

RVIB NATHANIEL B. PALMER UNDERWAY GEOPHYSICAL WATCH LOG

NOTE: CELLS ARE FORMATTED TO RECEIVE ONLY NUMBERS, NO SPACES, DECIMALS.
For questions about the formatting of this spreadsheet see R. Petterson

Date	Julian Day	Time (GMT)	Latitude (N)	Longitude (W)	Speed (Knots)
25-Sep	268	01:45	-16 10.712	171 44.693	09.7
25-Sep	268	02:00	-16 13.072	171 45.498	09.7
25-Sep	268	02:15	-16 15.344	171 46.410	09.8
25-Sep	268	02:30	-16 17.617	171 47.340	09.7
25-Sep	268	02:45	-16 19.898	171 48.189	09.8
25-Sep	268	03:00	-16 22.290	171 48.914	09.9
25-Sep	268	03:15	-16 24.563	171 49.701	10.1
25-Sep	268	03:30	-16 26.857	171 50.549	09.6
25-Sep	268	03:45	-16 29.056	171 51.394	09.8
25-Sep	268	04:00	-16 31.391	171 52.038	09.9
25-Sep	268	04:15	-16 33.780	171 52.689	09.4
25-Sep	268	04:30	-16 26.021	171 53.295	09.7
25-Sep	268	04:45	-16 38.336	171 53.854	09.2
25-Sep	268	05:00	-16 40.707	171 54.320	09.8
25-Sep	268	05:15	-16 43.021	171 54.797	09.5
25-Sep	268	05:30	-16 45.332	171 55.478	09.8
25-Sep	268	05:45	-16 47.644	171 56.136	09.3
25-Sep	268	06:00	-16 49.935	171 56.684	09.4
25-Sep	268	06:15	-16 52.261	171 57.190	09.6
25-Sep	268	06:30	-16 54.536	171 57.787	09.8
25-Sep	268	06:45	-16 56.861	171 58.343	09.7
25-Sep	268	07:00	-16 59.210	171 58.900	09.6
25-Sep	268	07:15	-17 01.516	171 59.443	09.4
25-Sep	268	07:30	-17 03.384	172 00.034	10.0
25-Sep	268	07:45	-17 06.339	172 00.686	09.8
25-Sep	268	08:00	-17 08.571	162 01.225	09.7
25-Sep	268	08:15	-17 11.039	172 01.810	09.8
25-Sep	268	08:30	-17 13.595	172 02.400	09.8
25-Sep	268	08:45	-17 15.798	172 02.952	09.8
25-Sep	268	09:00	-17 18.147	172 03.521	09.1
25-Sep	268	09:15	-17 20.580	172 04.112	09.5
25-Sep	268	09:30	-17 22.911	172 02.690	10.0
25-Sep	268	09:45	-17 25.473	172 05.333	09.3
25-Sep	268	10:00	-17 27.656	172 05.876	09.7
25-Sep	268	10:15	-17 30.092	172 06.469	10.2

25-Sep	268	10:30	-17 32.451	172 07.059	09.8
25-Sep	268	10:45	-17 34.981	172 07.658	09.9
25-Sep	268	11:00	-17 37.223	172 08.226	10.1
25-Sep	268	11:15	-17 39.612	172 08.823	09.8
25-Sep	268	11:30	-17 41.984	172 09.443	09.7
25-Sep	268	11:45	-17 44.342	172 09.995	09.5
25-Sep	268	12:00	-17 46.631	172 10.516	09.5
25-Sep	268	12:15	-17 48.952	172 11.123	09.4
25-Sep	268	12:30	-17 51.170	172 11.711	09.3
25-Sep	268	12:45	-17 53.477	172 12.264	09.2
25-Sep	268	13:00	-17 55.670	172 12.785	09.1
25-Sep	268	13:15	-17 57.966	172 13.307	09.1
25-Sep	268	13:30	-18 00.193	172 13.927	09.0
25-Sep	268	13:45	-18 02.402	172 14.537	08.9
25-Sep	268	14:00	-18 04.628	172 15.127	09.1
25-Sep	268	14:15	-18 06.833	172 15.662	09.2
25-Sep	268	14:30	-18 09.105	172 16.170	09.4
25-Sep	268	14:45	-18 11.460	172 16.725	09.4
25-Sep	268	15:00	-18 13.813	172 17.303	09.7
25-Sep	268	15:15	-18 16.017	172 17.815	09.2
25-Sep	268	15:30	-18 18.430	172 18.369	09.4
25-Sep	268	15:45	-18 20.609	172 18.977	09.3
25-Sep	268	16:00	-18 22.010	172 19.654	09.4
25-Sep	268	16:15	-18 25.199	172 20.249	09.1
25-Sep	268	16:30	-18 27.220	172 20.775	08.2
25-Sep	268	16:48	-18 27.595	172 20.923	00.3
25-Sep	268	17:00	-18 27.622	172 20.900	00.3
25-Sep	268	17:15	-18 27.605	172 20.936	01.8
25-Sep	268	17:30	-18 29.549	172 21.264	09.9
25-Sep	268	17:45	-18 32.000	172 21.835	09.2
25-Sep	268	18:00	-18 34.350	172 22.424	09.7
25-Sep	268	18:15	-18 36.564	172 23.022	09.9
25-Sep	268	18:30	-18 39.042	172 23.677	09.6
25-Sep	268	18:45	-18 41.130	172 24.099	09.2
25-Sep	268	19:00	-18 43.425	172 24.700	09.6
25-Sep	268	19:15	-18 45.913	172 25.396	10.0
25-Sep	268	19:30	-18 48.359	172 26.040	09.7
25-Sep	268	19:45	-18 50.645	172 26.601	09.6
25-Sep	268	20:00	-18 53.061	172 27.167	10.0
25-Sep	268	20:15	-18 55.488	172 27.798	10.0
25-Sep	268	20:30	-18 57.903	172 28.416	09.5
25-Sep	268	20:45	-19 00.312	172 28.982	09.7
25-Sep	268	21:00	-19 02.713	172 29.533	10.2
25-Sep	268	21:15	-19 05.236	172 30.154	10.0

25-Sep	268	21:30	-19 07.607	172 30.767	09.8
25-Sep	268	21:45	-19 09.928	172 31.406	10.1
25-Sep	268	22:00	-19 11.806	172 31.915	10.1
25-Sep	268	22:15	-19 14.277	172 32.428	09.0
25-Sep	268	22:30	-19 16.649	172 32.972	09.7
25-Sep	268	22:45	-19 19.002	172 33.672	09.8
25-Sep	268	23:00	-19 21.201	172 34.319	10.0
25-Sep	268	23:15	-19 23.646	172 34.860	09.7
25-Sep	268	23:30	-19 26.013	172 35.362	09.7
25-Sep	268	23:45	-19 28.353	172 35.911	10.1
26-Sep	269	00:00	-19 30.689	172 26.650	10.1
26-Sep	269	00:15	-19 33.051	172 37.457	09.7
26-Sep	269	00:30	-19 35.279	172 38.108	09.7
26-Sep	269	00:45	-19 37.704	172 38.811	09.7
26-Sep	269	01:00	-19 39.874	172 39.479	09.9
26-Sep	269	01:15	-19 42.262	172 40.230	09.8
26-Sep	269	01:30	-19 44.515	172 40.948	09.7
26-Sep	269	01:45	-19 46.872	172 41.758	09.9
26-Sep	269	02:00	-19 49.230	172 42.602	10.0
26-Sep	269	02:15	-19 51.588	172 43.539	09.9
26-Sep	269	02:30	-19 53.963	172 44.572	10.0
26-Sep	269	02:45	-19 56.279	172 45.542	10.0
26-Sep	269	03:00	-19 58.664	172 46.500	10.0
26-Sep	269	03:15	-20 01.037	172 47.411	09.5
26-Sep	269	03:30	-20 03.364	172 48.373	09.9
26-Sep	269	03:45	-20 05.658	172 49.358	10.1
26-Sep	269	04:00	-20 07.996	172 50.342	09.6
26-Sep	269	04:15	-20 10.303	172 51.266	09.5
26-Sep	269	04:30	-20 12.641	172 52.175	10.1
26-Sep	269	04:45	-20 14.986	172 53.072	10.5
26-Sep	269	05:00	-20 17.335	172 54.024	10.1
26-Sep	269	05:15	-20 19.682	172 55.024	09.9
26-Sep	269	05:30	-20 22.018	172 56.053	09.9
26-Sep	269	05:45	-20 24.291	172 56.975	09.2
26-Sep	269	06:00	-20 26.492	172 57.837	09.0
26-Sep	269	06:15	-20 28.755	172 58.741	09.8
26-Sep	269	06:30	-20 31.023	172 59.695	09.6
26-Sep	269	06:45	-20 33.331	173 00.673	09.7
26-Sep	269	07:00	-20 35.613	173 01.588	09.8
26-Sep	269	07:15	-20 37.826	173 02.450	09.7
26-Sep	269	07:30	-20 40.505	173 03.505	09.6
26-Sep	269	07:45	-20 42.478	173 04.326	10.1
26-Sep	269	08:00	-20 44.798	173 05.291	09.7
26-Sep	269	08:15	-20 47.281	173 06.317	09.9

