	0.09	-26.3	-11.0	10266	9522	52896	416287			42.8		22.4				
11-04-2004 11:55	105.21995	8.82020	32.80	30.7	2277	7.774	1341	2165	80.0	22.8	0.66	0.10	-24.3	-4.5	9948	9696	52366	416362			12.5		22.5				
12-04-2004 08:33	105.21755	8.75533	32.20	30.1	2201	8.126	507	1938	93.7	35.0	0.71	0.10	-23.2	-1.1	9652	9567	51168	408698			1.3		4.1				
12-04-2004 09:05	105.21085	8.79740	32.50	30.5	2208	7.989	741	2009	86.0	23.0	0.61	0.08	-23.5	-2.2	9793	9632	51195	408748			3.9		5.6				
12-04-2004 09:25	105.21057	8.82187	33.60	28.2	2985	7.199	6912	3118	41.8	29.8	0.70	0.09	-26.3	-13.0	10349	9657	53670	420546			60.8		41.0				
12-04-2004 09:50	105.20995	8.83028	33.10	29.2	2580	7.311	4651	2643	57.4	78.8	0.65	0.09	-25.5	-9.0	10224	9358	51748	410864			43.2		35.5				
12-04-2004 10:25	105.20975	8.84888	33.60	28.7	2938	7.199	6851	3067	48.4	23.4	0.73	0.12	-27.2	-12.0	10043	9648	54114	424959			54.7		40.2				
12-04-2004 10:50	105.19772	8.82065	32.60	30.9	2224	7.955	820	2038	85.9	18.2	0.57	0.08	-23.5	-2.6	9779	9457	50634	403483			6.7		10.1				
12-04-2004 11:05	105.19767	8.79765	32.30	30.8	2212	8.037	655	1990	89.9	19.6	0.58	0.07	-23.6	-2.4	9771	9469	50837	406545			2.5						
12-04-2004 11:19	105.19747	8.80967	32.60	31.1	2217	7.994	738	2013	90.5	13.6	0.46	0.07	-22.9	-2.5	9735	9668	51549	409995			3.6		6.0				
13-04-2004 08:10	105.06952	8.66663	34.10	30.0	2518	7.305	4634	2577	56.9	128.4	2.58	0.30	-26.3	-8.2	10410	9935	53029	416976			42.4		46.4				
13-04-2004 08:53	105.07720	8.66117	34.00	30.1	2667	7.492	3132	2655	75.6	181.6	3.07	0.41	-26.2	-9.0	10313	9840	52406	412334			33.1		22.2				
13-04-2004 09:14	105.10627	8.65930	33.60	29.6	2648	7.552	2673	2615	68.5	94.0	2.10	0.23	-25.6	-8.2	10232	10027	52953	416988			31.7		42.1				
13-04-2004 09:52	105.10828	8.67915	33.10	29.9	2524	7.734	1631	2423	78.3	56.4	1.39	0.20	-24.9	-6.5	9777	9951	52147	412152			24.1		22.2				
13-04-2004 10:20	105.11937	8.67688	33.00	30.7	2223	8.023	679	2004	92.8	33.8	0.84	0.12	-23.1	-2.4	9790	9950	51180	406749			4.8		10.2				
13-04-2004 10:33	105.12900	8.67407	33.10	30.8	2230	8.018	691	2012	93.2	34.6	0.83	0.12	-23.5	-2.2	9902	10160	51823	410059			4.6		10.2				
13-04-2004 11:03	105.11448	8.65190	33.00	30.5	2221	8.019	685	2005	91.7	46.4	1.03	0.16	-23.1	-2.7	9745	10100	51330	407233			4.5						
13-04-2004 11:20	105.09660	8.64477	33.10	30.7	2216	8.040	646	1988	93.4	31.2	0.70	0.11	-22.7	-1.9	9985	9969	50442	400835			3.4						
13-04-2004 11:35	105.07997	8.64080	33.10	30.5	2209	8.013	691	1996	88.1	102.4	1.91	0.25	-24.1	-2.1	10018	9953	50995	404133			4.0						
14-04-2004 08:18	105.05415	8.64272	33.60	30.6	2337	7.721	1566	2241	79.7	40.0	1.14	0.17	-24.0	-5.2	9956	10015	51382	405533			12.6						
14-04-2004 08:40	105.08940	8.64017	33.50	30.4	2466	7.726	1630	2365	80.3	93.2	1.88	0.26	-24.5	-5.9	9771	10457	53632	424206			21.4						
14-04-2004 09:02	105.10173	8.64865	33.30	30.5	2383	7.809	1277	2252	81.1	39.2	0.98	0.14	-23.7	-5.0	10154	10067	51528	406206			13.4						
14-04-2004 09:33	105.04875	8.62975	33.90	31.0	2431	7.667	1872	2351	81.4	51.2	1.40	0.22	-23.8	-5.3	10386	10626	53933	423059			23.4						
14-04-2004 09:45	105.03708	8.63390	33.40																								

23-10-2004 07:54	105.21926	8.80739	10.80	28.0	1500	7.726	1217	1501	79.9	60.4	0.92	0.13	-24.9	-7.7	3366	3229	15879	122918		94.5	2.1	-28.2
23-10-2004 08:10	105.21961	8.82130	13.30	27.7	1812	7.275	4097	1916	52.8	32.0	0.73	0.10	-25.6	-10.8	4126	3846	19512	154797		335.0	2.5	-27.7
23-10-2004 08:26	105.21910	8.83913	13.40	27.1	2054	7.199	5492	2203	36.6	36.0	1.14	0.16	-26.7	-13.3	4031	3893	19503	154456		391.6	2.6	-28.8
