



Rig Mass Flow Rate Calculations

Please Enter Parameters in highlighted boxes below

Engine Data File		
Ambient Conditions		
Air Temperature	5	[C]
Atmospheric Pressure	975	[mBar]
Air Humidity	95	[%]
Viper Engine Parameters		
Engine Air Intake Mass Flow	18.7	[Kg/s]
Butane Flow Rate	1732	[Ltr/h]
Engine Speed	12150	[RPM]
ETC	650	[C]
Gas Delivery System Data File		
Gas Delivery System		
Mixed Gas (Fuel) Mass Flow rate	0.133	[Kg/s]
Oxygen Mass Flow rate	0.148	[Kg/s]

Please do not change anything in this box

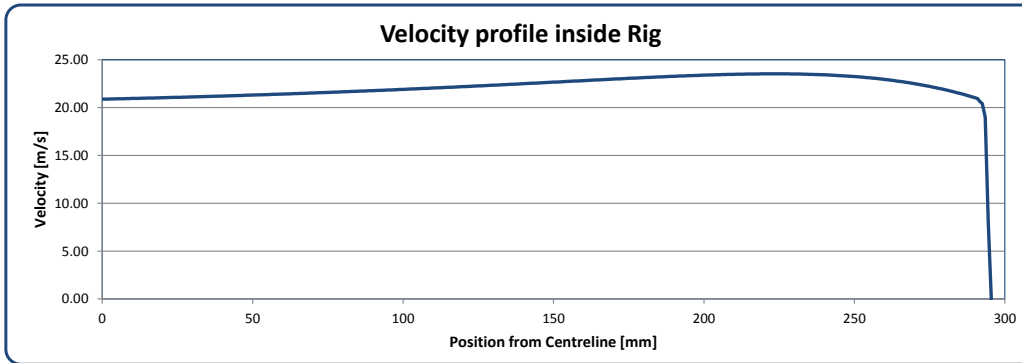
Test Date and Time = 13.05.2015 15:31:57.8

Calculated Parameters		
Air density	1.217898	[Kg/m3]
Liquid Butane density	584	[Kg/m3]
Butane mass Flow rate	0.280969	[Kg/s]
Air Fuel Ratio	79.23263	[]
Calculated Exhaust gas properties (Reaction Engines)		
Exhaust products density	0.389	[Kg/m3]
Pitot Traverse Results		
Rig Gas flow rate - Integrated	2.387331	[Kg/s]
Total Rig Mass flow		
	2.668331	[Kg/s]
Rig Gas Temperature as read from TC 11		
Gas Temperature	515	[C]

Bruce Ewan to fill in

Note

Manual for viper 201 gives figures for fuel flow rate to be as follows at maximum power					
Fuel Flow	2035	lb/hr	to	2920	lb/hr
	925	Kg/hr		1327.273	Kg/hr
	1156.25	ltr/hr		1659.091	ltr/hr



Data Acquisition Parameters

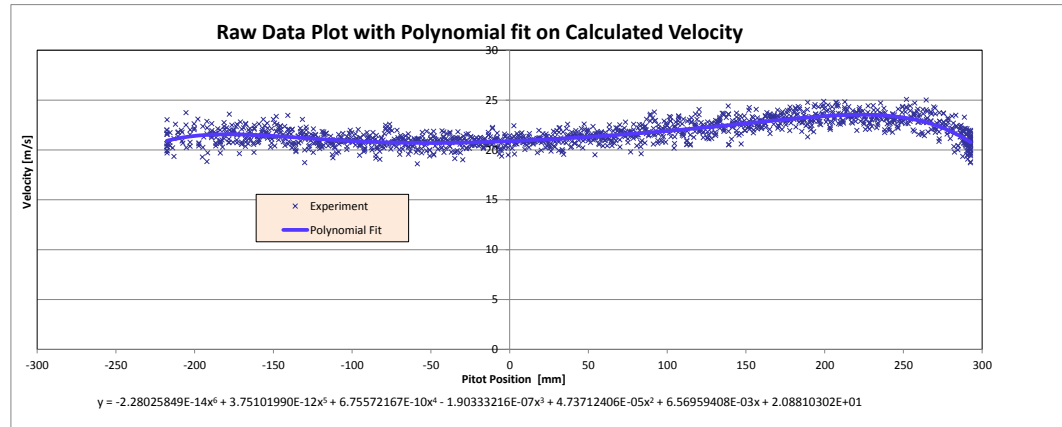
Sampling Rate	1000	[Hz]
No of samples recorded	100	Samples
Averaged samples sampling	10	[Hz]
Pitot Traverse speed	7	[mm/s]
Distance Travelled every 0.1	0.7	[mm]

Averaged Pitot dp 0.918916049 Average Vel 21.7294549 [m/s]

Raw Data from CSV File

Date and time [dd:mm:yyyy hh:mm:ss.ms]	Pitot Position from rig centre [mm]	TC11 - Pitot [deg C]	Pitot dP [mBar]	O2 %
13.05.2015 15:31:57.8	-217.6	513.2	0.9413	15.98
13.05.2015 15:31:57.9	-217.54	513.3	0.9052	15.71
13.05.2015 15:31:58.0	-217.54	513.3	1.0317	15.87
13.05.2015 15:31:58.1	-217.56	513.2	0.9403	15.78
13.05.2015 15:31:58.2	-217.53	513.2	0.9159	15.66
13.05.2015 15:31:58.3	-217.51	513.3	0.9051	15.65
13.05.2015 15:31:58.4	-217.56	513.4	0.8281	15.78
13.05.2015 15:31:58.5	-217.55	513.3	0.7742	15.79
13.05.2015 15:31:58.6	-217.55	513.3	0.8003	15.56
13.05.2015 15:31:58.7	-217.55	513.4	0.8258	15.56
13.05.2015 15:31:58.8	-217.51	513.2	0.7709	15.68
13.05.2015 15:31:58.9	-217.57	513.1	0.8089	15.55
13.05.2015 15:31:59.0	-217.52	513.1	0.7544	15.65
13.05.2015 15:31:59.1	-217.53	513.2	0.806	15.74
13.05.2015 15:31:59.2	-217.15	512.9	0.8369	15.91
13.05.2015 15:31:59.3	-215.6	512.8	0.9182	15.62
13.05.2015 15:31:59.4	-215.74	512.9	0.838	15.52
13.05.2015 15:31:59.5	-215.71	512.8	0.8106	15.76
13.05.2015 15:31:59.6	-213.96	512.7	0.7947	15.66
13.05.2015 15:31:59.7	-213.07	512.7	0.7286	15.71
13.05.2015 15:31:59.8	-213.15	512.9	0.8701	15.61
13.05.2015 15:31:59.9	-212.16	512.8	0.9918	15.69
13.05.2015 15:32:00.0	-210.41	512.6	0.9257	16.03
13.05.2015 15:32:00.1	-210.62	512.7	0.9184	15.72
13.05.2015 15:32:00.2	-210.54	512.8	0.8869	15.77
13.05.2015 15:32:00.3	-208.41	512.8	0.9393	15.82
13.05.2015 15:32:00.4	-208	512.8	0.85	15.77
13.05.2015 15:32:00.5	-207.98	512.8	0.9225	15.69
13.05.2015 15:32:00.6	-207.49	512.9	0.8322	15.52
13.05.2015 15:32:00.7	-205.25	512.8	0.797	15.98
13.05.2015 15:32:00.8	-205.46	512.7	0.9851	15.77
13.05.2015 15:32:00.9	-205.44	512.7	1.0966	15.57
13.05.2015 15:32:01.0	-202.88	512.8	0.904	15.72
13.05.2015 15:32:01.1	-202.85	512.7	0.8389	15.7
13.05.2015 15:32:01.2	-202.85	512.6	0.8071	15.62
13.05.2015 15:32:01.3	-202.77	512.8	0.9432	15.55
13.05.2015 15:32:01.4	-200.16	512.8	0.9573	15.76
13.05.2015 15:32:01.5	-200.33	512.7	0.945	15.7
13.05.2015 15:32:01.6	-200.33	512.7	0.9957	15.56
13.05.2015 15:32:01.7	-197.91	512.9	1.0378	15.49
13.05.2015 15:32:01.8	-197.27	512.9	0.8345	15.57
13.05.2015 15:32:01.9	-197.38	512.6	0.8095	15.94
13.05.2015 15:32:02.0	-197.33	512.7	0.8262	15.69
13.05.2015 15:32:02.1	-195.07	512.8	0.7238	15.56
13.05.2015 15:32:02.2	-194.78	512.9	0.9732	15.68
13.05.2015 15:32:02.3	-194.79	512.8	0.7975	15.78
13.05.2015 15:32:02.4	-194.2	512.8	0.882	15.54
13.05.2015 15:32:02.5	-191.97	512.8	0.9598	15.7
13.05.2015 15:32:02.6	-192.21	512.7	1.0165	15.55
13.05.2015 15:32:02.7	-192.24	512.8	0.9081	15.61
13.05.2015 15:32:02.8	-189.11	512.8	0.9964	15.69
13.05.2015 15:32:02.9	-189.3	512.9	0.9034	15.71
13.05.2015 15:32:03.0	-189.3	512.8	0.8901	15.74
13.05.2015 15:32:03.1	-189.06	512.8	0.9368	15.58
13.05.2015 15:32:03.2	-186.56	512.9	0.8102	15.69
13.05.2015 15:32:03.3	-186.71	513	0.9151	15.79
13.05.2015 15:32:03.4	-186.67	512.7	0.8339	15.71
13.05.2015 15:32:03.5	-185.28	512.7	0.9522	15.75
13.05.2015 15:32:03.6	-183.63	512.9	0.8448	15.74

Calculated Velocity [m/s]
21.9990652
21.5730957
23.0312183
21.9873766
21.7002245
21.571904
20.6339127
19.951097
20.2846074
20.6052381
19.9085312
20.3933005
19.6943221
20.356716
20.7432586
21.7274541
20.7568863
20.4147233
20.2135133
19.3546259
21.1507018
22.581472
21.8160103
21.7298203
21.3539157
21.9756818
20.9049754
21.7782703
20.6849299
20.2427428
22.5050694
23.7445705
21.5587915
20.7680296
20.3706023
22.0212564
22.1852449
22.042259
22.6258264
23.0992049
20.7134942
20.400867
20.6102278
19.2907666
22.3687259
20.2490915
21.2948453
22.2141945
22.8609297
21.607625
22.6337782
21.5516358
21.3924043
21.9464176
20.4096857
21.6907453
20.7060465
22.1260702
20.8409326



13.05.2015 15:32:03.7	-183.75	512.8	0.9422	15.83	22.0095796
13.05.2015 15:32:03.8	-183.78	512.6	0.8416	15.81	20.8014237
13.05.2015 15:32:03.9	-182.3	512.6	0.8007	15.64	20.289676
13.05.2015 15:32:04.0	-181.07	512.7	0.9485	15.71	22.0830403
13.05.2015 15:32:04.1	-181.2	512.6	0.9718	15.79	22.3526308
13.05.2015 15:32:04.2	-180.39	512.5	0.92	15.77	21.7487405
13.05.2015 15:32:04.3	-178.01	512.5	1.0828	15.71	23.5946924
13.05.2015 15:32:04.4	-178.31	512.6	0.9129	15.48	21.6646562
13.05.2015 15:32:04.5	-178.25	512.6	0.8403	15.69	20.7853518
13.05.2015 15:32:04.6	-176.37	512.6	0.9832	15.78	22.4833557
13.05.2015 15:32:04.7	-175.67	512.7	0.8394	15.79	20.7742178
13.05.2015 15:32:04.8	-175.64	512.8	0.9209	15.72	21.7593758
13.05.2015 15:32:04.9	-175.68	512.8	0.9391	15.83	21.9733421
13.05.2015 15:32:05.0	-173.55	512.8	0.971	15.53	22.3434284
13.05.2015 15:32:05.1	-173.09	513	0.8973	15.56	21.4787514
13.05.2015 15:32:05.2	-173.09	513	0.8355	15.55	20.7259012
13.05.2015 15:32:05.3	-171.55	513.1	0.7496	15.55	19.6315679
13.05.2015 15:32:05.4	-170.04	513	0.8248	15.6	20.5927584
13.05.2015 15:32:05.5	-170.18	513.1	0.8404	15.55	20.7865885
13.05.2015 15:32:05.6	-170.15	513	0.8226	15.62	20.5652763
13.05.2015 15:32:05.7	-167.59	512.9	0.8783	15.66	21.2501323
13.05.2015 15:32:05.8	-167.66	512.8	0.8397	15.58	20.7779298
13.05.2015 15:32:05.9	-167.63	512.8	0.8634	15.5	21.0691114
13.05.2015 15:32:06.0	-165.75	512.9	0.9432	15.65	22.0212564
13.05.2015 15:32:06.1	-165	512.6	0.9259	15.63	21.8183668
13.05.2015 15:32:06.2	-165.03	512.6	0.8746	15.68	21.205325
13.05.2015 15:32:06.3	-164.77	512.8	0.9015	15.42	21.5289606
13.05.2015 15:32:06.4	-162.33	512.7	0.7598	15.54	19.7646825
13.05.2015 15:32:06.5	-162.51	512.7	0.8217	15.61	20.5540231
13.05.2015 15:32:06.6	-162.47	512.7	0.8362	15.69	20.7345817
13.05.2015 15:32:06.7	-160.24	512.7	0.8848	15.71	21.3286199
13.05.2015 15:32:06.8	-159.85	512.7	0.8972	15.92	21.4775545
13.05.2015 15:32:06.9	-159.89	512.6	0.8354	15.72	20.7246609
13.05.2015 15:32:07.0	-159.32	512.6	0.8422	15.55	20.8088374
13.05.2015 15:32:07.1	-157.1	512.6	0.9363	15.76	21.94056
13.05.2015 15:32:07.2	-157.37	512.5	0.9205	15.81	21.7546497
13.05.2015 15:32:07.3	-157.36	512.4	0.8915	15.64	21.4092213
13.05.2015 15:32:07.4	-155.6	512.6	0.9783	15.41	22.4272603
13.05.2015 15:32:07.5	-154.69	512.6	0.9139	15.67	21.6765188
13.05.2015 15:32:07.6	-154.7	512.5	0.925	15.77	21.8077602
13.05.2015 15:32:07.7	-154.54	512.5	0.9099	15.63	21.6290293
13.05.2015 15:32:07.8	-151.67	512.6	0.8784	15.62	21.251342
13.05.2015 15:32:07.9	-151.81	512.6	0.8833	15.61	21.310533
13.05.2015 15:32:08.0	-151.81	512.6	0.8007	15.67	20.289676
13.05.2015 15:32:08.1	-150.66	512.6	0.8889	15.81	21.3779792
13.05.2015 15:32:08.2	-149.11	512.8	0.8103	15.55	20.4109452
13.05.2015 15:32:08.3	-149.21	512.8	0.8803	15.66	21.2743132
13.05.2015 15:32:08.4	-149.26	512.7	1.0023	15.59	22.7006902
13.05.2015 15:32:08.5	-147.8	512.8	0.9903	15.55	22.5643894
13.05.2015 15:32:08.6	-146.56	512.7	0.9435	15.88	22.0247582
13.05.2015 15:32:08.7	-146.68	512.8	0.9628	15.97	22.2488843
13.05.2015 15:32:08.8	-146.69	512.7	0.8596	15.65	21.0226955
13.05.2015 15:32:08.9	-143.7	512.8	0.9042	15.51	21.5611762
13.05.2015 15:32:09.0	-143.73	512.9	0.8885	15.66	21.3731687
13.05.2015 15:32:09.1	-143.7	512.7	0.8436	15.71	20.8261256
13.05.2015 15:32:09.2	-142.73	512.6	0.8766	15.71	21.2295569
13.05.2015 15:32:09.3	-140.6	512.8	0.8245	15.71	20.589013
13.05.2015 15:32:09.4	-140.81	512.8	0.9471	15.77	22.0667368
13.05.2015 15:32:09.5	-140.8	512.7	1.0709	15.71	23.4646811
13.05.2015 15:32:09.6	-138.72	512.5	0.9079	15.8	21.6052455
13.05.2015 15:32:09.7	-138.21	512.8	0.9433	15.52	22.0224237
13.05.2015 15:32:09.8	-138.22	512.8	0.8278	15.69	20.6301748
13.05.2015 15:32:09.9	-138.21	512.5	0.796	16.01	20.2300395
13.05.2015 15:32:10.0	-135.91	512.6	0.7898	15.87	20.1511002
13.05.2015 15:32:10.1	-135.69	512.8	0.7732	15.66	19.9382079
13.05.2015 15:32:10.2	-135.62	512.8	0.7654	15.63	19.8373852
13.05.2015 15:32:10.3	-133.85	512.7	0.8347	15.7	20.7159762
13.05.2015 15:32:10.4	-132.67	512.7	0.9275	15.61	21.8372103
13.05.2015 15:32:10.5	-132.66	512.8	0.8487	15.57	20.8889831
13.05.2015 15:32:10.6	-132.68	512.7	0.9071	15.72	21.5957246
13.05.2015 15:32:10.7	-130.03	512.6	0.8887	15.74	21.3755741