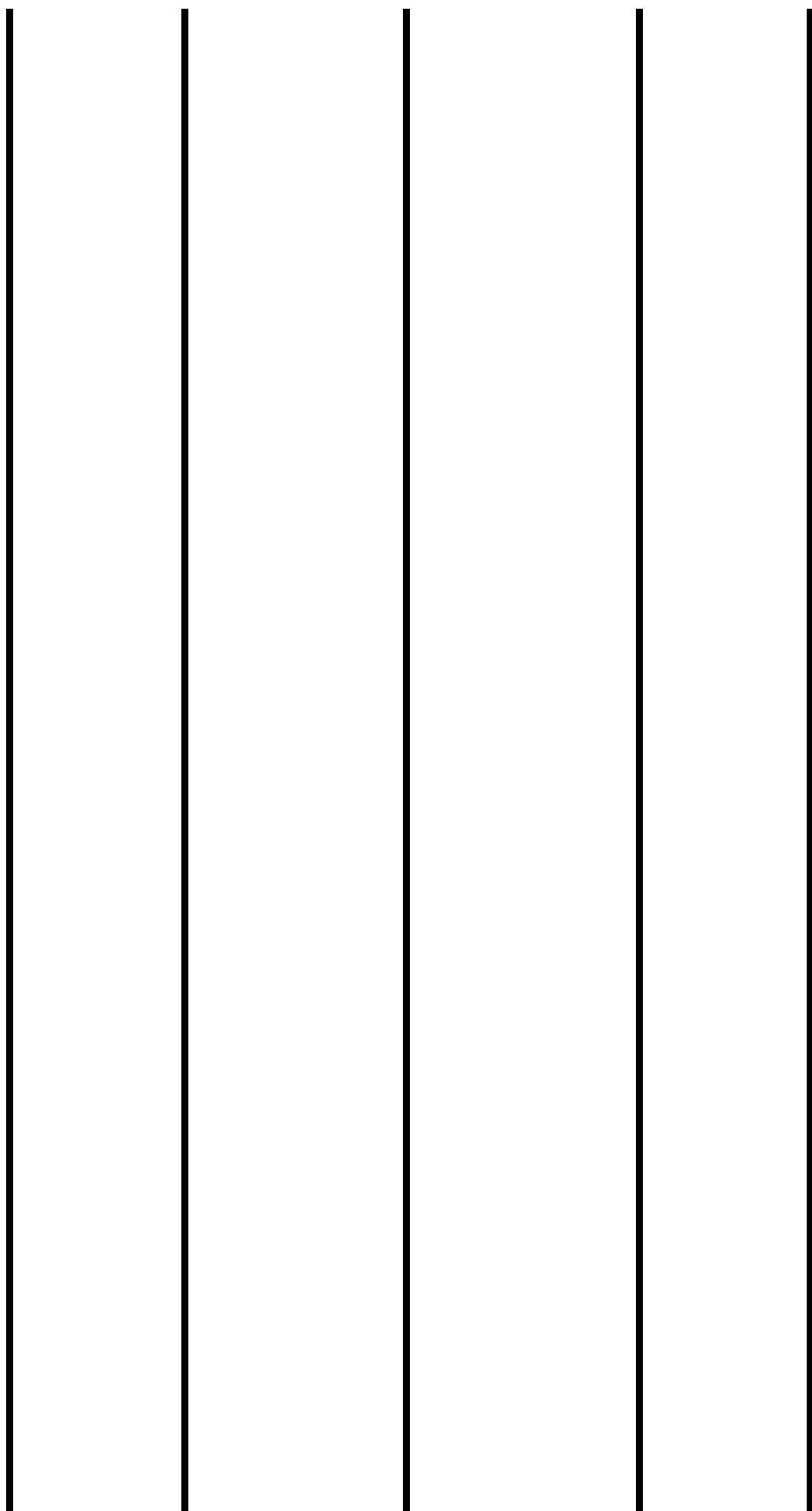
26-Sep	269	08:30	-20 49.517	173 07.222	10.0
26-Sep	269	08:45	-20 51.809	173 08.154	09.9
26-Sep	269	09:00	-20 54.235	173 09.147	10.4
26-Sep	269	09:15	-20 56.476	173 10.110	09.9
26-Sep	269	09:30	-20 58.874	173 11.081	10.3
26-Sep	269	09:45	-21 01.273	173 12.061	10.4
26-Sep	269	10:00	-21 03.630	173 12.943	10.1
26-Sep	269	10:15	-21 06.070	173 13.797	10.2
26-Sep	269	10:30	-21 08.299	173 14.730	09.8
26-Sep	269	10:45	-21 10.791	173 15.615	10.3
26-Sep	269	11:00	-21 12.980	173 16.403	10.4
26-Sep	269	11:18	-21 16.491	173 17.641	10.8
26-Sep	269	11:30	-21 18.360	173 18.459	11.0
26-Sep	269	11:45	-21 20.816	173 19.643	10.7
26-Sep	269	12:00	-21 23.257	173 20.801	10.8
26-Sep	269	12:15	-21 25.662	173 21.927	10.4
26-Sep	269	12:30	-21 28.094	173 22.950	10.6
26-Sep	269	12:45	-21 30.450	173 24.039	10.3
26-Sep	269	13:00	-21 32.604	173 25.403	10.1
26-Sep	269	13:15	--21 34.758	173 26.766	10.0
26-Sep	269	13:30	-21 36.881	173 28.069	10.1
26-Sep	269	13:45	-21 39.030	173 29.352	09.8
26-Sep	269	14:00	-21 41.174	173 30.626	09.6
26-Sep	269	14:15	-21 43.350	173 31.845	09.4
26-Sep	269	14:30	-21 45.559	173 33.083	09.9
26-Sep	269	14:45	-21 47.756	173 34.451	10.1
26-Sep	269	15:00	-21 50.136	173 35.782	10.2
26-Sep	269	15:15	-21 52.298	173 36.954	10.1
26-Sep	269	15:30	-21 52.514	173 38.218	10.4
26-Sep	269	15:45	-21 56.885	173 39.470	10.5
26-Sep	269	16:00	-21 59.048	173 40.714	10.4
26-Sep	269	16:15	-22 01.141	173 41.895	10.5
26-Sep	269	16:30	-22 03.118	173 42.899	01.8
26-Sep	269	17:08	-22 03.060	173 43.005	00.5
26-Sep	269	17:25	-22 04.043	173 43.519	10.4
26-Sep	269	17:30	-22 04.754	173 43.811	09.9
26-Sep	269	17:46	-22 07.239	173 44.875	09.6
26-Sep	269	18:00	-22 08.797	173 45.757	04.6
26-Sep	269	18:15	-22 10.644	173 46.793	10.2
26-Sep	269	18:30	-22 12.852	173 47.694	09.8
26-Sep	269	18:45	-22 15.701	173 49.051	10.0
26-Sep	269	19:00	-22 17.600	173 50.040	09.6
26-Sep	269	19:15	-22 20.079	173 51.383	09.6
26-Sep	269	19:30	-22 22.192	173 52.557	10.0

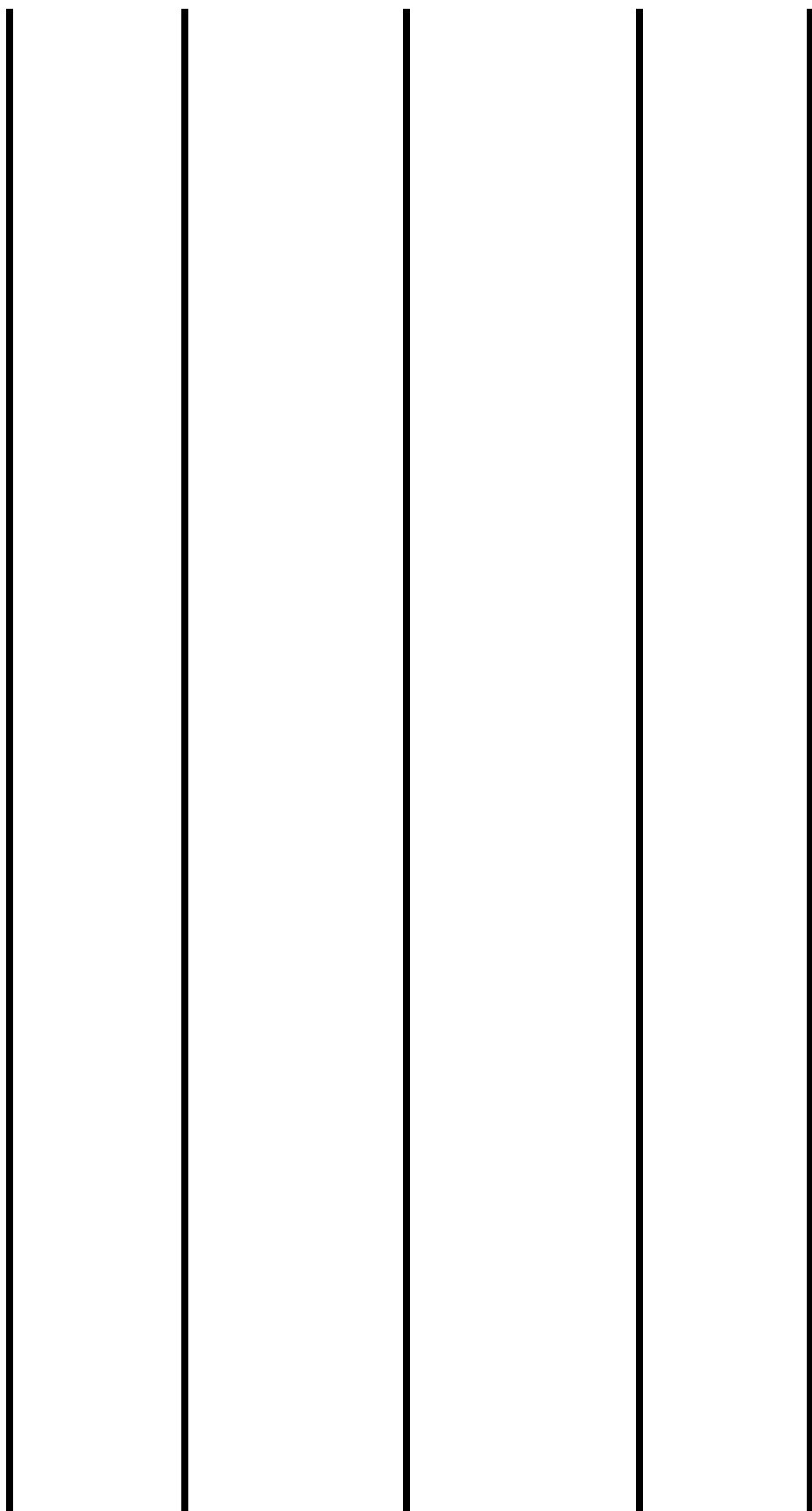
26-Sep	269	19:45	-22 24.369	173 53.746	09.7
26-Sep	269	20:00	-22 26.646	173 54.958	10.0
26-Sep	269	20:15	-22 28.937	173 56.179	10.2
26-Sep	269	20:30	-22 31.083	173 57.376	10.3
26-Sep	269	20:45	-22 33.489	173 58.642	10.1
26-Sep	269	21:00	-22 35.583	173 59.727	09.5
26-Sep	269	21:15	-22 37.868	174 00.898	09.5
26-Sep	269	21:30	-22 40.234	174 02.177	09.7
26-Sep	269	21:45	-22 42.397	174 03.277	10.4
26-Sep	269	22:00	-22 44.765	174 04.511	10.2
26-Sep	269	22:15	-22 46.945	174 05.686	10.4
26-Sep	269	22:30	-22 49.241	174 06.868	10.0
26-Sep	269	22:45	-22 51.551	174 08.053	10.3
26-Sep	269	23:00	-22 53.860	174 09.302	10.0
26-Sep	269	23:15	-22 56.209	174 10.494	10.3
26-Sep	269	23:30	-22 58.418	174 11.666	10.3
26-Sep	269	23:45	-23 00.731	174 12.846	09.9
27-Sep	270	00:00	-23 03.075	174 14.068	10.1
27-Sep	270	00:15	-23 05.328	174 15.250	10.5
27-Sep	270	00:30	-23 07.511	174 16.452	09.9
27-Sep	270	00:45	-23 09.720	174 17.668	10.2
27-Sep	270	01:00	-23 11.915	174 18.823	10.3
27-Sep	270	01:15	-23 14.168	174 19.940	09.9
27-Sep	270	01:30	-23 16.376	174 21.091	09.7
27-Sep	270	01:45	-23 19.572	174 22.235	09.8
27-Sep	270	02:00	-23 20.740	174 23.347	09.5
27-Sep	270	02:15	-23 22.856	174 24.538	09.3
27-Sep	270	02:30	-23 24.788	174 25.619	08.9
27-Sep	270	02:45	-23 26.699	174 26.699	08.9
27-Sep	270	03:00	-23 29.055	174 27.891	09.6
27-Sep	270	03:15	-23 31.067	174 28.867	09.6
27-Sep	270	03:30	-23 33.309	174 29.902	08.8
27-Sep	270	03:45	-23 35.403	174 30.845	09.7
27-Sep	270	04:00	-23 37.566	174 31.804	09.1
27-Sep	270	04:15	-23 39.771	174 32.828	09.5
27-Sep	270	04:30	-23 41.861	174 33.848	09.3
27-Sep	270	04:45	-23 43.947	174 34.845	09.6
27-Sep	270	05:00	-23 46.076	174 35.809	08.7
27-Sep	270	05:15	-23 48.240	174 36.618	08.9
27-Sep	270	05:30	-23 50.408	174 37.413	09.3
27-Sep	270	05:45	-23 52.543	174 38.230	09.4
27-Sep	270	06:00	-23 54.717	174 39.040	09.3
27-Sep	270	06:15	-23 56.924	174 39.837	09.5
27-Sep	270	06:30	-23 59.157	174 40.609	09.3

