



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	0.079	[Kg/s]
Oxygen Mass Flow rate	0.125	[Kg/s]

Please do not change anything in this box

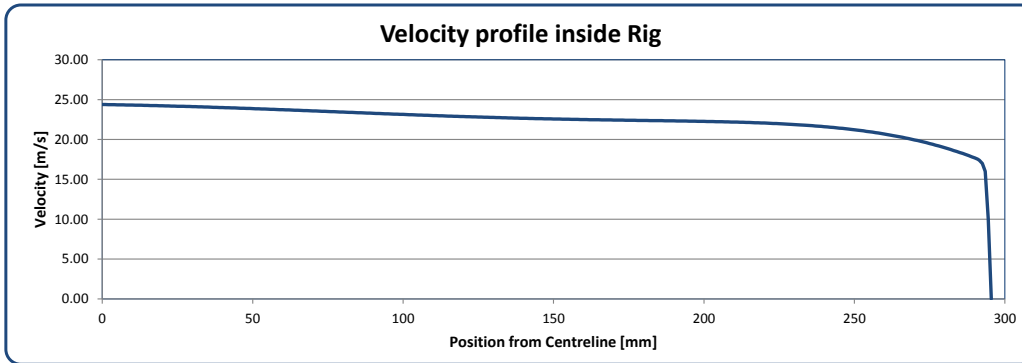
Test Date and Time = 22.05.2015 12:12:21.6

Calculated Parameters		
Air density	1.217898	[Kg/m ³]
Liquid Butane density	584	[Kg/m ³]
Butane mass Flow rate	0.280969	[Kg/s]
Air Fuel Ratio	79.23263	[]
Calculated Exhaust gas properties (Reaction Engines)		
Exhaust products density	0.515	[Kg/m ³]
Pitot Traverse Results		
Rig Gas flow rate - Integrated	3.027413	[Kg/s]
Total Rig Mass flow	3.231413	[Kg/s]
Rig Gas Temperature as read from TC 11		
Gas Temperature	345	[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

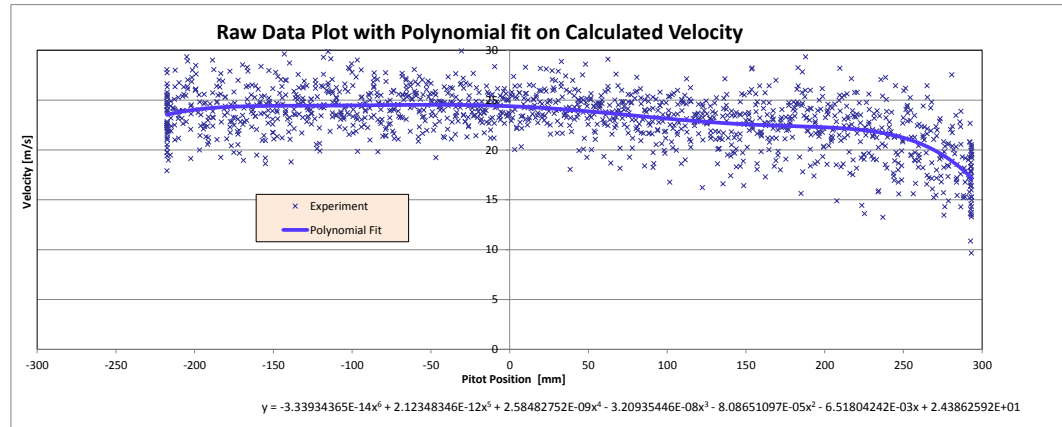
Sampling Rate	1000	[Hz]
No of samples recorded	100	Samples
Averaged samples sampling	10	[Hz]
Pitot Traverse speed	7	[mm/s]
Distance Travelled every 0.1	0.7	[mm]

Averaged Pitot dp 1.398728452 Average Vel 23.1283019 [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 %
22.05.2015 12:12:21.6	-217.55	334.3	1.5637	17.58
22.05.2015 12:12:21.7	-217.55	334.3	1.8268	17.55
22.05.2015 12:12:21.8	-217.57	334.3	2.0275	17.55
22.05.2015 12:12:21.9	-217.55	334.3	1.5953	17.58
22.05.2015 12:12:22.0	-217.54	334.3	1.3439	17.5
22.05.2015 12:12:22.1	-217.53	334.3	1.5921	17.5
22.05.2015 12:12:22.2	-217.53	334.3	1.3034	17.7
22.05.2015 12:12:22.3	-217.55	334.3	1.4802	17.67
22.05.2015 12:12:22.4	-217.56	334.2	0.8266	17.46
22.05.2015 12:12:22.5	-217.53	334.2	1.6717	17.54
22.05.2015 12:12:22.6	-217.55	334.2	1.2973	17.67
22.05.2015 12:12:22.7	-217.57	334.1	1.2965	17.52
22.05.2015 12:12:22.8	-217.52	334.1	1.6808	17.42
22.05.2015 12:12:22.9	-217.54	334.1	1.981	17.57
22.05.2015 12:12:23.0	-217.52	334	1.5356	17.62
22.05.2015 12:12:23.1	-217.56	333.9	1.2957	17.59
22.05.2015 12:12:23.2	-217.56	333.9	1.3222	17.61
22.05.2015 12:12:23.3	-216.68	333.9	0.929	17.64
22.05.2015 12:12:23.4	-214.85	333.8	1.2902	17.8
22.05.2015 12:12:23.5	-215.07	333.7	1.3854	17.8
22.05.2015 12:12:23.6	-215.02	333.7	1.2343	17.76
22.05.2015 12:12:23.7	-213.84	333.6	1.5084	17.7
22.05.2015 12:12:23.8	-212.32	333.6	2.0174	17.71
22.05.2015 12:12:23.9	-212.5	333.5	1.1363	17.64
22.05.2015 12:12:24.0	-212.41	333.4	1.7861	17.59
22.05.2015 12:12:24.1	-210.14	333.4	1.4154	17.69
22.05.2015 12:12:24.2	-209.92	333.4	1.4752	17.67
22.05.2015 12:12:24.3	-209.86	333.3	1.8425	17.48
22.05.2015 12:12:24.4	-208.03	333.3	1.3822	17.59
22.05.2015 12:12:24.5	-206.87	333.3	1.685	17.83
22.05.2015 12:12:24.6	-206.96	333.3	1.4731	17.71
22.05.2015 12:12:24.7	-206.93	333.2	1.7832	17.65
22.05.2015 12:12:24.8	-204.3	333.2	1.7573	17.67
22.05.2015 12:12:24.9	-204.42	333.2	2.1532	17.77
22.05.2015 12:12:25.0	-204.4	333.2	1.8812	17.66
22.05.2015 12:12:25.1	-202.39	333.2	0.9438	17.59
22.05.2015 12:12:25.2	-201.74	333.2	1.9143	17.63
22.05.2015 12:12:25.3	-201.82	333.1	1.8552	17.76
22.05.2015 12:12:25.4	-201.49	333.1	2.0205	17.59
22.05.2015 12:12:25.5	-199.08	333.1	1.9643	17.53
22.05.2015 12:12:25.6	-199.25	333.1	2.0894	17.62
22.05.2015 12:12:25.7	-199.28	333.1	1.755	17.66
22.05.2015 12:12:25.8	-197.75	333	1.4538	17.62
22.05.2015 12:12:25.9	-196.55	333	1.1844	17.59
22.05.2015 12:12:26.0	-196.69	333	2.4236	17.73
22.05.2015 12:12:26.1	-195.98	333	1.4265	17.71
22.05.2015 12:12:26.2	-193.89	333	1.6857	17.58
22.05.2015 12:12:26.3	-194.14	332.9	1.5645	17.52
22.05.2015 12:12:26.4	-194.1	332.9	1.3161	17.71
22.05.2015 12:12:26.5	-193.15	333	1.5735	17.55
22.05.2015 12:12:26.6	-191.38	332.9	1.1605	17.48
22.05.2015 12:12:26.7	-191.53	332.9	1.3594	17.61
22.05.2015 12:12:26.8	-191.17	332.9	1.1145	17.68
22.05.2015 12:12:26.9	-188.47	332.8	1.2926	17.77
22.05.2015 12:12:27.0	-188.66	332.8	2.1672	17.6
22.05.2015 12:12:27.1	-188.59	332.8	1.7052	17.72
22.05.2015 12:12:27.2	-188.1	332.7	1.3885	17.75
22.05.2015 12:12:27.3	-185.88	332.7	1.5796	17.77
22.05.2015 12:12:27.4	-186.04	332.7	1.7932	17.76

