Supporting Online Material for

High-Resolution Greenland Ice Core Data Show Abrupt Climate Change Happens in Few Years

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Methods

Ramp fitting

The location and duration of the transitions are determined using the ramp fitting approach of Mudelsee (1). The transition is assumed to be a linear change from one climate level to another, a "ramp". The location of the inflection points is calculated using a prescribed standard deviation of the data series, that itself can be a ramp function.

Prior to the analysis, all data are resampled to annual resolution on the GICC05 time scale (2). The pre- and post-transition levels are estimated by weighted least-squares regression on 300 year (11.55-11.85 and 14.55-14.85 ka b2k) and 500 year (12.55-13.05 ka b2k) long data sections chosen so there is approximately 150 years in the pre- and post-transition levels for all parameters. The onset and end points of the transition ramp are found by brute-force search using the Mudelsee method (1). The results are robust to different trimming of the input data sequences and changes within of the prescribed standard deviation values. An exception is the transition of δ18O at the 12.9 ka b2k cooling event where the solution is not unique and the standard errors are large.

The uncertainty of the transition times are described by the mad' parameter introduced by Mudelsee, which can be interpreted as the standard error (1).

1. M. Mudelsee, Computers & Geosciences 26, 293-307 (2000).
2. S. O. Rasmussen et al., Journal of Geophysical Research 111, D06102, doi:10.1029/2005JD006079 (2006).
3. North Greenland Ice Core Project members, Nature 431, 147-151 (2004).
4. J. J. Lowe, M. J.C.Walker, Reconstructing Quaternary Environments, 2nd. edition (Pearson Higher Education, 1997).

Table S1 Classification of climatic periods at the Last Termination.

Event stratigraphy	Chronostratigraphical terms	Dansgaard-Oeschger cycles
Early Holocene	Preboreal	Holocene
GS-1	Younger Dryas	n/a
GI-1a,1b,1c	Allerød	DO-1
GI-1d	Older Dryas	DO-1
GI-1e	Bølling	DO-1
GS-2	Oldest Dryas	n/a

Greenland isotope based event stratigraphical terms, their corresponding terms from terrestrially based radio-carbon dated chronostratigraphy (S3) and the Dansgaard-Oeschger cycle terms (S2,S3)

Table S2 Ramp fitting Details: Parameters used for ramp fitting and detailed results

	Time interval	s	t1	t2	x1	x2	t1 mad'	t2 mad'	x1 mad'	x2 mad'	mean x1	std x1	mean x2	std x2
Transition from GS-1 to Holocene														
Deut. excess	11550:11850	1	11701	11704	8.448	10.44	1.5	1.5	0.105	0.107	8.449	1.165	10.44	1.122
$\delta^{18}O$	11550:11850	1	11651	11711	-36.73	-40.39	13.3	11.9	0.230	0.170	-36.73	1.058	-40.39	1.545
ln(dust)	11550:11850	0.4	11661	11711	9.336	11.29	3.0	3.0	0.040	0.035	9.331	0.326	11.29	0.4095
$ln(Ca^{2+})$	11550:11850	0.4	11672	11709	2.747	4.633	3.0	3.0	0.036	0.036	2.740	0.3818	4.633	0.3105
$ln(\lambda)$	11550:11850	0.1	11691	11698	-2.904	-3.523	3.0	3.0	0.023	0.023	-2.742	0.2412	-3.350	0.2967
GISP2 $ln(\lambda)$ arb. units	11630:11740	0.3	11695	11696	1.639	1.038	0.0	0.6	0.045	0.039				
DYE-3 deut excess	11570:11803	1	11704	11706	5.514	7.840	0.0	0.0	0.124	0.194				
DYE-3 $\delta^{18}O$	11550:11850	1	11634	11729	-30.81	-35.61	4.4	10.5	0.124	0.146				
GISP2 deut. excess	11550:11850	1	11702	11703	6.940	9.114	2.5	2.5	0.234	0.246				
GISP2 $\delta^{18}O$	11552:11850	2	11660	11702	-36.39	-39.75	10.1	12.2	0.201	0.202				
GRIP deut. excess	11653:11734	1	11695	11712	8.804	13.22	5.8	6.4	0.323	0.616				
GRIP $\delta^{18}O$	11550:11850	1	11652	11711	-36.61	-40.18	8.6	9.2	0.161	0.201				
Transition from GI-1a to GS-1														
Deut. excess	12550:13050	1.4	12896	12897	9.725	7.413	1.5	3.0	0.113	0.168	9.8203	1.824	7.411	1.558
$\delta^{18}O$	12550:13050	ramp (12800, 12850, 1.4, 1.0)	12712	12925	-41.22	-39.07	74.0	59.0	note 1		-41.72	1.487	-39.06	1.216
ln(dust)	12550:13050	0.5	12735	12874	12.17	10.58	8.9	9.6	0.040	0.035	12.19	0.3256	10.39	0.5238
$ln(Ca^{2+})$	12550:13050	0.5	12737	12870	5.333	3.639	5.9	5.9	0.033	0.036	5.369	0.3476	3.640	0.4328
$ln(\lambda)$	12550:13050	0.07	12787	12939	-3.643	-3.240	23.7	23.7	0.016	0.032	-3.431	0.2972	3.006	0.2633
GISP2 $\delta^{18}O$	12550:13050	ramp (12800, 12900, 1.8, 1.2)	12649	13037	-40.69	-37.61	76.2	31.5	0.335	0.299				
GRIP $\delta^{18}O$	12550:13050	ramp (12800, 12801, 1.4, 1.0)	12750	12908	-41.33	-38.35	33.6	29.9	0.225	0.146				
Transition from GS-2 to GI-1e														
Deut. excess	14550:14850	1.5	14691	14694	6.160	9.567	1.5	1.5	0.141	0.160	6.162	1.680	9.567	1.416
$\delta^{18}O$	14550:14850	1.7	14685	14688	-37.04	-42.33	1.5	1.5	0.282	0.266	-37.03	1.459	-41.33	1.848
ln(dust)	14550:14850	0.7	14657	14710	10.05	11.82	3.0	3.0	0.036	0.041	10.05	0.3725	11.82	0.3171
$ln(Ca^{2+})$	14550:14850	0.25	14659	14702	3.396	4.966	3.0	3.0	0.038	0.028	3.396	0.2888	4.965	0.3109
$ln(\lambda)$	14550:14850	0.12	14661	14705	-3.021	-3.613	8.9	7.4	0.028	0.023	-2.685	0.2788	-3.267	0.285
GISP2 $ln(\lambda)$ arb. units	14624:14740	0.25	14698	14700	1.533	0.900	1.5	1.1	0.043	0.042				
GISP2 $\delta^{18}O$	14550:14850	1.4	14650	14733	-36.13	-39.97	19.3	23.0	0.271	0.325				
GRIP $\delta^{18}O$	14550:14850	1	14595	14741	-35.41	-39.59	19.3	23.6	0.395	0.317				

note 1: not well defined

Data D1 Annual climate proxy data from the NGRIP ice core

Climate proxy data from the NGRIP ice core, resampled to annual values on the GICC05 time scale (S2)

Periods covered: 11.55-11.85 ka b2k (before A.D. 2000), 12.65-13.15 ka b2k, and 14.55-14.85 ka b2k.

The dust content, $[Ca^{2+}]$, and $[Na^+]$ values are given as ln(value) as presented in Figure 2.

Data have been resampled to annual resolution. Missing values are represented by "NaN".

Age (yr)	Max. count. error (yr)	Deut.exc (permille)	$\delta^{18}O$ (permille)	Dust (part./μL)	$[Ca^{2+}]$ (ppbw)	$[Na^+]$ (ppbw)	Annual layer thickness λ (cm)
11551	98	9.056	-37.237	9.474	2.640	NaN	0.068
11552	98	8.300	-35.210	9.512	2.137	NaN	0.052
11553	98	8.604	-34.301	9.625	2.272	NaN	0.026
11554	98	8.589	-34.433	9.453	1.572	NaN	0.045
11555	98	7.500	-35.836	9.688	2.360	NaN	0.044
11556	98	7.500	-36.800	9.771	2.633	NaN	0.039
11557	98	7.271	-36.624	9.141	2.195	NaN	0.072
11558	98	7.858	-36.650	9.096	1.507	NaN	0.052
11559	98	8.430	-37.572	9.126	1.975	NaN	0.070
11560	98	8.253	-38.612	9.558	2.410	NaN	0.055
11561	98	9.589	-37.867	9.425	NaN	NaN	0.057
11562	98	9.556	-36.281	9.054	NaN	NaN	0.064
11563	98	8.789	-34.731	9.186	NaN	NaN	0.054
11564	98	8.850	-34.815	8.640	NaN	NaN	0.066
11565	98	9.266	-37.061	9.377	NaN	NaN	0.047
11566	98	10.120	-38.439	9.359	NaN	NaN	0.075
11567	98	9.991	-38.448	8.989	NaN	NaN	0.047
11568	98	9.800	-38.180	9.103	NaN	NaN	0.034
11569	98	9.067	-37.905	8.271	NaN	NaN	0.036
11570	98	9.558	-37.468	8.980	NaN	NaN	0.048
11571	98	10.676	-37.181	10.443	NaN	NaN	0.035
11572	98	8.586	-37.759	9.855	2.942	NaN	0.058
11573	98	9.000	-37.200	9.049	2.144	NaN	0.076
11574	98	9.431	-37.148	9.489	2.869	NaN	0.072
11575	98	8.804	-36.763	8.985	2.666	NaN	0.054
11576	98	9.100	-36.230	9.576	2.872	NaN	0.027
11577	98	8.679	-36.390	9.300	2.712	NaN	0.057
11578	98	10.858	-35.455	9.118	2.355	NaN	0.062
11579	98	8.933	-36.329	9.140	2.551	NaN	0.075
11580	98	8.860	-36.809	9.484	2.906	NaN	0.050