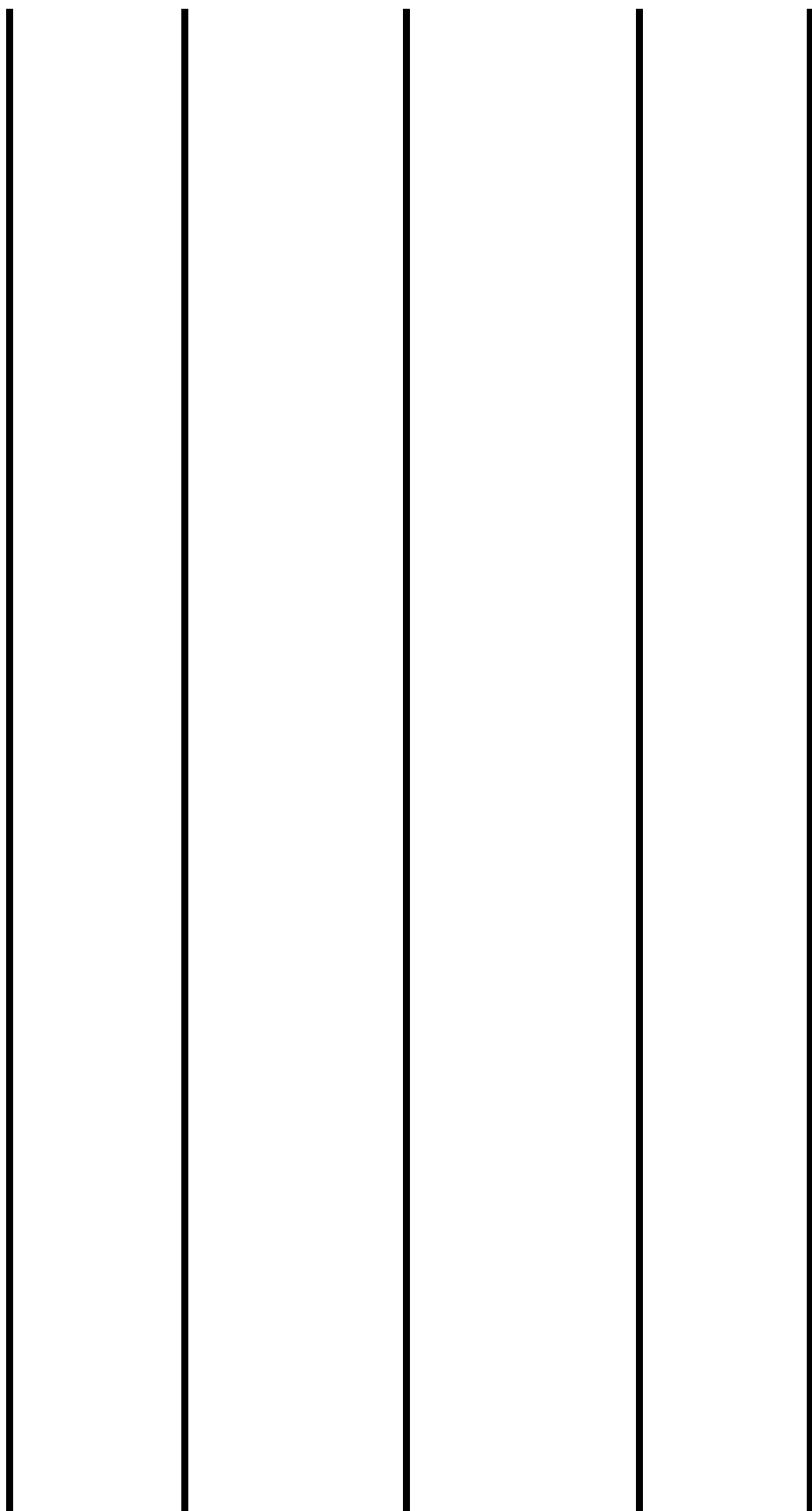
27-Sep	270	06:45	-23 59.971	174 38.487	10.6
27-Sep	270	07:00	-24 00.014	174 35.643	10.6
27-Sep	270	07:15	-24 00.044	174 32.700	10.6
27-Sep	270	07:30	-23 59.982	174 29.930	10.5
27-Sep	270	07:45	-23 59.980	174 26.358	10.1
27-Sep	270	08:00	-24 00.048	174 24.290	10.2
27-Sep	270	08:15	-24 00.065	174 21.535	09.9
27-Sep	270	08:30	-24 00.072	174 18.709	10.4
27-Sep	270	08:45	-24 00.070	174 16.063	10.2
27-Sep	270	09:00	-24 00.087	174 12.983	10.1
27-Sep	270	09:15	-24 00.053	174 05.987	10.5
27-Sep	270	10:00	-24 00.052	174 01.159	10.3
27-Sep	270	10:15	-24 00.046	173 59.178	10.5
27-Sep	270	10:30	-24 00.050	173 56.453	10.4
27-Sep	270	10:45	-24 00.050	173 53.178	10.5
27-Sep	270	11:00	-24 00.110	173 50.794	10.0
27-Sep	270	11:17	-24 00.101	173 47.632	09.9
27-Sep	270	11:30	-24 00.087	173 45.371	10.0
27-Sep	270	11:45	-24 00.105	173 42.684	09.8
27-Sep	270	12:00	-24 00.118	173 39.921	10.2
27-Sep	270	12:15	-24 00.071	173 37.157	10.3
27-Sep	270	12:30	-24 00.047	173 34.368	10.3
27-Sep	270	12:47	-24 00.011	173 31.141	10.1
27-Sep	270	13:00	-24 00.026	173 28.848	10.0
27-Sep	270	13:15	-24 00.048	173 26.072	10.2
27-Sep	270	13:30	-23 59.997	173 23.281	10.1
27-Sep	270	13:45	-23 59.898	173 20.588	10.1
27-Sep	270	14:00	-23 59.827	173 17.912	09.8
27-Sep	270	14:15	-23 59.969	173 15.211	09.8
27-Sep	270	14:30	-24 00.050	173 12.541	09.9
27-Sep	270	14:45	-24 00.082	173 09.808	10.1
27-Sep	270	15:00	-24 00.043	172 07.117	09.5
27-Sep	270	15:15	-23 59.951	173 04.252	09.8
27-Sep	270	15:30	-24 00.082	173 01.081	10.0
27-Sep	270	15:48	-24 00.112	172 58.478	09.7
27-Sep	270	16:00	-24 00.074	172 56.396	09.4
27-Sep	270	16:15	-24 00.056	172 53.460	10.0
27-Sep	270	16:30	-24 00.023	172 51.179	09.8
27-Sep	270	16:45	-23 59.988	172 49.213	03.7
27-Sep	270	17:00	-23 59.989	172 48.324	03.9
27-Sep	270	17:15	-24 00.027	172 46.844	08.3
27-Sep	270	17:24	-24 00.092	172 45.365	05.2
27-Sep	270	17:30	-24 00.104	172 44.792	07.8
27-Sep	270	17:42	-24 00.149	172 42.446	10.1