Calculated Velocity [m/s]
24.6426893
26.6352566
28.060268
24.8904395
22.8451945
24.8654632
22.4983279
23.9757159
17.9167438
25.4794797
22.4456193
22.4386975
25.5487351
27.7366254
24.4202685
22.4317736
22.6600028
18.9941227
22.3841136
23.1952456
21.8938303
24.2030248
27.9902896
21.0067026
26.3368766
23.44504
23.9351876
26.7494669
23.1684419
25.5806359
23.9181452
26.315487
26.123679
28.9170222
27.0289309
19.1448236
27.2656831
26.8414981
28.0117867
27.6194669
28.4853906
26.1065777
23.7609454
21.4467052
30.6790463
23.5367921
25.5859488
24.6488922
22.6076712
24.7197889
21.229216
22.9765604
20.8042191
22.4049232
29.0108784
25.7335111
23.2211822
24.7676582
26.3891711



22.05.2015 12:12:27.5	-186.01	332.7	2.4972	17.87	31.1413938
22.05.2015 12:12:27.6	-184.4	332.6	2.437	17.86	30.7637411
22.05.2015 12:12:27.7	-183.41	332.6	1.9702	17.82	27.6609149
22.05.2015 12:12:27.8	-183.45	332.5	0.9548	17.78	19.256067
22.05.2015 12:12:27.9	-183.46	332.5	1.6878	17.88	25.601881
22.05.2015 12:12:28.0	-181.31	332.5	1.4952	17.87	24.0968918
22.05.2015 12:12:28.1	-180.49	332.4	1.6493	17.72	25.3081974
22.05.2015 12:12:28.2	-180.51	332.4	1.5323	17.72	24.3940149
22.05.2015 12:12:28.3	-179.24	332.4	1.4508	17.81	23.7364167
22.05.2015 12:12:28.4	-177.43	332.3	1.2155	17.79	21.7264547
22.05.2015 12:12:28.5	-177.62	332.3	2.003	17.77	27.8902147
22.05.2015 12:12:28.6	-177.58	332.3	1.2791	17.85	22.2876168
22.05.2015 12:12:28.7	-176.24	332.2	1.3438	17.89	22.8443445
22.05.2015 12:12:28.8	-174.92	332.2	1.3014	17.9	22.48106
22.05.2015 12:12:28.9	-174.97	332.2	1.7163	17.82	25.8171314
22.05.2015 12:12:29.0	-175.02	332.2	1.502	17.88	24.1516246
22.05.2015 12:12:29.1	-172.49	332.2	1.0859	17.9	20.5355482
22.05.2015 12:12:29.2	-172.48	332.1	1.3738	17.94	23.0979342
22.05.2015 12:12:29.3	-172.47	332.2	1.1996	17.78	21.5838847
22.05.2015 12:12:29.4	-172.39	332.2	1.8752	17.84	26.9857927
22.05.2015 12:12:29.5	-169.35	332.1	1.3111	17.81	22.5646859
22.05.2015 12:12:29.6	-169.57	332.1	2.0976	17.85	28.5412323
22.05.2015 12:12:29.7	-169.54	332	1.4188	17.73	23.4731824
22.05.2015 12:12:29.8	-167.14	332.1	1.7863	17.83	26.3383511
22.05.2015 12:12:29.9	-166.57	332	2.0603	17.86	28.2863307
22.05.2015 12:12:30.0	-166.6	332	1.6198	17.77	25.0808402
22.05.2015 12:12:30.1	-166.16	331.9	2.0052	17.73	27.9055272
22.05.2015 12:12:30.2	-163.84	331.9	1.5179	17.86	24.2791212
22.05.2015 12:12:30.3	-164.06	331.9	1.6772	17.62	25.5213598
22.05.2015 12:12:30.4	-163.96	331.9	1.4625	17.52	23.8319358
22.05.2015 12:12:30.5	-163.43	331.8	1.8115	17.61	26.5234829
22.05.2015 12:12:30.6	-161.25	331.8	1.7975	17.68	26.420792
22.05.2015 12:12:30.7	-161.45	331.8	1.4082	17.58	23.3853327
22.05.2015 12:12:30.8	-161.45	331.8	1.4068	17.44	23.3737052
22.05.2015 12:12:30.9	-158.41	331.7	1.5875	17.61	24.8295158
22.05.2015 12:12:31.0	-158.49	331.7	1.5641	17.67	24.6458409
22.05.2015 12:12:31.1	-158.5	331.6	2.5942	17.6	31.7404523
22.05.2015 12:12:31.2	-157.55	331.6	1.6564	17.57	25.362613
22.05.2015 12:12:31.3	-155.7	331.7	1.6628	17.67	25.4115638
22.05.2015 12:12:31.4	-155.91	331.6	1.4453	17.75	23.6913814
22.05.2015 12:12:31.5	-155.97	331.6	1.1847	17.75	21.4494212
22.05.2015 12:12:31.6	-154.71	331.6	1.5659	17.56	24.6600183
22.05.2015 12:12:31.7	-153.2	331.6	1.4788	17.71	23.9643749
22.05.2015 12:12:31.8	-153.37	331.6	1.3266	17.78	22.6976753
22.05.2015 12:12:31.9	-152.81	331.6	1.6356	17.72	25.2028662
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22.05.2015 12:12:32.4	-147.64	331.5	1.1746	17.75	21.3577934
22.05.2015 12:12:32.5	-147.93	331.5	1.4791	17.82	23.9668055
22.05.2015 12:12:32.6	-147.85	331.5	1.5705	17.77	24.6962125
22.05.2015 12:12:32.7	-145.99	331.5	1.6988	17.65	25.6851738
22.05.2015 12:12:32.8	-145.21	331.5	1.8845	17.79	27.0526276
22.05.2015 12:12:32.9	-145.24	331.5	1.5487	17.88	24.5242103
22.05.2015 12:12:33.0	-144.03	331.5	1.5563	17.81	24.584311
22.05.2015 12:12:33.1	-142.18	331.5	1.481	17.59	23.982194
22.05.2015 12:12:33.2	-142.33	331.5	1.4511	17.75	23.7388707
22.05.2015 12:12:33.3	-142.35	331.5	1.4345	17.72	23.6026985
22.05.2015 12:12:33.4	-141.03	331.4	1.3753	17.6	23.1105406
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22.05.2015 12:12:33.6	-139.75	331.5	2.4148	17.6	30.6232984
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22.05.2015 12:12:33.8	-136.9	331.4	1.4924	17.64	24.0743186
22.05.2015 12:12:33.9	-136.88	331.4	1.7251	17.51	25.8832329
22.05.2015 12:12:34.0	-136.85	331.5	1.2631	17.65	22.1477825
22.05.2015 12:12:34.1	-136.05	331.5	1.6377	17.72	25.2190404
22.05.2015 12:12:34.2	-134.08	331.5	1.5451	17.55	24.4956901
22.05.2015 12:12:34.3	-134.28	331.5	1.6572	17.58	25.368737
22.05.2015 12:12:34.4	-134.23	331.5	1.9573	17.72	27.5702105
22.05.2015 12:12:34.5	-131.95	331.5	1.2129	17.67	21.7032054