13.05.2015 15:32:10.8	-130.17	512.7	0.7776	15.65	19.994858
13.05.2015 15:32:10.9	-130.11	512.7	0.682	15.89	18.7254552
13.05.2015 15:32:11.0	-129.97	512.7	0.8633	15.88	21.0678912
13.05.2015 15:32:11.1	-127.42	512.6	0.8631	15.7	21.0654507
13.05.2015 15:32:11.2	-127.62	512.7	0.7827	15.64	20.0603203
13.05.2015 15:32:11.3	-127.55	512.7	0.8066	15.73	20.3642915
13.05.2015 15:32:11.4	-127.08	512.6	0.8146	15.86	20.4650307
13.05.2015 15:32:11.5	-124.46	512.5	0.8309	15.73	20.6687673
13.05.2015 15:32:11.6	-124.66	512.7	0.7595	15.52	19.7607801
13.05.2015 15:32:11.7	-124.61	512.7	0.9514	15.7	22.1167735
13.05.2015 15:32:11.8	-121.8	512.5	0.8367	15.7	20.7407798
13.05.2015 15:32:11.9	-121.74	512.5	0.8744	15.66	21.2029003
13.05.2015 15:32:12.0	-121.68	512.7	0.8396	15.49	20.7766925
13.05.2015 15:32:12.1	-121.66	512.8	0.8117	15.6	20.4285701
13.05.2015 15:32:12.2	-119	512.7	0.9287	15.57	21.8513322
13.05.2015 15:32:12.3	-119.2	512.7	0.7986	15.55	20.2630516
13.05.2015 15:32:12.4	-119.12	512.9	0.8073	15.53	20.3731261
13.05.2015 15:32:12.5	-118.13	513	0.8138	15.74	20.4549791
13.05.2015 15:32:12.6	-116.4	512.9	0.9142	15.61	21.6800763
13.05.2015 15:32:12.7	-116.58	512.9	0.9126	15.46	21.6610961
13.05.2015 15:32:12.8	-116.14	513	0.8511	15.56	20.9184977
13.05.2015 15:32:12.9	-113.44	512.9	0.8596	15.78	21.0226955
13.05.2015 15:32:13.0	-113.65	512.8	0.8401	15.56	20.7828781
13.05.2015 15:32:13.1	-113.64	513	0.8879	15.48	21.3659509
13.05.2015 15:32:13.2	-112.19	513	0.7179	15.64	19.2119821
13.05.2015 15:32:13.3	-110.93	512.9	0.7953	15.88	20.2211424
13.05.2015 15:32:13.4	-111.04	512.9	0.8035	15.86	20.3251209
13.05.2015 15:32:13.5	-110.38	513	0.8555	15.54	20.9725001
13.05.2015 15:32:13.6	-108.26	513.1	0.8248	15.82	20.5927584
13.05.2015 15:32:13.7	-108.5	513	0.7623	15.94	19.797172
13.05.2015 15:32:13.8	-108.54	512.9	0.9035	15.77	21.5528286
13.05.2015 15:32:13.9	-106.62	513.2	0.8401	15.57	20.7828781
13.05.2015 15:32:14.0	-105.85	513.3	0.9122	15.72	21.6563485
13.05.2015 15:32:14.1	-105.89	513.2	0.8479	15.74	20.8791356
13.05.2015 15:32:14.2	-105.63	513.3	0.8437	15.7	20.8273599
13.05.2015 15:32:14.3	-103.21	513.4	0.8057	15.58	20.3529272
13.05.2015 15:32:14.4	-103.33	513.5	0.8856	15.86	21.3382599
13.05.2015 15:32:14.5	-103.36	513.3	0.7816	15.59	20.0462191
13.05.2015 15:32:14.6	-101.84	513.3	0.9147	15.44	21.6860042
13.05.2015 15:32:14.7	-100.27	513.4	0.9189	15.58	21.7357346
13.05.2015 15:32:14.8	-100.4	513.4	0.8787	15.71	21.2549707
13.05.2015 15:32:14.9	-100.41	513.3	0.8495	15.63	20.8988259
13.05.2015 15:32:15.0	-97.87	513.4	0.8507	15.36	20.9135815
13.05.2015 15:32:15.1	-97.82	513.4	0.9081	15.82	21.607625
13.05.2015 15:32:15.2	-97.85	513.3	0.8171	15.83	20.4964101
13.05.2015 15:32:15.3	-96.08	513.2	0.9455	15.91	22.0480895
13.05.2015 15:32:15.4	-95.21	513.4	0.8753	15.65	21.2138093
13.05.2015 15:32:15.5	-95.29	513.4	0.7377	15.69	19.4751176
13.05.2015 15:32:15.6	-95.03	513.2	0.806	15.72	20.356716
13.05.2015 15:32:15.7	-92.54	513.2	0.7656	15.59	19.8399768
13.05.2015 15:32:15.8	-92.75	513.2	0.8994	15.44	21.5038706
13.05.2015 15:32:15.9	-92.67	513.3	0.8294	15.51	20.6501025
13.05.2015 15:32:16.0	-90.49	513.1	0.9198	15.71	21.7463763
13.05.2015 15:32:16.1	-90.14	513	0.8447	15.78	20.8396991
13.05.2015 15:32:16.2	-90.11	513.2	0.8621	15.88	21.0532438
13.05.2015 15:32:16.3	-89.57	513.1	0.8403	15.96	20.7853518
13.05.2015 15:32:16.4	-87.35	513	0.7782	15.74	20.0025705
13.05.2015 15:32:16.5	-87.58	513	0.7971	15.82	20.2440127
13.05.2015 15:32:16.6	-87.57	513.2	0.8371	15.76	20.745737
13.05.2015 15:32:16.7	-84.96	513.1	0.7157	16.02	19.182522
13.05.2015 15:32:16.8	-85.02	513	0.8646	15.88	21.0837478
13.05.2015 15:32:16.9	-84.99	513.1	0.7387	15.83	19.488313
13.05.2015 15:32:17.0	-84.09	513.2	0.7877	15.95	20.1242924
13.05.2015 15:32:17.1	-82.17	513.2	0.8153	15.96	20.4738218
13.05.2015 15:32:17.2	-82.44	513.1	0.7671	15.9	19.859403
13.05.2015 15:32:17.3	-82.42	513.2	0.7067	15.79	19.0615294
13.05.2015 15:32:17.4	-80.33	513.2	0.8577	15.88	20.9994491
13.05.2015 15:32:17.5	-79.82	513.1	0.7933	15.91	20.1957006
13.05.2015 15:32:17.6	-79.85	513	0.829	15.73	20.6451224
13.05.2015 15:32:17.7	-79.36	513.1	0.8158	15.7	20.4800988
13.05.2015 15:32:17.8	-76.7	513.2	0.9207	15.86	21.7570129

13.05.2015 15:32:17.9	-76.89	513	0.8404	15.91	20.7865885
13.05.2015 15:32:18.0	-76.93	513	0.8166	15.87	20.4901381
13.05.2015 15:32:18.1	-75.39	513.4	0.7845	15.68	20.0833738
13.05.2015 15:32:18.2	-74.24	513.4	0.842	15.83	20.8063664
13.05.2015 15:32:18.3	-74.35	513.3	0.8274	15.95	20.6251899
13.05.2015 15:32:18.4	-73.55	513.5	0.8159	15.86	20.481354
13.05.2015 15:32:18.5	-71.52	513.7	0.9395	15.96	21.9780213
13.05.2015 15:32:18.6	-71.81	513.7	0.8353	15.84	20.7234204
13.05.2015 15:32:18.7	-71.76	513.7	0.8037	16	20.3276503
13.05.2015 15:32:18.8	-69.78	513.8	0.7445	15.73	19.564671
13.05.2015 15:32:18.9	-69.17	514.1	0.8728	15.84	21.1834926
13.05.2015 15:32:19.0	-69.2	514.1	0.8951	15.77	21.4524044
13.05.2015 15:32:19.1	-67.96	514.2	0.7833	15.55	20.0680078
13.05.2015 15:32:19.2	-66.5	514.3	0.8189	15.57	20.5189736
13.05.2015 15:32:19.3	-66.62	514.5	0.8186	15.61	20.5152147
13.05.2015 15:32:19.4	-66.6	514.5	0.8552	15.78	20.9688225
13.05.2015 15:32:19.5	-64.23	514.6	0.7449	15.7	19.569926
13.05.2015 15:32:19.6	-64.11	514.8	0.8055	15.48	20.3504009
13.05.2015 15:32:19.7	-64.05	514.9	0.7981	15.6	20.2567073
13.05.2015 15:32:19.8	-64.05	514.8	0.8747	15.7	21.2065373
13.05.2015 15:32:19.9	-61.42	514.8	0.8107	15.61	20.4159824
13.05.2015 15:32:20.0	-61.49	514.9	0.8051	15.59	20.3453474
13.05.2015 15:32:20.1	-61.49	514.9	0.8395	15.67	20.7754552
13.05.2015 15:32:20.2	-59.32	514.7	0.7601	15.81	19.768584
13.05.2015 15:32:20.3	-58.51	514.7	0.785	15.66	20.0897728
13.05.2015 15:32:20.4	-58.57	514.9	0.6736	15.51	18.6097799
13.05.2015 15:32:20.5	-58.27	515	0.775	15.65	19.9614023
13.05.2015 15:32:20.6	-55.81	514.9	0.7557	15.78	19.7112837
13.05.2015 15:32:20.7	-56.01	514.9	0.8267	15.82	20.6164633
13.05.2015 15:32:20.8	-55.95	515	0.788	15.85	20.1281243
13.05.2015 15:32:20.9	-53.66	515.1	0.8441	15.92	20.8322965
13.05.2015 15:32:21.0	-53.41	515.1	0.8483	15.98	20.8840599
13.05.2015 15:32:21.1	-53.4	515.2	0.8131	15.69	20.4461799
13.05.2015 15:32:21.2	-52.78	515.2	0.7712	15.63	19.9124046
13.05.2015 15:32:21.3	-50.63	515.2	0.7764	15.73	19.9794239
13.05.2015 15:32:21.4	-50.87	515.3	0.7784	15.64	20.0051407
13.05.2015 15:32:21.5	-50.8	515.4	0.7311	15.55	19.3878026
13.05.2015 15:32:21.6	-48.13	515.5	0.7398	15.58	19.5028177
13.05.2015 15:32:21.7	-48.32	515.4	0.7456	15.82	19.579119
13.05.2015 15:32:21.8	-48.28	515.3	0.9306	15.56	21.8736733
13.05.2015 15:32:21.9	-47.26	515.5	0.811	15.51	20.4197596
13.05.2015 15:32:22.0	-45.53	515.6	0.7835	15.77	20.0705696
13.05.2015 15:32:22.1	-45.66	515.4	0.8319	15.73	20.6812012
13.05.2015 15:32:22.2	-45.38	515.4	0.8506	15.53	20.9123523
13.05.2015 15:32:22.3	-42.92	515.6	0.9343	15.51	21.9171143
13.05.2015 15:32:22.4	-43.18	515.6	0.7949	15.69	20.2160566
13.05.2015 15:32:22.5	-43.11	515.4	0.7968	16.01	20.2402028
13.05.2015 15:32:22.6	-41.69	515.5	0.7593	15.63	19.7581782
13.05.2015 15:32:22.7	-40.47	515.6	0.8697	15.63	21.1458395
13.05.2015 15:32:22.8	-40.53	515.5	0.8385	15.68	20.7630778
13.05.2015 15:32:22.9	-40.51	515.4	0.7908	15.85	20.1638532
13.05.2015 15:32:23.0	-37.92	515.4	0.9117	15.66	21.6504125
13.05.2015 15:32:23.1	-38.01	515.5	0.8073	15.46	20.3731261
13.05.2015 15:32:23.2	-37.96	515.4	0.8069	15.72	20.3680783
13.05.2015 15:32:23.3	-37	515.3	0.7613	15.57	19.7841826
13.05.2015 15:32:23.4	-34.82	515.4	0.7127	15.54	19.1422761
13.05.2015 15:32:23.5	-35.05	515.4	0.7592	15.56	19.756877
13.05.2015 15:32:23.6	-35.04	515.4	0.8714	15.69	21.1664963
13.05.2015 15:32:23.7	-33.24	515.3	0.7731	15.52	19.9369185
13.05.2015 15:32:23.8	-32.82	515.6	0.8518	15.39	20.9270983
13.05.2015 15:32:23.9	-32.85	515.7	0.9265	15.5	21.825435
13.05.2015 15:32:24.0	-31.32	515.5	0.7574	15.56	19.7334422
13.05.2015 15:32:24.1	-29.76	515.5	0.7033	15.54	19.0156207
13.05.2015 15:32:24.2	-29.9	515.6	0.823	15.43	20.5702758
13.05.2015 15:32:24.3	-29.9	515.7	0.7951	15.83	20.2185997
13.05.2015 15:32:24.4	-27.36	515.5	0.8557	15.8	20.9749514
13.05.2015 15:32:24.5	-27.35	515.5	0.7887	15.64	20.1370625
13.05.2015 15:32:24.6	-27.32	515.6	0.795	15.53	20.2173282
13.05.2015 15:32:24.7	-25.55	515.6	0.7909	15.57	20.1651281
13.05.2015 15:32:24.8	-24.78	515.5	0.8814	15.6	21.2876009
13.05.2015 15:32:24.9	-24.74	515.6	0.8239	15.45	20.5815202

13.05.2015 15:32:25.0	-24.58	515.7	0.8869	15.49	21.3539157
13.05.2015 15:32:25.1	-22.05	515.5	0.8579	15.71	21.0018973
13.05.2015 15:32:25.2	-22.19	515.6	0.8646	15.49	21.0837478
13.05.2015 15:32:25.3	-22.2	515.7	0.8145	15.51	20.4637745
13.05.2015 15:32:25.4	-20.98	515.8	0.8408	15.63	20.7915348
13.05.2015 15:32:25.5	-19.48	515.8	0.8404	15.67	20.7865885
13.05.2015 15:32:25.6	-19.64	515.8	0.8646	15.5	21.0837478
13.05.2015 15:32:25.7	-19.65	515.8	0.8096	15.48	20.402127
13.05.2015 15:32:25.8	-16.83	515.9	0.8435	15.54	20.8248912
13.05.2015 15:32:25.9	-16.67	515.6	0.8007	15.7	20.289676
13.05.2015 15:32:26.0	-16.68	515.5	0.7899	15.37	20.1523758
13.05.2015 15:32:26.1	-15.99	515.7	0.8624	15.39	21.0569066
13.05.2015 15:32:26.2	-13.91	515.6	0.822	15.6	20.5577749
13.05.2015 15:32:26.3	-14.15	515.4	0.8172	15.67	20.4976643
13.05.2015 15:32:26.4	-14.09	515.3	0.8336	15.52	20.7023216
13.05.2015 15:32:26.5	-12.25	515.4	0.8832	15.55	21.3093267
13.05.2015 15:32:26.6	-11.49	515.3	0.8184	15.82	20.5127085
13.05.2015 15:32:26.7	-11.52	515.2	0.8513	15.66	20.9209554
13.05.2015 15:32:26.8	-11.23	515.2	0.8231	15.52	20.5715255
13.05.2015 15:32:26.9	-8.43	515.2	0.8728	15.38	21.1834926
13.05.2015 15:32:27.0	-8.62	515.1	0.8607	15.56	21.0361422
13.05.2015 15:32:27.1	-8.64	515	0.8051	15.68	20.3453474
13.05.2015 15:32:27.2	-7.41	515	0.8004	15.44	20.2858746
13.05.2015 15:32:27.3	-6.26	515	0.7799	15.91	20.0244067
13.05.2015 15:32:27.4	-6.42	514.9	0.7462	15.71	19.5869953
13.05.2015 15:32:27.5	-5.68	514.8	0.8298	15.55	20.6550815
13.05.2015 15:32:27.6	-3.23	514.9	0.9071	15.43	21.5957246
13.05.2015 15:32:27.7	-3.52	514.9	0.8462	15.7	20.8581942
13.05.2015 15:32:27.8	-3.49	514.7	0.7918	15.73	20.1765982
13.05.2015 15:32:27.9	-1.66	514.6	0.8357	15.7	20.7283817
13.05.2015 15:32:28.0	-0.85	514.7	0.7984	15.54	20.2605141
13.05.2015 15:32:28.1	-0.88	514.7	0.7392	15.69	19.4949074
13.05.2015 15:32:28.2	-0.63	514.4	0.8418	15.67	20.8038952
13.05.2015 15:32:28.3	1.79	514.4	0.8711	15.43	21.1628525
13.05.2015 15:32:28.4	1.64	514.5	0.791	15.59	20.1664029
13.05.2015 15:32:28.5	1.69	514.6	0.8499	15.59	20.9037456
13.05.2015 15:32:28.6	3.13	514.4	0.746	15.62	19.5843702
13.05.2015 15:32:28.7	4.74	514.5	0.9107	15.9	21.6385356
13.05.2015 15:32:28.8	4.63	514.7	0.8252	15.51	20.5977511
13.05.2015 15:32:28.9	4.62	514.7	0.8582	15.58	21.0055691
13.05.2015 15:32:29.0	7.08	514.7	0.9089	15.72	21.6171407
13.05.2015 15:32:29.1	7.15	514.7	0.8819	15.49	21.2936381
13.05.2015 15:32:29.2	7.16	514.8	0.8473	15.48	20.8717469
13.05.2015 15:32:29.3	8.86	514.8	0.836	15.7	20.732102
13.05.2015 15:32:29.4	9.84	514.7	0.8247	15.64	20.59151
13.05.2015 15:32:29.5	9.73	515	0.7814	15.45	20.0436542
13.05.2015 15:32:29.6	9.91	515	0.8704	15.62	21.1543477
13.05.2015 15:32:29.7	12.49	514.9	0.8657	15.76	21.0971556
13.05.2015 15:32:29.8	12.27	514.8	0.888	15.69	21.367154
13.05.2015 15:32:29.9	12.31	514.9	0.7975	15.73	20.2490915
13.05.2015 15:32:30.0	14.46	515	0.8621	15.8	21.0532438
13.05.2015 15:32:30.1	14.91	514.7	0.8313	15.84	20.6737418
13.05.2015 15:32:30.2	14.91	514.7	0.824	15.7	20.5827691
13.05.2015 15:32:30.3	15.37	514.8	0.8392	15.73	20.7717427
13.05.2015 15:32:30.4	17.66	514.8	0.7566	15.64	19.7230178
13.05.2015 15:32:30.5	17.45	514.6	0.8707	15.75	21.157993
13.05.2015 15:32:30.6	17.46	514.6	0.8534	15.55	20.9467436
13.05.2015 15:32:30.7	19.03	514.9	0.875	15.83	21.2101736
13.05.2015 15:32:30.8	20.12	514.7	0.776	16.05	19.9742765
13.05.2015 15:32:30.9	20.03	514.6	0.8743	15.75	21.2016879
13.05.2015 15:32:31.0	20.11	514.6	0.8367	15.57	20.7407798
13.05.2015 15:32:31.1	23.17	514.7	0.9069	15.84	21.5933437
13.05.2015 15:32:31.2	22.91	514.6	0.7955	15.69	20.2236849
13.05.2015 15:32:31.3	22.95	514.6	0.885	15.48	21.3310303
13.05.2015 15:32:31.4	24.04	514.6	0.8417	15.57	20.8026595
13.05.2015 15:32:31.5	25.69	514.7	0.7961	15.68	20.2313102
13.05.2015 15:32:31.6	25.51	514.5	0.807	15.78	20.3693403
13.05.2015 15:32:31.7	25.57	514.5	0.8677	15.89	21.1215116
13.05.2015 15:32:31.8	27.83	514.6	0.9302	15.45	21.8689718
13.05.2015 15:32:31.9	28.1	514.7	0.8577	15.46	20.9994491
13.05.2015 15:32:32.0	28.14	514.6	0.8072	15.65	20.3718643