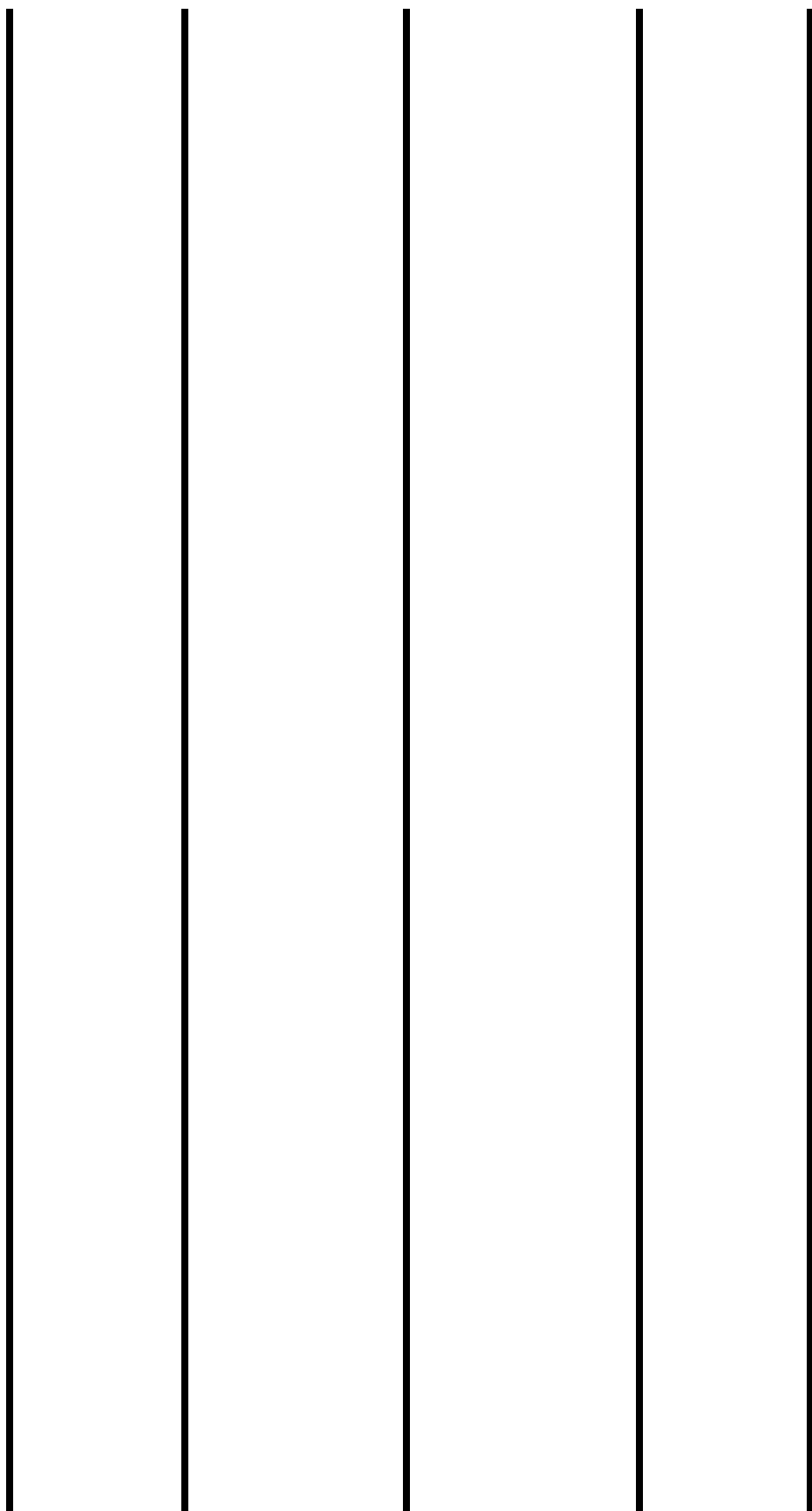
27-Sep	270	17:49	-24 00.115	172 41.292	09.6
2-Oct	275	19:15	-24 10.844	173 05.194	08.6
2-Oct	275	19:30	-24 08.618	173 06.211	11.0
2-Oct	275	19:45	-24 07.645	173 09.104	10.8
2-Oct	275	20:00	-24 07.013	173 11.656	10.9
2-Oct	275	20:15	-24 06.206	173 14.568	10.7
2-Oct	275	20:30	-24 05.479	173 17.290	10.7
2-Oct	275	20:45	-24 04.723	173 20.071	10.7
2-Oct	275	21:00	-24 03.996	173 22.842	10.9
2-Oct	275	21:15	-24 03.306	173 25.674	10.5
2-Oct	275	21:30	-24 02.585	173 28.467	10.4
2-Oct	275	21:45	-24 01.892	173 31.239	10.6
2-Oct	275	22:00	-24 01.130	173 33.998	10.0
2-Oct	275	22:15	-24 00.419	173 36.693	10.3
2-Oct	275	22:30	-23 59.753	173 39.357	10.6
2-Oct	275	22:45	-23 59.001	173 42.182	10.2
2-Oct	275	23:00	-23 58.324	173 44.680	09.8
2-Oct	275	23:15	-23 57.593	173 47.270	09.8
2-Oct	275	23:30	-23 56.902	173 49.861	10.4
2-Oct	275	23:45	-23 56.163	173 52.549	10.0
3-Oct	276	00:00	-23 55.474	173 55.240	10.3
3-Oct	276	00:15	-23 54.769	173 57.898	10.1
3-Oct	276	00:30	-23 54.082	174 00.623	09.7
3-Oct	276	00:45	-23 53.413	174 03.265	09.5
3-Oct	276	01:00	-23 52.733	174 05.859	10.3
3-Oct	276	01:15	-23 51.972	174 08.458	10.0
3-Oct	276	01:30	-23 51.247	174 11.083	10.0
3-Oct	276	01:45	-23 50.639	174 13.767	10.2
3-Oct	276	02:00	-23 50.011	174 16.433	10.6
3-Oct	276	02:15	-23 49.187	174 19.031	10.5
3-Oct	276	02:30	-23 48.486	174 21.546	10.0
3-Oct	276	02:45	-23 47.785	174 24.250	09.5
3-Oct	276	03:00	-23 47.139	174 26.774	09.6
3-Oct	276	03:15	-23 45.501	174 29.382	10.1
3-Oct	276	03:30	-23 45.900	174 31.889	09.4
3-Oct	276	03:45	-23 46.254	174 34.175	09.5
3-Oct	276	04:00	-23 47.776	174 35.944	08.7
3-Oct	276	04:09	-23 48.956	174 36.791	08.7
3-Oct	276	04:15	-23 49.725	174 37.138	08.7
3-Oct	276	04:30	-23 41.809	174 38.023	09.2
3-Oct	276	04:45	-23 53.930	174 38.776	09.0
3-Oct	276	05:00	-23 56.045	174 39.536	08.5
3-Oct	276	05:15	-23 58.097	174 40.349	08.8

3-Oct	276	05:30	-24 00.146	174 41.190	08.6
3-Oct	276	05:45	-24 02.157	174 42.000	08.4
3-Oct	276	06:00	-24 04.304	174 42.831	08.9
3-Oct	276	06:15	-24 06.395	174 43.629	09.2
3-Oct	276	06:30	-24 08.524	174 44.478	09.1
3-Oct	276	06:45	-24 10.650	174 45.415	09.4
3-Oct	276	07:00	-24 12.820	174 46.277	09.9
3-Oct	276	07:15	-24 15.150	174 47.193	09.8
3-Oct	276	07:30	-24 17.651	174 48.172	09.5
3-Oct	276	07:45	-24 19.700	174 48.876	09.1
3-Oct	276	08:00	-24 21.859	174 49.701	09.5
3-Oct	276	08:15	-24 24.438	174 50.721	09.6
3-Oct	276	08:30	-24 16.319	174 51.438	10.1
3-Oct	276	08:45	-24 29.093	174 52.525	09.9
3-Oct	276	09:00	-24 31.309	174 57.139	09.8
3-Oct	276	09:15	-24 33.501	174 53.729	10.0
3-Oct	276	09:30	-24 35.830	174 54.320	10.4
3-Oct	276	09:45	-24 38.446	174 55.017	10.0
3-Oct	276	10:00	-24 40.782	174 55.594	10.3
3-Oct	276	10:15	-24 43.201	174 56.273	09.9
3-Oct	276	10:30	-24 45.769	174 56.874	10.3
3-Oct	276	10:45	-24 48.297	174 57.285	10.4
3-Oct	276	11:00	-24 50.826	174 57.720	10.2
3-Oct	276	11:15	-24 53.310	174 58.148	10.1
3-Oct	276	11:30	-24 55.818	174 78.506	10.0
3-Oct	276	11:45	-24 58.355	174 58.917	10.2
3-Oct	276	12:00	-25 00.902	174 59.401	10.0
3-Oct	276	12:15	-25 03.460	174 59.805	10.4
3-Oct	276	12:30	-25 06.059	175 00.178	10.5
3-Oct	276	12:45	-25 08.679	175 00.657	10.6
3-Oct	276	13:00	-25 11.308	175 01.120	10.4
3-Oct	276	13:15	-25 13.960	175 01.536	10.8
3-Oct	276	13:30	-25 16.607	175 01.913	10.7
3-Oct	276	13:45	-25 19.203	175 02.294	10.4
3-Oct	276	14:00	-25 21.754	175 02.766	10.5
3-Oct	276	14:15	-25 24.286	175 03.249	10.3
3-Oct	276	14:30	-25 26.811	175 03.717	10.2
3-Oct	276	14:45	-25 29.336	175 04.126	10.4









1

2

3

4

5

CRUISE: NBP0304C

IALS, NEGATIVE SIGNS, OR COLONS ARE NEEDED

CMG	Depth (M)	Gravity	Magnetics	Salinity	Ext Temp
200.7	5683	6067.2	39742.7		
196.7	5761	6052.8	39738.7		
201.1	5895	6073.2	39773.0		
201.6	5922	6068.6	39781.0		
197.2	5880	6059.1	39788.9		
197.8	5846	6061.6	39800.8		
198.5	6021	6053.4	39860.9		
199.9	6216	6051.6	39901.2		
201.8	6246	6050.7	39966.0		
192.5	6021	6085.7	39989.1		
192.6	6652	6042.0	39977.7		
189.5	6670	6012.3	40039.7		
190.9	6492	6038.5	40136.1		
191.0	6306	6038.1	40165.7		
196.5	6891	6026.0	40167.5		
196.8	6166	6038.7	40173.8		
195.1	5861	6053.2	40143.7		
196.0	6065	6055.9	40146.7		
191.4	6478	6047.5	40181.2		
195.0	6257	6062.6	40225.5		
192.7	5931	6053.1	40279.9		
198.5	6164	6072.1	40320.8		
191.9	6340	6078.7	40348.1		
197.2	5973	6075.7	40414.1		
194.6	5986	6080.2	40461.6		
195.2	6045	6072.0	40458.4		
194.4	6583	6081.1	40439.2		
189.7	6908	6080.5	40491.7		
192.0	6987	6085.9	40546.2		
188.4	7208	6074.1	40617.2		
192.6	6852	6085.3	40661.2		
191.9	6570	6059.5	40604.9		
194.3	6723	6074.0	40548.8		
191.9	7726	6078.6	40625.3		
188.4	6311	6064.8	40779.1		

198.9	6458	6075.1	40745.0
198.0	6311	6084.2	40593.0
196.5	6854	6080.3	40572.4
196.0	6435	6064.8	40698.9
194.4	6357	6071.5	40798.8
193.2	6489	6070.1	40788.8
195.2	6407	6069.1	40762.3
193.6	6379	6076.7	40817.1
196.0	6487	6084.7	40857.3
194.4	6013	6085.7	40871.0
192.5	7671	6084.9	40916.6
188.8	6843	6072.4	40935.5
194.8	6976	6078.6	40937.9
189.1	6830	6079.3	40879.5
194.3	6651	6090.0	40839.6
190.4	6572	6088.7	40882.6
193.6	7037	6080.6	40955.5
195.9	7075	6091.1	41054.4
186.9	6754	6084.1	41131.5
197.0	6815	6090.5	41131.4
193.0	6882	6096.6	41054.4
199.6	6738	6128.0	41012.6
192.0	6108	6120.3	40947.3
192.2	6175	6133.4	40989.3
188.7	5421	6166.8	
343.6	5423	6144.3	
276.6	5432	6141.5	
209.4	5441	6136.6	
193.6	5716	6164.4	41186.5
199.9	4924	6209.3	41326.5
189.5	3057	6250.2	41182.1
193.1	3759	6273.4	41004.1
186.2	4742	6218.5	41130.2
196.6	4952	6229.8	41213.4
198.9	5871	6218.6	41291.7
194.6	5987	6211.4	41333.1
191.4	5669	6198.1	41405.8
194.1	6178	6190.2	41433.9
194.2	6154	6182.6	41397.9
193.4	7122	6169.7	41374.2
192.5	6620	6172.2	41411.6
193.0	6665	6173.0	41447.8
191.8	6625	6166.0	41423.8
194.2	7193	6157.4	41454.0