23-10-2004 08:56	105.20981	8.84813	12.60	27.6	2012	7.208	5364	2156	48.4	35.2	1.71	0.28	-28.8	-12.4	3729	3586	17824	140601		348.7	3.8	-27.2
23-10-2004 09:19	105.21011	8.83018	13.40	27.7	1956	7.203	5227	2095	49.4	51.2	1.09	0.14	-25.4	-12.4	4156	3835	19792	156947		387.9	2.9	-27.5
23-10-2004 09:40	105.21039	8.82132	13.50	27.6	1952	7.199	5251	2092	45.2	25.6	0.68	0.11	-26.0	-12.5	4175	3848	20007	159264		386.2	2.4	-26.8
23-10-2004 09:59	105.21081	8.79819	12.00	28.4	1536	7.693	1329	1538	78.3	41.2	0.77	0.11	-24.6	-7.1	3778	3285	17566	136412		113.4	1.9	-26.5
23-10-2004 10:15	105.19685	8.82132	13.50	28.5	1657	7.467	2405	1700	67.1	28.4	0.65	0.10	-24.9	-8.6	4139	3795	19943	157102		164.9	1.9	-27.1
23-10-2004 10:30	105.19768	8.80835	13.10	28.8	1506	7.750	1122	1494	80.8	26.8	0.56	0.08	-24.6	-6.4	4039	3649	19051	147951		53.4	1.7	-26.4
24-10-2004 07:55	105.21680	8.75713	14.20	28.0	1535	7.922	729	1487	86.4	31.5	0.57	0.08	-24.1	-5.4	4436	3973	21037	163175		19.0	1.5	-26.8
24-10-2004 08:15	105.20358	8.76946	14.50	28.1	1551	7.784	1032	1528	78.3	68.0	0.97	0.13	-24.1	-6.0	4512	3932	21098	164224		42.6		
24-10-2004 08:35	105.19773	8.79675	13.10	28.1	1540	7.661	1408	1544	72.5	46.8	0.78	0.11	-24.5	-7.3	4033	3659	19304	150341		101.0	1.6	-26.9
24-10-2004 09:17	105.06911	8.66635	14.10	28.0	1735	7.373	3097	1803	58.7	279.6	2.29	0.33	-24.7	-9.6	4369	3915	20385	160336		177.6	2.2	-27.5
24-10-2004 09:39	105.05337	8.64268	14.30	28.2	1854	7.440	2827	1908	68.9	74.0	1.95	0.21	-25.3	-10.1	4458	4024	21053	166067		157.3	2.0	-27.4
24-10-2004 09:57	105.07953	8.64035	13.50	27.8	1696	7.516	2170	1731	72.0	129.6	1.71	0.24	-24.7	-9.0	4267	3677	19469	151623		109.6	1.9	-28.2
24-10-2004 10:12	105.08927	8.64025	13.40	28.1	1663	7.573	1869	1685	76.1	76.8	1.14	0.15	-24.4	-8.5	4146	3627	19386	151605		140.6	1.8	-26.7
24-10-2004 10:45	105.04833	8.62984	15.10	28.7	1764	7.491	2376	1800	71.4	41.2	0.71	0.10	-25.2	-9.4	4726	4172	22016	172947		175.4	1.9	-27.1
24-10-2004 10:59	105.03713	8.63352	14.80	28.4	1595	7.770	1098	1573	81.1	58.8	0.85	0.11	-24.3	-6.6	4615	4076	21708	169687		53.7	1.6	-27.3
25-10-2004 07:48	105.07731	8.66111	14.80	27.6	1583	7.677	1350	1580	80.5	184.8	2.59	0.29	-24.7	-6.8	4684	4207	22483	176080		97.5	1.6	-27.6
25-10-2004 08:03	105.10727	8.65924	15.40	27.0	2017	7.245	4718	2138	59.2	289.4	4.03	0.45	-25.4	-11.7	4785	4240	22196	175108		301.2	2.3	-28.1
25-10-2004 08:22	105.12638	8.67447	15.00	27.3	1637	7.723	1240	1625	92.5	1442.9	21.52	2.74	-25.0	-6.8	4732	4318	22155	172887		34.5	1.7	-27.2
25-10-2004 08:50	105.10838	8.67908	15.90	26.7	2578	7.199	6651	2755	41.6	364.9	6.38	0.63	-25.5	-14.6	4958	4517	22891	180678		685.9	3.4	-28.3
25-10-2004 09:07	105.11959	8.67687	15.60	26.9	2219	7.268	4900	2342	59.2	108.7	1.79	0.21	-25.3	-12.9	4870	4432	22596	177449		475.8	2.7	-28.1
25-10-2004 10:01	105.09692	8.64458	15.00	27.5	1755	7.591	1833	1770	77.4	290.6	3.48	0.40	-24.5	-8.6	4673	4224	22026	171516		105.4	1.8	-26.9
25-10-2004 10:17	105.11467	8.65172	16.20	27.3	2241	7.210	5664	2387	61.1	195.7	3.20	0.37	-25.0	-12.9	5032	4593	23678	187311		288.2	3.1	-28.1
25-10-2004 10:38	105.10153	8.64825	15.50	27.2	1978	7.371	3447	2054	64.7	142.1	2.23	0.26	-24.6	-11.0	4777	4296	22428	175666		285.6	2.4	-28.0
25-10-2004 11:05	105.06455	8.67478	14.60	27.9	1734	7.437	2640	1784	64.6	537.3	7.96	0.81	-25.3	-8.9	4591	4045	20818	162949		139.0	2.1	-27.7
25-10-2004 11:25	105.06246	8.68539	14.80	28.3	1876	7.253	4420	1985	51.4	229.5	3.61	0.41	-25.8	-11.4	4642	4332	21597	170978		217.0	2.8	-27.7