11581	98	10.604	-37.182	9.141	2.548	NaN	0.076
11582	98	9.632	-38.020	9.324	2.806	NaN	0.054
11583	98	7.557	-36.866	9.281	2.491	NaN	0.070
11584	98	9.251	-35.684	9.368	2.760	NaN	0.065
11585	98	8.864	-35.695	9.327	2.862	NaN	0.084
11586	98	8.850	-35.331	8.900	2.470	3.469	0.068
11587	98	7.055	-36.847	9.157	2.307	2.597	0.053
11588	98	8.955	-37.945	9.176	2.577	2.536	0.065
11589	98	11.418	-37.914	8.968	2.717	2.871	0.056
11590	98	7.700	-37.661	9.039	2.453	2.505	0.054
11591	98	8.266	-38.072	9.116	2.559	2.741	0.059
11592	98	7.428	-38.924	9.080	2.588	3.100	0.053
11593	98	8.655	-38.748	9.516	2.888	2.649	0.065
11594	98	10.061	-37.622	9.139	2.949	2.114	0.062
11595	98	10.302	-37.727	8.590	2.375	3.134	0.063
11596	98	10.545	-36.590	8.953	2.717	2.593	0.065
11597	98	9.882	-34.623	9.203	2.570	2.271	0.071
11598	98	8.116	-34.908	9.239	2.830	2.625	0.062
11599	98	7.951	-35.248	9.939	3.297	2.713	0.067
11600	98	7.404	-35.276	9.376	2.905	2.213	0.054
11601	98	5.500	-36.210	9.667	3.106	2.938	0.041
11602	98	6.965	-35.966	9.621	2.973	2.697	0.043
11603	98	7.910	-36.436	9.490	2.905	2.560	0.063
11604	98	8.647	-37.400	9.220	2.758	2.921	0.063
11605	98	10.072	-36.711	9.545	3.003	2.352	0.050
11606	98	8.763	-36.755	9.062	2.589	2.402	0.079
11607	98	8.935	-36.458	9.329	2.826	2.510	0.052
11608	98	8.900	-36.202	9.455	3.022	2.283	0.035
11609	98	7.443	-36.388	9.400	2.811	2.834	0.061
11610	98	8.079	-36.286	9.525	2.838	2.552	0.068
11611	98	10.945	-36.285	9.349	2.823	2.711	0.062
11612	98	9.960	-35.645	8.860	2.513	2.493	0.074
11613	98	9.600	-36.590	9.600	3.016	2.626	0.066
11614	98	8.005	-36.227	9.528	2.913	2.835	0.054
11615	98	8.616	-35.205	9.132	2.793	2.652	0.056
11616	98	9.733	-35.637	9.479	2.929	2.806	0.047
11617	98	8.477	-36.316	9.221	2.749	2.646	0.052
11618	98	7.600	-36.795	9.070	2.683	2.605	0.064
11619	98	6.271	-36.896	9.332	2.996	3.088	0.062
11620	98	7.812	-37.373	9.123	2.677	2.729	0.059
11621	98	7.455	-38.792	9.262	2.661	2.738	0.069
11622	98	9.070	-37.838	9.149	2.626	3.029	0.069

11623	98	9.131	-36.279	9.562	2.787	3.148	0.055
11624	98	9.023	-36.705	9.294	2.822	3.177	0.071
11625	98	8.348	-37.233	9.372	2.957	2.956	0.056
11626	98	8.305	-36.449	9.023	2.664	2.722	0.060
11627	98	8.521	-35.432	8.581	2.482	2.732	0.056
11628	98	6.894	-35.971	8.983	2.553	3.258	0.080
11629	98	8.770	-35.859	9.274	2.833	3.241	0.046
11630	98	9.064	-35.564	9.328	2.748	3.304	0.066
11631	98	8.886	-35.598	9.002	2.558	2.860	0.060
11632	98	6.820	-36.556	9.547	2.939	3.296	0.070
11633	98	7.505	-36.502	9.390	2.850	3.240	0.059
11634	98	7.926	-36.291	9.004	2.680	3.070	0.053
11635	98	8.823	-36.216	9.374	2.774	3.005	0.067
11636	98	8.707	-36.193	9.588	3.178	2.941	0.043
11637	98	7.450	-36.425	9.633	3.039	3.367	0.036
11638	98	6.722	-36.640	9.533	3.033	3.092	0.036
11639	98	8.371	-36.741	9.327	2.934	3.263	0.062
11640	98	8.204	-37.820	9.426	2.954	3.308	0.048
11641	98	8.379	-38.638	9.209	2.736	3.121	0.056
11642	98	7.835	-38.538	9.404	2.935	3.173	0.046
11643	98	7.791	-38.055	9.248	2.802	2.847	0.075
11644	98	8.321	-37.136	9.971	3.592	2.896	0.062
11645	98	6.925	-36.618	9.689	3.051	2.922	0.060
11646	98	6.425	-36.833	9.577	3.009	2.945	0.048
11647	98	8.554	-36.878	9.529	2.944	3.026	0.069
11648	98	9.826	-37.410	9.500	3.067	2.771	0.083
11649	98	9.054	-38.352	9.659	3.392	3.285	0.037
11650	98	6.762	-37.673	9.036	2.800	3.514	0.065
11651	98	8.143	-35.318	9.629	3.224	2.851	0.060
11652	98	6.329	-34.827	9.797	3.195	2.813	0.068
11653	98	5.841	-36.735	9.537	2.952	2.921	0.055
11654	98	8.779	-36.803	9.810	3.167	3.261	0.058
11655	98	8.883	-36.204	9.801	3.390	3.178	0.069
11656	98	6.973	-36.483	9.860	3.683	3.323	0.030
11657	98	8.277	-34.896	9.049	3.081	2.779	0.087
11658	98	7.271	-34.668	9.734	3.128	2.723	0.042
11659	98	6.846	-35.884	9.681	3.153	2.860	0.056
11660	98	9.391	-36.511	9.392	2.964	2.525	0.054
11661	98	8.159	-38.242	8.477	1.894	2.538	0.073
11662	98	9.074	-38.908	9.140	1.981	3.239	0.062
11663	98	9.200	-37.780	9.283	2.522	3.375	0.055
11664	98	8.119	-37.789	9.453	2.528	3.072	0.048

11665	98	6.959	-38.756	9.533	2.359	3.252	0.050
11666	98	6.053	-39.116	9.922	2.973	4.260	0.047
11667	98	6.829	-39.417	10.408	3.905	3.560	0.031
11668	98	8.715	-40.049	9.287	2.515	3.204	0.041
11669	98	9.000	-40.410	9.715	2.542	3.401	0.047
11670	98	9.682	-38.053	9.442	2.348	3.057	0.060
11671	98	9.081	-38.451	9.558	2.376	3.401	0.043
11672	98	8.553	-39.631	9.205	1.721	3.132	0.057
11673	98	10.100	-38.960	10.031	2.553	3.225	0.033
11674	98	9.104	-38.288	9.580	1.927	3.070	0.053
11675	98	10.056	-37.306	10.260	2.959	3.104	0.054
11676	98	9.718	-35.903	10.375	3.128	3.566	0.057
11677	98	10.383	-35.915	10.200	3.115	2.889	0.053
11678	98	8.353	-38.054	9.833	2.641	3.155	0.051
11679	98	7.238	-40.050	9.945	2.559	3.353	0.042
11680	98	8.800	-40.880	10.708	4.120	3.294	0.044
11681	98	9.071	-40.375	10.852	4.223	3.689	0.051
11682	98	9.191	-39.792	10.068	3.527	3.175	0.046
11683	98	9.864	-37.772	9.932	3.483	3.371	0.053
11684	98	9.663	-36.090	11.196	4.420	3.209	0.038
11685	98	9.052	-36.614	10.887	3.969	3.098	0.083
11686	98	7.832	-38.348	10.028	3.656	3.476	0.053
11687	98	8.083	-38.148	10.529	3.815	3.474	0.047
11688	98	8.900	-37.440	10.379	3.713	3.028	0.030
11689	98	8.540	-38.619	9.402	3.252	2.907	0.050
11690	98	6.614	-39.172	9.438	3.090	3.528	0.049
11691	99	7.041	-38.505	9.945	3.502	3.548	0.059
11692	99	8.865	-38.696	9.862	3.247	2.898	0.071
11693	99	8.420	-39.304	10.670	3.943	3.588	0.035
11694	99	7.900	-39.950	10.805	4.135	3.904	0.041
11695	99	7.200	-41.690	10.877	3.959	3.724	0.033
11696	99	6.523	-41.938	11.073	3.915	3.334	0.039
11697	99	5.880	-41.881	10.715	4.025	3.760	0.040
11698	99	5.600	-41.300	11.000	4.141	4.046	0.016
11699	99	6.119	-41.076	10.858	4.089	3.522	0.027
11700	99	8.400	-40.090	10.565	3.914	3.323	0.026
11701	99	8.188	-40.430	10.903	4.201	3.879	0.065
11702	99	9.129	-40.004	11.258	4.398	3.934	0.028
11703	99	9.300	-39.910	10.795	3.959	3.299	0.023
11704	99	12.266	-37.630	10.279	3.700	2.939	0.041
11705	99	11.540	-37.342	11.118	4.289	3.796	0.030
11706	99	10.926	-37.418	11.183	4.439	3.710	0.035

11707	99	11.200	-39.000	10.928	4.499	3.348	0.044
11708	99	9.896	-40.461	11.725	5.182	4.259	0.023
11709	99	9.888	-40.586	11.310	4.790	3.634	0.041
11710	99	10.400	-40.330	11.600	4.984	4.195	0.025
11711	99	10.576	-40.506	11.369	4.569	3.703	0.034
11712	99	10.700	-40.630	11.192	4.661	3.924	0.026
11713	99	10.117	-40.280	11.058	4.588	3.972	0.024
11714	99	10.000	-40.210	11.122	4.426	4.163	0.019
11715	99	10.000	-39.999	11.023	4.452	3.702	0.024
11716	99	10.000	-39.820	10.777	4.368	4.309	0.033
11717	99	10.170	-39.547	10.944	4.562	4.152	0.027
11718	99	10.211	-39.506	10.957	4.534	3.598	0.028
11719	99	10.500	-39.660	10.738	4.158	3.357	0.027
11720	99	10.500	-39.660	10.690	4.217	3.553	0.011
11721	99	11.025	-40.559	10.914	4.363	3.861	0.032
11722	99	11.300	-41.030	11.367	4.820	3.936	0.023
11723	99	11.078	-42.264	11.391	4.801	4.277	0.023
11724	99	11.488	-42.448	10.857	4.364	3.615	0.041
11725	99	13.385	-41.239	10.604	4.136	3.359	0.052
11726	99	12.900	-40.520	11.359	4.619	4.219	0.040
11727	99	9.100	-41.060	11.495	4.902	4.947	0.019
11728	99	9.100	-41.060	11.384	4.583	3.935	0.023
11729	99	10.188	-39.495	11.159	4.507	3.559	0.049
11730	99	10.637	-36.881	11.283	4.116	3.094	0.043
11731	100	11.209	-36.219	10.939	4.100	3.077	0.044
11732	100	10.000	-37.518	11.124	4.302	3.728	0.032
11733	100	6.700	-40.440	11.453	4.677	4.476	0.025
11734	100	9.109	-40.199	11.122	4.797	4.445	0.043
11735	100	10.363	-39.186	10.984	4.285	3.066	0.035
11736	100	10.300	-37.690	11.395	4.763	3.919	0.019
11737	100	10.543	-37.659	11.071	4.552	3.834	0.021
11738	100	12.000	-37.470	10.513	4.150	3.366	0.037
11739	100	12.000	-39.714	10.393	4.154	3.659	0.033
11740	100	11.371	-41.988	11.122	4.434	3.823	0.049
11741	100	11.633	-43.603	11.368	4.724	4.202	0.042
11742	100	13.700	-43.650	11.392	4.883	3.962	0.019
11743	100	12.616	-43.289	10.958	4.629	3.718	0.031
11744	100	11.300	-42.850	11.019	4.414	3.385	0.019
11745	100	9.828	-42.754	11.691	4.907	4.283	0.025
11746	100	6.700	-42.550	11.933	5.124	4.246	0.028
11747	100	9.623	-39.130	11.240	4.825	3.593	0.052
11748	100	9.972	-38.629	11.830	5.092	4.124	0.025