195.9	6494	6152.8	41528.5
197.2	6501	6149.3	41561.7
189.6	7048	6161.2	41551.4
189.4	6321	6149.4	41564.7
198.3	6804	6156.5	41593.1
195.8	6849	6175.5	41650.7
196.0	6987	6174.4	41686.7
190.4	6717	6169.6	41707.0
190.7	6543	6181.6	41750.1
194.8	6565	6186.2	41790.0
195.5	6574	6199.5	41809.9
194.3	6574	6190.6	41807.3
197.6	6512	6191.6	41819.4
195.3	6620	6192.7	41853.3
194.4	6579	6207.5	41877.8
194.6	6536	6192.3	41888.9
196.6	6496	6214.8	41908.6
196.1	6510	6217.8	41950.2
198.1	6578	6224.2	41951.0
199.4	6503	6223.6	41967.9
200.6	6674	6218.7	41955.8
204.1	6833	6230.5	41958.3
210.3	6808	6228.5	42000.3
197.6	6725	6221.7	42052.0
202.2	7992	6219.0	42101.2
202.0	6646	6228.8	42125.4
197.6	6693	6231.9	42117.1
199.6	7445	6224.3	42160.5
204.3	6993	6235.9	42210.4
200.9	6930	6227.1	42250.1
201.8	6847	6235.4	42234.9
197.6	6824	6240.6	42331.3
201.6	6841	6240.6	42331.3
198.5	6938	6242.1	42392.3
196.7	7141	6246.1	42425.9
206.1	7102	6248.1	42462.2
203.3	7079	6253.9	42495.6
201.0	7030	6252.5	42527.0
194.7	7722	6253.1	42546.3
201.8	7062	7257.7	42611.7
208.8	7216	6259.7	42578.7
199.5	7306	7253.5	42536.2
205.7	7066	6267.1	42535.3
194.1	7146	6266.4	42565.6

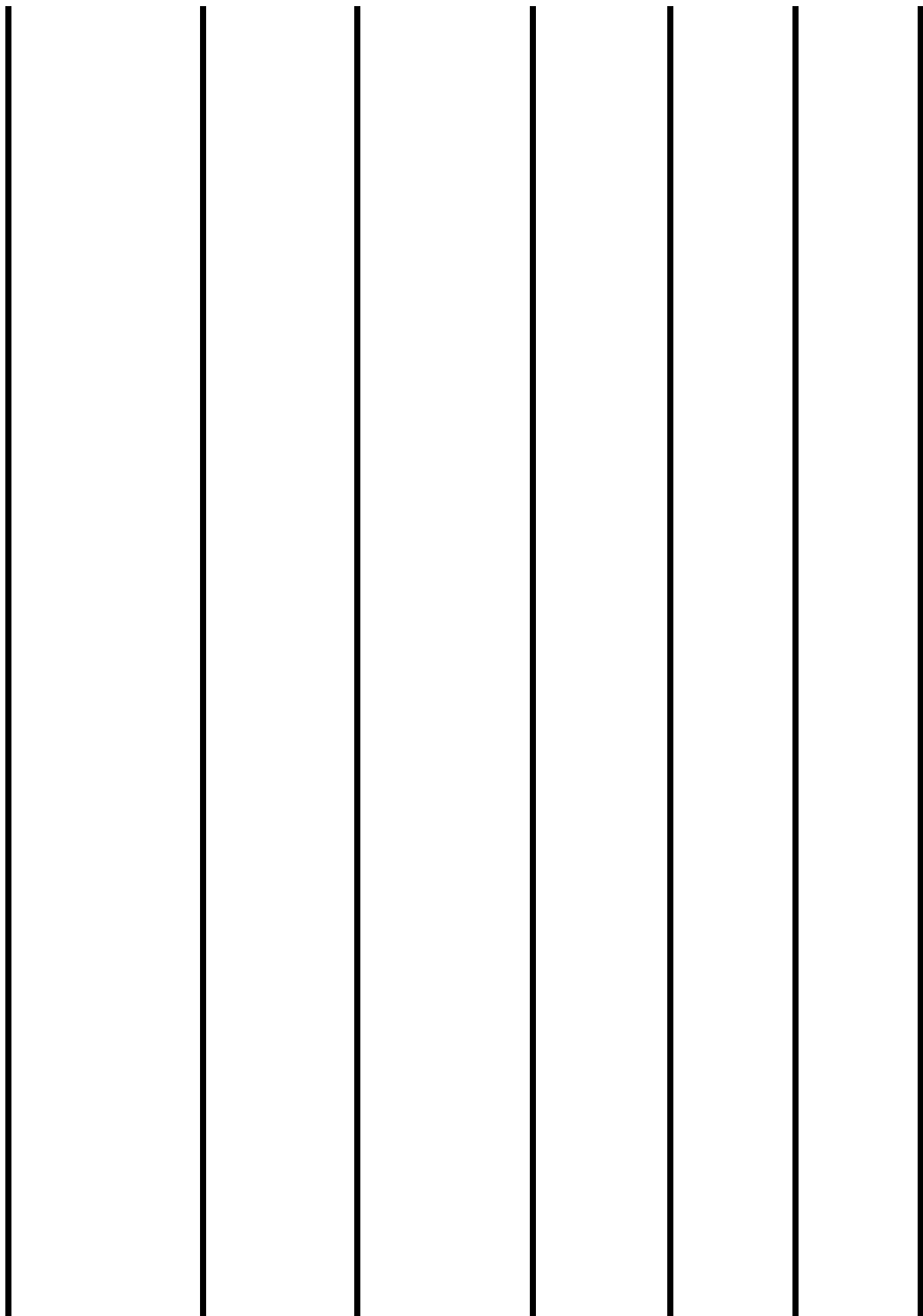
210.8	6963	6476.0	42671.6
199.9	7085	6277.1	42787.8
197.6	6250	7282.5	42878.8
202.8	6455	6295.3	42852.6
203.0	7095	6287.3	42792.9
200.4	6909	6289.9	42751.8
200.2	7139	6296.6	42705.2
197.1	7117	6300.0	42679.1
202.7	7219	6307.8	42685.7
202.5	6866	6303.7	42734.1
199.3	6860	6299.5	42788.2
191.5	7845	6209.0	42855.0
202.0	6894	6282.6	42906.3
202.2	7002	6324.0	42957.3
200.7	7047	6320.3	42983.5
203.3	7065	6332.7	43005.5
201.3	6761	6331.9	43044.2
207.6	6961	6321.6	43108.5
209.1	6657	6343.9	43184.3
210.2	6790	6345.4	43241.5
208.6	6737	6339.3	43251.7
211.1	7019	6345.4	43266.3
208.8	6900	6344.9	43305.7
212.8	6823	6348.5	43327.6
210.6	6910	6345.6	43352.8
212.6	6930	6347.8	43496.9
208.9	6724	6348.3	43611.3
206.7	7095	6353.4	43534.7
204.4	6678	6362.8	43547.4
206.8	6717	6364.7	43577.4
208.5	6747	6358.6	43457.7
204.2	8092	6358.8	43505.4
212.0	7030	6353.6	
080.3	7019	6324.6	
197.1	7092	6364.8	
205.4	7100	6365.8	43501.4
204.3	6921	6367.7	43458.4
224.3	6853	6357.5	43478.3
199.1	6960	6346.5	43536.1
201.4	7008	6350.0	43634.1
204.7	6658	6382.2	43760.0
207.5	6800	6364.6	43774.9
205.9	6681	6387.6	43786.1
205.3	6729	6390.0	43803.5