13.05.2015 15:32:32.1	28.75	514.5	0.8028	15.62	20.3162655
13.05.2015 15:32:32.2	31.21	514.7	0.773	15.85	19.9356291
13.05.2015 15:32:32.3	31.01	514.7	0.8558	15.54	20.9761777
13.05.2015 15:32:32.4	31.05	514.5	0.8409	15.63	20.79277711
13.05.2015 15:32:32.5	32.54	514.5	0.8757	15.66	21.218656
13.05.2015 15:32:32.6	33.35	514.6	0.7805	15.43	20.0321079
13.05.2015 15:32:32.7	33.24	514.7	0.7616	15.53	19.7880803
13.05.2015 15:32:32.8	34.34	514.5	0.7441	15.72	19.5594145
13.05.2015 15:32:32.9	36.4	514.5	0.8873	15.68	21.3587306
13.05.2015 15:32:33.0	36.14	514.6	0.9533	15.57	22.1388467
13.05.2015 15:32:33.1	36.48	514.5	0.8637	15.71	21.07277715
13.05.2015 15:32:33.2	38.91	514.5	0.8833	15.64	21.310533
13.05.2015 15:32:33.3	38.73	514.4	0.7988	15.65	20.2655888
13.05.2015 15:32:33.4	38.76	514.5	0.8889	15.74	21.3779792
13.05.2015 15:32:33.5	40.16	514.5	0.888	15.87	21.367154
13.05.2015 15:32:33.6	41.42	514.4	0.8286	15.65	20.6401411
13.05.2015 15:32:33.7	41.31	514.4	0.8332	16.06	20.697354
13.05.2015 15:32:33.8	41.31	514.5	0.8333	15.85	20.698596
13.05.2015 15:32:33.9	43.92	514.4	0.8549	15.86	20.9651443
13.05.2015 15:32:34.0	43.86	514.4	0.8115	15.67	20.4260532
13.05.2015 15:32:34.1	43.94	514.6	0.8848	15.52	21.3286199
13.05.2015 15:32:34.2	45.74	514.5	0.8893	15.62	21.3827886
13.05.2015 15:32:34.3	46.52	514.4	0.8717	15.79	21.1701395
13.05.2015 15:32:34.4	46.47	514.4	0.7942	15.58	20.2071534
13.05.2015 15:32:34.5	46.66	514.5	0.8514	15.53	20.9221841
13.05.2015 15:32:34.6	49.18	514.5	0.9168	15.47	21.7108836
13.05.2015 15:32:34.7	49.04	514.3	0.9404	15.55	21.9885457
13.05.2015 15:32:34.8	49.02	514.3	0.874	15.56	21.1980501
13.05.2015 15:32:34.9	51.3	514.4	0.8378	15.61	20.7544092
13.05.2015 15:32:35.0	51.63	514.3	0.8711	15.66	21.1628525
13.05.2015 15:32:35.1	51.57	514.2	0.9014	15.8	21.5277665
13.05.2015 15:32:35.2	52.16	514.3	0.8853	15.61	21.3346454
13.05.2015 15:32:35.3	54.37	514.4	0.8761	15.9	21.2235015
13.05.2015 15:32:35.4	54.12	514.2	0.8623	15.87	21.0556857
13.05.2015 15:32:35.5	54.21	514.1	0.7411	15.62	19.5199456
13.05.2015 15:32:35.6	56.86	514.1	0.8206	15.38	20.5402608
13.05.2015 15:32:35.7	56.71	514.2	0.8297	15.77	20.6538369
13.05.2015 15:32:35.8	56.76	514.1	0.8809	15.61	21.2815621
13.05.2015 15:32:35.9	57.68	514	0.8596	15.65	21.0226955
13.05.2015 15:32:36.0	59.48	514.2	0.885	15.61	21.3310303
13.05.2015 15:32:36.1	59.29	514.2	0.8096	15.67	20.402127
13.05.2015 15:32:36.2	59.32	514.1	0.8636	15.7	21.0715515
13.05.2015 15:32:36.3	60.5	514.1	0.8528	15.59	20.9393788
13.05.2015 15:32:36.4	62.06	514.2	0.8106	15.63	20.4147233
13.05.2015 15:32:36.5	61.88	514.3	0.8699	15.8	21.1482708
13.05.2015 15:32:36.6	62.44	514.1	0.8771	15.97	21.2356106
13.05.2015 15:32:36.7	65.03	514.1	0.8121	15.92	20.4336031
13.05.2015 15:32:36.8	64.8	514.2	0.8544	15.87	20.9590125
13.05.2015 15:32:36.9	64.82	514.2	0.8349	15.96	20.7184579
13.05.2015 15:32:37.0	66.47	514.1	0.8306	15.92	20.6650357
13.05.2015 15:32:37.1	67.48	514.2	0.9596	15.84	22.2118799
13.05.2015 15:32:37.2	67.38	514.3	0.8815	15.79	21.2888085
13.05.2015 15:32:37.3	67.48	514.2	0.8518	15.82	20.9270983
13.05.2015 15:32:37.4	70.07	514.2	0.8012	15.72	20.29601
13.05.2015 15:32:37.5	69.94	514.3	0.8595	15.6	21.0214727
13.05.2015 15:32:37.6	69.98	514.4	0.9858	15.61	22.5130639
13.05.2015 15:32:37.7	71.21	514.3	0.9356	15.77	21.9323569
13.05.2015 15:32:37.8	73.1	514.3	0.9074	15.77	21.5992954
13.05.2015 15:32:37.9	72.91	514.4	0.8946	15.45	21.446412
13.05.2015 15:32:38.0	72.89	514.4	0.957	15.83	22.1817684
13.05.2015 15:32:38.1	74.86	514.2	0.9008	15.9	21.5206005
13.05.2015 15:32:38.2	75.12	514.2	0.8373	15.7	20.7482151
13.05.2015 15:32:38.3	75.1	514.3	0.8671	15.65	21.1142077
13.05.2015 15:32:38.4	76.85	514.3	0.7631	15.69	19.8075574
13.05.2015 15:32:38.5	78.21	514.1	0.9108	15.87	21.6397235
13.05.2015 15:32:38.6	78.04	514.1	0.9016	15.72	21.5301546
13.05.2015 15:32:38.7	78.05	514.3	0.8886	15.76	21.3743714
13.05.2015 15:32:38.8	80.74	514.3	0.8106	15.94	20.4147233
13.05.2015 15:32:38.9	80.58	514.1	0.9003	15.8	21.5146271
13.05.2015 15:32:39.0	80.57	514	0.8818	15.73	21.2924308
13.05.2015 15:32:39.1	82.57	514.1	0.9372	15.82	21.9511025

13.05.2015 15:32:39.2	83.2	514	0.804	15.76	20.3314439
13.05.2015 15:32:39.3	83.2	513.9	0.8374	15.71	20.7494541
13.05.2015 15:32:39.4	83.55	513.9	0.7484	15.62	19.615848
13.05.2015 15:32:39.5	85.9	513.9	0.8337	15.57	20.7035633
13.05.2015 15:32:39.6	85.72	513.7	0.9673	15.72	22.3008179
13.05.2015 15:32:39.7	85.77	513.6	0.9456	15.61	22.0492554
13.05.2015 15:32:39.8	87.17	513.6	0.9162	15.47	21.7037781
13.05.2015 15:32:39.9	88.44	513.6	0.9295	15.66	21.8607418
13.05.2015 15:32:40.0	88.33	513.4	0.8923	15.8	21.4188251
13.05.2015 15:32:40.1	88.32	513.3	0.9006	15.56	21.5182113
13.05.2015 15:32:40.2	91.3	513.4	0.9543	15.41	22.1504554
13.05.2015 15:32:40.3	91.2	513.4	0.9019	15.81	21.5337363
13.05.2015 15:32:40.4	91.24	513.2	0.8247	15.67	20.59151
13.05.2015 15:32:40.5	92.15	513	0.8984	15.73	21.4919127
13.05.2015 15:32:40.6	94.03	513.1	0.8317	15.49	20.678715
13.05.2015 15:32:40.7	93.82	513.2	0.9223	15.62	21.7759094
13.05.2015 15:32:40.8	94.13	512.9	0.8522	15.86	20.9320114
13.05.2015 15:32:40.9	96.54	513	0.9401	15.55	21.9850381
13.05.2015 15:32:41.0	96.37	513.1	0.9431	15.77	22.020089
13.05.2015 15:32:41.1	96.4	513	0.8539	15.99	20.9528789
13.05.2015 15:32:41.2	97.68	513	0.885	15.95	21.3310303
13.05.2015 15:32:41.3	99.1	512.9	0.8396	15.58	20.7766925
13.05.2015 15:32:41.4	98.98	513	0.9354	15.7	21.9300125
13.05.2015 15:32:41.5	98.98	513	0.9631	15.7	22.2523503
13.05.2015 15:32:41.6	101.46	513	1.0603	15.5	23.3482631
13.05.2015 15:32:41.7	101.56	513.1	0.959	15.39	22.2049347
13.05.2015 15:32:41.8	101.51	513.2	0.9172	15.74	21.7156193
13.05.2015 15:32:41.9	102.41	513.1	0.8853	15.83	21.3346454
13.05.2015 15:32:42.0	104.74	513.1	0.8286	15.77	20.6401411
13.05.2015 15:32:42.1	104.46	513.2	0.7918	15.57	20.1765982
13.05.2015 15:32:42.2	104.49	513.2	0.9658	15.68	22.2835201
13.05.2015 15:32:42.3	106.49	513.1	0.9551	15.73	22.1597379
13.05.2015 15:32:42.4	107.07	513	0.9243	15.55	21.7995071
13.05.2015 15:32:42.5	107.06	513.2	1.0219	15.66	22.9215719
13.05.2015 15:32:42.6	107.37	513.3	1.0628	15.72	23.3757724
13.05.2015 15:32:42.7	109.8	513.1	0.9261	15.83	21.8207232
13.05.2015 15:32:42.8	109.61	513.1	0.9109	15.91	21.6409115
13.05.2015 15:32:42.9	109.64	513.2	0.8978	15.82	21.4847348
13.05.2015 15:32:43.0	112.38	513.2	0.8221	15.84	20.5590253
13.05.2015 15:32:43.1	112.55	513.1	0.8469	15.92	20.8668197
13.05.2015 15:32:43.2	112.55	513.2	0.8538	15.94	20.951652
13.05.2015 15:32:43.3	112.55	513.3	0.8208	15.9	20.5427637
13.05.2015 15:32:43.4	114.81	513.3	0.8242	16.06	20.5852669
13.05.2015 15:32:43.5	114.69	513.2	0.8171	15.94	20.4964101
13.05.2015 15:32:43.6	114.79	513.3	0.8991	15.76	21.500284
13.05.2015 15:32:43.7	116.95	513.3	0.8798	15.98	21.2682705
13.05.2015 15:32:43.8	117.7	513.3	0.9286	16.04	21.8501557
13.05.2015 15:32:43.9	117.69	513.2	0.995	15.99	22.6178718
13.05.2015 15:32:44.0	117.98	513.3	0.9773	15.76	22.415795
13.05.2015 15:32:44.1	120.4	513.4	0.9303	15.89	21.8701473
13.05.2015 15:32:44.2	120.24	513.3	1.0782	16.02	23.5445211
13.05.2015 15:32:44.3	120.28	513.3	1.126	15.92	24.0607628
13.05.2015 15:32:44.4	121.62	513.4	1.0065	15.86	22.7482026
13.05.2015 15:32:44.5	122.96	513.4	0.9874	15.94	22.5313264
13.05.2015 15:32:44.6	122.83	513.2	0.9634	16	22.2558158
13.05.2015 15:32:44.7	122.8	513.1	0.9185	16.07	21.7310033
13.05.2015 15:32:44.8	125.73	513.3	0.8759	15.96	21.2210789
13.05.2015 15:32:44.9	125.74	513.3	0.9262	15.91	21.8219012
13.05.2015 15:32:45.0	125.75	513.2	0.8761	15.97	21.2235015
13.05.2015 15:32:45.1	126.62	513.1	0.8657	16.07	21.0971556
13.05.2015 15:32:45.2	128.59	513.2	1	15.87	22.6746294
13.05.2015 15:32:45.3	128.3	513.2	0.9583	15.87	22.1968293
13.05.2015 15:32:45.4	128.35	513.1	0.9198	15.8	21.7463763
13.05.2015 15:32:45.5	130.38	513.2	0.9212	15.79	21.7629198
13.05.2015 15:32:45.6	130.94	513.3	0.9085	15.74	21.6123834
13.05.2015 15:32:45.7	130.9	513.2	1.0015	15.87	22.691629
13.05.2015 15:32:45.8	132.17	513.2	1.0062	15.63	22.7448121
13.05.2015 15:32:45.9	133.64	513.3	0.9773	15.59	22.415795
13.05.2015 15:32:46.0	133.48	513.5	1.0536	15.87	23.2743777
13.05.2015 15:32:46.1	133.47	513.2	1.0284	16.21	22.994355
13.05.2015 15:32:46.2	134.96	513.1	1.091	16.08	23.6838648

13.05.2015 15:32:46.3	136.17	513.3	0.9439	15.59	22.0294265
13.05.2015 15:32:46.4	136.02	513.4	0.9297	15.77	21.8630935
13.05.2015 15:32:46.5	136.88	513.1	0.9764	15.97	22.4054712
13.05.2015 15:32:46.6	139.29	513	0.8216	15.85	20.5527724
13.05.2015 15:32:46.7	138.97	513.3	0.9303	16.1	21.8701473
13.05.2015 15:32:46.8	138.99	513.4	0.8178	15.83	20.5051878
13.05.2015 15:32:46.9	140.92	513.3	0.8648	15.78	21.0861862
13.05.2015 15:32:47.0	141.57	513.3	1.0017	15.77	22.6938946
13.05.2015 15:32:47.1	141.55	513.4	0.9836	15.63	22.4879288
13.05.2015 15:32:47.2	141.86	513.4	0.9897	15.64	22.5575528
13.05.2015 15:32:47.3	144.28	513.4	0.9976	15.76	22.6474035
13.05.2015 15:32:47.4	144.11	513.4	0.935	15.78	21.9253231
13.05.2015 15:32:47.5	144.15	513.4	0.909	15.67	21.6183298
13.05.2015 15:32:47.6	145.67	513.4	0.8988	15.75	21.4966967
13.05.2015 15:32:47.7	147.21	513.3	1.0069	15.85	22.7527224
13.05.2015 15:32:47.8	147.06	513.4	0.8254	15.59	20.6002471
13.05.2015 15:32:47.9	147.06	513.4	0.9124	15.77	21.6587224
13.05.2015 15:32:48.0	149.65	513.2	0.9379	15.92	21.9592986
13.05.2015 15:32:48.1	149.63	513.2	0.9981	15.73	22.6530782
13.05.2015 15:32:48.2	149.65	513.3	0.9718	15.75	22.3526308
13.05.2015 15:32:48.3	151.47	513.3	0.966	15.6	22.2858273
13.05.2015 15:32:48.4	152.26	513.1	0.9467	15.73	22.0620765
13.05.2015 15:32:48.5	152.17	513	1.0197	15.71	22.8968852
13.05.2015 15:32:48.6	153.29	513.1	0.9617	15.48	22.236171
13.05.2015 15:32:48.7	154.94	513.1	0.9418	15.69	22.0049071
13.05.2015 15:32:48.8	154.77	512.9	1.0502	15.7	23.2367938
13.05.2015 15:32:48.9	154.79	512.8	0.9172	15.84	21.7156193
13.05.2015 15:32:49.0	157.04	513	0.9886	15.91	22.5450135
13.05.2015 15:32:49.1	157.34	512.9	0.9511	15.67	22.1132863
13.05.2015 15:32:49.2	157.34	512.8	0.9722	15.81	22.3572306
13.05.2015 15:32:49.3	158.81	512.8	0.9854	15.55	22.508496
13.05.2015 15:32:49.4	160.01	513	0.9572	16	22.1840861
13.05.2015 15:32:49.5	159.91	513	1.0171	15.88	22.8676757
13.05.2015 15:32:49.6	159.9	512.9	0.9714	15.91	22.3480301
13.05.2015 15:32:49.7	162.6	513	0.9638	15.57	22.2604356
13.05.2015 15:32:49.8	162.47	513.1	1.0644	15.79	23.3933614
13.05.2015 15:32:49.9	162.46	513	1.0586	15.83	23.3295382
13.05.2015 15:32:50.0	163.4	513	1.0966	15.73	23.7445705
13.05.2015 15:32:50.1	165.27	513.1	1.0625	15.66	23.372473
13.05.2015 15:32:50.2	165.02	513.2	1.0747	15.83	23.5062755
13.05.2015 15:32:50.3	165.36	512.9	1.0459	15.92	23.189174
13.05.2015 15:32:50.4	167.81	512.8	1.0394	15.69	23.1170043
13.05.2015 15:32:50.5	167.58	513	1.0615	15.64	23.3614716
13.05.2015 15:32:50.6	167.61	513	0.9915	15.79	22.5780565
13.05.2015 15:32:50.7	169.95	512.8	1.0413	15.89	23.1381233
13.05.2015 15:32:50.8	170.18	512.7	1.1207	15.78	24.0040699
13.05.2015 15:32:50.9	170.2	512.9	1.0693	15.62	23.4471456
13.05.2015 15:32:51.0	170.83	512.9	0.9747	15.81	22.3859578
13.05.2015 15:32:51.1	172.97	512.6	0.9472	15.82	22.0679018
13.05.2015 15:32:51.2	172.74	512.7	1.0941	15.6	23.7174889
13.05.2015 15:32:51.3	172.83	512.8	1.0721	15.72	23.4778241
13.05.2015 15:32:51.4	175.42	512.7	0.988	16.04	22.538171
13.05.2015 15:32:51.5	175.29	512.7	1.0102	16.11	22.7899766
13.05.2015 15:32:51.6	175.35	512.8	1.0383	15.63	23.1047686
13.05.2015 15:32:51.7	176.37	512.9	1.1166	15.72	23.9601211
13.05.2015 15:32:51.8	178.08	512.8	1.1489	15.77	24.304199
13.05.2015 15:32:51.9	177.91	512.7	1.1192	15.62	23.9880004
13.05.2015 15:32:52.0	177.91	512.9	0.9369	15.67	21.9475889
13.05.2015 15:32:52.1	180.12	512.9	1.0465	15.89	23.1958245
13.05.2015 15:32:52.2	180.47	512.8	1.0338	15.99	23.0546462
13.05.2015 15:32:52.3	180.45	512.8	1.1057	15.81	23.8428876
13.05.2015 15:32:52.4	181.95	513	1.0762	15.53	23.5226741
13.05.2015 15:32:52.5	183.2	513.1	1.1547	15.97	24.3654693
13.05.2015 15:32:52.6	183.01	513	1.0809	15.85	23.5739824
13.05.2015 15:32:52.7	183.75	513	1.0107	15.68	22.7956159
13.05.2015 15:32:52.8	185.87	513.2	1.0117	15.55	22.8068902
13.05.2015 15:32:52.9	185.52	513.2	0.9288	15.73	21.8525086
13.05.2015 15:32:53.0	185.63	513	1.0037	15.63	22.7165387
13.05.2015 15:32:53.1	187.48	512.9	1.0259	15.74	22.9663888
13.05.2015 15:32:53.2	188.23	513.2	0.9785	15.75	22.4295527
13.05.2015 15:32:53.3	188.21	513.2	1.0614	15.81	23.3603712