22.05.2015 12:12:34.6	-131.33	331.6	1.3929	17.59	23.2579457
22.05.2015 12:12:34.7	-131.32	331.5	1.5958	17.61	24.8943398
22.05.2015 12:12:34.8	-130.95	331.6	1.7724	17.69	26.2356757
22.05.2015 12:12:34.9	-128.63	331.6	1.5194	17.62	24.2911147
22.05.2015 12:12:35.0	-128.76	331.6	1.8	17.47	26.439159
22.05.2015 12:12:35.1	-128.74	331.6	1.3435	17.55	22.8417944
22.05.2015 12:12:35.2	-128.13	331.6	1.5178	17.58	24.2783215
22.05.2015 12:12:35.3	-126.02	331.7	1.6206	17.53	25.087033
22.05.2015 12:12:35.4	-126.25	331.7	1.4884	17.43	24.0420344
22.05.2015 12:12:35.5	-126.17	331.7	1.4427	17.55	23.6700622
22.05.2015 12:12:35.6	-123.15	331.7	1.8259	17.64	26.6286946
22.05.2015 12:12:35.7	-123.32	331.7	1.877	17.55	26.9987414
22.05.2015 12:12:35.8	-123.24	331.8	1.7653	17.47	26.1830746
22.05.2015 12:12:35.9	-122.26	331.8	1.044	17.64	20.1354636
22.05.2015 12:12:36.0	-120.5	331.8	1.0192	17.67	19.8948693
22.05.2015 12:12:36.1	-120.74	331.8	1.2686	17.64	22.1959499
22.05.2015 12:12:36.2	-120.65	331.9	1.0997	17.58	20.6656227
22.05.2015 12:12:36.3	-119.49	331.9	1.7982	17.7	26.4259361
22.05.2015 12:12:36.4	-118.02	331.9	1.5102	17.72	24.2174614
22.05.2015 12:12:36.5	-118.13	331.9	1.5508	17.6	24.5408318
22.05.2015 12:12:36.6	-117.53	331.9	1.5419	17.59	24.4703109
22.05.2015 12:12:36.7	-114.97	332	1.7065	17.71	25.7433185
22.05.2015 12:12:36.8	-115.21	331.9	2.2958	17.6	29.8592166
22.05.2015 12:12:36.9	-115.19	331.9	1.8375	17.53	26.7131472
22.05.2015 12:12:37.0	-113.55	331.9	2.1879	17.65	29.1490978
22.05.2015 12:12:37.1	-112.52	331.9	1.4489	17.67	23.7208687
22.05.2015 12:12:37.2	-112.62	331.9	1.8876	17.6	27.0748692
22.05.2015 12:12:37.3	-112.54	332	1.4006	17.46	23.3221425
22.05.2015 12:12:37.4	-109.91	332	1.6312	17.56	25.1689437
22.05.2015 12:12:37.5	-110.01	332	1.775	17.66	26.2549117
22.05.2015 12:12:37.6	-110.1	332	1.6455	17.62	25.2790254
22.05.2015 12:12:37.7	-108.8	332	1.5496	17.53	24.5313352
22.05.2015 12:12:37.8	-106.9	332.1	1.4167	17.76	23.4558043
22.05.2015 12:12:37.9	-107.15	332.1	1.462	17.86	23.8278616
22.05.2015 12:12:38.0	-107.13	332.1	1.444	17.83	23.6807242
22.05.2015 12:12:38.1	-104.8	332.2	1.5045	17.62	24.1717158
22.05.2015 12:12:38.2	-104.53	332.2	1.2608	17.77	22.1276087
22.05.2015 12:12:38.3	-104.55	332.2	1.5296	17.69	24.3725136
22.05.2015 12:12:38.4	-102.98	332.3	1.4498	17.64	23.7282348
22.05.2015 12:12:38.5	-101.89	332.3	1.5389	17.63	24.446494
22.05.2015 12:12:38.6	-101.99	332.3	1.43	17.84	23.5656489
22.05.2015 12:12:38.7	-101.94	332.4	1.1961	17.71	21.5523747
22.05.2015 12:12:38.8	-99.29	332.3	1.4905	17.49	24.058989
22.05.2015 12:12:38.9	-99.41	332.4	1.3006	17.57	22.4741491
22.05.2015 12:12:39.0	-99.34	332.3	1.2127	17.66	21.701416
22.05.2015 12:12:39.1	-97.44	332.3	1.2319	17.52	21.8725345
22.05.2015 12:12:39.2	-96.83	332.4	1.3695	17.42	23.0617575
22.05.2015 12:12:39.3	-96.79	332.4	1.4309	17.59	23.5730634
22.05.2015 12:12:39.4	-96.47	332.4	1.0157	17.7	19.8606798
22.05.2015 12:12:39.5	-94.15	332.4	1.282	17.74	22.312868
22.05.2015 12:12:39.6	-94.31	332.4	1.6414	17.71	25.2475126
22.05.2015 12:12:39.7	-94.24	332.4	2.0227	17.79	28.0270327
22.05.2015 12:12:39.8	-93.71	332.4	1.6509	17.83	25.3204702
22.05.2015 12:12:39.9	-91.51	332.4	1.4835	17.87	24.0024271
22.05.2015 12:12:40.0	-91.68	332.4	1.4691	17.76	23.8856499
22.05.2015 12:12:40.1	-91.73	332.4	1.5773	17.87	24.74962
22.05.2015 12:12:40.2	-88.71	332.4	1.1346	17.85	20.9909828
22.05.2015 12:12:40.3	-88.79	332.4	1.61	17.85	25.0048539
22.05.2015 12:12:40.4	-88.74	332.4	1.508	17.77	24.1998155
22.05.2015 12:12:40.5	-87.86	332.4	1.3927	17.85	23.2562759
22.05.2015 12:12:40.6	-85.97	332.5	1.9794	17.76	27.7254221
22.05.2015 12:12:40.7	-86.22	332.5	1.7752	17.65	26.2563908
22.05.2015 12:12:40.8	-85.91	332.5	1.9082	17.73	27.2222068
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22.05.2015 12:13:02.5	78.06	331.2	1.1552	17.74	21.1806836
22.05.2015 12:13:02.6	77.83	331.2	1.3654	17.84	23.0272106
22.05.2015 12:13:02.7	77.85	331.2	1.0496	17.89	20.1893945
22.05.2015 12:13:02.8	80.23	331.2	1.2623	17.82	22.1407677
22.05.2015 12:13:02.9	80.82	331.1	1.2831	17.69	22.3224385