11749	100	9.300	-39.330	11.295	4.906	3.996	0.033
11750	100	9.831	-41.039	11.461	4.824	3.951	0.035
11751	100	10.248	-41.198	10.831	4.585	3.744	0.031
11752	100	10.800	-41.100	11.071	4.462	3.519	0.028
11753	100	10.728	-42.292	11.294	5.011	4.172	0.036
11754	100	11.297	-42.442	11.048	4.804	4.066	0.035
11755	100	12.600	-41.770	10.765	4.753	3.837	0.034
11756	100	11.283	-40.207	11.072	4.549	4.098	0.041
11757	100	10.620	-38.832	11.146	4.491	4.087	0.035
11758	100	10.300	-38.060	11.438	4.564	3.319	0.027
11759	100	10.300	-37.551	11.338	4.435	3.381	0.027
11760	100	9.295	-38.666	11.240	4.558	3.714	0.039
11761	100	7.500	-40.730	11.424	4.873	4.849	0.018
11762	101	9.250	-41.330	11.043	4.533	3.980	0.036
11763	101	11.351	-42.134	11.023	4.457	3.987	0.041
11764	101	12.600	-42.860	11.083	4.426	3.915	0.024
11765	101	11.741	-42.388	10.931	4.553	3.659	0.044
11766	101	11.526	-41.619	10.158	4.020	2.805	0.027
11767	101	13.400	-38.910	10.353	3.930	2.995	0.033
11768	101	11.307	-38.610	10.522	4.129	2.886	0.043
11769	101	10.400	-38.480	11.253	4.678	3.633	0.019
11770	101	9.181	-41.124	11.580	5.064	4.472	0.016
11771	101	9.182	-41.295	10.950	4.643	3.695	0.039
11772	101	9.900	-41.250	11.341	4.508	3.845	0.026
11773	101	9.887	-41.152	11.362	4.879	4.523	0.023
11774	101	9.800	-40.500	10.830	4.270	3.458	0.037
11775	101	10.848	-39.602	11.101	4.424	3.511	0.029
11776	101	11.374	-39.169	10.954	4.402	3.490	0.034
11777	101	11.100	-39.570	10.672	4.113	2.737	0.025
11778	101	11.100	-39.570	11.659	4.748	4.611	0.019
11779	101	10.100	-39.828	11.556	4.818	3.870	0.018
11780	101	9.900	-39.880	11.178	4.664	3.680	0.030
11781	101	10.233	-39.372	11.029	4.354	3.142	0.030
11782	101	10.145	-39.320	11.479	4.948	3.847	0.031
11783	101	9.500	-39.530	11.088	3.746	3.146	0.028
11784	101	9.926	-39.089	10.925	3.915	3.778	0.023
11785	101	10.900	-38.080	10.788	3.718	2.726	0.021
11786	101	10.946	-37.649	11.369	4.301	3.509	0.041
11787	101	10.761	-37.553	11.511	4.567	3.246	0.038
11788	101	9.700	-39.340	10.948	4.370	3.353	0.040
11789	101	9.075	-41.447	11.566	4.864	4.199	0.028
11790	101	9.027	-41.672	11.244	4.733	3.770	0.026

11791	101	9.700	-40.960	11.639	4.767	3.786	0.022
11792	101	9.700	-40.960	11.837	4.893	4.051	0.026
11793	102	11.135	-40.271	12.850	5.624	4.411	0.023
11794	102	11.200	-40.240	11.906	5.555	3.407	0.025
11795	102	10.475	-40.376	10.711	4.748	1.810	0.032
11796	102	10.400	-40.600	11.387	4.903	3.195	0.043
11797	102	10.400	-40.800	12.028	5.169	3.798	0.027
11798	102	12.708	-40.348	11.099	4.719	3.792	0.026
11799	102	12.200	-40.473	10.825	4.621	2.988	0.031
11800	102	9.700	-41.070	11.208	4.794	4.029	0.026
11801	102	8.836	-41.497	10.980	4.774	2.955	0.033
11802	102	7.800	-42.010	11.406	5.261	4.185	0.025
11803	102	9.981	-40.387	10.862	4.617	3.938	0.052
11804	102	9.111	-38.635	11.661	4.664	3.574	0.035
11805	102	9.920	-38.400	11.718	4.788	3.276	0.049
11806	102	10.885	-38.798	11.264	4.858	3.659	0.026
11807	102	9.500	-41.780	10.774	4.752	3.435	0.031
11808	102	10.278	-42.069	10.662	4.475	3.572	0.027
11809	102	11.600	-42.560	10.983	4.635	3.803	0.029
11810	102	11.485	-41.972	11.285	4.643	3.050	0.026
11811	102	11.400	-41.540	11.082	4.615	3.396	0.025
11812	102	10.876	-41.346	10.914	4.506	3.247	0.021
11813	102	10.400	-41.170	11.299	4.473	3.381	0.023
11814	102	10.718	-40.540	11.568	4.596	3.982	0.034
11815	102	11.000	-39.980	11.929	4.371	3.239	0.030
11816	102	9.062	-40.026	11.439	4.636	3.437	0.026
11817	102	9.394	-39.835	11.153	4.766	4.184	0.034
11818	102	11.000	-39.200	11.856	5.021	3.824	0.025
11819	102	10.628	-39.523	11.645	4.798	3.596	0.029
11820	102	10.043	-40.281	11.625	4.426	3.186	0.047
11821	102	9.800	-41.550	11.471	4.631	3.941	0.022
11822	102	9.711	-41.091	11.479	4.470	3.991	0.027
11823	103	9.500	-40.000	11.620	4.784	4.038	0.038
11824	103	10.316	-38.522	11.659	4.817	3.433	0.043
11825	103	11.100	-38.700	11.711	4.908	4.215	0.022
11826	103	11.800	-39.030	11.709	4.663	3.211	0.038
11827	103	11.018	-41.289	11.738	4.514	3.159	0.045
11828	103	10.414	-42.932	11.451	4.795	3.997	0.037
11829	103	10.300	-43.233	11.618	4.787	3.992	0.030
11830	103	10.300	-43.220	11.450	4.666	3.424	0.032
11831	103	10.653	-42.367	12.015	4.922	4.150	0.017
11832	103	10.900	-41.770	11.916	4.634	3.949	0.017

11833	103	10.900	-41.770	11.742	4.618	3.626	0.021
11834	103	11.546	-41.345	11.657	4.575	3.592	0.026
11835	103	11.600	-41.310	11.797	4.720	3.901	0.021
11836	103	10.518	-42.438	11.620	4.480	3.131	0.022
11837	103	10.200	-42.770	11.646	4.580	3.559	0.031
11838	103	9.556	-41.528	11.814	4.239	2.726	0.025
11839	103	10.069	-40.475	11.703	4.795	3.847	0.048
11840	103	10.366	-38.754	11.255	4.403	3.029	0.056
11841	103	9.830	-38.147	12.456	5.193	3.911	0.030
11842	103	9.600	-37.940	12.073	5.437	4.136	0.018
11843	103	9.531	-38.093	11.507	4.982	3.077	0.029
11844	103	9.100	-39.050	11.290	4.739	2.731	0.020
11845	103	8.989	-39.594	11.437	4.931	3.320	0.036
11846	103	8.700	-41.010	11.266	4.943	3.703	0.038
11847	103	10.562	-40.098	11.266	4.887	4.355	0.029
11848	103	10.441	-40.214	11.610	4.890	3.621	0.034
11849	103	9.900	-40.600	11.246	4.893	4.187	0.035
11850	103	9.129	-41.569	10.981	4.643	4.432	0.028
NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
12651	130	9.384	-41.392	12.266	5.157	4.349	0.025
12652	130	9.000	-41.680	12.195	5.323	4.232	0.030
12653	130	9.952	-39.369	11.898	4.910	3.676	0.052
12654	130	10.382	-38.975	12.425	5.531	4.421	0.017
12655	130	10.500	-38.960	12.002	5.037	4.139	0.035
12656	130	7.721	-42.867	12.101	5.406	4.892	0.019
12657	130	7.200	-43.600	12.258	5.299	4.636	0.030
12658	130	10.667	-43.158	12.487	5.049	3.847	0.030
12659	130	11.441	-42.940	11.639	4.746	3.393	0.029
12660	130	12.513	-42.247	11.590	4.642	3.478	0.046
12661	130	8.600	-43.470	12.000	5.050	4.214	0.020
12662	130	8.600	-43.470	12.128	5.110	3.951	0.027
12663	130	11.224	-42.131	12.077	4.877	4.145	0.021
12664	130	11.500	-41.990	11.534	4.444	3.676	0.023
12665	130	13.218	-40.405	11.082	4.184	3.052	0.022
12666	130	14.051	-39.535	11.048	4.185	3.897	0.037
12667	130	8.700	-40.780	11.818	4.976	4.455	0.036
12668	130	9.609	-40.871	11.977	5.012	4.411	0.033
12669	130	10.200	-41.160	11.407	4.681	4.080	0.043
12670	130	10.200	-41.690	12.157	5.123	3.785	0.016
12671	130	10.478	-41.643	12.416	5.471	4.573	0.023
12672	130	13.400	-41.150	12.257	5.252	3.990	0.021
12673	130	12.709	-41.274	12.047	5.317	4.006	0.033

12674	130	9.600	-41.830	11.715	4.896	3.744	0.026
12675	130	9.986	-41.494	11.538	4.895	4.294	0.021
12676	130	12.300	-39.480	11.890	5.107	4.598	0.028
12677	130	11.668	-39.076	12.112	5.210	4.233	0.037
12678	130	11.000	-38.650	12.471	5.367	4.018	0.028
12679	130	9.152	-40.338	12.153	5.399	4.481	0.025
12680	131	8.800	-40.660	12.504	5.381	4.231	0.020
12681	131	9.204	-40.870	12.387	5.386	4.226	0.047
12682	131	9.240	-40.878	12.824	5.461	4.397	0.015
12683	131	9.000	-40.710	12.391	5.392	4.908	0.021
12684	131	7.917	-40.699	12.238	5.410	4.088	0.036
12685	131	5.100	-40.670	12.383	5.664	4.286	0.027
12686	131	5.714	-41.169	12.607	5.809	NaN	0.022
12687	131	6.600	-41.890	12.556	5.589	4.523	0.029
12688	131	6.463	-42.923	12.077	5.234	4.132	0.038
12689	131	6.400	-43.400	12.327	5.407	4.321	0.018
12690	131	8.322	-43.230	12.720	5.429	4.499	0.023
12691	131	9.000	-43.170	12.347	5.545	4.571	0.023
12692	131	9.246	-42.752	12.428	5.678	3.933	0.026
12693	131	9.191	-42.572	12.141	5.537	4.783	0.043
12694	131	8.400	-42.880	12.189	5.413	4.444	0.021
12695	131	8.400	-42.880	12.307	5.395	4.743	0.016
12696	131	8.564	-43.502	12.443	5.460	4.589	0.022
12697	131	8.600	-43.640	12.248	5.316	3.788	0.026
12698	131	9.331	-43.388	11.832	4.952	3.879	0.032
12699	131	10.029	-42.965	12.318	5.335	4.515	0.034
12700	131	11.300	-42.090	12.501	5.344	3.687	0.032
12701	131	9.042	-42.379	12.487	5.497	4.181	0.019
12702	131	7.449	-42.548	12.125	5.139	3.263	0.041
12703	131	8.400	-41.730	11.889	5.206	4.232	0.031
12704	131	8.919	-41.135	12.329	5.623	4.482	0.026
12705	131	9.900	-40.010	12.594	5.907	4.435	0.037
12706	131	9.809	-39.466	12.379	5.527	4.150	0.043
12707	131	8.381	-40.842	12.232	5.375	3.837	0.031
12708	131	7.600	-41.630	12.047	5.242	4.397	0.026
12709	131	8.133	-42.857	12.280	5.318	3.933	0.036
12710	132	7.300	-43.535	12.059	5.295	4.361	0.036
12711	132	6.515	-44.059	12.428	5.447	4.254	0.033
12712	132	10.200	-44.040	12.103	5.120	3.238	0.048
12713	132	9.817	-42.756	11.561	4.933	3.467	0.024
12714	132	9.800	-42.700	11.862	5.151	3.903	0.023
12715	132	10.580	-41.105	12.294	5.092	4.137	0.030