13.05.2015 15:32:53.4	189.28	513	0.8828	15.85	21.3045007
13.05.2015 15:32:53.5	190.91	513.1	0.9688	15.8	22.3181022
13.05.2015 15:32:53.6	190.75	513.1	1.0282	15.94	22.9921189
13.05.2015 15:32:53.7	190.72	513	1.0095	15.72	22.7820793
13.05.2015 15:32:53.8	193.05	512.9	0.9265	15.63	21.825435
13.05.2015 15:32:53.9	193.35	513	1.1506	15.53	24.3221735
13.05.2015 15:32:54.0	193.35	513	1.0211	15.5	22.912598
13.05.2015 15:32:54.1	193.92	512.9	1.1707	15.66	24.5336975
13.05.2015 15:32:54.2	196.13	512.8	1.1518	15.52	24.3348534
13.05.2015 15:32:54.3	195.87	512.8	1.0184	15.54	22.8822851
13.05.2015 15:32:54.4	195.86	512.8	1.075	15.71	23.5095561
13.05.2015 15:32:54.5	198.6	512.7	1.0911	15.87	23.6849502
13.05.2015 15:32:54.6	198.43	512.6	1.1599	15.77	24.4202706
13.05.2015 15:32:54.7	198.48	512.8	1.0802	15.46	23.5663478
13.05.2015 15:32:54.8	199.47	512.9	1.2026	15.51	24.8657061
13.05.2015 15:32:54.9	201.23	512.7	1.0508	15.97	23.2434307
13.05.2015 15:32:55.0	200.96	512.8	1.0119	15.84	22.8091444
13.05.2015 15:32:55.1	201.39	513.1	1.1102	15.95	23.8913565
13.05.2015 15:32:55.2	203.76	513	0.9599	15.94	22.2153517
13.05.2015 15:32:55.3	203.57	513	1.0081	15.96	22.7662764
13.05.2015 15:32:55.4	203.59	512.9	0.9462	15.99	22.0562497
13.05.2015 15:32:55.5	205.08	513	1.0071	16.11	22.7549819
13.05.2015 15:32:55.6	206.24	513	1.0625	16	23.372473
13.05.2015 15:32:55.7	206.16	512.9	1.0505	15.79	23.2401125
13.05.2015 15:32:55.8	206.16	512.9	1.04	15.73	23.1236755
13.05.2015 15:32:55.9	208.78	513	0.9973	15.7	22.6439979
13.05.2015 15:32:56.0	208.69	513	1.0905	15.83	23.678437
13.05.2015 15:32:56.1	208.74	513	1.1605	15.73	24.4265859
13.05.2015 15:32:56.2	209.78	513.1	1.0149	15.62	22.8429308
13.05.2015 15:32:56.3	211.94	513.1	1.0018	15.63	22.6950274
13.05.2015 15:32:56.4	211.64	512.9	1.0141	16.15	22.833926
13.05.2015 15:32:56.5	211.67	512.8	1.0257	15.65	22.96415
13.05.2015 15:32:56.6	213.8	513	1.1017	15.65	23.7997213
13.05.2015 15:32:56.7	214.23	513	1.0772	15.82	23.5336001
13.05.2015 15:32:56.8	214.24	512.8	1.1226	15.71	24.0244092
13.05.2015 15:32:56.9	214.71	512.8	1.0661	15.78	23.4120352
13.05.2015 15:32:57.0	217.02	512.9	1.0098	15.57	22.7854642
13.05.2015 15:32:57.1	216.77	512.9	1.0575	15.86	23.3174141
13.05.2015 15:32:57.2	216.84	512.9	1.0736	15.73	23.4942426
13.05.2015 15:32:57.3	219.68	512.9	1.0174	15.7	22.8710479
13.05.2015 15:32:57.4	219.72	513	1.0499	15.87	23.2334747
13.05.2015 15:32:57.5	219.75	512.9	1.0794	15.93	23.5576196
13.05.2015 15:32:57.6	220.4	512.8	1.0909	15.98	23.6827793
13.05.2015 15:32:57.7	222.17	512.8	1.1442	15.94	24.2544354
13.05.2015 15:32:57.8	221.97	512.8	1.0631	16.07	23.3790713
13.05.2015 15:32:57.9	221.94	512.7	1.1258	16.19	24.0586259
13.05.2015 15:32:58.0	224.22	512.5	1.1097	15.67	23.8859759
13.05.2015 15:32:58.1	224.95	512.6	0.9929	15.58	22.5939911
13.05.2015 15:32:58.2	224.85	512.6	1.009	15.64	22.7764367
13.05.2015 15:32:58.3	225.25	512.5	1.0541	15.86	23.2798996
13.05.2015 15:32:58.4	227.66	512.5	1.1603	15.81	24.424481
13.05.2015 15:32:58.5	227.43	512.7	1.0994	15.79	23.7748652
13.05.2015 15:32:58.6	227.47	512.8	0.9647	15.82	22.2708266
13.05.2015 15:32:58.7	228.96	512.6	1.0044	15.86	22.7244588
13.05.2015 15:32:58.8	230.09	512.5	1.0585	15.9	23.3284363
13.05.2015 15:32:58.9	230.02	512.8	1.0359	15.86	23.0780502
13.05.2015 15:32:59.0	230.01	512.7	0.973	15.86	22.3664273
13.05.2015 15:32:59.1	233.06	512.3	0.9607	16.03	22.2246071
13.05.2015 15:32:59.2	232.95	512.4	1.0515	15.91	23.2511713
13.05.2015 15:32:59.3	233	512.4	1.0452	15.75	23.1814126
13.05.2015 15:32:59.4	233.88	512.5	1.0024	15.83	22.7018226
13.05.2015 15:32:59.5	235.72	512.3	1.0436	15.93	23.1636627
13.05.2015 15:32:59.6	235.52	512.4	1.0861	15.95	23.6306193
13.05.2015 15:32:59.7	235.53	512.5	1.1867	15.64	24.70078
13.05.2015 15:32:59.8	237.68	512.4	1.1372	15.86	24.1801295
13.05.2015 15:32:59.9	238.13	512.3	0.9203	15.76	21.7522862
13.05.2015 15:33:00.0	238.12	512.4	0.9425	15.68	22.0130833
13.05.2015 15:33:00.1	239.71	512.4	0.9957	15.89	22.6258264
13.05.2015 15:33:00.2	241.16	512.2	1.0071	15.78	22.7549819
13.05.2015 15:33:00.3	240.99	512.1	0.9579	15.86	22.1921962
13.05.2015 15:33:00.4	241.04	512.2	0.938	15.65	21.9604693

13.05.2015 15:33:00.5	243.25	512.3	1.0027	15.92	22.7052195
13.05.2015 15:33:00.6	243.25	512.1	1.0776	15.91	23.5379691
13.05.2015 15:33:00.7	243.25	512	1.086	15.48	23.6295314
13.05.2015 15:33:00.8	244.22	512.4	1.0401	15.66	23.1247872
13.05.2015 15:33:00.9	246.44	512.3	0.9633	15.69	22.2546607
13.05.2015 15:33:01.0	246.17	512.3	1.0502	15.77	23.2367938
13.05.2015 15:33:01.1	246.15	512.3	0.9765	15.79	22.4066186
13.05.2015 15:33:01.2	248.25	512.5	1.0452	15.72	23.1814126
13.05.2015 15:33:01.3	248.8	512.6	1.0067	16.01	22.7504626
13.05.2015 15:33:01.4	248.75	512.5	1.0163	16.01	22.8586806
13.05.2015 15:33:01.5	249.19	512.6	1.0986	15.92	23.7662135
13.05.2015 15:33:01.6	251.54	512.7	0.9977	15.85	22.6485385
13.05.2015 15:33:01.7	251.27	512.7	1.0336	16.04	23.052416
13.05.2015 15:33:01.8	251.32	512.6	1.1033	15.95	23.8169972
13.05.2015 15:33:01.9	253.07	512.7	0.9972	15.77	22.6428626
13.05.2015 15:33:02.0	254.37	512.8	1.1596	15.94	24.4171123
13.05.2015 15:33:02.1	254.24	512.7	1.0174	15.99	22.8710479
13.05.2015 15:33:02.2	254.33	512.7	1.0359	15.82	23.0780502
13.05.2015 15:33:02.3	256.94	512.8	0.9302	15.73	21.8689718
13.05.2015 15:33:02.4	256.8	512.8	1.0742	15.79	23.5008067
13.05.2015 15:33:02.5	256.82	512.6	1.0819	15.79	23.5848847
13.05.2015 15:33:02.6	258.74	512.5	1.1058	15.84	23.8439658
13.05.2015 15:33:02.7	259.44	512.7	1.0145	15.84	22.8384288
13.05.2015 15:33:02.8	259.38	512.6	1.0079	15.84	22.764018
13.05.2015 15:33:02.9	259.72	512.5	0.9052	15.87	21.5730957
13.05.2015 15:33:03.0	262.16	512.4	1.0199	15.76	22.8991306
13.05.2015 15:33:03.1	261.94	512.6	0.903	15.72	21.5468641
13.05.2015 15:33:03.2	261.95	512.6	0.9219	15.93	21.7711868
13.05.2015 15:33:03.3	263.39	512.6	0.8932	15.97	21.4296242
13.05.2015 15:33:03.4	264.64	512.6	1.0333	16.02	23.0490703
13.05.2015 15:33:03.5	264.53	512.8	1.2169	16.03	25.0131071
13.05.2015 15:33:03.6	264.56	512.8	1.1228	16.08	24.0265492
13.05.2015 15:33:03.7	267.52	512.8	1.1019	15.93	23.8018815
13.05.2015 15:33:03.8	267.48	512.9	1.1027	15.99	23.8105202
13.05.2015 15:33:03.9	267.49	513	1.0225	15.88	22.9283
13.05.2015 15:33:04.0	269.29	513.1	1.1501	16.04	24.3168882
13.05.2015 15:33:04.1	270.1	513.1	1.1399	15.92	24.2088174
13.05.2015 15:33:04.2	270.07	513.3	0.9546	15.84	22.1539368
13.05.2015 15:33:04.3	271.11	513.3	0.9484	15.96	22.0818762
13.05.2015 15:33:04.4	272.81	513.1	0.8667	16	21.1093371
13.05.2015 15:33:04.5	272.61	513	0.8467	15.86	20.8643557
13.05.2015 15:33:04.6	272.61	513.1	0.9263	15.71	21.8230792
13.05.2015 15:33:04.7	273.9	513.1	0.98	15.66	22.4467379
13.05.2015 15:33:04.8	275.36	512.9	0.9603	15.72	22.2199799
13.05.2015 15:33:04.9	275.12	512.9	0.9706	15.63	22.3388258
13.05.2015 15:33:05.0	275.79	513.1	1.0078	15.63	22.7628887
13.05.2015 15:33:05.1	278	513	0.9326	15.71	21.8971656
13.05.2015 15:33:05.2	277.72	512.8	0.9811	15.89	22.459332
13.05.2015 15:33:05.3	277.77	512.8	0.9076	15.84	21.6016756
13.05.2015 15:33:05.4	279.9	512.9	0.9241	15.86	21.7971485
13.05.2015 15:33:05.5	279.74	513	0.9281	15.69	21.8442724
13.05.2015 15:33:05.6	279.79	512.9	0.8699	15.8	21.1482708
13.05.2015 15:33:05.7	280.66	512.9	0.939	15.69	21.9721722
13.05.2015 15:33:05.8	282.26	513	0.9104	15.73	21.6349712
13.05.2015 15:33:05.9	282.08	513	0.8056	15.8	20.3516641
13.05.2015 15:33:06.0	282.4	512.9	0.7617	15.57	19.7893794
13.05.2015 15:33:06.1	284.82	513	0.8128	15.39	20.4424077
13.05.2015 15:33:06.2	284.61	513.1	0.7795	15.62	20.0192709
13.05.2015 15:33:06.3	284.62	512.9	0.8101	15.8	20.4084261
13.05.2015 15:33:06.4	286.06	512.9	0.8837	15.74	21.3153577
13.05.2015 15:33:06.5	287.39	513	0.9311	15.41	21.8795487
13.05.2015 15:33:06.6	287.2	513.1	0.9129	15.57	21.6646562
13.05.2015 15:33:06.7	287.24	512.9	0.8527	15.67	20.9381511
13.05.2015 15:33:06.8	289.26	512.8	0.8593	15.73	21.0190268
13.05.2015 15:33:06.9	289.2	512.9	0.8237	15.74	20.5790219
13.05.2015 15:33:07.0	289.23	512.9	0.8389	15.76	20.7680296
13.05.2015 15:33:07.1	289.35	512.7	0.9542	15.84	22.1492948
13.05.2015 15:33:07.2	289.58	512.7	0.9064	15.73	21.5873904
13.05.2015 15:33:07.3	289.61	512.8	0.8196	15.68	20.5277416
13.05.2015 15:33:07.4	289.63	512.8	0.8099	15.76	20.4059067
13.05.2015 15:33:07.5	290.21	512.7	0.7713	15.71	19.9136955

13.05.2015 15:33:07.6	290.18	512.7	0.8462	15.49	20.8581942
13.05.2015 15:33:07.7	290.19	512.8	0.8651	15.63	21.0898433
13.05.2015 15:33:07.8	290.49	512.7	0.7385	15.86	19.4856747
13.05.2015 15:33:07.9	290.92	512.6	0.7349	15.64	19.4381228
13.05.2015 15:33:08.0	290.88	512.7	0.708	15.51	19.0790535
13.05.2015 15:33:08.1	290.88	512.6	0.8031	15.74	20.3200611
13.05.2015 15:33:08.2	292.41	512.5	0.8018	15.91	20.3036081
13.05.2015 15:33:08.3	292.45	512.4	0.7557	15.74	19.7112837
13.05.2015 15:33:08.4	292.46	512.5	0.8761	15.68	21.2235015
13.05.2015 15:33:08.5	292.49	512.4	0.8851	15.82	21.3322354
13.05.2015 15:33:08.6	292.61	512.3	0.8228	15.82	20.5677762
13.05.2015 15:33:08.7	292.57	512.2	0.8313	15.57	20.6737418
13.05.2015 15:33:08.8	292.63	512.3	0.8185	15.54	20.5139616
13.05.2015 15:33:08.9	292.62	512.3	0.9284	15.7	21.8478026
13.05.2015 15:33:09.0	292.64	512.1	0.7792	15.65	20.0154182
13.05.2015 15:33:09.1	292.62	512.1	0.8168	15.69	20.4926471
13.05.2015 15:33:09.2	292.61	512.4	0.8337	15.56	20.7035633
13.05.2015 15:33:09.3	292.6	512.4	0.8665	15.91	21.1069014
13.05.2015 15:33:09.4	292.61	512.3	0.8018	15.84	20.3036081
13.05.2015 15:33:09.5	292.57	512.4	0.8354	15.53	20.7246609
13.05.2015 15:33:09.6	292.63	512.4	0.7533	15.67	19.6799586
13.05.2015 15:33:09.7	292.58	512.4	0.681	15.8	18.7117219
13.05.2015 15:33:09.8	292.55	512.4	0.7446	15.81	19.5659849
13.05.2015 15:33:09.9	292.62	512.5	0.688	15.57	18.8076449
13.05.2015 15:33:10.0	292.62	512.6	0.7324	15.83	19.4050321
13.05.2015 15:33:10.1	292.62	512.6	0.7807	16.04	20.0346743
13.05.2015 15:33:10.2	292.65	512.5	0.8238	15.79	20.5802711
13.05.2015 15:33:10.3	292.64	512.7	0.7755	15.94	19.9678405
13.05.2015 15:33:10.4	292.62	512.8	0.8634	15.95	21.0691114
13.05.2015 15:33:10.5	292.63	512.7	0.9385	16.31	21.9663215
13.05.2015 15:33:10.6	292.58	512.7	0.881	16.04	21.28277
13.05.2015 15:33:10.7	291.6	512.9	0.766	15.75	19.845159
13.05.2015 15:33:10.8	291.37	513	0.7764	15.78	19.9794239
13.05.2015 15:33:10.9	291.38	512.8	0.7706	15.93	19.9046571
13.05.2015 15:33:11.0	289.84	512.7	0.8539	15.94	20.9528789
13.05.2015 15:33:11.1	288.28	513	0.9321	15.66	21.8912949
13.05.2015 15:33:11.2	288.41	513	0.8356	15.69	20.7271415
13.05.2015 15:33:11.3	287.95	512.8	0.943	15.65	22.0189215
13.05.2015 15:33:11.4	286.1	512.7	0.9737	15.65	22.3744713
13.05.2015 15:33:11.5	286.34	512.9	0.9172	15.72	21.7156193
13.05.2015 15:33:11.6	286.33	512.7	0.8844	15.95	21.3237982
13.05.2015 15:33:11.7	287.74	512.7	0.7278	15.9	19.3439973
13.05.2015 15:33:11.8	288.45	512.7	0.8304	15.67	20.6625476
13.05.2015 15:33:11.9	288.4	512.8	0.8542	15.63	20.9565593
13.05.2015 15:33:12.0	288.51	512.8	0.8852	15.86	21.3334404
13.05.2015 15:33:12.1	290.22	512.7	0.9008	15.69	21.5206005
13.05.2015 15:33:12.2	290.17	513	0.9102	15.52	21.6325947
13.05.2015 15:33:12.3	290.16	513	0.8359	15.81	20.730862
13.05.2015 15:33:12.4	291.06	513.1	0.8169	15.96	20.4939015
13.05.2015 15:33:12.5	292.16	513	0.8493	15.8	20.8963657
13.05.2015 15:33:12.6	291.98	513.2	0.8255	15.55	20.6014949
13.05.2015 15:33:12.7	292.1	513.3	0.9051	15.81	21.571904
13.05.2015 15:33:12.8	292.64	513.2	0.8656	15.72	21.0959371
13.05.2015 15:33:12.9	292.55	513.2	0.8554	15.53	20.9712743
13.05.2015 15:33:13.0	292.6	513.4	0.9128	15.49	21.6634695
13.05.2015 15:33:13.1	292.61	513.5	0.8232	15.67	20.5727751
13.05.2015 15:33:13.2	292.58	513.3	0.8168	15.89	20.4926471
13.05.2015 15:33:13.3	292.59	513.4	0.8923	15.9	21.4188251
13.05.2015 15:33:13.4	292.59	513.5	0.873	15.66	21.1859196
13.05.2015 15:33:13.5	291.84	513.5	0.8194	16.15	20.5252368
13.05.2015 15:33:13.6	291.63	513.4	0.9245	16.02	21.8018654
13.05.2015 15:33:13.7	291.66	513.4	0.9392	15.78	21.974512
13.05.2015 15:33:13.8	290.38	513.5	0.9526	15.69	22.1307171
13.05.2015 15:33:13.9	288.53	513.6	0.9274	16.16	21.836033
13.05.2015 15:33:14.0	288.74	513.5	0.9518	15.95	22.1214223
13.05.2015 15:33:14.1	288.73	513.6	1.0555	16.04	23.2953541
13.05.2015 15:33:14.2	286.69	513.7	0.9821	16.02	22.4707751
13.05.2015 15:33:14.3	286.48	513.5	0.9106	16.12	21.6373475
13.05.2015 15:33:14.4	286.51	513.4	0.96	15.98	22.2165088
13.05.2015 15:33:14.5	285.84	513.6	0.9481	15.78	22.0783834
13.05.2015 15:33:14.6	283.31	513.5	1.0725	15.99	23.4822035