22.05.2015 12:13:03.0	80.78	331.1	1.9162	17.81	27.2792108
22.05.2015 12:13:03.1	81.22	331.1	1.2412	17.89	21.9549406
22.05.2015 12:13:03.2	83.56	331.1	1.5616	17.74	24.6261366
22.05.2015 12:13:03.3	83.33	331.1	1.1284	17.72	20.9335518
22.05.2015 12:13:03.4	83.32	331.1	1.6369	17.74	25.21288
22.05.2015 12:13:03.5	85.87	331	1.4871	17.69	24.0315327
22.05.2015 12:13:03.6	85.9	331	1.4745	17.57	23.9295081
22.05.2015 12:13:03.7	85.9	331	1.6117	17.64	25.0180517
22.05.2015 12:13:03.8	86.73	331	1.4614	17.72	23.8229717
22.05.2015 12:13:03.9	88.73	331	1.4894	17.62	24.0501095
22.05.2015 12:13:04.0	88.46	331	1.2061	17.67	21.6422815
22.05.2015 12:13:04.1	88.51	331	1.2128	17.73	21.7023107
22.05.2015 12:13:04.2	90.5	330.9	1.2033	17.74	21.6171453
22.05.2015 12:13:04.3	91.08	330.9	1.0038	17.6	19.7439926
22.05.2015 12:13:04.4	91.08	330.9	0.8576	17.64	18.2496176
22.05.2015 12:13:04.5	91.51	330.9	0.8954	17.56	18.6474705
22.05.2015 12:13:04.6	94.19	330.9	1.4783	17.75	23.9603232
22.05.2015 12:13:04.7	93.98	330.9	1.238	17.6	21.9266208
22.05.2015 12:13:04.8	94.03	330.9	1.2517	17.55	22.0476096
22.05.2015 12:13:04.9	95.46	330.9	1.5411	17.62	24.463962
22.05.2015 12:13:05.0	96.64	330.9	1.5854	17.62	24.8130877
22.05.2015 12:13:05.1	96.58	330.9	1.0955	17.46	20.6261216
22.05.2015 12:13:05.2	97.23	330.8	1.3454	17.53	22.8579403
22.05.2015 12:13:05.3	99.35	330.9	1.575	17.67	24.7315686
22.05.2015 12:13:05.4	99.11	330.8	1.1551	17.62	21.1797669
22.05.2015 12:13:05.5	99.15	330.8	1.2338	17.57	21.8893954
22.05.2015 12:13:05.6	101.03	330.8	1.4773	17.68	23.9522178
22.05.2015 12:13:05.7	101.77	330.8	1.6591	17.73	25.3832756
22.05.2015 12:13:05.8	101.7	330.8	0.7247	17.64	16.776081
22.05.2015 12:13:05.9	102.77	330.8	1.1148	17.46	20.807019
22.05.2015 12:13:06.0	104.44	330.8	1.3018	17.59	22.4845146
22.05.2015 12:13:06.1	104.27	330.7	1.4284	17.71	23.5524616
22.05.2015 12:13:06.2	104.25	330.7	1.7007	17.67	25.6995334
22.05.2015 12:13:06.3	106.61	330.8	1.4347	17.61	23.6043438
22.05.2015 12:13:06.4	106.84	330.8	1.5537	17.78	24.5637668
22.05.2015 12:13:06.5	106.8	330.8	1.3506	17.79	22.902071
22.05.2015 12:13:06.6	107.45	330.8	1.3292	17.81	22.719907
22.05.2015 12:13:06.7	109.62	330.8	1.586	17.57	24.8177825
22.05.2015 12:13:06.8	109.35	330.9	1.6124	17.73	25.0234841
22.05.2015 12:13:06.9	109.41	330.9	1.4751	17.69	23.9343763
22.05.2015 12:13:07.0	111.52	330.9	0.9299	17.51	19.0033211
22.05.2015 12:13:07.1	112.38	330.9	1.3784	17.54	23.1365722
22.05.2015 12:13:07.2	112.36	330.9	1.8953	17.61	27.1300357
22.05.2015 12:13:07.3	112.54	331	1.223	17.63	21.793381
22.05.2015 12:13:07.4	115.04	330.9	1.0586	17.45	20.2757687
22.05.2015 12:13:07.5	114.85	330.9	1.7727	17.58	26.237896
22.05.2015 12:13:07.6	114.93	330.9	1.5974	17.68	24.9068166
22.05.2015 12:13:07.7	117.14	330.9	1.3337	17.63	22.7583336
22.05.2015 12:13:07.8	117.48	330.9	1.3416	17.54	22.8256371
22.05.2015 12:13:07.9	117.47	330.9	1.4309	17.72	23.5730634
22.05.2015 12:13:08.0	118.94	330.8	1.4284	17.75	23.5524616
22.05.2015 12:13:08.1	120.1	330.9	1.3766	17.62	23.1214606
22.05.2015 12:13:08.2	120.02	330.9	1.5564	17.56	24.5851009
22.05.2015 12:13:08.3	120.02	330.9	1.2046	17.65	21.6288193
22.05.2015 12:13:08.4	122.66	330.9	1.5326	17.68	24.3964027
22.05.2015 12:13:08.5	122.63	330.9	1.136	17.56	21.0039294
22.05.2015 12:13:08.6	122.64	330.8	1.3933	17.51	23.261285
22.05.2015 12:13:08.7	123.51	330.8	1.4778	17.61	23.9562708
22.05.2015 12:13:08.8	125.38	330.8	1.3295	17.73	22.7224708
22.05.2015 12:13:08.9	125.18	330.8	1.3319	17.58	22.7429707
22.05.2015 12:13:09.0	125.17	330.7	1.3159	17.59	22.6059533
22.05.2015 12:13:09.1	127.27	330.7	1.3837	17.67	23.18101
22.05.2015 12:13:09.2	127.78	330.7	1.1539	17.67	21.1687625
22.05.2015 12:13:09.3	127.75	330.7	1.235	17.72	21.9000377
22.05.2015 12:13:09.4	129.31	330.6	1.3547	17.69	22.9368064
22.05.2015 12:13:09.5	130.82	330.6	1.1415	17.85	21.0547137
22.05.2015 12:13:09.6	130.66	330.6	1.446	17.84	23.6971179
22.05.2015 12:13:09.7	130.65	330.6	1.2308	17.72	21.862767
22.05.2015 12:13:09.8	132.05	330.6	0.8916	17.83	18.6078593
22.05.2015 12:13:09.9	132.95	330.5	1.0423	17.71	20.1190631
22.05.2015 12:13:10.0	132.88	330.5	1.0464	17.55	20.1585945