12716	132	10.696	-40.828	12.180	5.040	3.783	0.025
12717	132	10.600	-40.060	11.739	4.743	3.348	0.042
12718	132	9.563	-41.045	12.079	5.096	4.891	0.027
12719	132	9.200	-41.390	12.432	5.473	4.586	0.015
12720	132	8.015	-42.223	12.245	5.200	3.624	0.026
12721	132	6.400	-43.360	12.114	5.234	4.271	0.031
12722	132	7.082	-43.269	12.252	5.266	3.992	0.033
12723	132	7.186	-43.400	12.130	5.725	NaN	0.035
12724	132	6.900	-43.800	12.328	5.602	4.673	0.033
12725	132	9.623	-43.181	12.375	5.383	4.396	0.040
12726	132	11.033	-42.776	12.172	5.171	3.849	0.042
12727	132	11.261	-42.672	12.008	5.017	3.378	0.033
12728	132	10.200	-42.930	11.661	4.911	3.871	0.037
12729	132	11.735	-41.591	11.993	4.985	3.429	0.034
12730	132	12.000	-41.360	12.501	5.522	4.558	0.016
12731	132	10.734	-41.453	12.556	5.596	4.042	0.032
12732	132	9.652	-41.729	12.284	5.521	4.395	0.029
12733	132	6.400	-42.720	11.967	5.281	4.080	0.032
12734	132	8.569	-40.453	12.200	5.865	NaN	0.035
12735	132	9.707	-39.265	12.793	6.136	2.880	0.028
12736	132	9.900	-39.140	12.306	5.661	3.621	0.023
12737	132	9.500	-39.552	12.280	5.587	4.133	0.034
12738	132	8.200	-40.890	12.505	5.552	4.675	0.016
12739	132	8.200	-40.890	12.153	5.382	3.982	0.020
12740	132	8.129	-41.497	12.546	5.588	4.430	0.021
12741	133	8.100	-41.740	12.531	5.658	4.874	0.017
12742	133	9.500	-41.812	12.196	5.285	3.993	0.030
12743	133	11.600	-41.920	11.855	5.106	3.134	0.019
12744	133	10.927	-41.559	11.461	4.949	1.989	0.026
12745	133	9.100	-40.580	11.124	4.723	3.436	0.034
12746	133	12.518	-38.151	11.476	4.770	3.485	0.033
12747	133	13.800	-37.240	11.396	4.850	3.323	0.021
12748	133	12.454	-38.982	11.675	4.706	3.777	0.024
12749	133	12.019	-39.589	11.491	4.634	3.531	0.032
12750	133	9.500	-44.200	12.014	5.120	4.575	0.036
12751	133	8.530	-44.176	12.567	5.638	5.153	0.033
12752	133	8.700	-43.776	12.514	5.315	4.648	0.035
12753	133	13.500	-41.470	11.871	5.125	3.799	0.031
12754	133	12.433	-41.573	11.607	5.821	4.082	0.021
12755	133	10.300	-41.780	12.019	6.132	4.534	0.019
12756	133	10.300	-41.780	12.210	5.581	4.330	0.024
12757	133	9.900	-40.760	11.846	4.956	4.907	0.022

12758	133	9.900	-40.760	11.695	4.750	4.414	0.023
12759	133	11.900	-39.193	11.307	4.235	4.029	0.030
12760	133	12.276	-38.904	11.797	4.700	4.288	0.033
12761	133	12.200	-38.980	12.097	4.734	3.932	0.031
12762	133	8.209	-41.598	12.364	5.081	4.732	0.034
12763	133	7.531	-42.933	12.572	5.196	4.961	0.039
12764	133	10.300	-43.120	12.108	5.096	4.610	0.029
12765	133	11.015	-41.421	12.055	5.053	4.452	0.020
12766	133	11.600	-40.030	12.101	4.788	4.149	0.031
12767	133	11.812	-38.886	11.812	4.788	4.318	0.017
12768	133	12.000	-37.870	11.765	4.831	4.080	0.028
12769	133	12.639	-37.196	12.049	5.044	4.086	0.031
12770	133	13.100	-36.710	11.994	4.948	4.042	0.020
12771	134	12.762	-36.913	11.627	4.653	3.107	0.037
12772	134	12.300	-37.410	11.516	4.429	3.255	0.030
12773	134	10.800	-39.410	11.183	4.449	3.686	0.025
12774	134	10.386	-40.485	11.717	4.854	4.551	0.037
12775	134	9.900	-41.750	11.740	4.691	4.358	0.024
12776	134	11.535	-41.096	12.419	5.195	5.044	0.026
12777	134	12.400	-40.750	11.859	4.769	4.354	0.026
12778	134	12.896	-40.113	11.541	4.804	4.131	0.024
12779	134	13.100	-39.850	11.589	4.632	4.216	0.024
12780	134	12.978	-39.813	11.379	4.582	4.365	0.023
12781	134	12.900	-39.790	11.614	4.957	3.928	0.023
12782	134	10.839	-41.275	NaN	NaN	NaN	0.033
12783	134	10.057	-41.914	11.942	4.898	4.187	0.035
12784	134	13.400	-39.960	11.726	4.583	3.124	0.031
12785	134	13.778	-39.356	11.735	4.508	2.904	0.018
12786	134	15.100	-37.240	11.796	4.656	3.080	0.020
12787	134	15.100	-37.240	11.890	4.953	3.653	0.018
12788	134	14.012	-38.600	12.305	4.991	3.788	0.025
12789	134	13.500	-39.240	11.349	4.446	3.000	0.032
12790	134	12.726	-40.605	11.429	4.633	3.810	0.031
12791	134	11.969	-40.972	11.605	4.594	3.669	0.039
12792	134	11.200	-41.310	11.508	4.710	3.701	0.031
12793	134	8.600	-41.440	11.386	4.734	4.372	0.024
12794	134	8.600	-41.440	11.597	4.919	4.270	0.020
12795	134	11.457	-40.119	11.477	4.543	3.593	0.021
12796	134	12.600	-39.590	11.107	4.357	2.996	0.024
12797	134	11.234	-39.857	10.695	4.168	2.849	0.029
12798	134	10.400	-40.020	11.178	4.567	3.908	0.028
12799	134	9.560	-40.247	11.775	4.752	3.766	0.025

12800	134	9.400	-40.290	11.523	4.435	3.297	0.023
12801	134	8.032	-39.766	11.351	4.582	4.105	0.025
12802	135	7.600	-39.600	11.184	4.487	3.806	0.030
12803	135	9.991	-37.639	11.017	4.305	3.275	0.023
12804	135	10.119	-37.497	10.878	4.027	3.088	0.031
12805	135	10.300	-37.000	11.059	4.290	3.741	0.018
12806	135	10.307	-37.021	11.036	4.323	3.227	0.030
12807	135	10.500	-37.640	11.367	4.537	3.152	0.017
12808	135	10.500	-37.640	11.235	4.493	3.392	0.028
12809	135	10.061	-38.782	11.341	4.628	3.744	0.033
12810	135	9.235	-40.037	11.772	4.668	3.313	0.034
12811	135	8.000	-41.810	11.644	4.649	3.648	0.033
12812	135	8.720	-42.970	11.179	4.641	3.049	0.020
12813	135	8.650	-43.190	11.110	4.518	3.328	0.044
12814	135	7.800	-42.950	11.391	4.567	3.739	0.021
12815	135	7.800	-42.865	11.379	4.315	3.598	0.024
12816	135	7.800	-42.540	11.394	4.340	3.574	0.023
12817	135	7.853	-42.537	11.652	4.503	3.673	0.030
12818	135	8.000	-42.530	11.040	4.119	3.972	0.042
12819	135	12.000	-40.330	11.148	4.272	3.585	0.031
12820	135	12.425	-40.132	10.867	4.208	3.071	0.036
12821	135	12.308	-40.130	10.517	4.162	3.320	0.038
12822	135	8.400	-41.580	11.058	4.560	4.215	0.021
12823	135	9.135	-41.465	11.144	4.260	3.340	0.034
12824	135	10.900	-41.190	11.466	4.308	3.879	0.020
12825	135	11.913	-40.403	11.202	4.223	3.354	0.032
12826	135	13.017	-39.132	11.807	4.841	3.684	0.048
12827	135	10.800	-39.290	11.383	4.626	3.964	0.019
12828	135	9.491	-40.079	11.338	4.393	3.501	0.033
12829	135	7.200	-41.460	11.113	4.488	3.851	0.025
12830	135	7.858	-41.578	10.829	4.354	4.088	0.038
12831	135	8.971	-40.934	10.617	4.325	3.846	0.035
12832	135	10.900	-39.170	10.988	4.314	3.338	0.024
12833	136	12.050	-37.850	11.582	4.926	3.835	0.032
12834	136	11.817	-37.020	12.067	4.954	3.728	0.046
12835	136	7.900	-38.410	11.008	4.489	3.014	0.038
12836	136	8.600	-40.380	10.932	4.520	2.795	0.030
12837	136	9.176	-40.731	10.467	3.894	3.150	0.042
12838	136	10.005	-40.480	10.604	4.277	3.940	0.057
12839	136	10.833	-39.285	10.462	4.230	3.444	0.045
12840	136	11.330	-38.707	10.992	4.254	3.415	0.027
12841	136	12.100	-38.370	10.943	4.056	3.419	0.029