13.05.2015 15:33:14.7	283.62	513.3	0.9651	16.12	22.2754433
13.05.2015 15:33:14.8	283.57	513.2	0.9765	15.99	22.4066186
13.05.2015 15:33:14.9	281.76	513.4	1.0006	15.95	22.6814307
13.05.2015 15:33:15.0	280.92	513.4	1.0643	15.88	23.3922625
13.05.2015 15:33:15.1	281.03	513.2	0.9563	16.09	22.1736544
13.05.2015 15:33:15.2	280.76	513.3	0.9563	15.97	22.1736544
13.05.2015 15:33:15.3	278.31	513.4	1.0474	15.82	23.2057966
13.05.2015 15:33:15.4	278.47	513.5	1.0349	15.98	23.0669084
13.05.2015 15:33:15.5	278.42	513.4	1.0108	15.96	22.7967436
13.05.2015 15:33:15.6	275.89	513.5	0.9814	15.64	22.4627655
13.05.2015 15:33:15.7	275.49	513.5	1.0874	15.78	23.6447573
13.05.2015 15:33:15.8	275.47	513.6	1.0112	15.98	22.8012537
13.05.2015 15:33:15.9	275.52	513.5	1.0924	15.89	23.6990558
13.05.2015 15:33:16.0	273.04	513.6	1.0164	15.6	22.8598052
13.05.2015 15:33:16.1	272.96	513.7	1.0183	15.69	22.8811616
13.05.2015 15:33:16.2	272.93	513.7	1.096	15.92	23.7380737
13.05.2015 15:33:16.3	271.18	513.6	1.0024	15.9	22.7018226
13.05.2015 15:33:16.4	270.27	513.7	0.9214	15.83	21.7652821
13.05.2015 15:33:16.5	270.36	513.8	1.0856	15.78	23.6251794
13.05.2015 15:33:16.6	269.42	513.6	0.9539	15.81	22.1458127
13.05.2015 15:33:16.7	267.59	513.5	1.0186	15.88	22.8845319
13.05.2015 15:33:16.8	267.85	513.7	1.0854	15.6	23.623003
13.05.2015 15:33:16.9	267.77	513.7	0.946	15.85	22.0539185
13.05.2015 15:33:17.0	265.65	513.6	0.9246	16	21.8030445
13.05.2015 15:33:17.1	265.17	513.4	1.0471	15.71	23.2024731
13.05.2015 15:33:17.2	265.19	513.6	1.1077	15.8	23.8644415
13.05.2015 15:33:17.3	264.74	513.6	1.0068	15.81	22.7515925
13.05.2015 15:33:17.4	262.43	513.4	1.126	15.93	24.0607628
13.05.2015 15:33:17.5	262.71	513.4	1.0069	15.81	22.7527224
13.05.2015 15:33:17.6	262.65	513.4	1.0871	15.84	23.6414955
13.05.2015 15:33:17.7	261.01	513.3	1.0226	15.94	22.9294212
13.05.2015 15:33:17.8	259.92	513.2	1.0583	15.94	23.3262322
13.05.2015 15:33:17.9	260.12	513.3	1.0764	15.7	23.5248597
13.05.2015 15:33:18.0	259.16	513.3	1.13	15.7	24.1034617
13.05.2015 15:33:18.1	256.86	513.1	1.0949	15.83	23.7261584
13.05.2015 15:33:18.2	257.19	513	1.1873	15.93	24.7070237
13.05.2015 15:33:18.3	257.16	512.9	1.0638	15.65	23.3867671
13.05.2015 15:33:18.4	256.19	512.9	0.942	15.72	22.0072435
13.05.2015 15:33:18.5	254.79	512.7	1.0518	16.01	23.2544879
13.05.2015 15:33:18.6	254.94	512.7	1.0598	15.74	23.3427573
13.05.2015 15:33:18.7	254.48	512.8	1.1148	15.42	23.940801
13.05.2015 15:33:18.8	251.81	512.7	1.15	15.63	24.3158311
13.05.2015 15:33:18.9	252.05	512.6	1.142	15.84	24.2311067
13.05.2015 15:33:19.0	252	512.6	1.2226	15.82	25.0716198
13.05.2015 15:33:19.1	249.55	512.8	1.1539	15.53	24.3570274
13.05.2015 15:33:19.2	249.42	512.9	1.1484	15.85	24.2989098
13.05.2015 15:33:19.3	249.4	512.7	1.0521	15.97	23.2578041
13.05.2015 15:33:19.4	248.71	512.8	1.0396	15.75	23.1192282
13.05.2015 15:33:19.5	246.62	513	0.9577	15.71	22.1898793
13.05.2015 15:33:19.6	246.88	513	1.0139	15.98	22.8316742
13.05.2015 15:33:19.7	246.73	512.9	1.1295	16.04	24.0981284
13.05.2015 15:33:19.8	244.16	512.9	1.024	15.66	22.9451117
13.05.2015 15:33:19.9	244.34	513	1.0758	15.94	23.5183022
13.05.2015 15:33:20.0	244.28	512.9	1.027	16	22.9786981
13.05.2015 15:33:20.1	243.09	512.9	0.9226	15.9	21.7794507
13.05.2015 15:33:20.2	241.58	513	0.999	15.69	22.6632892
13.05.2015 15:33:20.3	241.74	513	1.0484	15.89	23.2168718
13.05.2015 15:33:20.4	241.69	513	1.058	15.93	23.3229258
13.05.2015 15:33:20.5	239.36	513	1.047	15.83	23.2013651
13.05.2015 15:33:20.6	239.17	513.2	1.0345	15.88	23.0624501
13.05.2015 15:33:20.7	239.1	513.3	1.0439	15.92	23.1669919
13.05.2015 15:33:20.8	238.49	513.2	1.0968	15.96	23.7467357
13.05.2015 15:33:20.9	236.31	513.3	1.0321	15.74	23.0356826
13.05.2015 15:33:21.0	236.61	513.6	1.0853	15.88	23.6219148
13.05.2015 15:33:21.1	236.52	513.7	1.0842	15.89	23.6099408
13.05.2015 15:33:21.2	233.5	513.6	1.034	15.95	23.0568761
13.05.2015 15:33:21.3	233.66	513.6	1.1211	15.72	24.0083533
13.05.2015 15:33:21.4	233.66	513.8	0.9869	15.79	22.5256209
13.05.2015 15:33:21.5	233.34	513.9	1.0776	15.97	23.5379691
13.05.2015 15:33:21.6	230.87	513.9	1.1623	16	24.445522
13.05.2015 15:33:21.7	231.13	514	1.1203	15.85	23.9997858

13.05.2015 15:33:21.8	231.09	514.1	1.0802	15.98	23.5663478
13.05.2015 15:33:21.9	229.73	514	1.0307	16.03	23.0200538
13.05.2015 15:33:22.0	228.39	514	1.0001	15.9	22.6757631
13.05.2015 15:33:22.1	228.53	514.1	0.9478	15.67	22.0748901
13.05.2015 15:33:22.2	228.5	514.3	1.0021	15.78	22.6984253
13.05.2015 15:33:22.3	225.97	514.2	1.0352	15.98	23.0702515
13.05.2015 15:33:22.4	225.92	514.2	1.057	15.86	23.311901
13.05.2015 15:33:22.5	225.95	514.5	0.9467	15.66	22.0620765
13.05.2015 15:33:22.6	225.1	514.6	1.0646	15.8	23.3955591
13.05.2015 15:33:22.7	222.71	514.5	1.1047	15.95	23.8321034
13.05.2015 15:33:22.8	223.02	514.5	1.0932	15.84	23.707732
13.05.2015 15:33:22.9	222.83	514.8	1.0187	15.7	22.8856552
13.05.2015 15:33:23.0	220.26	515	1.1009	15.87	23.7910787
13.05.2015 15:33:23.1	220.46	514.8	1.0982	15.97	23.7618865
13.05.2015 15:33:23.2	220.43	514.9	0.938	15.89	21.9604693
13.05.2015 15:33:23.3	219.21	515.2	1.0629	15.61	23.3768721
13.05.2015 15:33:23.4	217.71	515.3	1.0026	15.73	22.7040873
13.05.2015 15:33:23.5	217.87	515.3	1.1148	15.84	23.940801
13.05.2015 15:33:23.6	217.32	515.3	1.0461	15.75	23.191391
13.05.2015 15:33:23.7	215.08	515.6	1.0537	15.96	23.2754822
13.05.2015 15:33:23.8	215.31	515.6	1.1521	15.95	24.3380223
13.05.2015 15:33:23.9	215.25	515.7	1.0632	15.87	23.3801709
13.05.2015 15:33:24.0	212.74	515.8	1.1448	15.71	24.2607939
13.05.2015 15:33:24.1	212.78	515.9	1.1987	15.84	24.825354
13.05.2015 15:33:24.2	212.7	515.9	1.1272	15.92	24.0735804
13.05.2015 15:33:24.3	211.86	515.9	1.0787	15.61	23.5499797
13.05.2015 15:33:24.4	209.94	516	0.9909	15.54	22.571224
13.05.2015 15:33:24.5	210.12	516	1.0499	15.68	23.2334747
13.05.2015 15:33:24.6	210.14	515.8	1.0851	15.81	23.6197382
13.05.2015 15:33:24.7	208.09	515.8	1.1757	15.89	24.5860328
13.05.2015 15:33:24.8	207.53	515.9	1.192	15.5	24.7558775
13.05.2015 15:33:24.9	207.6	516	1.1574	16.02	24.3939392
13.05.2015 15:33:25.0	207.19	515.8	1.1944	16.07	24.780787
13.05.2015 15:33:25.1	204.77	515.7	1.1509	16.14	24.3253441
13.05.2015 15:33:25.2	205.05	516.1	1.0896	15.78	23.668664
13.05.2015 15:33:25.3	205.01	516.1	1.1076	15.8	23.8633643
13.05.2015 15:33:25.4	203.2	515.9	0.9649	15.77	22.2731351
13.05.2015 15:33:25.5	202	515.9	1.0397	15.99	23.1203401
13.05.2015 15:33:25.6	202.1	516	1.1691	15.83	24.5169266
13.05.2015 15:33:25.7	202.02	516	1.1213	15.84	24.0104947
13.05.2015 15:33:25.8	199.37	515.9	1.0685	15.88	23.4383729
13.05.2015 15:33:25.9	199.55	516	1.1346	15.86	24.152472
13.05.2015 15:33:26.0	199.46	516	1.1637	15.85	24.46024
13.05.2015 15:33:26.1	197.53	515.9	0.9874	15.94	22.5313264
13.05.2015 15:33:26.2	196.9	515.9	0.9937	15.72	22.6030914
13.05.2015 15:33:26.3	196.95	516	1.0174	15.62	22.8710479
13.05.2015 15:33:26.4	196.61	516	1.0476	15.74	23.2080121
13.05.2015 15:33:26.5	194.18	515.9	1.0817	15.96	23.5827047
13.05.2015 15:33:26.6	194.38	515.8	1.0843	15.66	23.6110296
13.05.2015 15:33:26.7	194.38	516	1.0517	15.75	23.2533824
13.05.2015 15:33:26.8	191.95	516	0.9807	15.75	22.4547531
13.05.2015 15:33:26.9	191.8	515.8	1.0226	15.8	22.9294212
13.05.2015 15:33:27.0	191.81	515.7	1.0585	15.62	23.3284363
13.05.2015 15:33:27.1	191.17	516	0.9448	15.77	22.0399264
13.05.2015 15:33:27.2	188.95	515.9	0.9898	15.71	22.5586924
13.05.2015 15:33:27.3	189.24	515.8	1.1937	15.81	24.7735243
13.05.2015 15:33:27.4	189.08	515.8	1.1263	15.79	24.0639679
13.05.2015 15:33:27.5	186.53	515.9	1.0362	15.7	23.0813917
13.05.2015 15:33:27.6	186.68	515.8	1.0744	15.64	23.5029944
13.05.2015 15:33:27.7	186.65	515.8	1.1049	15.86	23.8342606
13.05.2015 15:33:27.8	185.59	515.6	1.0326	15.83	23.0412617
13.05.2015 15:33:27.9	183.94	515.7	1.0376	15.81	23.096979
13.05.2015 15:33:28.0	184.07	515.6	1.1427	15.86	24.2385319
13.05.2015 15:33:28.1	184.07	515.6	1.1272	15.87	24.0735804
13.05.2015 15:33:28.2	181.81	515.6	0.9674	15.64	22.3019706
13.05.2015 15:33:28.3	181.49	515.6	1.1416	15.93	24.2268627
13.05.2015 15:33:28.4	181.51	515.5	1.1325	15.84	24.13011
13.05.2015 15:33:28.5	180.87	515.4	1.0996	15.7	23.7770276
13.05.2015 15:33:28.6	178.36	515.6	1.0322	15.49	23.0367985
13.05.2015 15:33:28.7	178.6	515.6	1.0634	15.7	23.3823698
13.05.2015 15:33:28.8	178.6	515.3	1.0037	15.76	22.7165387

13.05.2015 15:33:28.9	176.75	515.2	1.0363	15.75	23.0825054
13.05.2015 15:33:29.0	175.94	515.3	1.0585	15.71	23.3284363
13.05.2015 15:33:29.1	176.03	515.3	1.095	15.51	23.7272418
13.05.2015 15:33:29.2	175.8	515	1.026	15.72	22.9675081
13.05.2015 15:33:29.3	173.3	515.1	1.1049	15.65	23.8342606
13.05.2015 15:33:29.4	173.49	515.3	1.0247	15.5	22.9529529
13.05.2015 15:33:29.5	173.42	515.4	1.0451	15.66	23.1803037
13.05.2015 15:33:29.6	172.01	515.4	0.9951	15.53	22.6190083
13.05.2015 15:33:29.7	170.35	515.5	0.958	15.47	22.1933546
13.05.2015 15:33:29.8	170.51	515.6	0.9842	15.56	22.4947866
13.05.2015 15:33:29.9	170.5	515.6	1.0613	15.68	23.3592707
13.05.2015 15:33:30.0	168.08	515.6	1.0785	15.63	23.5477964
13.05.2015 15:33:30.1	167.95	515.7	1.0501	15.37	23.2356875
13.05.2015 15:33:30.2	167.95	515.8	1.0598	15.55	23.3427573
13.05.2015 15:33:30.3	167.2	515.7	1.0572	15.8	23.3141064
13.05.2015 15:33:30.4	165.09	515.6	0.9471	15.71	22.0667368
13.05.2015 15:33:30.5	165.4	515.8	0.9106	15.72	21.6373475
13.05.2015 15:33:30.6	165.22	515.8	1.0854	15.62	23.623003
13.05.2015 15:33:30.7	162.27	515.6	1.0672	15.79	23.4241104
13.05.2015 15:33:30.8	162.49	515.6	0.9966	15.8	22.6360497
13.05.2015 15:33:30.9	162.43	515.7	0.9944	15.65	22.6110513
13.05.2015 15:33:31.0	162.1	515.8	1.0239	15.68	22.9439913
13.05.2015 15:33:31.1	159.71	515.6	0.9553	15.76	22.1620579
13.05.2015 15:33:31.2	159.87	515.6	1.0294	15.62	23.0055319
13.05.2015 15:33:31.3	159.85	515.8	1.0055	15.46	22.7368991
13.05.2015 15:33:31.4	158.49	515.9	1.0249	15.79	22.9551927
13.05.2015 15:33:31.5	157.16	515.7	0.991	15.8	22.5723629
13.05.2015 15:33:31.6	157.31	515.8	1.0474	15.61	23.2057966
13.05.2015 15:33:31.7	156.61	515.9	1.1275	15.59	24.0767838
13.05.2015 15:33:31.8	154.05	515.9	1.0596	15.85	23.3405546
13.05.2015 15:33:31.9	154.35	515.8	1.0173	15.58	22.8699239
13.05.2015 15:33:32.0	154.36	515.9	1.0087	15.41	22.7730504
13.05.2015 15:33:32.1	153.6	515.9	0.9878	15.45	22.5358897
13.05.2015 15:33:32.2	151.95	515.8	0.9693	15.74	22.3238607
13.05.2015 15:33:32.3	152.19	515.7	1.1447	15.69	24.2597342
13.05.2015 15:33:32.4	151.9	515.9	1.1191	15.61	23.9869287
13.05.2015 15:33:32.5	149.03	516	1.0659	15.67	23.4098391
13.05.2015 15:33:32.6	149.23	515.9	0.9379	15.62	21.9592986
13.05.2015 15:33:32.7	149.17	515.8	1.0241	15.5	22.946232
13.05.2015 15:33:32.8	146.98	516.2	0.979	15.7	22.4352825
13.05.2015 15:33:32.9	146.65	516.2	0.9913	15.62	22.5757793
13.05.2015 15:33:33.0	146.64	516	1.0661	15.97	23.4120352
13.05.2015 15:33:33.1	146.1	516.1	1.0364	15.85	23.0836191
13.05.2015 15:33:33.2	143.88	516.3	1.0212	15.61	22.9137199
13.05.2015 15:33:33.3	144.07	516.4	1.0921	15.83	23.6958014
13.05.2015 15:33:33.4	144.06	516.2	1.0567	15.72	23.3085926
13.05.2015 15:33:33.5	142.34	516.2	0.9844	15.66	22.4970721
13.05.2015 15:33:33.6	141.46	516.4	1.0237	15.59	22.9417503
13.05.2015 15:33:33.7	141.49	516.3	0.9633	15.75	22.2546607
13.05.2015 15:33:33.8	141.35	516.3	0.9773	15.67	22.415795
13.05.2015 15:33:33.9	138.8	516.4	1.158	15.59	24.4002613
13.05.2015 15:33:34.0	138.96	516.4	1.0821	15.8	23.5870646
13.05.2015 15:33:34.1	138.91	516.4	1.0827	15.95	23.5936029
13.05.2015 15:33:34.2	137.54	516.2	1.0525	15.82	23.2622249
13.05.2015 15:33:34.3	135.85	516.2	1.0894	15.53	23.6664917
13.05.2015 15:33:34.4	135.99	516.1	1.075	15.87	23.5095561
13.05.2015 15:33:34.5	135.99	515.9	0.9557	15.95	22.1666973
13.05.2015 15:33:34.6	133.62	515.8	1.0118	15.82	22.8080174
13.05.2015 15:33:34.7	133.43	515.9	0.9559	15.54	22.1690166
13.05.2015 15:33:34.8	133.38	516	1.0411	16.16	23.1359012
13.05.2015 15:33:34.9	131.78	515.7	1.0199	15.85	22.8991306
13.05.2015 15:33:35.0	130.75	515.7	0.8948	15.67	21.4488091
13.05.2015 15:33:35.1	130.88	515.9	0.976	15.55	22.4008814
13.05.2015 15:33:35.2	130.81	515.9	1.0247	15.71	22.9529529
13.05.2015 15:33:35.3	128.12	515.8	1.0034	15.83	22.7131435
13.05.2015 15:33:35.4	128.31	515.9	0.9725	15.75	22.3606798
13.05.2015 15:33:35.5	128.3	516	0.8715	15.57	21.1677108
13.05.2015 15:33:35.6	126.21	516	0.9027	15.64	21.5432846
13.05.2015 15:33:35.7	125.69	516	0.9768	15.66	22.4100602
13.05.2015 15:33:35.8	125.71	516	1.0119	15.57	22.8091444
13.05.2015 15:33:35.9	125.35	516.1	0.8739	15.75	21.1968373