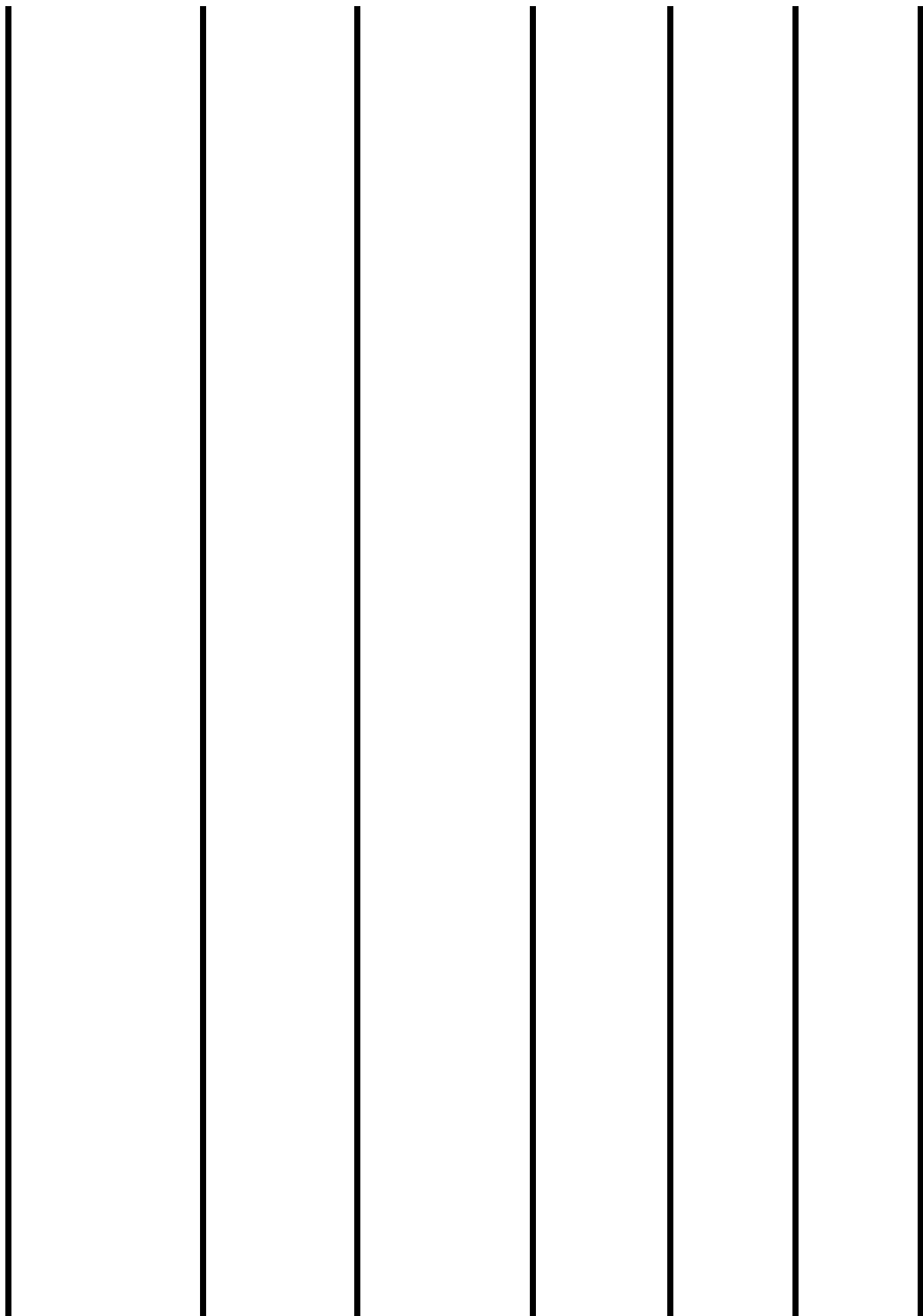
208.1	6789	6386.4	43791.8
209.0	6895	6364.2	43850.5
203.6	6909	6383.1	43948.0
207.8	6843	6386.5	43937.9
202.9	7139	6378.0	43918.5
207.2	6963	6384.3	43918.5
201.5	6908	6379.1	43928.4
207.8	6825	6386.5	43927.7
207.8	6959	6390.0	43826.8
210.3	6894	6396.3	43736.4
206.1	6589	6389.9	43849.8
206.4	7107	6407.7	43982.6
204.6	6804	6406.8	44057.0
203.2	6767	6417.9	44056.8
202.2	6906	6415.9	44022.4
206.9	6765	6418.5	44021.5
205.4	6836	6426.0	44069.5
204.7	6807	6437.5	44077.9
206.9	6950	6438.7	44027.1
206.5	6991	6444.7	44989.6
206.4	6905	6438.8	44227.5
202.5	6991	6432.3	44327.3
204.9	7029	6429.0	44331.3
205.1	7024	6434.0	44220.4
205.0	7000	6444.2	44202.0
205.2	6871	6439.6	44262.9
206.3	6907	6442.1	44325.3
204.6	6987	6443.0	44323.6
207.7	7087	6425.4	44268.4
205.2	7128	6447.5	44333.2
200.2	7173	6440.5	44413.5
200.1	7056	6451.0	44481.5
201.0	7128	6443.0	44489.0
204.1	6968	6449.6	44428.0
203.7	6768	6462.6	44422.1
204.7	8284	6466.4	44391.3
201.3	6645	6470.2	44417.6
201.6	6591	6463.4	44500.1
198.7	6632	6469.5	44594.7
196.0	6671	6472.0	44601.5
194.9	6614	6472.8	44590.1
197.2	6500	6487.0	44667.9
201.2	6758	6492.9	44800.0
185.6	6610	6485.3	44849.5

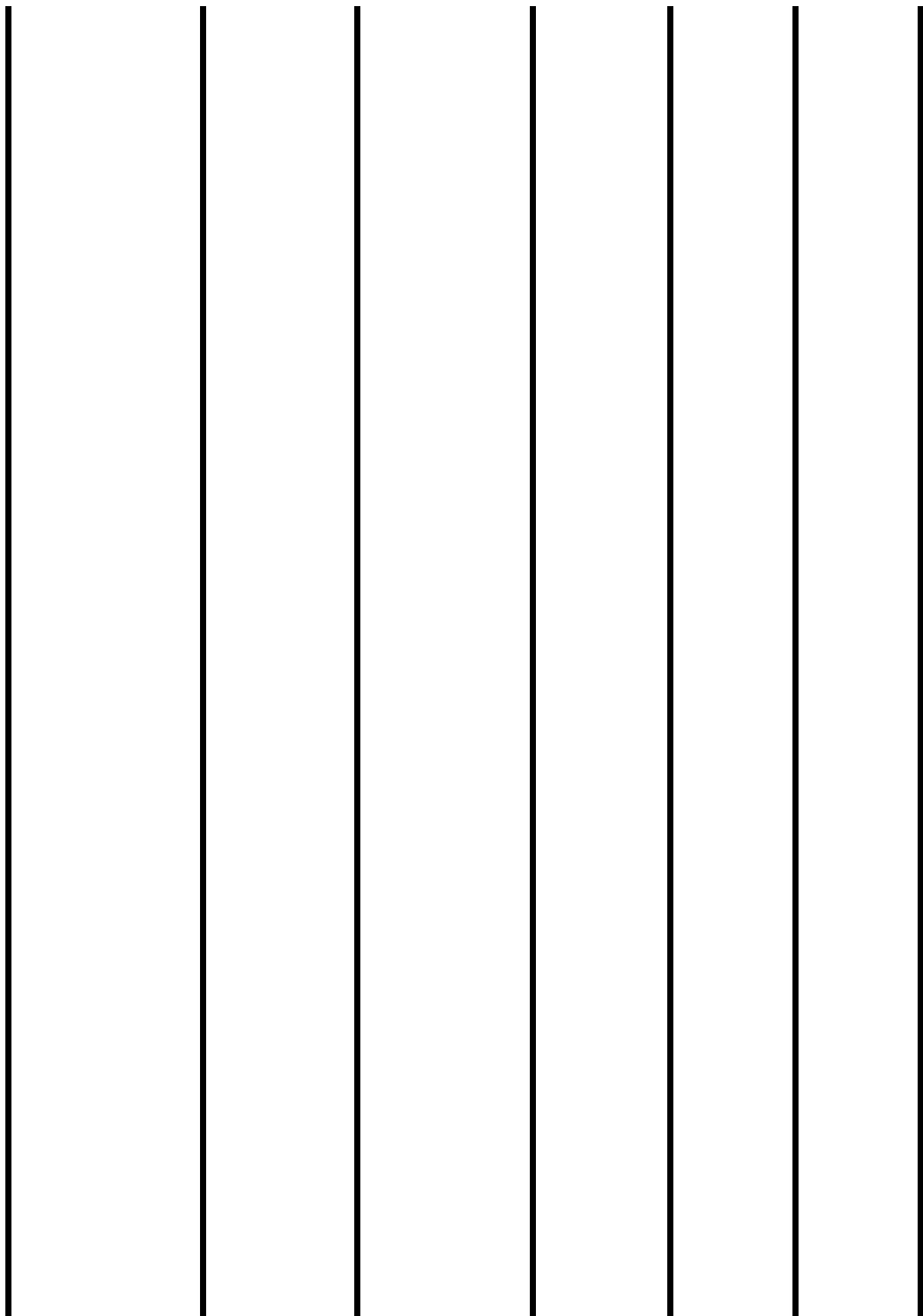
080.0	6389	6399.3	44873.2
091.9	6291	6415.9	44878.0
088.3	6309	6441.9	44842.5
090.0	6325	6441.8	44740.1
090.0	6349	6444.0	44627.8
090.5	5990	6472.8	44597.8
088.4	5927	6479.4	44572.1
092.4	5851	6486.2	44590.1
089.4	5774	6492.6	44587.1
091.3	5753	6490.6	44560.7
008.8	5747	6497.2	44568.4
089.8	5750	6495.0	44536.9
089.9	5726	6507.0	44504.5
089.3	5755	6510.7	44463.4
090.0	5750	6516.0	44373.7
091.8	5806	6505.4	44380.6
087.5	5671	6513.4	44446.5
091.1	5644	6514.5	44493.6
089.2	5647	6509.5	44500.9
089.3	5658	6511.6	44451.0
090.0	5609	6520.8	44405.6
088.6	5623	6501.0	44412.7
091.1	5596	6500.7	44446.0
092.6	5569	6512.6	44433.0
090.7	5664	6518.8	44388.8
089.2	5635	6527.3	44382.4
091.4	5613	6513.2	44392.9
090.6	5598	6525.9	44376.8
090.2	5649	6527.5	44304.6
090.9	5664	6520.0	44278.7
092.2	5709	6524.1	44290.6
089.6	5718	6524.2	44296.3
091.7	5666	6500.9	44278.6
090.6	5776	6497.6	44261.5
089.4	5699	6495.8	44253.3
086.3	5702	6562.4	44227.3
090.4	5673	6580.4	44200.4
088.8	5671	6572.2	44216.4
092.4	5762	6604.0	44251.4
091.5	5657	6595.0	44268.2
094.2	5621	6547.1	44277.3
089.9	5563	6517.1	44279.5
090.5	5546	6545.1	44279.2
086.8	5594	6516.1	44278.3