12842	136	11.371	-38.589	10.729	3.866	3.804	0.035
12843	136	10.362	-38.915	10.638	3.726	3.514	0.037
12844	136	9.700	-39.520	10.943	3.953	3.203	0.024
12845	136	9.667	-39.400	10.315	3.138	2.908	0.036
12846	136	9.600	-39.160	10.992	3.747	3.483	0.022
12847	136	10.776	-38.900	10.821	3.666	3.544	0.042
12848	136	11.475	-38.915	11.059	4.014	3.363	0.032
12849	136	11.000	-39.604	10.810	3.824	3.390	0.048
12850	136	8.200	-40.750	10.109	2.946	3.125	0.029
12851	136	8.822	-40.408	10.698	3.348	3.500	0.027
12852	136	9.600	-39.980	11.080	3.726	3.264	0.027
12853	136	8.100	-39.115	10.763	3.714	3.126	0.026
12854	136	7.000	-38.480	10.933	3.393	3.238	0.022
12855	136	7.665	-38.225	11.142	3.591	2.910	0.020
12856	136	8.900	-37.750	11.226	3.908	3.324	0.018
12857	136	8.900	-37.750	10.873	3.521	3.782	0.020
12858	136	8.728	-38.172	10.889	3.578	3.465	0.036
12859	136	9.838	-38.321	10.750	3.795	3.420	0.032
12860	136	11.372	-38.532	10.560	3.737	3.074	0.039
12861	136	9.000	-40.230	10.812	4.112	3.551	0.019
12862	136	9.000	-40.230	10.858	3.747	3.161	0.029
12863	137	9.000	-40.090	10.582	3.618	2.660	0.030
12864	137	9.143	-40.050	10.547	3.805	3.456	0.021
12865	137	12.000	-39.240	10.494	3.695	3.165	0.039
12866	137	12.381	-38.882	10.599	3.629	3.202	0.042
12867	137	11.300	-39.254	10.871	3.760	3.283	0.030
12868	137	9.500	-39.980	10.556	3.513	2.945	0.030
12869	137	9.985	-40.195	10.680	3.272	3.219	0.026
12870	137	10.200	-40.290	10.696	3.017	3.499	0.023
12871	137	11.268	-39.412	10.927	4.034	3.698	0.038
12872	137	11.100	-39.178	11.118	4.480	3.741	0.028
12873	137	9.600	-39.290	10.818	4.048	3.520	0.038
12874	137	7.265	-40.354	10.675	4.007	4.257	0.037
12875	137	8.946	-40.008	10.395	3.825	3.342	0.039
12876	137	10.306	-39.628	10.313	3.927	3.051	0.035
12877	137	8.400	-39.910	10.548	3.595	3.797	0.042
12878	137	7.840	-40.433	10.638	3.762	3.452	0.030
12879	137	8.433	-40.350	10.775	3.651	3.749	0.033
12880	137	9.700	-40.110	10.976	4.133	3.452	0.032
12881	137	10.390	-39.857	11.377	4.294	3.171	0.030
12882	137	10.065	-39.943	11.080	4.236	3.212	0.034
12883	137	8.000	-40.570	10.481	3.825	3.672	0.025

12884	137	8.978	-40.222	10.412	3.896	2.469	0.023
12885	137	12.500	-38.970	10.571	3.937	2.445	0.036
12886	137	12.190	-38.900	10.410	3.177	2.778	0.040
12887	137	11.176	-39.596	10.608	3.712	3.247	0.045
12888	137	10.500	-40.116	10.582	3.778	2.653	0.027
12889	137	10.500	-40.080	10.854	3.425	2.689	0.045
12890	137	10.500	-39.177	11.491	3.769	2.870	0.029
12891	137	10.256	-39.238	11.020	3.830	2.807	0.059
12892	137	9.907	-39.522	10.861	3.821	3.350	0.027
12893	137	9.700	-39.740	10.485	4.068	3.288	0.025
12894	138	11.093	-39.953	10.063	3.602	3.003	0.045
12895	138	11.845	-39.938	10.343	3.369	2.897	0.044
12896	138	10.258	-40.343	10.595	3.205	3.065	0.040
12897	138	7.900	-40.970	10.291	3.780	4.014	0.027
12898	138	6.750	-41.465	9.812	3.252	3.849	0.052
12899	138	5.809	-42.005	10.159	3.208	4.026	0.033
12900	138	6.300	-41.640	10.478	3.646	4.424	0.042
12901	138	7.325	-40.889	10.366	3.693	4.139	0.055
12902	138	8.357	-40.286	10.165	3.442	3.659	0.042
12903	138	9.267	-39.882	10.718	3.133	3.579	0.036
12904	138	10.600	-39.260	10.389	3.951	3.547	0.030
12905	138	8.745	-39.693	10.274	3.327	3.155	0.033
12906	138	7.000	-40.100	10.595	3.282	3.287	0.031
12907	138	9.857	-38.224	9.819	3.533	3.014	0.042
12908	138	9.729	-37.690	10.033	3.584	3.504	0.031
12909	138	8.808	-38.157	9.583	3.535	3.513	0.048
12910	138	7.260	-39.659	10.238	3.281	3.086	0.042
12911	138	6.300	-40.980	10.628	3.803	3.292	0.031
12912	138	4.989	-42.222	9.789	3.880	3.290	0.035
12913	138	4.600	-42.590	10.412	3.650	3.316	0.021
12914	138	6.223	-41.655	10.140	3.461	3.833	0.044
12915	138	8.273	-39.535	10.252	3.539	3.731	0.022
12916	138	9.667	-37.730	9.767	3.652	3.520	0.054
12917	138	10.200	-36.490	9.758	4.499	3.299	0.031
12918	138	3.574	-38.867	10.449	5.013	4.014	0.039
12919	138	4.382	-38.530	10.235	4.055	3.979	0.049
12920	138	7.730	-37.230	10.937	2.663	3.452	0.033
12921	138	9.532	-36.674	10.805	3.144	3.418	0.038
12922	138	8.452	-37.640	10.500	3.765	3.301	0.050
12923	138	6.100	-38.690	10.057	3.225	3.249	0.034
12924	138	4.789	-38.520	9.734	3.086	3.892	0.035
12925	138	5.463	-37.841	9.841	3.730	3.280	0.040

12926	138	7.755	-36.747	9.568	3.819	3.257	0.060
12927	138	7.952	-37.123	11.328	3.100	3.351	0.033
12928	138	6.000	-38.670	10.780	3.835	3.383	0.023
12929	138	5.856	-38.966	9.772	3.324	3.399	0.061
12930	138	5.227	-39.456	NaN	3.022	NaN	0.033
12931	139	5.100	-39.444	NaN	NaN	NaN	0.035
12932	139	5.100	-39.260	NaN	NaN	NaN	0.037
12933	139	10.188	-36.822	10.749	3.994	3.208	0.025
12934	139	10.067	-36.664	9.935	3.583	3.006	0.036
12935	139	8.854	-36.766	9.922	3.677	3.210	0.065
12936	139	8.475	-37.398	9.557	3.014	2.610	0.032
12937	139	9.100	-38.250	9.031	3.214	2.782	0.034
12938	139	6.310	-38.870	9.940	3.808	3.427	0.040
12939	139	7.696	-37.975	10.834	4.081	3.268	0.045
12940	139	9.893	-35.998	10.399	3.826	2.927	0.059
12941	139	7.547	-36.571	10.277	3.692	3.426	0.051
12942	139	5.136	-38.758	10.006	3.638	3.703	0.047
12943	139	6.764	-39.604	9.987	3.803	3.534	0.036
12944	139	8.700	-39.750	9.704	3.715	3.123	0.025
12945	139	9.041	-38.896	9.748	3.362	3.153	0.041
12946	139	7.863	-38.509	10.168	3.554	3.613	0.043
12947	139	6.695	-38.658	10.202	4.177	3.352	0.038
12948	139	6.000	-39.040	9.878	3.463	3.483	0.028
12949	139	7.492	-37.588	9.897	3.392	3.307	0.061
12950	139	9.200	-35.320	9.925	3.488	2.957	0.038
12951	139	7.283	-35.462	10.142	3.750	3.146	0.042
12952	139	6.271	-36.496	10.680	4.186	3.440	0.035
12953	139	6.122	-37.674	10.702	3.840	3.378	0.041
12954	139	7.000	-38.830	10.556	3.847	3.151	0.027
12955	139	7.167	-39.169	10.654	4.068	3.142	0.027
12956	139	7.300	-39.440	10.237	4.201	3.467	0.027
12957	139	8.786	-38.951	9.610	3.724	3.290	0.021
12958	139	9.700	-38.650	9.722	3.558	2.766	0.031
12959	139	8.491	-39.142	10.370	3.703	3.120	0.044
12960	139	7.427	-40.842	10.074	3.883	3.400	0.044
12961	139	6.129	-41.450	10.137	4.312	3.313	0.042
12962	139	5.103	-41.369	9.938	3.936	3.991	0.033
12963	139	4.392	-40.723	10.060	3.669	3.761	0.049
12964	139	7.200	-38.240	10.022	3.216	3.419	0.034
12965	139	9.953	-37.351	10.299	3.430	3.426	0.034
12966	139	8.833	-38.535	10.103	3.850	3.194	0.055
12967	139	6.800	-40.203	9.657	3.264	3.706	0.041

12968	139	7.739	-39.537	10.195	3.525	3.726	0.046
12969	140	9.500	-37.750	10.220	3.686	3.158	0.034
12970	140	10.200	-36.950	10.174	3.961	2.893	0.026
12971	140	8.521	-37.971	9.843	3.340	2.849	0.043
12972	140	6.125	-39.350	9.886	3.481	3.056	0.051
12973	140	5.700	-39.490	9.688	3.479	3.811	0.028
12974	140	7.507	-37.959	9.913	3.598	3.189	0.041
12975	140	6.991	-38.337	10.105	3.647	3.458	0.046
12976	140	5.962	-38.804	9.980	3.306	3.430	0.034
12977	140	5.028	-39.057	10.179	3.733	3.583	0.047
12978	140	4.530	-39.145	9.701	3.191	3.025	0.040
12979	140	4.700	-39.680	10.053	3.148	4.082	0.024
12980	140	5.400	-39.614	9.952	3.497	3.487	0.034
12981	140	6.400	-39.520	10.210	3.389	3.172	0.036
12982	140	5.400	-40.330	9.529	3.278	3.153	0.033
12983	140	4.430	-40.457	9.631	3.256	3.141	0.067
12984	140	8.900	-38.760	9.512	2.658	2.975	0.034
12985	140	8.741	-38.797	10.272	2.719	3.203	0.034
12986	140	7.973	-38.985	10.313	2.984	3.392	0.044
12987	140	6.316	-39.310	10.204	3.446	3.521	0.045
12988	140	6.911	-38.853	9.746	2.496	3.517	0.056
12989	140	8.106	-39.160	9.572	2.386	3.236	0.050
12990	140	7.002	-39.506	10.003	3.046	3.700	0.045
12991	140	8.416	-38.166	11.016	3.438	2.975	0.050
12992	140	8.466	-36.532	11.170	4.411	2.978	0.064
12993	140	7.811	-37.417	10.672	4.024	3.246	0.055
12994	140	8.527	-38.634	9.861	3.043	3.226	0.079
12995	140	8.000	-39.690	9.848	2.938	3.698	0.040
12996	140	5.113	-40.005	10.078	2.953	3.595	0.032
12997	140	7.070	-39.463	10.443	3.759	3.159	0.054
12998	140	9.132	-38.869	10.153	3.238	3.002	0.047
12999	140	7.877	-38.999	10.509	3.443	3.243	0.039
13000	140	6.613	-39.313	10.450	3.581	3.304	0.060
13001	140	7.200	-39.410	10.778	3.358	3.573	0.036
13002	140	7.157	-39.474	10.744	3.969	3.198	0.046
13003	140	7.040	-39.434	10.313	3.153	3.489	0.050
13004	140	7.144	-39.993	10.451	3.061	3.843	0.043
13005	140	6.400	-40.840	10.451	3.511	3.994	0.034
13006	140	6.897	-40.757	10.080	3.060	3.364	0.029
13007	141	7.297	-40.679	10.451	3.677	3.176	0.035
13008	141	7.125	-40.308	10.407	3.343	3.277	0.051
13009	141	5.300	-40.010	10.135	3.406	3.535	0.022