13.05.2015 15:33:36.0	122.93	516.1	0.8783	15.93	21.2501323
13.05.2015 15:33:36.1	123.18	516	0.9267	15.75	21.8277906
13.05.2015 15:33:36.2	123.13	516.1	0.968	15.52	22.3088856
13.05.2015 15:33:36.3	120.67	516.2	0.9247	15.84	21.8042235
13.05.2015 15:33:36.4	120.57	516.1	0.9425	15.92	22.0130833
13.05.2015 15:33:36.5	120.57	516.2	0.9632	15.85	22.2535055
13.05.2015 15:33:36.6	118.91	516.3	1.0341	15.53	23.057991
13.05.2015 15:33:36.7	117.97	516.4	1.0844	15.72	23.6121184
13.05.2015 15:33:36.8	118.02	516.3	0.9636	15.93	22.2581258
13.05.2015 15:33:36.9	117.88	516.4	0.984	15.79	22.4925009
13.05.2015 15:33:37.0	115.28	516.5	1.0066	15.85	22.7493326
13.05.2015 15:33:37.1	115.43	516.7	1.0503	15.81	23.2379001
13.05.2015 15:33:37.2	115.45	516.4	1.0132	15.9	22.8237913
13.05.2015 15:33:37.3	114.27	516.6	1.0301	15.65	23.0133526
13.05.2015 15:33:37.4	112.73	516.8	0.9313	15.47	21.8818985
13.05.2015 15:33:37.5	112.9	516.8	1.02	15.67	22.9002531
13.05.2015 15:33:37.6	112.85	516.7	0.9499	15.87	22.0993317
13.05.2015 15:33:37.7	110.52	516.7	0.8908	15.55	21.4008144
13.05.2015 15:33:37.8	110.33	516.8	1.0372	15.72	23.0925265
13.05.2015 15:33:37.9	110.26	516.7	0.9153	15.66	21.6931155
13.05.2015 15:33:38.0	109.57	516.7	0.9951	15.5	22.6190083
13.05.2015 15:33:38.1	107.14	516.7	0.9939	15.32	22.605366
13.05.2015 15:33:38.2	107.38	516.7	1.0468	15.56	23.199149
13.05.2015 15:33:38.3	107.34	516.6	1.066	15.71	23.4109372
13.05.2015 15:33:38.4	105.52	516.4	1.012	15.64	22.8102714
13.05.2015 15:33:38.5	104.72	516.6	0.9741	15.71	22.3790666
13.05.2015 15:33:38.6	104.77	516.5	0.8849	15.69	21.3298251
13.05.2015 15:33:38.7	103.74	516.1	0.9343	15.74	21.9171143
13.05.2015 15:33:38.8	102.06	516	1.0215	15.74	22.9170854
13.05.2015 15:33:38.9	102.25	516.2	1.0191	15.78	22.8901479
13.05.2015 15:33:39.0	102.23	516.2	1.0545	15.64	23.2843162
13.05.2015 15:33:39.1	99.94	515.9	0.9782	15.7	22.426114
13.05.2015 15:33:39.2	99.64	515.9	1.0049	15.63	22.7301143
13.05.2015 15:33:39.3	99.63	516	0.9849	15.62	22.5027847
13.05.2015 15:33:39.4	98.13	516	1.0201	15.88	22.9013757
13.05.2015 15:33:39.5	97.01	515.8	0.8981	15.74	21.4883241
13.05.2015 15:33:39.6	97.11	515.8	0.9568	15.6	22.1794504
13.05.2015 15:33:39.7	97.07	515.9	0.8415	15.6	20.8001879
13.05.2015 15:33:39.8	94.42	515.8	0.9099	15.86	21.6290293
13.05.2015 15:33:39.9	94.52	515.8	0.9865	15.81	22.5210556
13.05.2015 15:33:40.0	94.5	515.9	0.9586	15.79	22.2003034
13.05.2015 15:33:40.1	92.6	516	1.0254	15.8	22.9607914
13.05.2015 15:33:40.2	91.9	515.9	1.0179	15.86	22.8766672
13.05.2015 15:33:40.3	91.95	516	1.1018	15.62	23.8008014
13.05.2015 15:33:40.4	90.83	516.1	1.0476	15.53	23.2080121
13.05.2015 15:33:40.5	89.19	516.1	1.07	15.78	23.454819
13.05.2015 15:33:40.6	89.38	516	1.0194	15.81	22.8935168
13.05.2015 15:33:40.7	89.37	515.9	1.0824	15.84	23.590334
13.05.2015 15:33:40.8	87	516	1.0351	15.81	23.0691372
13.05.2015 15:33:40.9	86.8	516	0.9413	15.81	21.9990652
13.05.2015 15:33:41.0	86.85	515.8	0.9117	15.74	21.6504125
13.05.2015 15:33:41.1	86.19	515.7	0.976	15.77	22.4008814
13.05.2015 15:33:41.2	84.01	515.9	0.8519	15.52	20.9283267
13.05.2015 15:33:41.3	84.27	516	0.96	15.69	22.2165088
13.05.2015 15:33:41.4	84.21	515.9	0.987	15.85	22.5267621
13.05.2015 15:33:41.5	82.37	515.9	0.9895	15.75	22.5552734
13.05.2015 15:33:41.6	81.64	516.1	0.9604	15.7	22.2211368
13.05.2015 15:33:41.7	81.64	516	0.9012	15.75	21.5253781
13.05.2015 15:33:41.8	81.4	516	0.9004	15.75	21.5158219
13.05.2015 15:33:41.9	78.57	516.1	0.8723	15.61	21.1774241
13.05.2015 15:33:42.0	78.75	516.1	0.9915	15.65	22.5780565
13.05.2015 15:33:42.1	78.7	516.1	0.9431	15.85	22.020089
13.05.2015 15:33:42.2	77.4	516	0.9303	15.73	21.8701473
13.05.2015 15:33:42.3	76.02	516.1	0.932	15.57	21.8901206
13.05.2015 15:33:42.4	76.19	516.2	0.9175	15.78	21.7191705
13.05.2015 15:33:42.5	75.6	516	0.902	16.12	21.5349301
13.05.2015 15:33:42.6	73.4	516	0.8855	15.91	21.3370552
13.05.2015 15:33:42.7	73.63	516.2	1.0099	15.68	22.7865924
13.05.2015 15:33:42.8	73.56	516.2	0.9229	15.73	21.7829914
13.05.2015 15:33:42.9	71.86	515.9	0.9177	15.69	21.7215375
13.05.2015 15:33:43.0	70.98	515.7	0.9357	15.9	21.9335289

13.05.2015 15:33:43.1	71.02	515.9	0.9373	15.73	21.9522735
13.05.2015 15:33:43.2	70.11	515.9	0.9325	15.76	21.8959916
13.05.2015 15:33:43.3	68.3	515.6	0.9587	15.79	22.2014613
13.05.2015 15:33:43.4	68.47	515.6	0.9339	15.57	21.9124221
13.05.2015 15:33:43.5	68.44	515.6	0.9322	15.85	21.8924692
13.05.2015 15:33:43.6	66.28	515.6	0.8911	16.08	21.4044178
13.05.2015 15:33:43.7	65.85	515.4	0.9317	15.9	21.8865972
13.05.2015 15:33:43.8	65.91	515.4	0.8741	15.77	21.1992627
13.05.2015 15:33:43.9	64.52	515.6	0.8508	15.96	20.9148107
13.05.2015 15:33:44.0	63.18	515.5	0.8673	15.88	21.1166426
13.05.2015 15:33:44.1	63.35	515.5	0.9862	15.78	22.5176309
13.05.2015 15:33:44.2	63.31	515.5	0.9472	15.68	22.0679018
13.05.2015 15:33:44.3	60.72	515.6	0.8982	15.78	21.4895204
13.05.2015 15:33:44.4	60.75	515.4	0.9204	15.66	21.7534679
13.05.2015 15:33:44.5	60.74	515.3	0.8569	15.66	20.9896535
13.05.2015 15:33:44.6	58.93	515.5	0.8753	15.68	21.2138093
13.05.2015 15:33:44.7	58.15	515.6	0.911	15.86	21.6420993
13.05.2015 15:33:44.8	58.19	515.4	0.9264	15.86	21.8242572
13.05.2015 15:33:44.9	57.96	515.3	0.9149	15.79	21.6883749
13.05.2015 15:33:45.0	55.45	515.6	0.9105	15.72	21.6361594
13.05.2015 15:33:45.1	55.59	515.7	0.9291	15.91	21.8560375
13.05.2015 15:33:45.2	55.62	515.5	0.9049	15.8	21.5695205
13.05.2015 15:33:45.3	54.34	515.5	0.91	15.77	21.6302178
13.05.2015 15:33:45.4	52.91	515.8	0.9716	15.61	22.3503305
13.05.2015 15:33:45.5	53.05	515.8	0.8583	15.55	21.0067929
13.05.2015 15:33:45.6	53.07	515.7	0.8976	15.65	21.4823416
13.05.2015 15:33:45.7	50.18	515.8	0.9388	15.82	21.9698321
13.05.2015 15:33:45.8	50.12	515.9	0.8672	15.81	21.1154252
13.05.2015 15:33:45.9	50.09	515.9	0.8538	15.76	20.951652
13.05.2015 15:33:46.0	49.34	515.8	0.8938	15.8	21.4368205
13.05.2015 15:33:46.1	47.33	516	0.9934	15.57	22.5996792
13.05.2015 15:33:46.2	47.55	516.1	0.8888	15.67	21.3767767
13.05.2015 15:33:46.3	47.51	516	0.9458	15.81	22.0515871
13.05.2015 15:33:46.4	45.57	516	0.9538	15.73	22.1446518
13.05.2015 15:33:46.5	44.92	516.1	0.9172	15.55	21.7156193
13.05.2015 15:33:46.6	44.92	516.1	0.8989	15.74	21.4978925
13.05.2015 15:33:46.7	44.6	515.9	0.8867	15.82	21.3515079
13.05.2015 15:33:46.8	41.83	515.7	0.9135	15.51	21.6717745
13.05.2015 15:33:46.9	42.03	515.8	0.9005	15.56	21.5170166
13.05.2015 15:33:47.0	42.02	515.7	0.9363	15.69	21.94056
13.05.2015 15:33:47.1	40.58	515.3	0.8971	15.86	21.4763575
13.05.2015 15:33:47.2	39.3	515.3	0.804	15.72	20.3314439
13.05.2015 15:33:47.3	39.45	515.4	0.8456	15.68	20.8507982
13.05.2015 15:33:47.4	39.44	515.3	0.9227	15.82	21.780631
13.05.2015 15:33:47.5	36.85	515.3	0.9917	15.93	22.5803336
13.05.2015 15:33:47.6	36.95	515.3	0.9018	15.58	21.5325425
13.05.2015 15:33:47.7	36.88	515.3	0.8817	15.8	21.2912234
13.05.2015 15:33:47.8	35.87	515.3	0.8355	15.66	20.7259012
13.05.2015 15:33:47.9	33.73	515.2	0.7698	15.82	19.8943223
13.05.2015 15:33:48.0	33.94	515.3	0.8384	15.64	20.7618396
13.05.2015 15:33:48.1	33.93	515.5	0.9245	15.68	21.8018654
13.05.2015 15:33:48.2	31.85	515.4	0.9629	15.84	22.2500397
13.05.2015 15:33:48.3	31.35	515.5	0.922	15.73	21.7723676
13.05.2015 15:33:48.4	31.38	515.6	0.9586	15.55	22.2003034
13.05.2015 15:33:48.5	30.07	515.8	0.9364	15.77	21.9417317
13.05.2015 15:33:48.6	28.65	515.6	0.8425	15.69	20.8125432
13.05.2015 15:33:48.7	28.82	515.4	0.9199	15.59	21.7475584
13.05.2015 15:33:48.8	28.78	515.7	0.8807	15.51	21.279146
13.05.2015 15:33:48.9	26.31	515.8	0.8875	15.56	21.3611376
13.05.2015 15:33:49.0	26.28	515.6	0.7689	15.8	19.8826894
13.05.2015 15:33:49.1	26.24	515.7	0.8288	15.75	20.6426319
13.05.2015 15:33:49.2	24.48	515.9	0.8307	15.55	20.6662797
13.05.2015 15:33:49.3	23.62	516	0.8871	15.94	21.3563233
13.05.2015 15:33:49.4	23.65	515.8	0.8102	15.66	20.4096857
13.05.2015 15:33:49.5	23.45	515.8	0.855	15.58	20.9663704
13.05.2015 15:33:49.6	20.98	516	0.8437	15.91	20.8273599
13.05.2015 15:33:49.7	21.13	516	0.9103	15.64	21.633783
13.05.2015 15:33:49.8	21.11	515.9	0.8544	15.89	20.9590125
13.05.2015 15:33:49.9	18.93	516.1	0.848	15.76	20.8803668
13.05.2015 15:33:50.0	18.53	516.2	0.9375	15.77	21.9546155
13.05.2015 15:33:50.1	18.51	516.2	0.8729	15.94	21.1847061

13.05.2015 15:33:50.2	17.98	516.3	0.8676	15.74	21.1202945
13.05.2015 15:33:50.3	15.76	516.5	0.8563	15.65	20.9823037
13.05.2015 15:33:50.4	15.98	516.7	0.8591	16.15	21.0165806
13.05.2015 15:33:50.5	16	516.5	0.842	16.13	20.8063664
13.05.2015 15:33:50.6	13.38	516.6	0.8421	15.67	20.8076019
13.05.2015 15:33:50.7	13.39	516.8	0.8547	15.62	20.9626918
13.05.2015 15:33:50.8	13.38	516.9	0.8369	15.87	20.7432586
13.05.2015 15:33:50.9	12.51	516.7	0.9113	15.8	21.6456625
13.05.2015 15:33:51.0	10.61	516.8	0.8465	15.82	20.8618913
13.05.2015 15:33:51.1	10.83	516.9	0.8512	15.71	20.9197266
13.05.2015 15:33:51.2	10.82	517	0.8179	15.77	20.5064414
13.05.2015 15:33:51.3	8.77	516.7	0.8862	15.7	21.3454871
13.05.2015 15:33:51.4	8.21	516.8	0.8404	15.7	20.7865885
13.05.2015 15:33:51.5	8.24	516.8	0.8725	15.63	21.1798517
13.05.2015 15:33:51.6	7.76	516.8	0.917	15.89	21.7132516
13.05.2015 15:33:51.7	5.08	516.6	0.8767	15.76	21.2307678
13.05.2015 15:33:51.8	5.33	516.6	0.8944	15.65	21.4440145
13.05.2015 15:33:51.9	5.34	516.7	0.8543	15.65	20.9577859
13.05.2015 15:33:52.0	3.76	516.7	0.8285	15.8	20.6388956
13.05.2015 15:33:52.1	2.66	516.8	0.8883	15.61	21.370763
13.05.2015 15:33:52.2	2.77	516.9	0.8215	15.53	20.5515216
13.05.2015 15:33:52.3	2.71	517	0.9788	15.87	22.4329908
13.05.2015 15:33:52.4	0.02	516.9	0.893	15.88	21.4272248
13.05.2015 15:33:52.5	0.2	517	0.8669	15.8	21.1117726
13.05.2015 15:33:52.6	0.17	517.2	0.8567	15.74	20.9872038
13.05.2015 15:33:52.7	-1	517.3	0.8297	15.72	20.6538369
13.05.2015 15:33:52.8	-2.94	517.2	0.8885	15.78	21.3731687
13.05.2015 15:33:52.9	-2.78	517.3	0.8822	15.61	21.2972596
13.05.2015 15:33:53.0	-2.77	517.5	0.8091	15.62	20.395826
13.05.2015 15:33:53.1	-5.01	517.7	0.7308	15.91	19.3838244
13.05.2015 15:33:53.2	-5.36	517.4	0.7745	15.83	19.9549621
13.05.2015 15:33:53.3	-5.35	517.4	0.7879	15.79	20.1268471
13.05.2015 15:33:53.4	-5.84	517.5	0.8598	16	21.025141
13.05.2015 15:33:53.5	-8.09	517.5	0.8621	15.89	21.0532438
13.05.2015 15:33:53.6	-7.87	517.4	0.9154	15.9	21.6943005
13.05.2015 15:33:53.7	-7.92	517.3	0.8785	16.12	21.2525516
13.05.2015 15:33:53.8	-9.86	517.4	0.8655	16.18	21.0947185
13.05.2015 15:33:53.9	-10.91	517.4	0.8451	16.08	20.8446328
13.05.2015 15:33:54.0	-10.85	517.2	0.9641	15.93	22.2638998
13.05.2015 15:33:54.1	-10.97	517.2	0.955	16.11	22.1585778
13.05.2015 15:33:54.2	-13.5	517.2	0.9212	15.99	21.7629198
13.05.2015 15:33:54.3	-13.37	517.1	0.9015	16	21.5289606
13.05.2015 15:33:54.4	-13.43	517	0.8985	16.11	21.4931088
13.05.2015 15:33:54.5	-15.52	517.3	0.8698	15.86	21.1470552
13.05.2015 15:33:54.6	-16.01	517.3	0.8258	15.97	20.6052381
13.05.2015 15:33:54.7	-15.99	517.1	0.8604	16.06	21.0324758
13.05.2015 15:33:54.8	-16.45	517.1	0.7993	15.91	20.2719303
13.05.2015 15:33:54.9	-18.72	517.4	0.8788	15.86	21.2561801
13.05.2015 15:33:55.0	-18.53	517.5	0.8177	15.94	20.503934
13.05.2015 15:33:55.1	-18.52	517.4	0.8785	15.94	21.2525516
13.05.2015 15:33:55.2	-21.08	517.5	0.8754	15.75	21.2150211
13.05.2015 15:33:55.3	-21.12	517.6	0.827	15.64	20.6202037
13.05.2015 15:33:55.4	-21.12	517.6	0.8457	15.78	20.852031
13.05.2015 15:33:55.5	-21.93	517.5	0.816	15.6	20.4826091
13.05.2015 15:33:55.6	-23.91	517.5	0.8252	15.57	20.5977511
13.05.2015 15:33:55.7	-23.63	517.7	0.8745	15.71	21.2041127
13.05.2015 15:33:55.8	-23.9	517.5	0.8141	15.78	20.458749
13.05.2015 15:33:55.9	-26.41	517.4	0.8418	15.75	20.8038952
13.05.2015 15:33:56.0	-26.22	517.4	0.8393	15.75	20.7729803
13.05.2015 15:33:56.1	-26.27	517.6	0.9093	15.84	21.6218969
13.05.2015 15:33:56.2	-27.51	517.4	0.9053	15.7	21.5742873
13.05.2015 15:33:56.3	-28.98	517.4	0.867	15.76	21.1129902
13.05.2015 15:33:56.4	-28.82	517.6	0.8424	15.6	20.811308
13.05.2015 15:33:56.5	-29.35	517.7	0.8894	15.64	21.3839908
13.05.2015 15:33:56.6	-31.57	517.6	0.863	15.78	21.0642303
13.05.2015 15:33:56.7	-31.4	517.6	0.8727	15.64	21.1822791
13.05.2015 15:33:56.8	-31.43	517.9	0.8235	15.65	20.5765234
13.05.2015 15:33:56.9	-33.08	518	0.8728	15.66	21.1834926
13.05.2015 15:33:57.0	-34.04	517.9	0.8413	15.71	20.7977159
13.05.2015 15:33:57.1	-33.97	517.9	0.7638	15.69	19.8166402
13.05.2015 15:33:57.2	-34.05	518.2	0.8783	15.6	21.2501323