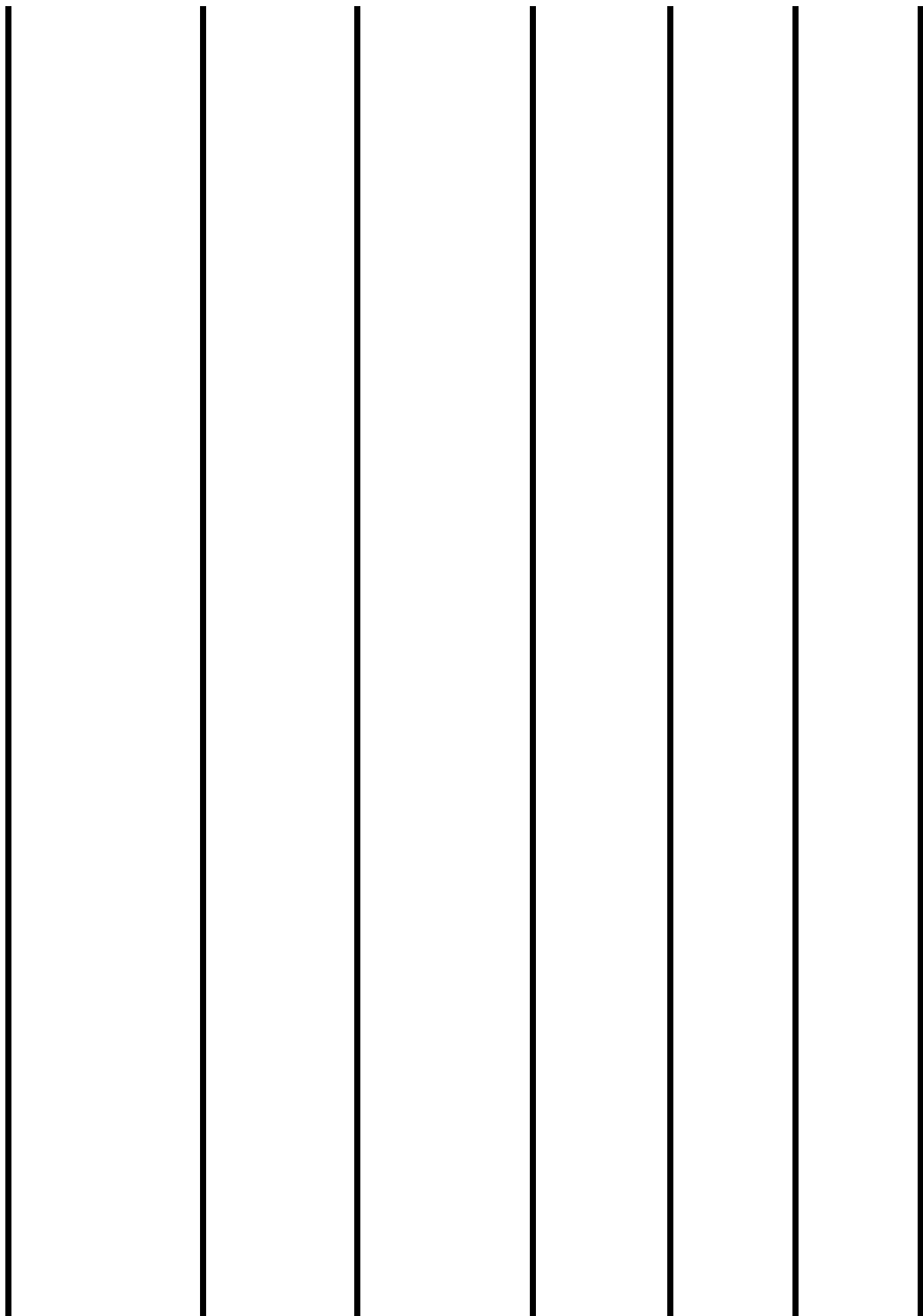
087.5	5625	6525.4	44276.6
346.0	5673	6599.0	44511.9
315.2	5711	6623.5	44414.8
286.1	5711	6651.3	44436.4
286.1	5670	6654.4	44464.3
287.9	5585	6651.3	44455.1
287.8	5660	6656.3	44458.8
287.1	5636	6656.1	44467.5
283.2	5565	6654.3	44478.3
285.0	5691	6654.8	44471.2
286.3	5676	6652.8	44449.2
286.6	5620	6648.9	44465.1
287.4	5613	6648.4	44439.7
285.7	5519	6645.5	44418.5
288.8	5653	6645.2	44442.1
285.8	5650	6642.5	44514.9
283.4	5622	6638.5	44563.5
284.8	5647	6635.4	44554.1
287.0	5688	6636.9	44540.9
287.7	5737	6634.8	44568.9
283.9	5661	6631.5	44565.5
283.6	5774	6626.6	44533.7
287.4	5804	6625.1	44543.7
285.5	5846	6620.0	44547.0
286.9	5911	6616.8	44535.0
288.8	5701	6610.5	44493.8
287.5	5820	6607.0	44481.0
284.6	5875	6603.7	44551.9
290.4	5952	6597.2	44624.7
292.8	6019	6582.9	44656.0
287.3	6143	6577.0	44663.2
283.5	6243	6563.3	44637.1
283.9	6290	6549.9	44584.2
284.6	6572	6541.5	44526.7
288.2	6600	6528.6	44487.8
231.8	6655	6503.6	44490.7
220.2	6628	6491.5	44564.2
201.6	6701	6480.2	44587.8
200.9	6687	6469.0	44583.5
203.3	6662	6470.7	44552.7
194.1	6503	6467.4	44583.1
200.2	6586	6470.1	44709.2
206.1	8147	6480.9	44797.8

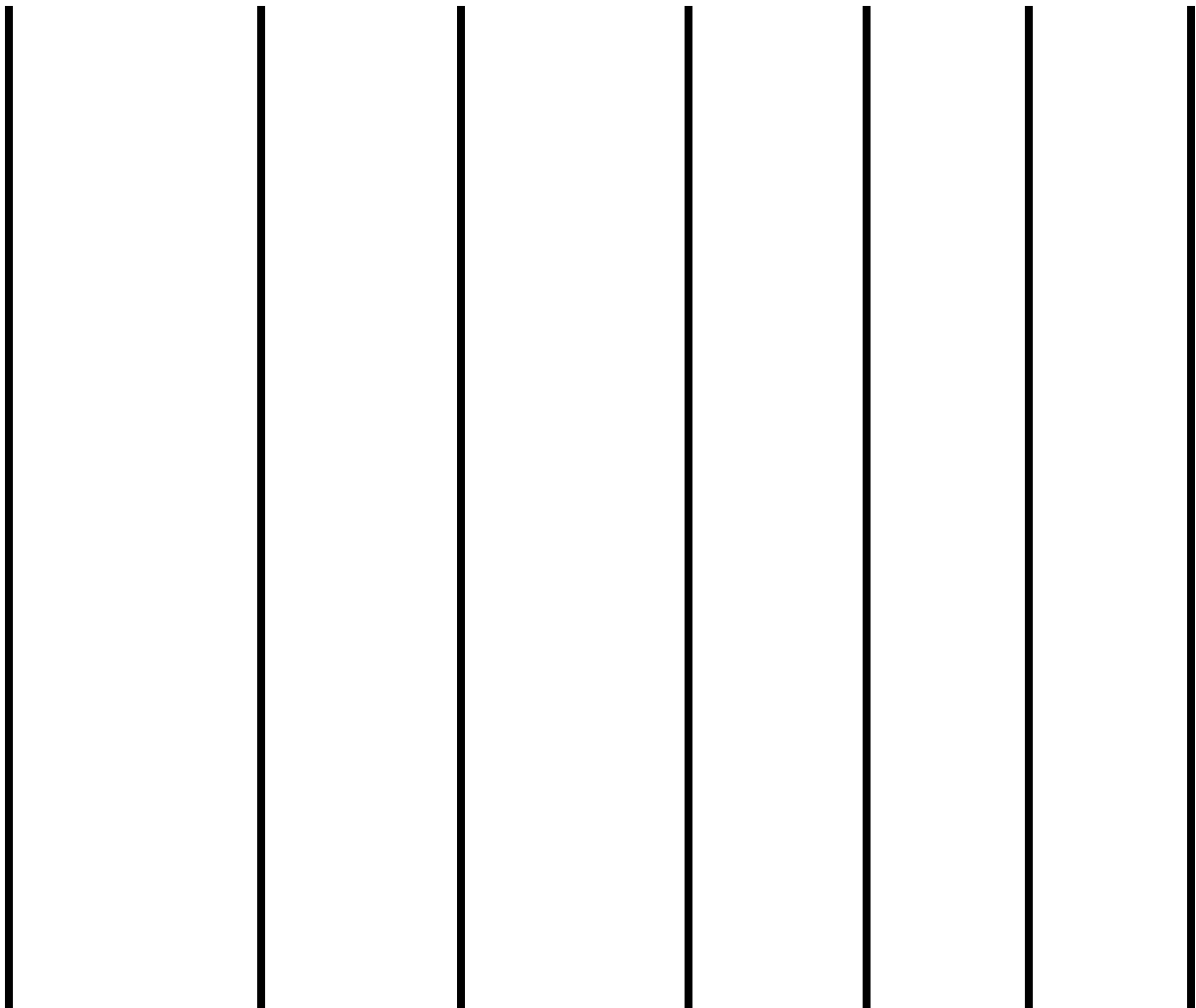
201.8	6559	6482.9	44824.3
196.1	6459	6484.0	44865.0
197.5	7719	6484.1	44850.0
203.1	6884	6486.1	44794.2
201.9	6960	6487.7	44847.5
198.3	6888	6491.1	44916.2
197.2	6823	6491.3	44936.7
200.1	6919	6489.9	44975.3
202.3	6958	6493.0	45023.9
202.0	6890	6491.8	45036.1
202.6	6717	6498.1	45042.5
196.9	6680	6406.4	45042.1
198.5	6696	6497.2	45066.7
198.1	5636	6497.1	45156.3
187.2	7036	6495.3	45199.0
193.0	7198	6497.7	45222.3
192.1	7212	6502.3	45203.9
190.8	7085	6504.0	45096.2
194.1	6966	6502.3	45035.9
195.1	6871	6504.5	45036.9
186.8	6911	6499.4	45112.8
189.4	6864	6498.8	45235.9
188.8	6962	6502.6	45331.7
188.9	7089	6505.0	45368.5
187.7	7064	6505.8	45373.8
188.7	6984	6508.7	45374.8
189.6	6919	6514.3	45388.2
191.0	6878	6517.3	45421.1
189.7	6563	6521.8	45450.5
189.8	6547	6527.4	45410.9
192.2	6395	6534.0	45415.9
193.1	5993	6538.0	45412.9
192.6	5795	6549.7	45447.1
191.8	5885	6556.7	45472.1
187.1	5812	6562.0	45567.0
191.5	5817	6564.6	45693.9
189.7	5828	6565.5	45744.9
190.8	5859	6565.3	45700.4











pC02	Shot # (OY	Comments and Observations
		<p data-bbox="475 514 893 552">entered Tongan waters 01:40</p> <p data-bbox="475 745 730 783">David off, Xyoli on</p>

bathy reads only 6538 m
bathy reads only 6480 m
multibeam depth now reasonably consistent with bathy