13010	141	5.359	-39.985	10.360	3.367	3.601	0.027
13011	141	6.900	-39.340	11.115	4.426	3.835	0.027
13012	141	7.161	-39.257	10.339	3.439	3.369	0.046
13013	141	7.150	-39.440	10.331	3.743	3.279	0.052
13014	141	7.357	-39.363	9.568	2.922	2.795	0.056
13015	141	8.986	-38.892	9.909	3.301	2.808	0.028
13016	141	10.583	-38.833	11.221	3.431	2.756	0.046
13017	141	5.800	-41.050	12.374	3.799	2.562	0.032
13018	141	5.274	-41.270	12.056	4.042	2.834	0.023
13019	141	5.302	-41.259	11.109	3.707	3.384	0.044
13020	141	9.983	-39.288	10.638	3.637	3.849	0.046
13021	141	9.200	-38.730	10.698	3.769	3.735	0.040
13022	141	8.068	-39.409	10.984	4.097	2.847	0.047
13023	141	6.464	-40.009	11.088	3.969	3.656	0.033
13024	141	6.872	-40.055	10.989	4.154	3.159	0.043
13025	141	9.300	-39.630	11.015	4.017	3.346	0.030
13026	141	9.791	-39.311	10.781	3.945	2.979	0.033
13027	141	9.772	-39.291	11.294	4.501	2.750	0.025
13028	141	8.300	-39.880	11.230	4.504	2.921	0.033
13029	141	8.233	-40.067	10.610	3.941	2.701	0.045
13030	141	7.788	-40.025	10.918	4.398	2.580	0.032
13031	141	7.100	-39.800	11.551	4.840	3.509	0.036
13032	141	8.243	-39.257	11.340	4.114	2.767	0.042
13033	141	8.008	-39.770	11.040	4.048	2.672	0.037
13034	141	7.959	-40.029	10.856	3.633	2.631	0.056
13035	141	8.264	-40.049	10.733	3.830	2.880	0.036
13036	141	8.385	-40.009	10.803	3.885	3.620	0.034
13037	141	7.200	-39.724	10.316	3.305	3.495	0.050
13038	141	NaN	-38.690	9.947	2.985	3.201	0.040
13039	141	7.049	-38.466	10.154	3.228	3.164	0.041
13040	141	7.783	-38.622	9.898	3.103	2.755	0.029
13041	141	6.895	-38.949	10.492	3.538	3.292	0.039
13042	141	6.800	-40.410	10.655	3.713	3.280	0.041
13043	141	6.583	-41.192	11.269	4.270	3.351	0.058
13044	141	9.200	-39.250	11.408	4.094	4.049	0.027
13045	142	9.126	-39.280	10.787	3.878	3.058	0.035
13046	142	9.000	-39.330	10.739	3.844	2.694	0.032
13047	142	7.102	-40.939	10.512	3.773	3.385	0.052
13048	142	9.843	-39.635	10.876	3.840	3.319	0.054
13049	142	5.800	-39.450	10.730	4.190	3.372	0.048
13050	142	7.632	-37.859	11.339	4.498	3.936	0.028
13051	142	7.889	-37.554	10.686	4.018	3.625	0.037

13052	142	7.752	-37.492	10.788	4.004	2.970	0.050
13053	142	7.494	-38.591	10.787	4.032	3.537	0.068
13054	142	7.062	-39.246	11.018	4.001	3.458	0.037
13055	142	5.598	-39.756	10.219	3.610	3.826	0.047
13056	142	5.556	-39.953	9.971	3.457	3.339	0.036
13057	142	8.111	-39.202	10.038	3.303	3.349	0.055
13058	142	7.467	-39.575	10.545	3.696	3.845	0.046
13059	142	7.000	-40.800	10.635	3.975	4.221	0.022
13060	142	7.978	-40.947	10.673	3.859	3.674	0.045
13061	142	8.863	-41.155	10.608	3.649	3.648	0.038
13062	142	7.600	-41.250	10.977	4.052	3.643	0.026
13063	142	5.893	-41.274	10.585	3.831	3.924	0.041
13064	142	6.800	-41.060	10.357	3.598	3.278	0.050
13065	142	8.839	-40.650	10.715	3.574	3.550	0.041
13066	142	8.837	-40.353	10.834	3.715	3.155	0.043
13067	142	8.600	-40.290	11.054	3.745	3.150	0.032
13068	142	7.351	-40.337	10.539	3.501	3.911	0.041
13069	142	7.168	-40.165	10.264	3.442	3.440	0.031
13070	142	7.400	-39.910	10.147	3.383	3.583	0.027
13071	142	10.273	-39.305	10.335	3.508	3.364	0.041
13072	142	9.788	-39.847	10.505	3.649	3.891	0.034
13073	142	8.000	-40.780	10.682	3.870	4.128	0.034
13074	142	6.928	-41.160	10.554	3.538	3.379	0.040
13075	142	7.335	-40.126	10.439	3.616	3.772	0.040
13076	142	7.875	-39.750	10.684	3.843	3.960	0.028
13077	142	9.000	-39.810	10.700	3.871	4.063	0.039
13078	142	9.089	-41.174	10.905	4.113	3.780	0.035
13079	142	9.555	-41.128	10.441	3.732	3.898	0.044
13080	142	10.257	-40.451	10.568	3.812	3.411	0.037
13081	142	11.000	-39.390	10.805	3.948	3.381	0.026
13082	142	10.071	-38.976	10.737	3.867	4.140	0.042
13083	143	9.203	-39.175	10.785	4.095	3.549	0.031
13084	143	8.300	-39.840	10.454	3.604	3.823	0.033
13085	143	6.555	-40.633	10.694	3.828	3.661	0.029
13086	143	6.636	-40.908	10.637	3.716	3.961	0.042
13087	143	7.708	-40.989	10.308	3.665	3.445	0.048
13088	143	8.000	-40.880	10.570	3.969	3.619	0.024
13089	143	8.000	-40.591	10.801	4.095	3.320	0.035
13090	143	8.729	-40.198	10.801	4.014	3.215	0.041
13091	143	10.300	-39.720	10.646	3.927	3.586	0.032
13092	143	8.280	-40.001	10.795	3.992	4.101	0.041
13093	143	8.533	-39.373	10.772	4.038	3.497	0.030

13094	143	9.000	-38.790	10.635	3.744	2.875	0.029
13095	143	10.425	-38.550	10.688	3.825	2.572	0.020
13096	143	10.900	-38.470	10.091	3.425	2.377	0.035
13097	143	10.300	-39.070	10.627	3.690	3.215	0.036
13098	143	9.829	-39.052	10.711	3.763	3.080	0.034
13099	143	8.725	-39.388	10.718	3.802	3.110	0.040
13100	143	6.400	-40.430	10.275	3.296	3.365	0.035
13101	143	6.848	-41.577	10.268	3.436	4.156	0.048
13102	143	8.142	-41.673	11.689	4.260	3.807	0.026
13103	143	8.569	-41.653	11.263	4.159	3.203	0.032
13104	143	7.600	-41.420	10.627	3.863	3.996	0.039
13105	143	8.733	-40.433	10.866	3.961	4.004	0.030
13106	143	9.300	-39.940	10.601	3.831	3.219	0.029
13107	143	6.538	-38.930	10.654	3.783	3.446	0.021
13108	143	6.374	-38.855	10.849	4.085	3.468	0.031
13109	143	5.600	-38.100	11.122	4.036	3.352	0.035
13110	143	6.521	-38.520	10.984	3.873	3.851	0.033
13111	143	7.200	-38.830	10.758	3.752	3.416	0.029
13112	143	7.858	-39.281	11.650	3.748	3.442	0.033
13113	143	7.052	-39.866	12.117	3.833	3.455	0.033
13114	143	5.900	-40.620	11.781	4.405	3.743	0.031
13115	143	5.819	-42.316	11.800	4.756	3.890	0.026
13116	143	7.188	-42.251	11.465	4.657	3.895	0.049
13117	143	9.019	-41.284	11.255	4.492	3.495	0.047
13118	143	8.641	-40.801	11.158	4.239	3.782	0.034
13119	143	6.700	-41.510	10.772	3.841	3.401	0.025
13120	143	6.259	-41.881	10.808	3.969	3.326	0.034
13121	144	5.200	-42.770	11.005	4.176	3.731	0.023
13122	144	6.194	-42.318	10.813	4.116	4.393	0.031
13123	144	7.400	-41.770	10.536	3.702	3.696	0.028
13124	144	10.936	-39.895	10.255	3.234	2.710	0.045
13125	144	10.442	-39.719	10.331	3.509	3.056	0.050
13126	144	10.270	-39.112	10.672	3.702	3.284	0.040
13127	144	11.319	-37.468	10.664	3.631	3.062	0.047
13128	144	11.095	-36.393	10.774	4.153	2.897	0.042
13129	144	9.134	-37.133	10.463	3.794	3.254	0.047
13130	144	8.700	-38.290	10.719	3.835	3.198	0.034
13131	144	8.268	-38.920	10.789	3.893	3.348	0.022
13132	144	8.466	-39.315	10.543	3.583	3.410	0.044
13133	144	9.023	-40.122	10.593	4.258	3.593	0.039
13134	144	7.600	-42.000	10.687	4.273	3.807	0.026
13135	144	8.133	-42.000	10.570	3.827	3.833	0.033