13.05.2015 15:33:57.3	-36.64	518.2	0.8352	15.76	20.7221799
13.05.2015 15:33:57.4	-36.5	518.1	0.8767	15.69	21.2307678
13.05.2015 15:33:57.5	-36.54	518.2	0.8596	15.57	21.0226955
13.05.2015 15:33:57.6	-37.86	518.3	0.923	15.6	21.7841715
13.05.2015 15:33:57.7	-39.65	518.2	0.9113	15.85	21.6456625
13.05.2015 15:33:57.8	-39.46	518.3	0.8572	15.87	20.9933274
13.05.2015 15:33:57.9	-39.47	518.3	0.8455	15.73	20.8495652
13.05.2015 15:33:58.0	-41.78	518.4	0.9257	15.75	21.8160103
13.05.2015 15:33:58.1	-42.04	518.4	0.8865	15.77	21.3490998
13.05.2015 15:33:58.2	-42.05	518.4	0.8768	15.57	21.2319786
13.05.2015 15:33:58.3	-42.7	518.4	0.8592	15.59	21.0178037
13.05.2015 15:33:58.4	-44.84	518.4	0.8594	15.84	21.0202498
13.05.2015 15:33:58.5	-44.6	518.3	0.8366	15.89	20.7395404
13.05.2015 15:33:58.6	-44.59	518.3	0.8346	15.73	20.7147353
13.05.2015 15:33:58.7	-46.71	518.4	0.8595	15.61	21.0214727
13.05.2015 15:33:58.8	-47.62	518.4	0.8703	15.65	21.1531325
13.05.2015 15:33:58.9	-47.53	518.2	0.8421	15.59	20.8076019
13.05.2015 15:33:59.0	-47.79	518.2	0.8927	15.5	21.4236253
13.05.2015 15:33:59.1	-50.3	518.3	0.865	15.46	21.0886244
13.05.2015 15:33:59.2	-50.09	518.3	0.9069	15.64	21.5933437
13.05.2015 15:33:59.3	-50.11	518.1	0.8714	15.65	21.1664963
13.05.2015 15:33:59.4	-52.37	518	0.845	15.74	20.8433995
13.05.2015 15:33:59.5	-52.68	518.1	0.9301	15.9	21.8677963
13.05.2015 15:33:59.6	-52.68	518	0.833	15.58	20.6948698
13.05.2015 15:33:59.7	-53.3	517.9	0.8302	15.61	20.6600592
13.05.2015 15:33:59.8	-55.45	517.9	0.9209	15.83	21.7593758
13.05.2015 15:33:59.9	-55.26	517.9	0.8586	15.86	21.0104638
13.05.2015 15:34:00.0	-55.28	517.9	0.8888	15.8	21.3767767
13.05.2015 15:34:00.1	-57.89	517.9	0.8626	15.67	21.0593481
13.05.2015 15:34:00.2	-57.77	518	0.8655	15.55	21.0947185
13.05.2015 15:34:00.3	-57.87	518.1	0.8716	15.59	21.1689252
13.05.2015 15:34:00.4	-58.75	518	0.8674	15.82	21.111786
13.05.2015 15:34:00.5	-60.62	517.9	0.8696	15.65	21.1446238
13.05.2015 15:34:00.6	-60.43	518.1	0.8599	15.54	21.0263637
13.05.2015 15:34:00.7	-60.71	518	0.8206	15.57	20.5402608
13.05.2015 15:34:00.8	-63.1	517.7	0.7695	15.9	19.8904454
13.05.2015 15:34:00.9	-62.97	517.7	0.8527	15.5	20.9381511
13.05.2015 15:34:01.0	-62.98	517.8	0.8181	15.4	20.5089485
13.05.2015 15:34:01.1	-64.31	518	0.9091	15.6	21.6195189
13.05.2015 15:34:01.2	-65.69	517.8	0.8222	15.67	20.5602757
13.05.2015 15:34:01.3	-65.55	517.9	0.8537	15.48	20.950425
13.05.2015 15:34:01.4	-66.17	518	0.8926	15.45	21.4224254
13.05.2015 15:34:01.5	-68.31	518	0.8824	15.66	21.2996735
13.05.2015 15:34:01.6	-68.07	517.9	0.8681	15.59	21.1263794
13.05.2015 15:34:01.7	-68.1	517.9	0.8597	15.54	21.0239183
13.05.2015 15:34:01.8	-69.94	518	0.7803	15.39	20.0295412
13.05.2015 15:34:01.9	-70.73	518	0.8311	15.54	20.6712547
13.05.2015 15:34:02.0	-70.7	517.9	0.8633	15.53	21.0678912
13.05.2015 15:34:02.1	-70.94	517.9	0.8767	15.4	21.2307678
13.05.2015 15:34:02.2	-73.38	517.9	0.847	15.53	20.8680516
13.05.2015 15:34:02.3	-73.22	517.8	0.865	15.78	21.0886244
13.05.2015 15:34:02.4	-73.27	517.7	0.8431	15.64	20.8199529
13.05.2015 15:34:02.5	-74.71	517.8	0.9354	15.61	21.9300125
13.05.2015 15:34:02.6	-76.3	517.8	0.9473	15.43	22.0690666
13.05.2015 15:34:02.7	-76.19	517.7	0.9596	15.57	22.2118799
13.05.2015 15:34:02.8	-76.2	517.7	0.9911	15.54	22.5735018
13.05.2015 15:34:02.9	-78.7	517.8	0.9827	15.66	22.4776381
13.05.2015 15:34:03.0	-78.74	517.8	0.9584	15.5	22.1979874
13.05.2015 15:34:03.1	-78.72	517.7	0.9469	15.77	22.0644068
13.05.2015 15:34:03.2	-79.53	517.7	0.9102	15.59	21.6325947
13.05.2015 15:34:03.3	-81.55	517.9	0.8695	15.58	21.143408
13.05.2015 15:34:03.4	-81.28	517.9	0.8786	15.83	21.2537612
13.05.2015 15:34:03.5	-81.34	517.8	0.8033	15.54	20.3225912
13.05.2015 15:34:03.6	-83.63	517.8	0.8405	15.81	20.7878252
13.05.2015 15:34:03.7	-84.28	518	0.8029	15.51	20.3175308
13.05.2015 15:34:03.8	-84.28	517.9	0.8011	15.6	20.2947433
13.05.2015 15:34:03.9	-84.61	517.9	0.8964	15.55	21.467977
13.05.2015 15:34:04.0	-86.98	518	0.8741	15.54	21.1992627
13.05.2015 15:34:04.1	-86.79	518.1	0.9203	15.85	21.7522862
13.05.2015 15:34:04.2	-86.84	518.1	0.8714	15.71	21.1664963
13.05.2015 15:34:04.3	-89.21	518	0.8883	15.76	21.370763

13.05.2015 15:34:04.4	-89.45	518.2	0.8386	15.53	20.7643158
13.05.2015 15:34:04.5	-89.41	518.2	0.8788	15.71	21.2561801
13.05.2015 15:34:04.6	-90.01	518.1	0.8758	15.76	21.2198675
13.05.2015 15:34:04.7	-92.2	518.1	0.776	15.74	19.9742765
13.05.2015 15:34:04.8	-91.97	518.4	0.7833	15.74	20.0680078
13.05.2015 15:34:04.9	-92.03	518.4	0.7925	15.77	20.1855149
13.05.2015 15:34:05.0	-94.67	518.2	0.8172	15.82	20.4976643
13.05.2015 15:34:05.1	-94.56	518.2	0.8224	15.64	20.5627762
13.05.2015 15:34:05.2	-94.55	518.3	0.8754	15.54	21.2150211
13.05.2015 15:34:05.3	-95.59	518.4	0.8174	15.62	20.5001724
13.05.2015 15:34:05.4	-97.26	518.2	0.868	15.83	21.1251626
13.05.2015 15:34:05.5	-97.1	518.2	0.8714	15.68	21.1664963
13.05.2015 15:34:05.6	-97.5	518.3	0.859	15.63	21.0153573
13.05.2015 15:34:05.7	-99.86	518.2	0.851	15.78	20.9172688
13.05.2015 15:34:05.8	-99.68	518.3	0.8381	15.7	20.7581247
13.05.2015 15:34:05.9	-99.7	518.4	0.8478	15.56	20.8779043
13.05.2015 15:34:06.0	-101.18	518.5	0.9387	15.81	21.968662
13.05.2015 15:34:06.1	-102.29	518.5	0.8731	16	21.1871329
13.05.2015 15:34:06.2	-102.25	518.4	0.849	15.71	20.8926747
13.05.2015 15:34:06.3	-102.97	518.5	0.8499	15.28	20.9037456
13.05.2015 15:34:06.4	-105.03	518.5	0.8511	15.56	20.9184977
13.05.2015 15:34:06.5	-104.82	518.4	0.8526	15.68	20.9369233
13.05.2015 15:34:06.6	-104.86	518.3	0.8567	15.47	20.9872038
13.05.2015 15:34:06.7	-106.76	518.4	0.8764	15.36	21.227135
13.05.2015 15:34:06.8	-107.41	518.5	0.8776	15.62	21.2416625
13.05.2015 15:34:06.9	-107.34	518.3	0.8453	15.63	20.8470991
13.05.2015 15:34:07.0	-108.58	518.3	0.8599	15.62	21.0263637
13.05.2015 15:34:07.1	-110.14	518.4	0.8442	15.46	20.8335304
13.05.2015 15:34:07.2	-109.92	518.5	0.859	15.46	21.0153573
13.05.2015 15:34:07.3	-109.95	518.5	0.7549	15.7	19.7008475
13.05.2015 15:34:07.4	-112.34	518.6	0.8373	15.63	20.7482151
13.05.2015 15:34:07.5	-112.49	518.8	0.81	15.83	20.4071664
13.05.2015 15:34:07.6	-112.5	518.8	0.8321	15.92	20.6836871
13.05.2015 15:34:07.7	-112.54	518.8	0.7417	15.54	19.5278458
13.05.2015 15:34:07.8	-115.12	518.8	0.8106	15.62	20.4147233
13.05.2015 15:34:07.9	-115.07	518.9	0.8427	15.58	20.8150134
13.05.2015 15:34:08.0	-115.14	518.9	0.8487	15.9	20.8889831
13.05.2015 15:34:08.1	-117.21	518.8	0.9027	15.79	21.5432846
13.05.2015 15:34:08.2	-118.09	519.1	0.9084	15.66	21.6111939
13.05.2015 15:34:08.3	-118.03	519.2	0.8959	15.87	21.4619889
13.05.2015 15:34:08.4	-117.99	519.1	0.9246	15.62	21.8030445
13.05.2015 15:34:08.5	-120.11	519.1	0.8408	15.48	20.7915348
13.05.2015 15:34:08.6	-120.66	519.3	0.807	15.52	20.3693403
13.05.2015 15:34:08.7	-120.59	519.5	0.7888	15.51	20.138339
13.05.2015 15:34:08.8	-121.03	519.4	0.8465	15.72	20.8618913
13.05.2015 15:34:08.9	-123.38	519.4	0.9032	15.67	21.5492501
13.05.2015 15:34:09.0	-123.12	519.5	0.8997	15.52	21.5074567
13.05.2015 15:34:09.1	-123.14	519.6	0.8363	15.67	20.7358215
13.05.2015 15:34:09.2	-124.94	519.5	0.8977	15.63	21.4835383
13.05.2015 15:34:09.3	-126.19	519.4	0.8549	15.51	20.9651443
13.05.2015 15:34:09.4	-126.16	519.6	0.9053	15.45	21.5742873
13.05.2015 15:34:09.5	-126.15	519.6	0.8781	15.66	21.2477127
13.05.2015 15:34:09.6	-129.21	519.5	0.9058	15.66	21.5802442
13.05.2015 15:34:09.7	-129.05	519.5	0.9413	15.77	21.9990652
13.05.2015 15:34:09.8	-129.03	519.7	0.8941	15.7	21.4404178
13.05.2015 15:34:09.9	-129.21	519.7	0.967	15.82	22.2973594
13.05.2015 15:34:10.0	-131.76	519.7	0.8986	15.85	21.4943049
13.05.2015 15:34:10.1	-131.61	519.9	0.9308	15.76	21.8760237
13.05.2015 15:34:10.2	-131.6	520.1	1.0339	15.83	23.0557612
13.05.2015 15:34:10.3	-132.88	520	0.9564	15.86	22.1748138
13.05.2015 15:34:10.4	-134.31	520.1	0.8866	15.67	21.3503039
13.05.2015 15:34:10.5	-134.17	520.2	0.8917	15.47	21.4116226
13.05.2015 15:34:10.6	-134.16	520.3	0.8345	15.77	20.7134942
13.05.2015 15:34:10.7	-135.89	520	0.8273	15.83	20.6239435
13.05.2015 15:34:10.8	-137.22	520	0.8363	15.96	20.7358215
13.05.2015 15:34:10.9	-137.15	520.1	0.8235	15.44	20.5765234
13.05.2015 15:34:11.0	-137.95	520.2	0.9483	15.58	22.080712
13.05.2015 15:34:11.1	-140.29	520	0.8455	15.79	20.8495652
13.05.2015 15:34:11.2	-140.07	520.1	0.9204	15.57	21.7534679
13.05.2015 15:34:11.3	-140.05	520.2	0.9465	15.71	22.0597459
13.05.2015 15:34:11.4	-140.96	520.3	0.908	15.65	21.6064353

13.05.2015 15:34:11.5	-142.81	520.3	0.9723	15.84	22.3583804
13.05.2015 15:34:11.6	-142.62	520.4	0.8694	15.7	21.1421921
13.05.2015 15:34:11.7	-142.6	520.6	0.8138	15.83	20.4549791
13.05.2015 15:34:11.8	-145.11	520.6	0.9465	15.9	22.0597459
13.05.2015 15:34:11.9	-145.6	520.7	0.9755	15.65	22.3951427
13.05.2015 15:34:12.0	-145.54	520.8	0.9764	15.65	22.4054712
13.05.2015 15:34:12.1	-145.55	521.1	0.9191	16.04	21.7380999
13.05.2015 15:34:12.2	-147.95	521	0.9299	16.2	21.865445
13.05.2015 15:34:12.3	-148.13	521	0.9294	15.78	21.8595658
13.05.2015 15:34:12.4	-148.16	521.3	1.0618	15.8	23.3647726
13.05.2015 15:34:12.5	-150.03	521.5	1.0338	15.95	23.0546462
13.05.2015 15:34:12.6	-151.15	521.4	0.9534	15.85	22.1400079
13.05.2015 15:34:12.7	-151.09	521.4	0.8326	15.7	20.6899004
13.05.2015 15:34:12.8	-151.07	521.6	0.865	15.59	21.0886244
13.05.2015 15:34:12.9	-152.9	521.8	0.9117	15.84	21.6504125
13.05.2015 15:34:13.0	-153.69	521.6	0.8724	15.97	21.1786379
13.05.2015 15:34:13.1	-153.66	521.7	0.9573	16.1	22.1852449
13.05.2015 15:34:13.2	-153.93	521.9	1.001	15.93	22.6859639
13.05.2015 15:34:13.3	-156.36	521.9	1.0349	15.88	23.0669084
13.05.2015 15:34:13.4	-156.17	521.9	0.8911	15.66	21.4044178
13.05.2015 15:34:13.5	-156.25	521.9	0.8834	15.46	21.3117393
13.05.2015 15:34:13.6	-156.74	522	0.9537	15.38	22.1434909
13.05.2015 15:34:13.7	-159.33	522.1	0.86	15.62	21.0275862
13.05.2015 15:34:13.8	-159.12	522.1	0.8634	15.64	21.0691114
13.05.2015 15:34:13.9	-159.2	522.2	0.994	15.33	22.6065031
13.05.2015 15:34:14.0	-162.04	522.3	0.9819	15.73	22.4684869
13.05.2015 15:34:14.1	-162.08	522.2	0.9571	15.6	22.1829273
13.05.2015 15:34:14.2	-162.11	522.1	0.8902	15.52	21.3936059
13.05.2015 15:34:14.3	-162.13	522.3	0.9477	15.47	22.0737255
13.05.2015 15:34:14.4	-164.75	522.4	0.9037	15.82	21.555214
13.05.2015 15:34:14.5	-164.61	522.3	0.8547	15.84	20.9626918
13.05.2015 15:34:14.6	-164.71	522.2	0.9535	15.63	22.1411689
13.05.2015 15:34:14.7	-165.9	522.5	0.827	15.53	20.6202037
13.05.2015 15:34:14.8	-167.78	522.6	0.8059	15.52	20.3554532
13.05.2015 15:34:14.9	-167.56	522.5	0.9979	15.64	22.6508085
13.05.2015 15:34:15.0	-167.61	522.4	0.9918	15.61	22.581472
13.05.2015 15:34:15.1	-168.91	522.6	0.9598	15.33	22.2141945
13.05.2015 15:34:15.2	-170.23	522.6	0.9024	15.67	21.5397045
13.05.2015 15:34:15.3	-170.17	522.5	0.9496	15.59	22.0958417
13.05.2015 15:34:15.4	-170.88	522.6	1.0118	15.59	22.8080174
13.05.2015 15:34:15.5	-173.29	522.7	0.8567	15.57	20.9872038
13.05.2015 15:34:15.6	-173.08	522.8	0.9083	15.7	21.6100043
13.05.2015 15:34:15.7	-173.12	522.8	0.9917	15.75	22.5803336
13.05.2015 15:34:15.8	-174.85	522.9	0.9401	15.48	21.9850381
13.05.2015 15:34:15.9	-175.69	523	0.9137	15.34	21.6741468
13.05.2015 15:34:16.0	-175.65	523	0.9059	15.58	21.5814354
13.05.2015 15:34:16.1	-175.72	522.9	0.9111	15.91	21.6432871
13.05.2015 15:34:16.2	-177.7	523.1	0.9417	15.57	22.0037389
13.05.2015 15:34:16.3	-178.27	523.2	0.8643	15.46	21.0800897
13.05.2015 15:34:16.4	-178.22	523.1	0.8356	15.53	20.7271415
13.05.2015 15:34:16.5	-179.67	523.1	0.9603	15.59	22.2199799
13.05.2015 15:34:16.6	-181.31	523.3	1.0067	15.49	22.7504626
13.05.2015 15:34:16.7	-181.13	523.3	0.8931	15.57	21.4284245
13.05.2015 15:34:16.8	-181.19	523.3	0.8698	15.56	21.1470552
13.05.2015 15:34:16.9	-182.69	523.3	0.8582	15.57	21.0055691
13.05.2015 15:34:17.0	-183.83	523.5	0.8286	15.4	20.6401411
13.05.2015 15:34:17.1	-183.73	523.5	0.7545	15.5	19.6956274
13.05.2015 15:34:17.2	-183.73	523.4	0.8529	15.62	20.9406064
13.05.2015 15:34:17.3	-186.36	523.5	0.8779	15.54	21.2452928
13.05.2015 15:34:17.4	-186.28	523.6	0.91	15.94	21.6302178
13.05.2015 15:34:17.5	-186.3	523.5	0.8292	15.9	20.6476126
13.05.2015 15:34:17.6	-186.51	523.5	0.9125	15.82	21.6599093
13.05.2015 15:34:17.7	-189.41	523.5	0.9223	15.52	21.7759094
13.05.2015 15:34:17.8	-189.2	523.5	0.8765	15.64	21.228346
13.05.2015 15:34:17.9	-189.26	523.5	0.9078	15.82	21.6040556
13.05.2015 15:34:18.0	-191.68	523.4	0.7562	15.8	19.7178035
13.05.2015 15:34:18.1	-192.18	523.5	0.6903	15.52	18.8390559
13.05.2015 15:34:18.2	-192.18	523.6	0.7781	15.65	
13.05.2015 15:34:18.3	-192.2	523.5	0.8138	15.66	
13.05.2015 15:34:18.4	-194.54	523.4	0.9399	15.57	
13.05.2015 15:34:18.5	-194.76	523.7	0.8787	15.47	

13.05.2015 15:34:18.6	-194.74	523.7	0.8783	15.59
13.05.2015 15:34:18.7	-195.47	523.6	0.7618	15.69
13.05.2015 15:34:18.8	-197.92	523.6	0.8147	15.63
13.05.2015 15:34:18.9	-197.67	523.6	0.7464	15.62
13.05.2015 15:34:19.0	-197.65	523.7	0.7626	15.83
13.05.2015 15:34:19.1	-198.6	523.6	0.7532	15.72
13.05.2015 15:34:19.2	-200.52	523.5	0.6649	15.44
13.05.2015 15:34:19.3	-200.22	523.6	0.8535	15.85
13.05.2015 15:34:19.4	-200.27	523.6	0.8036	15.8
13.05.2015 15:34:19.5	-202.68	523.6	0.8531	15.79
13.05.2015 15:34:19.6	-203.19	523.6	0.8784	15.75
13.05.2015 15:34:19.7	-203.21	523.8	0.9497	15.83
13.05.2015 15:34:19.8	-204.53	523.7	0.9739	15.92
13.05.2015 15:34:19.9	-205.92	523.8	0.8134	15.79
13.05.2015 15:34:20.0	-205.77	523.9	0.7182	15.57
13.05.2015 15:34:20.1	-205.77	524.1	0.8421	16.11
13.05.2015 15:34:20.2	-207.32	523.9	0.9356	16
13.05.2015 15:34:20.3	-208.43	523.9	0.9579	16.12
13.05.2015 15:34:20.4	-208.32	524.2	1.0499	15.69
13.05.2015 15:34:20.5	-209.22	524.3	0.907	15.63
13.05.2015 15:34:20.6	-211.55	524.1	0.8769	15.97
13.05.2015 15:34:20.7	-211.28	524.2	0.8156	15.69
13.05.2015 15:34:20.8	-211.28	524.4	0.8696	15.61
13.05.2015 15:34:20.9	-212.3	524.5	0.9629	15.83
13.05.2015 15:34:21.0	-213.99	524.4	0.9624	15.59
13.05.2015 15:34:21.1	-213.82	524.5	0.88	15.51
13.05.2015 15:34:21.2	-213.84	524.7	0.888	15.71
13.05.2015 15:34:21.3	-215.31	524.8	0.8281	15.72
13.05.2015 15:34:21.4	-216.95	524.7	0.9741	15.89
13.05.2015 15:34:21.5	-216.79	524.8	0.963	15.65
13.05.2015 15:34:21.6	-216.77	525	1.0387	15.44
13.05.2015 15:34:21.7	-217.49	525	0.9087	15.65
13.05.2015 15:34:21.8	-217.56	525	0.7514	15.62
13.05.2015 15:34:21.9	-217.52	525.2	0.9044	15.66
13.05.2015 15:34:22.0	-217.53	525.3	0.7276	15.68
13.05.2015 15:34:22.1	-217.59	525.3	0.8255	15.87
13.05.2015 15:34:22.2	-217.56	525.4	0.8101	15.64
13.05.2015 15:34:22.3	-217.53	525.6	0.8543	15.54
13.05.2015 15:34:22.4	-217.53	525.7	0.9932	15.63
13.05.2015 15:34:22.5	-217.51	525.7	0.8625	15.71
13.05.2015 15:34:22.6	-217.53	525.7	0.8706	15.61
13.05.2015 15:34:22.7	-217.56	525.9	0.7859	15.6
13.05.2015 15:34:22.8	-217.53	526	0.7464	15.78
13.05.2015 15:34:22.9	-217.55	525.8	0.8444	15.86
13.05.2015 15:34:23.0	-217.58	525.8	0.8558	15.73
13.05.2015 15:34:23.1	-217.49	526	0.8265	15.78
13.05.2015 15:34:23.2	-217.54	526	0.8063	15.68
13.05.2015 15:34:23.3	-217.55	525.8	0.8252	15.51
13.05.2015 15:34:23.4	-217.54	525.8	0.9835	15.62
13.05.2015 15:34:23.5	-217.53	525.9	0.9192	15.44