Mimi out, Rob in

start CDT, maggie out
maggie out
maggie out
maggie out
CDT over, maggie in
bathy and MB having trouble finding bottom

bathy nad MB now sync'ed

XBT deployed

Teresa off, David on

David off, Xyoli on

Mimi out, Rob in

start CDT, maggie out

maggie out

end CDT

maggie in

XBT

Teresa off, David on

Ship started to turn east for seismics

Mimi out, Rob in

Slow for bucket sampling, NOT CDT

XBT launched

XBT data now in system

LEAVING TONGA WATERS

In Tonga waters 19:20:54

19:47 XBT entered

David on

David off, Xyoli on

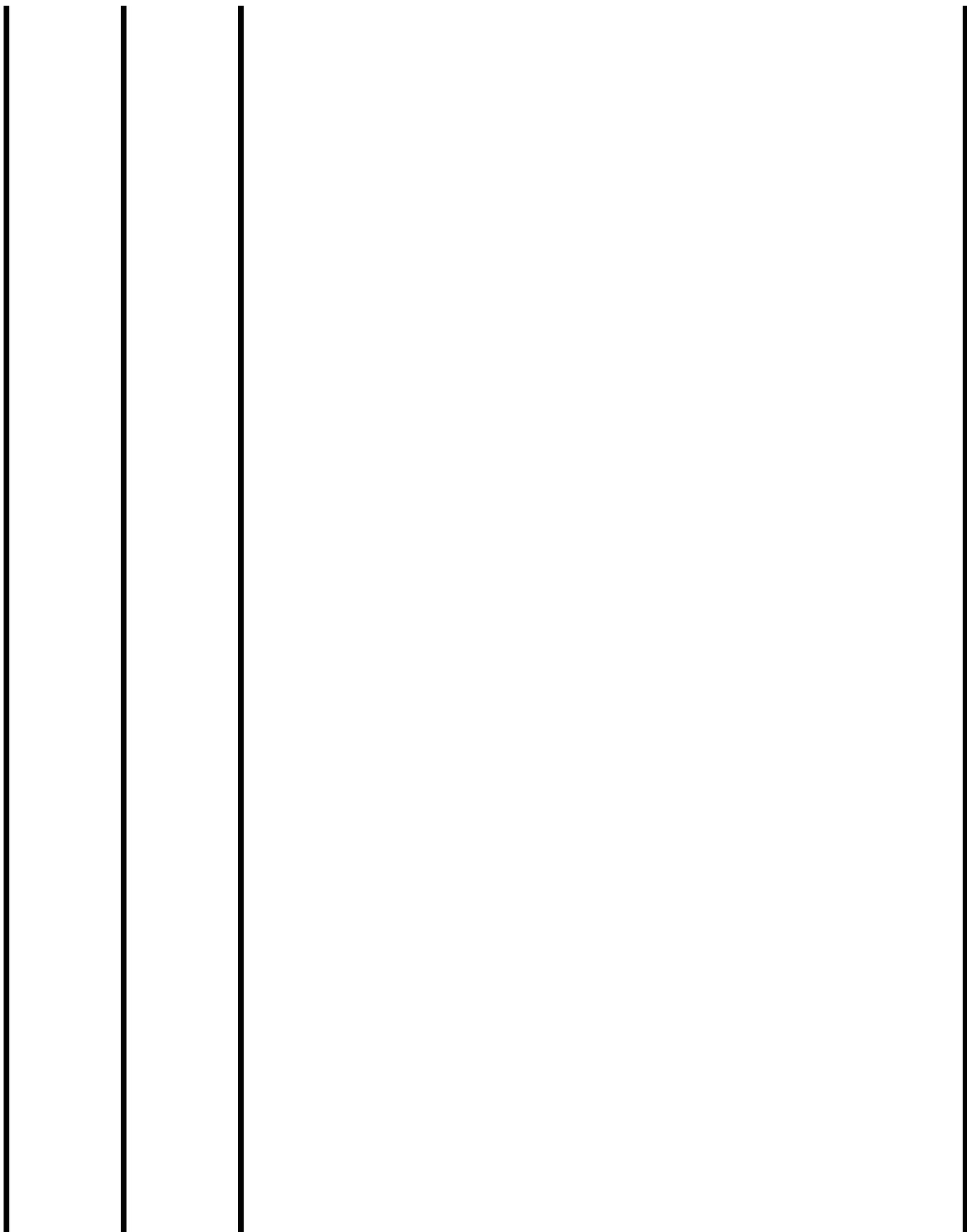
Turning to TK trench @ 03:37

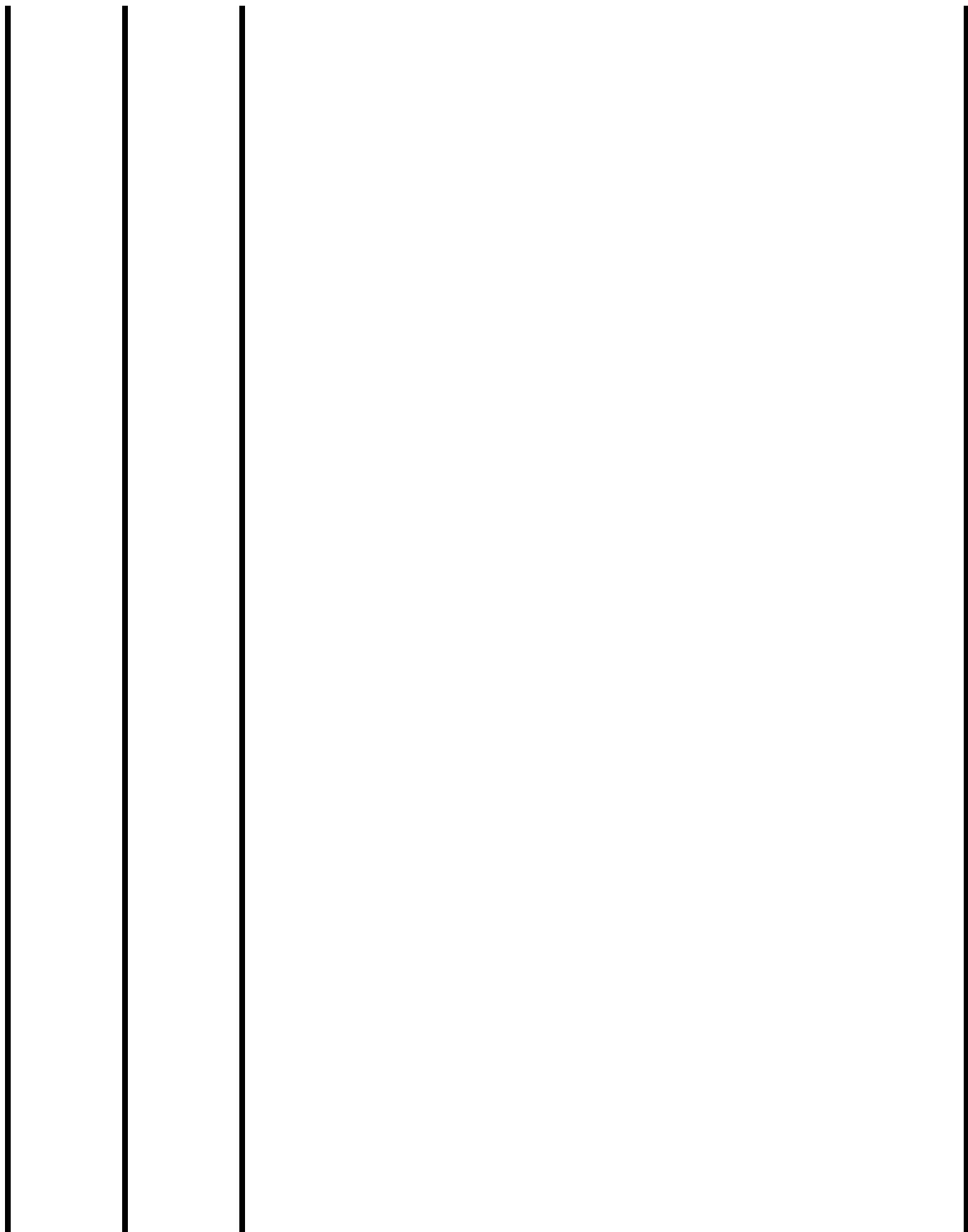
Reach TK @ 04:08

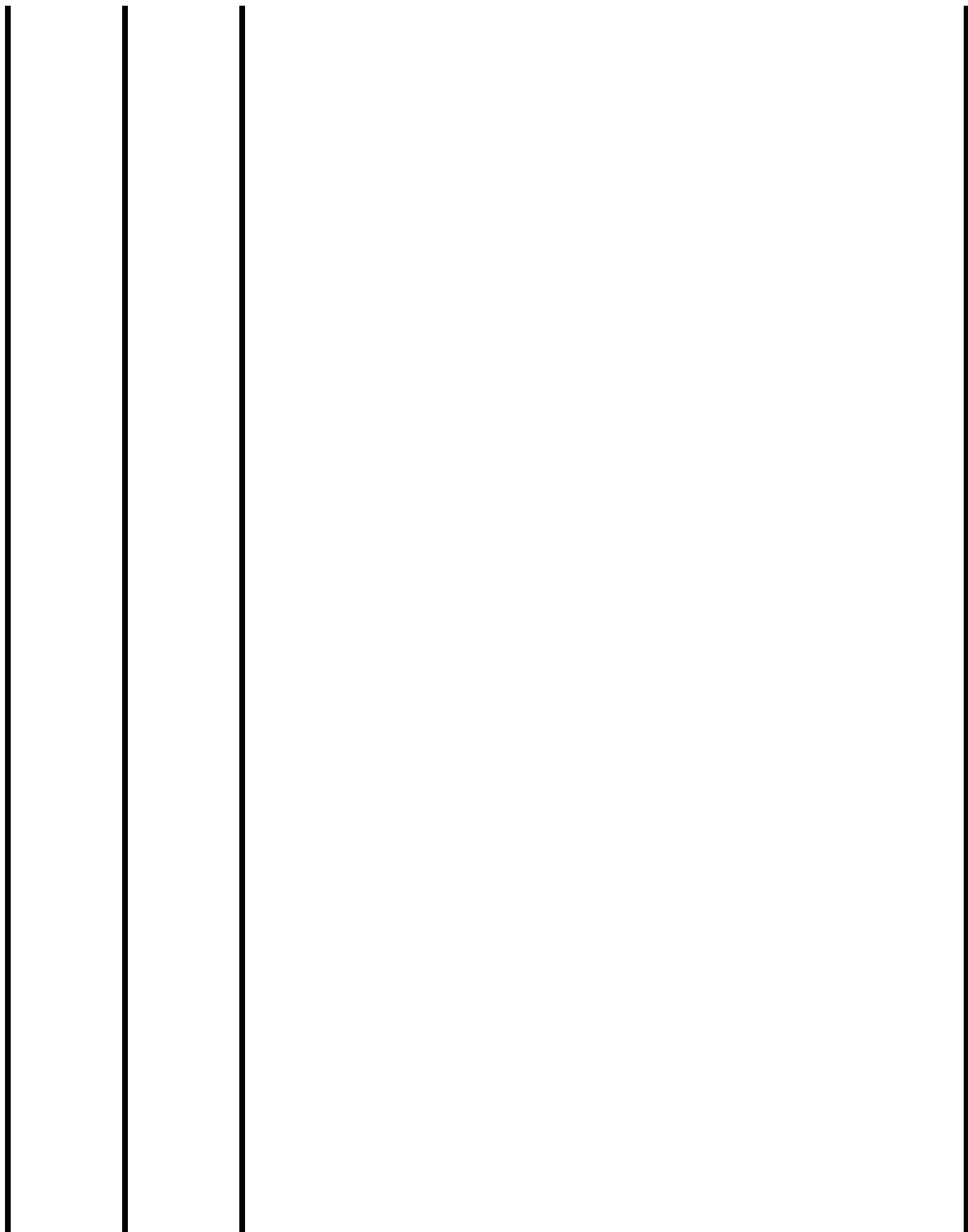
Over TK

Interference off

left Tongan waters







1

2

3

4

1

2

3

4