13136	144	9.200	-42.000	10.862	4.154	3.799	0.025
13137	144	8.690	-42.162	10.655	3.696	3.034	0.020
13138	144	7.500	-42.540	10.529	3.649	3.302	0.029
13139	144	7.242	-43.309	10.874	3.771	3.535	0.031
13140	144	7.000	-44.030	11.238	4.261	3.850	0.027
13141	144	7.837	-44.156	10.907	4.153	4.401	0.043
13142	144	9.547	-42.815	11.055	4.229	4.303	0.030
13143	144	10.900	-41.620	11.036	3.963	3.710	0.030
13144	144	10.138	-41.375	10.896	3.906	3.220	0.026
13145	144	10.000	-41.283	11.239	4.060	3.529	0.042
13146	144	10.000	-41.190	11.353	4.367	3.677	0.028
13147	144	8.479	-41.103	11.715	4.518	3.417	0.029
13148	144	8.674	-41.327	11.533	4.219	3.960	0.042
13149	144	10.408	-41.904	11.344	4.271	4.481	0.040
13150	144	10.500	-41.950	11.543	4.174	3.963	0.044
NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
14551	182	7.914	-35.555	10.028	3.287	3.142	0.058
14552	182	6.394	-36.004	9.578	3.083	3.202	0.068
14553	182	4.806	-37.229	9.928	3.200	3.914	0.051
14554	182	6.242	-37.158	10.259	3.653	3.845	0.031
14555	182	8.205	-36.168	9.836	3.440	3.316	0.085
14556	182	2.723	-37.985	10.067	3.423	4.044	0.057
14557	182	4.700	-37.010	10.210	3.357	4.223	0.031
14558	182	6.288	-35.584	9.245	2.880	2.976	0.074
14559	182	5.550	-35.399	9.811	3.138	3.374	0.050
14560	182	7.777	-35.098	9.629	3.095	2.969	0.066
14561	182	6.352	-36.363	9.441	3.311	3.225	0.075
14562	182	4.778	-36.687	9.955	3.392	3.435	0.055
14563	182	6.109	-36.431	9.667	3.187	2.969	0.077
14564	182	6.720	-36.258	9.723	3.187	3.060	0.055
14565	182	6.309	-36.607	9.753	3.160	3.232	0.055
14566	182	5.778	-36.820	9.968	3.257	3.309	0.046
14567	182	4.954	-37.552	9.967	3.280	3.101	0.071
14568	182	6.100	-37.610	10.067	3.228	3.327	0.043
14569	182	8.308	-35.920	9.528	2.886	2.822	0.050
14570	182	6.229	-35.378	NaN	3.091	3.162	0.056
14571	182	3.000	-37.120	10.451	3.513	3.908	0.036
14572	182	4.926	-37.388	10.400	3.647	3.878	0.068
14573	182	6.724	-37.873	9.601	3.384	3.448	0.071
14574	182	5.953	-38.504	9.469	3.481	3.149	0.051
14575	182	6.860	-37.304	9.831	3.022	3.453	0.050
14576	182	6.419	-35.832	9.968	3.171	3.134	0.062

14577	182	5.991	-37.116	10.007	3.381	3.550	0.066
14578	182	5.300	-38.420	10.153	3.282	3.903	0.035
14579	182	6.617	-38.420	9.656	3.132	3.473	0.064
14580	182	5.878	-36.648	9.653	3.104	3.640	0.059
14581	183	7.041	-34.324	9.780	3.165	3.404	0.069
14582	183	8.392	-33.708	9.774	3.096	3.465	0.052
14583	183	7.914	-34.064	9.787	3.155	3.217	0.028
14584	183	7.591	-34.149	9.493	2.876	3.310	0.047
14585	183	9.766	-33.338	9.768	3.170	3.399	0.047
14586	183	8.377	-34.418	9.730	3.088	3.368	0.060
14587	183	5.626	-37.196	9.833	3.222	3.609	0.084
14588	183	6.000	-37.180	10.287	3.590	4.004	0.044
14589	183	6.750	-37.611	10.333	3.572	4.054	0.048
14590	183	6.807	-38.686	9.767	3.197	3.557	0.059
14591	183	11.900	-37.070	9.815	3.138	3.772	0.042
14592	183	10.300	-34.341	9.879	3.176	3.547	0.036
14593	183	9.319	-34.738	9.934	3.216	3.707	0.062
14594	183	6.806	-36.383	10.039	3.293	3.663	0.049
14595	183	5.634	-37.081	9.763	3.230	3.814	0.068
14596	183	6.609	-35.994	9.904	3.255	3.941	0.043
14597	183	6.700	-35.060	10.014	3.204	3.664	0.043
14598	183	5.245	-35.671	10.184	3.350	3.580	0.080
14599	183	5.085	-36.800	10.302	3.311	3.619	0.053
14600	183	7.200	-36.885	10.249	4.113	3.989	0.040
14601	183	7.241	-37.035	10.512	3.922	3.534	0.041
14602	183	4.625	-37.688	10.276	3.576	3.695	0.052
14603	183	3.830	-37.068	10.282	3.820	3.833	0.040
14604	183	4.200	-35.070	10.294	3.922	3.968	0.032
14605	183	5.004	-34.689	10.155	4.015	3.416	0.026
14606	183	5.956	-34.433	9.776	3.396	3.517	0.061
14607	183	5.867	-35.140	9.987	3.393	3.837	0.042
14608	183	6.444	-35.614	10.014	3.411	3.683	0.041
14609	183	8.200	-35.570	10.075	3.437	3.586	0.040
14610	183	7.006	-37.007	9.659	3.144	3.652	0.069
14611	183	6.563	-37.896	9.133	2.934	3.680	0.038
14612	183	5.900	-37.100	9.305	3.248	3.353	0.040
14613	183	6.352	-35.788	9.681	3.287	3.567	0.061
14614	183	5.100	-36.930	9.812	2.921	3.527	0.047
14615	183	4.500	-38.780	10.272	3.355	4.128	0.032
14616	183	6.053	-38.864	10.184	3.246	4.039	0.051
14617	183	6.103	-38.380	10.337	3.323	3.902	0.032
14618	184	5.373	-37.739	10.392	3.782	3.694	0.037

14619	184	8.329	-37.041	10.541	3.719	3.778	0.051
14620	184	7.171	-37.365	10.597	3.969	3.762	0.049
14621	184	6.582	-36.800	10.261	3.975	3.778	0.066
14622	184	6.720	-36.116	9.956	3.794	3.845	0.040
14623	184	6.920	-35.096	10.141	3.246	3.514	0.070
14624	184	6.269	-34.770	10.091	3.208	3.738	0.045
14625	184	4.792	-35.644	9.658	2.994	3.492	0.059
14626	184	4.555	-36.442	9.946	3.155	3.632	0.069
14627	184	4.877	-37.456	10.229	3.389	3.739	0.061
14628	184	5.600	-37.930	10.295	3.602	3.857	0.031
14629	184	5.869	-37.823	10.616	3.797	3.859	0.067
14630	184	5.791	-37.957	10.759	4.066	3.864	0.044
14631	184	5.009	-39.490	9.989	3.589	3.855	0.057
14632	184	6.300	-39.740	10.292	3.327	3.587	0.034
14633	184	8.083	-39.428	10.492	3.662	3.607	0.046
14634	184	10.380	-37.473	NaN	NaN	NaN	0.035
14635	184	10.650	-37.165	NaN	3.064	4.648	0.032
14636	184	9.300	-38.230	10.971	3.589	4.102	0.033
14637	184	9.576	-38.754	10.744	3.929	4.291	0.029
14638	184	9.663	-39.011	10.929	4.139	3.998	0.032
14639	184	9.100	-39.330	10.471	3.713	3.943	0.033
14640	184	9.397	-39.360	10.056	3.519	3.673	0.037
14641	184	7.671	-39.543	9.640	3.338	3.482	0.049
14642	184	6.462	-38.698	10.576	3.786	3.925	0.042
14643	184	7.604	-36.481	10.731	3.697	3.567	0.072
14644	184	7.092	-35.559	10.534	3.631	4.055	0.059
14645	184	6.167	-36.304	10.164	3.377	3.596	0.060
14646	184	6.100	-37.770	10.501	3.697	3.687	0.033
14647	184	7.261	-37.155	10.274	3.692	3.313	0.041
14648	184	6.363	-37.038	10.064	3.512	3.545	0.076
14649	184	3.000	-39.560	9.787	3.255	3.887	0.035
14650	184	3.431	-40.048	10.541	3.531	3.856	0.039
14651	184	4.887	-38.743	10.695	3.677	4.037	0.053
14652	184	5.979	-36.977	10.316	3.406	3.892	0.047
14653	184	5.979	-36.306	10.417	3.598	3.718	0.056
14654	185	5.776	-37.579	10.456	3.725	3.651	0.042
14655	185	6.926	-37.772	9.781	3.267	3.496	0.062
14656	185	5.794	-37.212	9.680	3.300	3.927	0.035
14657	185	5.840	-36.292	9.802	3.238	3.617	0.040
14658	185	7.923	-34.672	9.950	3.360	3.279	0.039
14659	185	5.840	-37.980	9.920	3.292	4.134	0.060
14660	185	4.062	-40.524	10.430	3.619	4.122	0.047

14661	185	7.682	-39.633	10.114	3.416	3.657	0.045
14662	185	7.206	-38.156	10.215	3.462	3.754	0.049
14663	185	2.700	-38.550	10.507	3.635	4.558	0.047
14664	185	4.200	-37.190	10.556	3.725	4.118	0.048
14665	185	4.200	-36.654	10.138	3.539	4.043	0.047
14666	185	4.735	-36.452	10.007	3.460	3.837	0.046
14667	185	4.667	-36.343	9.932	3.313	4.170	0.027
14668	185	4.800	-36.336	10.312	3.252	3.772	0.034
14669	185	8.000	-36.910	11.030	3.870	3.863	0.034
14670	185	6.853	-37.733	10.740	3.809	3.854	0.043
14671	185	6.351	-37.388	10.682	3.664	3.860	0.043
14672	185	5.667	-37.320	11.264	4.198	4.272	0.042
14673	185	3.785	-39.101	11.161	4.122	4.236	0.055
14674	185	3.809	-39.726	10.587	4.078	4.207	0.045
14675	185	5.527	-38.883	10.668	4.194	4.221	0.041
14676	185	5.000	-37.970	10.898	4.296	3.922	0.043
14677	185	4.049	-37.532	10.613	4.290	4.385	0.041
14678	185	3.583	-38.449	10.347	4.194	5.182	0.023
14679	185	3.766	-39.099	10.113	3.950	3.519	0.061
14680	185	4.661	-38.340	10.651	4.205	4.037	0.044
14681	185	4.651	-37.658	10.720	4.272	3.434	0.035
14682	185	5.500	-37.130	10.759	4.198	3.856	0.024
14683	185	5.500	-36.490	11.025	4.293	3.968	0.053
14684	185	5.880	-35.689	10.982	4.246	3.882	0.040
14685	185	5.463	-36.197	11.042	4.500	4.257	0.043
14686	185	3.472	-38.688	10.928	4.345	4.064	0.047
14687	185	4.200	-40.410	10.930	4.413	4.424	0.028
14688	185	4.851	-40.490	10.831	4.064	3.908	0.047
14689	185	5.236	-41.064	10.735	4.158	3.844	0.050
14690	186	4.594	-42.199	11.334	4.572	4.395	0.035
14691	186	4.707	-43.202	11.550	4.548	4.217	0.042
14692	186	6.700	-43.940	11.552	4.484	4.133	0.029
14693	186	8.665	-43.012	10.960	4.295	4.351	0.031
14694	186	9.879	-42.248	10.778	4.206	4.238	0.042
14695	186	10.500	-41.530	11.406	4.716	4.169	0.036
14696	186	8.261	-44.032	11.851	5.205	4.718	0.038
14697	186	9.529	-43.935	12.162	5.410	4.720	0.024
14698	186	11.100	-43.740	11.792	5.147	4.507	0.016
14699	186	10.453	-43.717	11.476	4.824	4.347	0.034
14700	186	9.100	-43.670	11.506	4.853	4.203	0.030
14701	186	11.020	-42.665	11.304	4.752	3.968	0.025
14702	186	12.100	-42.100	11.202	4.854	3.717	0.017