Calculation of mass flow rate based on polynomial equation fitted to the experimental data

$$y = -2.28025849E-14x^6 + 3.75101990E-12x^5 + 6.75572167E-10x^4 - 1.90333216E-07x^3 + 4.73712406E-05x^2 + 6.56959408E-03x + 2.08810302E+01$$

Please enter below Polynomial Coefficients

Order no	Coeff
6	-2.28025849E-14
5	3.75101990E-12
4	6.75572167E-10
3	-1.90333216E-07
2	4.73712406E-05
1	6.56959408E-03
0	2.08810302E+01

Actual Area	0.274324656	[m2]
Integrated area	0.274324656	[m2]
Area Error	0	[%]
Integrated Mass flow	2.387330667	[Kg/s]

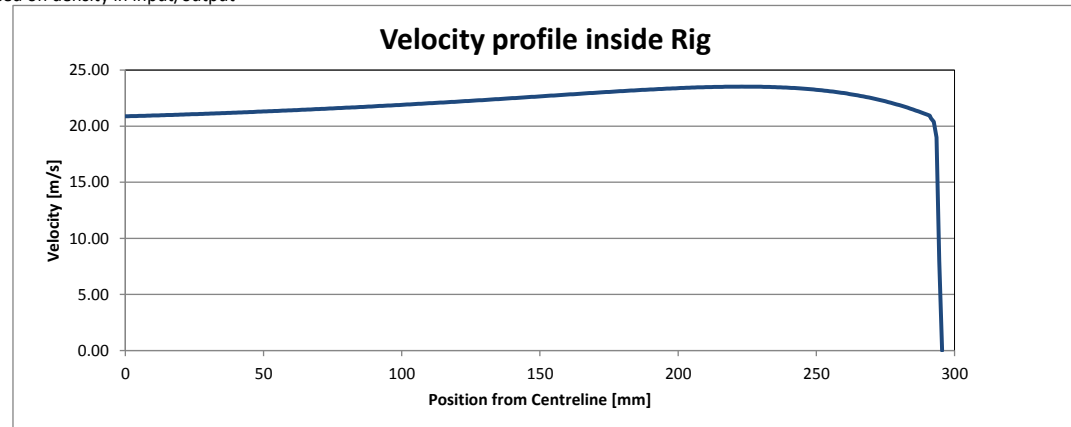
Polynomial curve (dP vs position)

Please do NOT alter any of the figures below

position [mm]	Velocity [m/s]
0	20.881030
1	20.887647
2	20.894357
3	20.901160
4	20.908055
5	20.915039
6	20.922113
7	20.929275
8	20.936524
9	20.943860
10	20.951280
11	20.958785
12	20.966373
13	20.974043
14	20.981795
15	20.989627
16	20.997539
17	21.005530
18	21.013598
19	21.021744
20	21.029967
21	21.038264
22	21.046637
23	21.055084
24	21.063605
25	21.072198
26	21.080864
27	21.089601
28	21.098409
29	21.107287
30	21.116235
31	21.125252
32	21.134338
33	21.143493

Delta Area [m2]	Delta Mass flow [Kg/s]
0	0
3.14159E-06	2.55264E-05
9.42478E-06	7.66037E-05
1.5708E-05	0.000127714
2.19911E-05	0.000178859
2.82743E-05	0.000230039
3.45575E-05	0.000281253
4.08407E-05	0.000332504
4.71239E-05	0.000383791
5.34071E-05	0.000435116
5.96903E-05	0.000486478
6.59734E-05	0.000537879
7.22566E-05	0.000589319
7.85398E-05	0.000640799
8.4823E-05	0.000692318
9.11062E-05	0.000743879
9.73894E-05	0.000795481
0.000103673	0.000847124
0.000109956	0.00089881
0.000116239	0.000950539
0.000122522	0.001002311
0.000128805	0.001054128
0.000135088	0.001105989
0.000141372	0.001157894
0.000147655	0.001209846
0.000153938	0.001261843
0.000160221	0.001313887
0.000166504	0.001365978
0.000172788	0.001418116
0.000179071	0.001470303
0.000185354	0.001522537
0.000191637	0.001574821
0.00019792	0.001627154
0.000204204	0.001679537

Based on density in input/output



34	21.152715
35	21.162004
36	21.171360
37	21.180783
38	21.190272
39	21.199827
40	21.209447
41	21.219132
42	21.228882
43	21.238696
44	21.248575
45	21.258518
46	21.268524
47	21.278594
48	21.288728
49	21.298925
50	21.309185
51	21.319508
52	21.329893
53	21.340342
54	21.350854
55	21.361428
56	21.372065
57	21.382764
58	21.393526
59	21.404351
60	21.415239
61	21.426189
62	21.437202
63	21.448278
64	21.459417
65	21.470619
66	21.481884
67	21.493213
68	21.504604
69	21.516060
70	21.527579
71	21.539162
72	21.550808
73	21.562519
74	21.574295
75	21.586135
76	21.598039
77	21.610009
78	21.622043
79	21.634143
80	21.646308
81	21.658539
82	21.670836
83	21.683199

0.000210487	0.00173197
0.00021677	0.001784454
0.000223053	0.001836989
0.000229336	0.001889576
0.000235619	0.001942215
0.000241903	0.001994906
0.000248186	0.002047651
0.000254469	0.002100449
0.000260752	0.002153301
0.000267035	0.002206207
0.000273319	0.002259168
0.000279602	0.002312184
0.000285885	0.002365256
0.000292168	0.002418385
0.000298451	0.002471569
0.000304734	0.002524811
0.000311018	0.00257811
0.000317301	0.002631468
0.000323584	0.002684883
0.000329867	0.002738358
0.00033615	0.002791891
0.000342434	0.002845485
0.000348717	0.002899138
0.000355	0.002952853
0.000361283	0.003006628
0.000367566	0.003060465
0.00037385	0.003114364
0.000380133	0.003168325
0.000386416	0.00322235
0.000392699	0.003276438
0.000398982	0.00333059
0.000405265	0.003384806
0.000411549	0.003439087
0.000417832	0.003493433
0.000424115	0.003547845
0.000430398	0.003602324
0.000436681	0.003656869
0.000442965	0.003711482
0.000449248	0.003766163
0.000455531	0.003820912
0.000461814	0.003875729
0.000468097	0.003930616
0.00047438	0.003985573
0.000480664	0.0040406
0.000486947	0.004095698
0.00049323	0.004150867
0.000499513	0.004206108
0.000505796	0.004261422
0.00051208	0.004316808
0.000518363	0.004372268

84	21.695628
85	21.708123
86	21.720685
87	21.733314
88	21.746010
89	21.758773
90	21.771603
91	21.784501
92	21.797466
93	21.810499
94	21.823600
95	21.836769
96	21.850005
97	21.863310
98	21.876683
99	21.890124
100	21.903634
101	21.917211
102	21.930857
103	21.944571
104	21.958353
105	21.972203
106	21.986121
107	22.000107
108	22.014160
109	22.028281
110	22.042469
111	22.056724
112	22.071045
113	22.085433
114	22.099887
115	22.114406
116	22.128990
117	22.143639
118	22.158352
119	22.173128
120	22.187967
121	22.202869
122	22.217832
123	22.232856
124	22.247939
125	22.263082
126	22.278283
127	22.293541
128	22.308856
129	22.324225
130	22.339649
131	22.355125
132	22.370652
133	22.386230

0.000524646	0.004427802
0.000530929	0.00448341
0.000537212	0.004539093
0.000543496	0.004594852
0.000549779	0.004650687
0.000556062	0.004706598
0.000562345	0.004762587
0.000568628	0.004818653
0.000574911	0.004874797
0.000581195	0.00493102
0.000587478	0.004987323
0.000593761	0.005043705
0.000600044	0.005100167
0.000606327	0.00515671
0.000612611	0.005213334
0.000618894	0.00527004
0.000625177	0.005326829
0.00063146	0.0053837
0.000637743	0.005440654
0.000644026	0.005497692
0.00065031	0.005554815
0.000656593	0.005612022
0.000662876	0.005669314
0.000669159	0.005726693
0.000675442	0.005784157
0.000681726	0.005841708
0.000688009	0.005899345
0.000694292	0.005957071
0.000700575	0.006014884
0.000706858	0.006072785
0.000713142	0.006130775
0.000719425	0.006188854
0.000725708	0.006247022
0.000731991	0.00630528
0.000738274	0.006363628
0.000744557	0.006422066
0.000750841	0.006480595
0.000757124	0.006539215
0.000763407	0.006597926
0.00076969	0.006656728
0.000775973	0.006715622
0.000782257	0.006774607
0.00078854	0.006833684
0.000794823	0.006892854
0.000801106	0.006952115
0.000807389	0.007011469
0.000813672	0.007070914
0.000819956	0.007130452
0.000826239	0.007190082
0.000832522	0.007249805

134	22.401856
135	22.417530
136	22.433249
137	22.449012
138	22.464818
139	22.480664
140	22.496549
141	22.512471
142	22.528428
143	22.544417
144	22.560437
145	22.576485
146	22.592559
147	22.608656
148	22.624775
149	22.640911
150	22.657063
151	22.673228
152	22.689403
153	22.705584
154	22.721770
155	22.737955
156	22.754137
157	22.770313
158	22.786479
159	22.802632
160	22.818766
161	22.834879
162	22.850967
163	22.867025
164	22.883049
165	22.899034
166	22.914977
167	22.930871
168	22.946713
169	22.962498
170	22.978220
171	22.993874
172	23.009455
173	23.024956
174	23.040374
175	23.055701
176	23.070932
177	23.086060
178	23.101079
179	23.115983
180	23.130765
181	23.145418
182	23.159935
183	23.174310

0.000838805	0.007309619
0.000845088	0.007369525
0.000851372	0.007429523
0.000857655	0.007489613
0.000863938	0.007549793
0.000870221	0.007610065
0.000876504	0.007670428
0.000882788	0.00773088
0.000889071	0.007791423
0.000895354	0.007852055
0.000901637	0.007912776
0.00090792	0.007973585
0.000914203	0.008034482
0.000920487	0.008095466
0.00092677	0.008156536
0.000933053	0.008217691
0.000939336	0.008278931
0.000945619	0.008340255
0.000951903	0.008401661
0.000958186	0.008463149
0.000964469	0.008524718
0.000970752	0.008586365
0.000977035	0.008648091
0.000983319	0.008709893
0.000989602	0.00877177
0.000995885	0.008833722
0.01002168	0.008895745
0.01008451	0.008957838
0.01014734	0.009020001
0.01021018	0.00908223
0.01027301	0.009144524
0.01033584	0.009206881
0.01039867	0.009269299
0.0104615	0.009331775
0.01052434	0.009394307
0.01058717	0.009456894
0.01065	0.009519531
0.01071283	0.009582217
0.01077566	0.009644949
0.01083849	0.009707723
0.01090133	0.009770538
0.01096416	0.009833389
0.01102699	0.009896274
0.01108982	0.009959189
0.01115265	0.010022131
0.01121549	0.010085096
0.01127832	0.010148081
0.01134115	0.010211081
0.01140398	0.010274092
0.01146681	0.01033711

184	23.188534
185	23.202601
186	23.216502
187	23.230230
188	23.243777
189	23.257134
190	23.270294
191	23.283247
192	23.295984
193	23.308497
194	23.320777
195	23.332813
196	23.344598
197	23.356119
198	23.367369
199	23.378336
200	23.389009
201	23.399379
202	23.409435
203	23.419164
204	23.428556
205	23.437600
206	23.446283
207	23.454594
208	23.462519
209	23.470047
210	23.477165
211	23.483860
212	23.490118
213	23.495927
214	23.501271
215	23.506138
216	23.510512
217	23.514380
218	23.517726
219	23.520535
220	23.522792
221	23.524481
222	23.525587
223	23.526092
224	23.525981
225	23.525236
226	23.523841
227	23.521778
228	23.519030
229	23.515578
230	23.511403
231	23.506488
232	23.500814
233	23.494360

0.001152965	0.010400132
0.001159248	0.010463151
0.001165531	0.010526165
0.001171814	0.010589168
0.001178097	0.010652154
0.00118438	0.01071512
0.001190664	0.010778059
0.001196947	0.010840966
0.00120323	0.010903836
0.001209513	0.010966662
0.001215796	0.01102944
0.00122208	0.011092162
0.001228363	0.011154821
0.001234646	0.011217413
0.001240929	0.011279929
0.001247212	0.011342364
0.001253495	0.011404709
0.001259779	0.011466957
0.001266062	0.011529101
0.001272345	0.011591133
0.001278628	0.011653045
0.001284911	0.011714828
0.001291195	0.011776475
0.001297478	0.011837976
0.001303761	0.011899322
0.001310044	0.011960504
0.001316327	0.012021514
0.001322611	0.01208234
0.001328894	0.012142974
0.001335177	0.012203404
0.00134146	0.012263621
0.001347743	0.012323613
0.001354026	0.01238337
0.00136031	0.01244288
0.001366593	0.012502131
0.001372876	0.012561112
0.001379159	0.012619811
0.001385442	0.012678215
0.001391726	0.012736311
0.001398009	0.012794086
0.001404292	0.012851527
0.001410575	0.01290862
0.001416858	0.01296535
0.001423141	0.013021704
0.001429425	0.013077667
0.001435708	0.013133223
0.001441991	0.013188357
0.001448274	0.013243054
0.001454557	0.013297297
0.001460841	0.013351069

234	23.487109
235	23.479038
236	23.470129
237	23.460361
238	23.449713
239	23.438163
240	23.425690
241	23.412273
242	23.397888
243	23.382513
244	23.366126
245	23.348702
246	23.330218
247	23.310650
248	23.289974
249	23.268165
250	23.245197
251	23.221044
252	23.195682
253	23.169084
254	23.141222
255	23.112070
256	23.081600
257	23.049784
258	23.016594
259	22.982001
260	22.945976
261	22.908489
262	22.869511
263	22.829011
264	22.786957
265	22.743319
266	22.698065
267	22.651163
268	22.602580
269	22.552282
270	22.500238
271	22.446412
272	22.390770
273	22.333277
274	22.273898
275	22.212596
276	22.149337
277	22.084082
278	22.016795
279	21.947437
280	21.875971
281	21.802357
282	21.726557
283	21.648530

0.001467124	0.013404355
0.001473407	0.013457135
0.00147969	0.013509394
0.001485973	0.013561112
0.001492257	0.013612272
0.00149854	0.013662854
0.001504823	0.013712839
0.001511106	0.013762208
0.001517389	0.013810941
0.001523672	0.013859016
0.001529956	0.013906414
0.001536239	0.013953112
0.001542522	0.013999089
0.001548805	0.014044322
0.001555088	0.014088789
0.001561372	0.014132467
0.001567655	0.014175332
0.001573938	0.01421736
0.001580221	0.014258525
0.001586504	0.014298804
0.001592787	0.01433817
0.001599071	0.014376597
0.001605354	0.014414058
0.001611637	0.014450527
0.00161792	0.014485976
0.001624203	0.014520376
0.001630487	0.014553698
0.00163677	0.014585914
0.001643053	0.014616993
0.001649336	0.014646905
0.001655619	0.014675619
0.001661903	0.014703103
0.001668186	0.014729325
0.001674469	0.014754252
0.001680752	0.01477785
0.001687035	0.014800087
0.001693318	0.014820926
0.001699602	0.014840334
0.001705885	0.014858273
0.001712168	0.014874707
0.001718451	0.0148896
0.001724734	0.014902912
0.001731018	0.014914606
0.001737301	0.014924643
0.001743584	0.014932982
0.001749867	0.014939583
0.00175615	0.014944404
0.001762433	0.014947404
0.001768717	0.01494854
0.001775	0.014947768

284	21.568237
285	21.485636
286	21.400686
287	21.313346
288	21.223572
289	21.131323
290	21.036554
291	20.939222
291.5	20.700000
292.5	20.400000
293.5	19.000000
294.5	8.000000
295.5	0.000000

0.001781283	0.014945043
0.001787566	0.014940322
0.001793849	0.014933558
0.001800133	0.014924704
0.001806416	0.014913714
0.001812699	0.014900539
0.001818982	0.01488513
0.001825265	0.014867438
0.000914989	0.007367765
0.00183469	0.014559367
0.001840973	0.013606634
0.001847256	0.005748662
0.00185354	0

Please do not change any of the values in this sheet

Patm	Atmospheric air pressure - (As recorded from engine data)	975 [mBar]
Patm		97500 [Pa]
Tatm		5 [C]
Tatm		278 [K]
Relative Humidity		95 [%]

$$\rho_{\text{humid air}}^{[1]} = \frac{p_d}{R_d T} + \frac{p_v}{R_v T} = \frac{p_d M_d + p_v M_v}{RT}$$

where:

$\rho_{\text{humid air}}$	Density of the humid air (kg/m ³)
p_d	Partial pressure of dry air (Pa)
R_d	Specific gas constant for dry air, 287.058 J/(kg·K)
T	Temperature (K)
p_v	Pressure of water vapor (Pa)
R_v	Specific gas constant for water vapor, 461.495 J/(kg·K)
M_d	Molar mass of dry air, 0.028964 (kg/mol)
M_v	Molar mass of water vapor, 0.018016 (kg/mol)
R	Universal gas constant, 8.314 J/(K·mol)

$$\rho_{\text{humid air}} = 1.217898 \text{ Kg/m}^3$$

$$0.318090154$$

The vapor pressure of water may be calculated from the [saturation vapor pressure](#) and [relative humidity](#). It is found by:

$$p_v = \phi p_{\text{sat}}$$

$$p_u = 828.6578 \text{ [Pa]}$$

Where:

p_v	Vapor pressure of water
ϕ	Relative humidity
p_{sat}	Saturation vapor pressure

The [saturation vapor pressure of water](#) at any given temperature is the vapor pressure when relative humidity is 100%. One formula ^[1] used to find the saturation vapor pressure is:

$$p_{\text{sat}} = 6.1078 \times 10^{\frac{7.5T}{T+237.3}}$$

$$p_{\text{sat}} = 8.722714 \text{ hPa}$$

$$p_{\text{sat}} = 872.2714 \text{ [Pa]}$$

where T is in degrees C. Note:

$$\rho = \frac{p}{R_{\text{specific}} T} \quad 1.22177 \text{ [kg/m}^3\text{]}$$

$$R = 287.058 \text{ J/Kg K}$$

$$T = \text{Temperature in degrees Kelvin}$$

$$P = \text{Absolute Pressure in Pa}$$