22.05.2015 12:13:10.1	133.87	330.5	1.1565	17.47	21.1925981
22.05.2015 12:13:10.2	136.07	330.5	1.6327	17.53	25.1805133
22.05.2015 12:13:10.3	135.8	330.5	1.2112	17.61	21.6879905
22.05.2015 12:13:10.4	135.82	330.5	1.5012	17.59	24.1451919
22.05.2015 12:13:10.5	137.84	330.4	1.6839	17.58	25.5722848
22.05.2015 12:13:10.6	138.37	330.4	1.4191	17.77	23.4756639
22.05.2015 12:13:10.7	138.38	330.4	0.9812	17.86	19.5204647
22.05.2015 12:13:10.8	138.79	330.3	1.1579	17.79	21.2054215
22.05.2015 12:13:10.9	141.13	330.3	1.4183	17.82	23.4690459
22.05.2015 12:13:11.0	140.93	330.3	1.0841	17.77	20.5185211
22.05.2015 12:13:11.1	140.94	330.3	1.4724	17.73	23.9124617
22.05.2015 12:13:11.2	142.69	330.3	1.1618	17.54	21.2411032
22.05.2015 12:13:11.3	143.99	330.2	0.8635	17.62	18.3122857
22.05.2015 12:13:11.4	143.86	330.2	1.1985	17.79	21.5739865
22.05.2015 12:13:11.5	143.91	330.2	1.4528	17.68	23.7527719
22.05.2015 12:13:11.6	146.6	330.2	1.4229	17.5	23.5070739
22.05.2015 12:13:11.7	146.43	330.1	0.8682	17.66	18.3620546
22.05.2015 12:13:11.8	146.47	330.1	1.587	17.8	24.8256053
22.05.2015 12:13:11.9	147.43	330.1	1.6914	17.77	25.6291703
22.05.2015 12:13:12.0	149.18	330.1	1.3146	17.81	22.5947842
22.05.2015 12:13:12.1	149	330.1	1.678	17.82	25.5274457
22.05.2015 12:13:12.2	149.37	330.1	1.4389	17.79	23.6388688
22.05.2015 12:13:12.3	152.15	330.1	1.2425	17.83	21.9664351
22.05.2015 12:13:12.4	151.94	330.1	1.4244	17.66	23.5194611
22.05.2015 12:13:12.5	151.96	330.1	1.3636	17.62	23.0120272
22.05.2015 12:13:12.6	152.38	330.1	1.7089	17.63	25.7614147
22.05.2015 12:13:12.7	154.32	330	1.2576	17.53	22.0995102
22.05.2015 12:13:12.8	154.16	330	1.2813	17.48	22.3067755
22.05.2015 12:13:12.9	154.13	330	1.3402	17.6	22.8137244
22.05.2015 12:13:13.0	157.1	330	1.2066	17.63	21.6467671
22.05.2015 12:13:13.1	157.12	330	0.8932	17.51	18.624548
22.05.2015 12:13:13.2	157.12	330	0.8392	17.56	18.0527813
22.05.2015 12:13:13.3	158.89	330	1.3868	17.66	23.2069625
22.05.2015 12:13:13.4	159.73	330	1.1933	17.6	21.5271335
22.05.2015 12:13:13.5	159.68	330	1.0136	17.47	19.8401378
22.05.2015 12:13:13.6	159.87	330	1.1775	17.67	21.3841426
22.05.2015 12:13:13.7	162.4	330	0.7698	17.75	17.2902127
22.05.2015 12:13:13.8	162.19	330	1.3275	17.64	22.7053734
22.05.2015 12:13:13.9	162.24	330.1	1.7042	17.5	25.7259644
22.05.2015 12:13:14.0	163.53	330.1	1.4276	17.6	23.5458652
22.05.2015 12:13:14.1	164.97	330.1	1.112	17.8	20.7808725
22.05.2015 12:13:14.2	164.73	330.1	1.0332	17.82	20.0310439
22.05.2015 12:13:14.3	164.8	330.1	1.5755	17.7	24.7354939
22.05.2015 12:13:14.4	167.29	330.1	1.2661	17.65	22.1740686
22.05.2015 12:13:14.5	167.34	330.1	1.3729	17.92	23.090367
22.05.2015 12:13:14.6	167.4	330.1	1.4755	17.74	23.9376212
22.05.2015 12:13:14.7	168.3	330.1	1.3025	17.6	22.490559
22.05.2015 12:13:14.8	170.53	330.1	1.0163	17.59	19.866545
22.05.2015 12:13:14.9	170.29	330.1	0.9767	17.64	19.4756507
22.05.2015 12:13:15.0	170.32	330	1.2461	17.56	21.9982347
22.05.2015 12:13:15.1	172.28	330	1.3688	17.54	23.0558629
22.05.2015 12:13:15.2	172.85	330	1.2724	17.65	22.2291683
22.05.2015 12:13:15.3	172.88	329.9	1.4908	17.72	24.0614101
22.05.2015 12:13:15.4	174.16	329.9	1.2837	17.46	22.3276571
22.05.2015 12:13:15.5	175.58	329.9	1.3032	17.57	22.4966017
22.05.2015 12:13:15.6	175.43	329.9	0.9367	17.62	19.0726765
22.05.2015 12:13:15.7	175.91	329.9	1.2411	17.57	21.9540562
22.05.2015 12:13:15.8	178.2	330	1.329	17.42	22.7181977
22.05.2015 12:13:15.9	177.95	330.1	1.37	17.55	23.065967
22.05.2015 12:13:16.0	177.99	330.1	1.4014	17.63	23.3288021
22.05.2015 12:13:16.1	179.63	330.2	1.167	17.63	21.2885858
22.05.2015 12:13:16.2	180.79	330.2	1.5174	17.58	24.2751221
22.05.2015 12:13:16.3	181.06	330.3	1.409	17.59	23.3919744
22.05.2015 12:13:16.4	181.21	330.2	1.4725	17.7	23.9132737
22.05.2015 12:13:16.5	183.22	330.2	1.7982	17.68	26.4259361
22.05.2015 12:13:16.6	183.32	330.2	1.5531	17.51	24.5590234
22.05.2015 12:13:16.7	184.15	330.2	0.9576	17.58	19.284281
22.05.2015 12:13:16.8	184.99	330.2	0.6295	17.66	15.6354092
22.05.2015 12:13:16.9	186.11	330.2	0.8168	17.6	17.8102185
22.05.2015 12:13:17.0	186.03	330.2	1.5685	17.55	24.6804824
22.05.2015 12:13:17.1	186.96	330.2	1.4152	17.61	23.4433836