14703	186	11.062	-42.200	11.372	4.778	3.970	0.026
14704	186	9.100	-42.390	11.424	5.022	4.426	0.034
14705	186	8.306	-41.858	11.879	5.455	4.638	0.018
14706	187	7.800	-41.520	11.775	4.897	4.479	0.022
14707	187	8.348	-41.330	11.478	4.567	4.088	0.023
14708	187	9.900	-40.790	11.886	5.043	4.458	0.023
14709	187	9.554	-41.676	11.552	4.637	4.200	0.037
14710	187	9.100	-42.840	11.785	4.739	4.576	0.021
14711	187	10.200	-42.579	11.804	4.679	4.338	0.024
14712	187	11.500	-42.270	11.740	4.612	3.751	0.034
14713	187	10.837	-41.504	11.759	4.907	4.164	0.019
14714	187	10.600	-41.230	11.918	5.028	4.398	0.028
14715	187	9.153	-41.883	11.834	4.770	4.384	0.015
14716	187	7.500	-42.630	11.816	4.784	4.259	0.017
14717	187	7.500	-42.630	11.908	4.942	4.731	0.020
14718	187	7.574	-42.438	11.755	4.865	4.670	0.023
14719	187	7.600	-42.370	11.562	4.803	4.453	0.019
14720	187	9.893	-41.203	11.280	4.423	3.725	0.043
14721	187	10.422	-40.787	11.392	4.518	4.237	0.027
14722	187	8.400	-41.300	11.583	4.829	5.039	0.020
14723	187	8.628	-41.236	NaN	NaN	NaN	0.025
14724	187	14.100	-39.710	10.970	4.280	3.522	0.040
14725	187	8.422	-44.296	12.089	5.001	4.581	0.032
14726	187	7.242	-45.760	12.364	5.492	5.148	0.038
14727	188	9.800	-44.950	12.183	5.302	5.012	0.025
14728	188	11.831	-41.961	11.579	4.795	4.080	0.051
14729	189	11.739	-41.219	12.196	5.363	4.925	0.018
14730	189	9.500	-42.230	11.894	4.884	3.998	0.023
14731	189	9.500	-42.230	11.591	4.890	4.088	0.021
14732	189	7.505	-43.703	11.444	5.005	4.286	0.020
14733	189	7.400	-43.780	11.878	5.597	4.811	0.020
14734	189	8.836	-42.761	12.156	5.410	4.428	0.039
14735	189	9.586	-42.137	11.731	4.904	4.189	0.035
14736	189	9.900	-41.760	11.474	4.820	3.850	0.036
14737	189	12.296	-42.268	11.353	4.367	4.188	0.024
14738	189	12.400	-42.290	11.750	4.650	3.419	0.026
14739	189	9.667	-42.973	11.595	4.989	3.792	0.042
14740	189	9.783	-41.876	12.177	5.218	4.655	0.023
14741	189	9.900	-41.160	11.922	4.842	4.225	0.026
14742	189	11.280	-39.990	11.644	4.735	3.952	0.025
14743	189	12.200	-39.210	11.358	4.512	3.539	0.033
14744	189	10.119	-40.468	11.706	4.915	4.204	0.021

14745	189	9.847	-40.874	12.417	5.139	4.322	0.034
14746	189	9.300	-43.700	12.073	4.961	3.908	0.030
14747	189	9.094	-43.001	12.180	4.987	4.281	0.035
14748	189	8.921	-42.281	11.624	4.663	4.193	0.033
14749	189	9.600	-40.390	11.077	4.349	3.938	0.036
14750	189	9.705	-41.129	11.722	4.732	4.352	0.020
14751	189	9.900	-42.500	11.655	4.665	3.727	0.026
14752	189	9.900	-42.472	11.948	4.916	4.236	0.019
14753	189	9.900	-42.230	12.013	4.951	4.233	0.020
14754	189	10.300	-41.439	11.668	4.666	3.682	0.036
14755	189	11.700	-38.670	11.814	4.855	3.990	0.024
14756	189	11.471	-38.527	11.606	4.859	4.172	0.021
14757	189	10.100	-37.670	11.629	4.799	3.966	0.027
14758	189	10.100	-37.670	11.840	5.042	4.159	0.018
14759	189	8.639	-40.281	12.248	5.533	3.840	0.023
14760	189	8.500	-40.530	12.918	6.142	3.868	0.019
14761	189	8.238	-40.734	12.474	6.292	4.233	0.021
14762	189	8.000	-40.920	11.877	6.134	4.080	0.034
14763	190	8.825	-39.795	11.504	4.817	3.843	0.020
14764	190	9.100	-39.420	11.617	4.828	4.129	0.014
14765	190	8.642	-40.099	11.660	4.719	3.844	0.036
14766	190	8.000	-41.050	11.651	4.623	4.151	0.026
14767	190	10.400	-39.280	11.516	4.537	3.930	0.036
14768	190	11.366	-38.760	11.467	4.569	3.957	0.029
14769	190	12.000	-39.030	11.396	4.767	4.261	0.043
14770	190	8.400	-40.986	11.361	4.727	4.231	0.037
14771	190	7.594	-41.634	12.005	4.932	4.355	0.034
14772	190	7.029	-42.100	12.280	5.132	4.171	0.035
14773	190	6.600	-42.400	12.025	5.142	4.700	0.022
14774	190	7.053	-42.500	12.140	5.109	4.400	0.034
14775	190	8.000	-42.710	11.956	5.086	4.026	0.031
14776	190	7.500	-44.060	12.225	5.373	4.625	0.018
14777	190	7.078	-44.701	12.149	5.338	4.454	0.045
14778	190	6.900	-41.190	11.969	5.247	4.466	0.033
14779	191	8.282	-40.105	12.204	5.142	4.262	0.017
14780	191	11.600	-37.500	11.864	4.801	3.706	0.027
14781	191	9.798	-40.029	11.802	4.764	4.777	0.043
14782	191	8.617	-42.188	11.773	4.792	4.575	0.030
14783	191	9.200	-43.880	11.997	4.945	4.686	0.031
14784	191	9.317	-43.493	12.209	5.224	4.736	0.023
14785	191	9.500	-42.890	12.072	5.080	4.576	0.028
14786	191	9.339	-42.601	12.306	5.367	4.784	0.028

14787	191	9.200	-42.350	11.887	5.163	4.353	0.030
14788	191	8.979	-40.906	11.716	4.972	4.338	0.019
14789	191	8.900	-40.390	11.870	4.943	4.197	0.027
14790	191	11.032	-39.074	11.354	4.727	3.893	0.034
14791	191	11.719	-38.570	11.396	4.785	3.901	0.026
14792	191	9.700	-37.820	11.643	4.935	3.883	0.026
14793	191	9.848	-37.656	11.758	5.251	3.933	0.027
14794	191	10.700	-36.710	11.141	5.283	3.459	0.017
14795	191	10.407	-37.076	11.286	4.854	3.348	0.041
14796	191	9.700	-37.960	11.823	4.931	3.996	0.023
14797	191	10.250	-38.225	11.174	4.402	3.487	0.030
14798	191	10.642	-38.581	11.281	4.516	3.860	0.038
14799	191	8.800	-39.640	11.851	4.882	4.429	0.039
14800	191	10.343	-39.077	12.252	5.061	4.256	0.035
14801	191	11.141	-38.997	11.421	4.642	3.688	0.027
14802	191	13.100	-39.500	11.365	4.776	4.231	0.041
14803	191	8.431	-41.614	11.756	5.045	4.569	0.042
14804	191	7.800	-41.098	11.743	4.772	3.743	0.024
14805	191	NaN	-40.150	11.616	4.608	3.541	0.027
14806	191	7.260	-39.387	11.730	4.692	3.479	0.045
14807	191	10.209	-38.951	11.544	4.804	3.762	0.035
14808	191	10.500	-38.800	11.853	5.202	4.141	0.020
14809	191	9.512	-39.908	12.193	5.351	4.830	0.025
14810	191	8.600	-40.930	12.375	5.466	4.605	0.035
14811	191	10.271	-40.206	11.925	5.159	4.117	0.028
14812	191	10.314	-40.350	12.028	5.071	3.849	0.028
14813	191	9.800	-41.550	11.919	4.977	3.783	0.025
14814	191	9.800	-41.550	11.789	4.988	3.928	0.020
14815	191	10.092	-42.320	11.724	4.928	4.066	0.039
14816	191	10.878	-42.694	11.801	4.914	4.049	0.041
14817	191	11.523	-42.166	11.656	4.903	4.424	0.031
14818	191	12.200	-40.750	12.031	5.101	4.407	0.019
14819	191	10.942	-40.882	11.997	4.970	3.768	0.031
14820	191	8.300	-41.160	12.301	5.188	3.868	0.024
14821	191	8.300	-41.160	12.063	5.116	3.971	0.015
14822	191	9.548	-41.803	11.813	4.960	3.686	0.025
14823	191	9.600	-41.830	11.643	4.908	3.639	0.026
14824	191	10.500	-41.960	11.786	5.079	4.099	0.021
14825	191	9.758	-42.395	11.875	4.993	3.788	0.040
14826	192	7.800	-43.540	11.675	4.858	3.974	0.017
14827	192	7.800	-43.540	11.847	5.109	4.742	0.015
14828	192	8.774	-43.415	11.971	5.149	4.584	0.023

14829	192	9.200	-43.360	12.217	5.183	4.378	0.025
14830	192	9.035	-43.426	12.281	5.308	4.825	0.020
14831	192	8.900	-43.480	12.052	5.105	4.604	0.036
14832	192	8.900	-44.515	12.109	5.308	4.873	0.023
14833	192	NaN	-44.670	12.290	5.446	4.991	0.016
14834	192	NaN	-43.404	12.052	5.178	4.392	0.035
14835	192	NaN	-42.125	12.115	5.146	4.132	0.035
14836	192	NaN	-40.020	12.116	5.091	4.098	0.024
14837	192	NaN	-40.932	11.421	4.566	3.450	0.031
14838	192	NaN	-42.590	11.546	4.809	4.282	0.028
14839	192	NaN	-41.460	NaN	NaN	NaN	0.029
14840	192	NaN	-40.770	NaN	4.863	4.459	0.030
14841	192	NaN	-41.196	12.213	5.186	4.268	0.027
14842	192	NaN	-40.669	11.851	5.037	4.112	0.038
14843	192	NaN	-39.590	11.890	5.056	4.152	0.026
14844	192	NaN	-38.123	11.700	4.779	3.405	0.035
14845	192	NaN	-37.450	11.913	4.903	3.421	0.024
14846	192	NaN	-37.109	11.539	4.787	3.524	0.016
14847	192	NaN	-37.060	11.758	4.879	3.797	0.024
14848	192	NaN	-39.992	11.401	4.726	3.611	0.037
14849	192	NaN	-41.630	11.756	4.938	4.015	0.032
14850	192	NaN	-42.450	12.111	5.220	4.489	0.020