22.05.2015 12:13:17.2	189.05	330.2	1.4865	17.69	24.0266842
22.05.2015 12:13:17.3	188.83	330.1	1.2426	17.58	21.9673191
22.05.2015 12:13:17.4	188.7	330.1	1.3925	17.66	23.254606
22.05.2015 12:13:17.5	189.5	330.1	1.2353	17.7	21.9026974
22.05.2015 12:13:17.6	191.3	330.1	1.1909	17.71	21.5054746
22.05.2015 12:13:17.7	190.98	330.1	0.8719	17.61	18.4011397
22.05.2015 12:13:17.8	190.99	330.1	1.7384	17.69	25.9828173
22.05.2015 12:13:17.9	194.35	330.1	1.2103	17.68	21.6799312
22.05.2015 12:13:18.0	193.94	330.1	0.8931	17.67	18.6235053
22.05.2015 12:13:18.1	193.92	330.1	1.3253	17.55	22.6865513
22.05.2015 12:13:18.2	195.56	330.1	0.9117	17.61	18.8164357
22.05.2015 12:13:18.3	197.59	330.1	1.4946	17.81	24.0920565
22.05.2015 12:13:18.4	196.48	330.1	1.2064	17.85	21.644973
22.05.2015 12:13:18.5	196.28	330.1	1.2316	17.67	21.8698711
22.05.2015 12:13:18.6	199.44	330.1	1.2647	17.81	22.1618057
22.05.2015 12:13:18.7	199.32	330.1	1.0682	17.94	20.3674974
22.05.2015 12:13:18.8	198.79	330.1	0.9626	17.9	19.3345608
22.05.2015 12:13:18.9	199.45	330.1	1.059	17.87	20.279599
22.05.2015 12:13:19.0	202.63	330.1	1.0757	17.95	20.4388741
22.05.2015 12:13:19.1	201.96	330.1	1.4821	17.96	23.9910987
22.05.2015 12:13:19.2	202.12	330	1.5559	17.8	24.5811515
22.05.2015 12:13:19.3	203.61	330	1.531	17.87	24.3836648
22.05.2015 12:13:19.4	204.85	330	1.5083	17.89	24.2022225
22.05.2015 12:13:19.5	205.09	330	1.2444	17.82	21.983224
22.05.2015 12:13:19.6	205.12	329.9	1.1621	17.6	21.2438455
22.05.2015 12:13:19.7	207.48	329.9	1.3451	17.72	22.8553917
22.05.2015 12:13:19.8	207.73	329.9	0.5713	17.7	14.8951025
22.05.2015 12:13:19.9	207.35	329.9	0.8819	17.64	18.5063621
22.05.2015 12:13:20.0	209.29	330	1.1888	17.53	21.4865051
22.05.2015 12:13:20.1	210.37	330	1.1303	17.69	20.9511684
22.05.2015 12:13:20.2	210.48	330	0.8632	17.74	18.3091043
22.05.2015 12:13:20.3	209.83	330	1.4712	17.73	23.9027154
22.05.2015 12:13:20.4	211.75	330.1	0.8899	17.54	18.5901112
22.05.2015 12:13:20.5	212.64	330.1	1.1589	17.62	21.2145764
22.05.2015 12:13:20.6	212.48	330.1	1.3712	17.66	23.0760667
22.05.2015 12:13:20.7	214.01	330.1	1.5312	17.64	24.3852574
22.05.2015 12:13:20.8	215.47	330.1	1.2936	17.5	22.4135881
22.05.2015 12:13:20.9	216.08	330	0.805	17.7	17.6811018
22.05.2015 12:13:21.0	215.64	330.1	1.0099	17.76	19.8038929
22.05.2015 12:13:21.1	218.12	330.1	0.9301	17.6	19.0053646
22.05.2015 12:13:21.2	217.87	330.1	0.7912	17.63	17.5288943
22.05.2015 12:13:21.3	218.1	330.1	1.424	17.75	23.5161585
22.05.2015 12:13:21.4	218.84	330.1	1.4014	17.72	23.3288021
22.05.2015 12:13:21.5	220.5	330.1	1.4345	17.65	23.6026985
22.05.2015 12:13:21.6	220.28	330.1	0.8507	17.67	18.1760538
22.05.2015 12:13:21.7	220.61	330.1	1.2095	17.71	21.6727649
22.05.2015 12:13:21.8	222.86	330.1	1.4231	17.68	23.5087259
22.05.2015 12:13:21.9	223.2	330.1	0.9484	17.59	19.191422
22.05.2015 12:13:22.0	223.62	330.1	0.5374	17.61	14.4464192
22.05.2015 12:13:22.1	224.73	330.1	0.9801	17.83	19.5095197
22.05.2015 12:13:22.2	226.35	330.2	1.2437	17.81	21.9770401
22.05.2015 12:13:22.3	225.57	330.2	1.2802	17.61	22.2971982
22.05.2015 12:13:22.4	226.53	330.2	1.5787	17.71	24.7606013
22.05.2015 12:13:22.5	228.02	330.2	1.311	17.82	22.5638253
22.05.2015 12:13:22.6	228.18	330.2	1.338	17.71	22.7949918
22.05.2015 12:13:22.7	228.13	330.3	0.9989	17.63	19.695744
22.05.2015 12:13:22.8	229.94	330.3	0.968	17.75	19.3887166
22.05.2015 12:13:22.9	231.59	330.3	1.3847	17.74	23.1893849
22.05.2015 12:13:23.0	231.31	330.3	1.4391	17.68	23.6405116
22.05.2015 12:13:23.1	231.37	330.3	1.2023	17.67	21.608161
22.05.2015 12:13:23.2	232.92	330.3	0.9312	17.67	19.0165998
22.05.2015 12:13:23.3	234.16	330.3	1.0562	17.69	20.2527716
22.05.2015 12:13:23.4	233.93	330.2	0.6418	17.64	15.7874228
22.05.2015 12:13:23.5	234.31	330.2	0.6517	17.77	15.9087202
22.05.2015 12:13:23.6	237.02	330.2	0.4528	17.79	13.2606433
22.05.2015 12:13:23.7	236.62	330.2	1.0925	17.84	20.5978602
22.05.2015 12:13:23.8	236.36	330.2	1.2718	17.61	22.2239266
22.05.2015 12:13:23.9	239.14	330.2	1.6157	17.73	25.049078
22.05.2015 12:13:24.0	239.41	330.2	1.4658	17.72	23.858808
22.05.2015 12:13:24.1	238.98	330.2	1.3894	17.73	23.2287067
22.05.2015 12:13:24.2	239.54	330.2	0.8521	17.68	18.1910039

22.05.2015 12:13:24.3	242.25	330.2	1.2272	17.66	21.8307701
22.05.2015 12:13:24.4	242.56	330.2	1.4564	17.7	23.7821831
22.05.2015 12:13:24.5	241.65	330.2	1.1913	17.62	21.5090859
22.05.2015 12:13:24.6	243.66	330.2	0.8049	17.51	17.6800035
22.05.2015 12:13:24.7	245	330.2	1.8003	17.59	26.4413621
22.05.2015 12:13:24.8	244.32	330.2	1.1688	17.66	21.3049974
22.05.2015 12:13:24.9	244.43	330.2	0.9203	17.58	18.9049744
22.05.2015 12:13:25.0	246.73	330.2	0.8352	17.59	18.0097061
22.05.2015 12:13:25.1	247.07	330.2	0.6266	17.63	15.5993527
22.05.2015 12:13:25.2	246.79	330.2	1.1809	17.57	21.4149934
22.05.2015 12:13:25.3	249.64	330.2	1.1329	17.47	20.9752513
22.05.2015 12:13:25.4	249.59	330.2	1.1162	17.64	20.8200799
22.05.2015 12:13:25.5	249.94	330.2	1.3887	17.74	23.2228545
22.05.2015 12:13:25.6	250.24	330.2	1.7337	17.68	25.9476695
22.05.2015 12:13:25.7	252.66	330.2	1.3501	17.49	22.8978313
22.05.2015 12:13:25.8	252.54	330.2	1.5422	17.64	24.4726913
22.05.2015 12:13:25.9	252.77	330.2	1.4485	17.7	23.7175941
22.05.2015 12:13:26.0	254.34	330.2	1.6421	17.64	25.2528956
22.05.2015 12:13:26.1	254.7	330.3	1.4801	17.54	23.974906
22.05.2015 12:13:26.2	255.01	330.3	1.167	17.62	21.2885858
22.05.2015 12:13:26.3	256.32	330.3	0.6278	17.84	15.6142827
22.05.2015 12:13:26.4	257.55	330.3	0.9227	17.66	18.929609
22.05.2015 12:13:26.5	257.01	330.4	0.9302	17.57	19.0063863
22.05.2015 12:13:26.6	257.71	330.4	0.7138	17.71	16.6494409
22.05.2015 12:13:26.7	260.07	330.4	0.9558	17.75	19.2661482
22.05.2015 12:13:26.8	259.88	330.4	0.9832	17.66	19.5403491
22.05.2015 12:13:26.9	260.03	330.4	1.3119	17.58	22.571569
22.05.2015 12:13:27.0	261.49	330.5	1.2862	17.75	22.349388
22.05.2015 12:13:27.1	263.27	330.5	1.1369	17.79	21.0122479
22.05.2015 12:13:27.2	262.41	330.5	0.8544	17.77	18.215538
22.05.2015 12:13:27.3	262.48	330.5	1.1855	17.76	21.4566621
22.05.2015 12:13:27.4	264.86	330.5	0.7071	17.85	16.5711177
22.05.2015 12:13:27.5	265.1	330.5	0.7848	17.68	17.4578549
22.05.2015 12:13:27.6	265.09	330.5	1.2045	17.56	21.6279215
22.05.2015 12:13:27.7	266.22	330.5	0.7626	17.57	17.2091644
22.05.2015 12:13:27.8	268.41	330.5	0.6671	17.63	16.0955883
22.05.2015 12:13:27.9	268.07	330.5	0.7567	17.68	17.1424642
22.05.2015 12:13:28.0	268.04	330.5	0.9024	17.58	18.7202191
22.05.2015 12:13:28.1	269.3	330.6	1.1419	17.69	21.0584024
22.05.2015 12:13:28.2	271.5	330.6	1.2445	17.74	21.9841072
22.05.2015 12:13:28.3	271.04	330.6	0.7601	17.7	17.1809332
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22.05.2015 12:13:28.5	273.94	330.6	0.9559	17.67	19.267156
22.05.2015 12:13:28.6	273.84	330.6	0.7779	17.75	17.3809403
22.05.2015 12:13:28.7	273.03	330.6	1.3478	17.63	22.8783189
22.05.2015 12:13:28.8	275.52	330.7	0.6355	17.56	15.7097459
22.05.2015 12:13:28.9	276.29	330.7	0.5278	17.7	14.3168039
22.05.2015 12:13:29.0	275.96	330.7	1.0107	17.73	19.8117353
22.05.2015 12:13:29.1	276.45	330.7	1.0673	17.54	20.3589154
22.05.2015 12:13:29.2	278.29	330.8	1.0887	17.56	20.5620066
22.05.2015 12:13:29.3	278.67	330.8	1.0985	17.7	20.6543444
22.05.2015 12:13:29.4	278.59	330.9	0.5719	17.66	14.9029221
22.05.2015 12:13:29.5	281.09	330.9	1.073	17.54	20.4132072
22.05.2015 12:13:29.6	280.76	330.9	1.9539	17.61	27.5462541
22.05.2015 12:13:29.7	281.02	330.9	1.2157	17.72	21.7282421
22.05.2015 12:13:29.8	282.62	330.9	0.9918	17.7	19.6256222
22.05.2015 12:13:29.9	283.97	330.9	0.762	17.68	17.2023932
22.05.2015 12:13:30.0	283.75	330.9	0.7242	17.77	16.7702927
22.05.2015 12:13:30.1	284.18	330.9	0.6136	17.83	15.4366856
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22.05.2015 12:13:30.4	286.4	331	1.285	17.78	22.3389598
22.05.2015 12:13:30.5	287.38	331	0.9599	17.73	19.307426
22.05.2015 12:13:30.6	288.64	331	0.8514	17.73	18.1835304
22.05.2015 12:13:30.7	288.1	331	0.5959	17.68	15.2124119
22.05.2015 12:13:30.8	289.33	331	0.9481	17.87	19.1883865
22.05.2015 12:13:30.9	291.95	331	0.5954	17.88	15.2060284
22.05.2015 12:13:31.0	291.32	331	0.759	17.81	17.1684968
22.05.2015 12:13:31.1	291.27	330.9	0.9299	17.81	19.0033211
22.05.2015 12:13:31.2	292.04	330.9	0.6407	17.92	15.7738877
22.05.2015 12:13:31.3	292.88	331	0.8218	17.95	17.8646475

22.05.2015 12:13:31.4	292.76	331	0.7441	17.77	16.9991433
22.05.2015 12:13:31.5	292.7	330.9	0.6921	17.85	16.3944106
22.05.2015 12:13:31.6	293.26	331	0.6932	17.97	16.4074338
22.05.2015 12:13:31.7	293.29	331	0.6014	17.86	15.2824539
22.05.2015 12:13:31.8	293.15	331	0.4853	17.82	13.7282927
22.05.2015 12:13:31.9	293.1	331	0.6579	17.95	15.9842155
22.05.2015 12:13:32.0	293.38	331	0.952	18.01	19.2278116
22.05.2015 12:13:32.1	293.16	331	0.7745	17.97	17.342915
22.05.2015 12:13:32.2	292.84	331	1.0242	17.85	19.9436098
22.05.2015 12:13:32.3	293.08	331	0.8126	17.87	17.7643693
22.05.2015 12:13:32.4	293.25	331	1.0523	17.9	20.2153455
22.05.2015 12:13:32.5	292.76	331	0.7757	17.89	17.3563452
22.05.2015 12:13:32.6	292.39	331	1.3237	17.84	22.6728528
22.05.2015 12:13:32.7	293.26	331	1.0115	17.75	19.8195745
22.05.2015 12:13:32.8	293.14	331	1.0851	17.88	20.5279823
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22.05.2015 12:13:33.1	293.24	331	0.5272	17.8	14.308664
22.05.2015 12:13:33.2	292.89	331	0.8286	17.84	17.9384059
22.05.2015 12:13:33.3	292.9	331	0.8635	17.58	18.3122857
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22.05.2015 12:13:33.9	293.29	330.9	1.0683	17.66	20.3684508
22.05.2015 12:13:34.0	293.11	330.8	0.9733	17.63	19.4417227
22.05.2015 12:13:34.1	292.78	330.9	0.5074	17.59	14.037398
22.05.2015 12:13:34.2	292.89	330.9	0.5477	17.59	14.5842048
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22.05.2015 12:13:34.4	292.77	331	0.865	17.66	18.328184
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22.05.2015 12:13:34.6	293.16	331	0.8719	17.66	18.4011397
22.05.2015 12:13:34.7	293.1	331	0.6015	17.8	15.2837244
22.05.2015 12:13:34.8	292.67	331	0.6891	17.76	16.3588401
22.05.2015 12:13:34.9	292.66	331	0.3041	17.61	10.8672484
22.05.2015 12:13:35.0	293.31	331.1	0.5761	17.67	14.9575451
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22.05.2015 12:13:35.2	291.9	331.1	0.9593	17.61	19.3013909
22.05.2015 12:13:35.3	292.02	331.1	1.1158	17.63	20.8163491
22.05.2015 12:13:35.4	292.23	331.2	0.7715	17.66	17.3092938
22.05.2015 12:13:35.5	289.19	331.2	0.7246	17.63	16.7749235
22.05.2015 12:13:35.6	289.33	331.2	0.8205	17.47	17.8505119
22.05.2015 12:13:35.7	289.21	331.2	0.6006	17.62	15.272286
22.05.2015 12:13:35.8	288.19	331.2	0.6128	17.68	15.4266193
22.05.2015 12:13:35.9	286.48	331.2	0.5262	17.62	14.2950871
22.05.2015 12:13:36.0	286.54	331.2	1.0882	17.51	20.5572844
22.05.2015 12:13:36.1	286.6	331.2	1.4679	17.68	23.8758927
22.05.2015 12:13:36.2	284.05	331.2	0.8858	17.74	18.547237
22.05.2015 12:13:36.3	283.55	331.2	0.7481	17.72	17.0447726
22.05.2015 12:13:36.4	283.47	331.2	1.0648	17.52	20.3350575
22.05.2015 12:13:36.5	283.41	331.2	1.4186	17.65	23.4715279
22.05.2015 12:13:36.6	281.81	331.2	1.0333	17.69	20.0320132
22.05.2015 12:13:36.7	281.15	331.2	1.289	17.6	22.3737016
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22.05.2015 12:13:37.2	278	331.2	0.8776	17.49	18.4611899
22.05.2015 12:13:37.3	275.77	331.2	0.4666	17.62	13.4611992
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22.05.2015 12:13:37.5	275.6	331.3	1.1172	17.6	20.8294042
22.05.2015 12:13:37.6	274.11	331.3	0.7274	17.71	16.8073031
22.05.2015 12:13:37.7	273.09	331.4	0.9392	17.73	19.0981115
22.05.2015 12:13:37.8	273.38	331.4	1.3781	17.64	23.1340542
22.05.2015 12:13:37.9	273.4	331.4	0.9732	17.51	19.4407239
22.05.2015 12:13:38.0	270.72	331.5	0.616	17.59	15.4668452
22.05.2015 12:13:38.1	271.06	331.5	0.8331	17.72	17.9870504
22.05.2015 12:13:38.2	270.69	331.5	1.2873	17.65	22.358943
22.05.2015 12:13:38.3	269.22	331.5	0.5979	17.58	15.237919
22.05.2015 12:13:38.4	267.53	331.6	1.2391	17.65	21.9363599

22.05.2015 12:13:38.5	267.95	331.6	1.5834	17.74	24.7974317
22.05.2015 12:13:38.6	267.4	331.5	1.5109	17.68	24.2230733
22.05.2015 12:13:38.7	265.11	331.5	1.8001	17.62	26.4398934
22.05.2015 12:13:38.8	265.26	331.5	1.6447	17.77	25.2728797
22.05.2015 12:13:38.9	265.17	331.5	1.2607	17.68	22.1267312
22.05.2015 12:13:39.0	264.47	331.5	1.0013	17.51	19.7193907
22.05.2015 12:13:39.1	262.45	331.4	1.1642	17.58	21.2630314
22.05.2015 12:13:39.2	263.32	331.4	1.2817	17.63	22.3102571
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22.05.2015 12:13:39.4	259.72	331.4	0.9198	17.7	18.8998382
22.05.2015 12:13:39.5	259.48	331.4	0.8602	17.7	18.2772605
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22.05.2015 12:13:39.9	257.14	331.3	1.1641	17.65	21.2621182
22.05.2015 12:13:40.0	257.44	331.3	1.004	17.66	19.7459594
22.05.2015 12:13:40.1	255.02	331.2	0.9819	17.63	19.5274266
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22.05.2015 12:13:40.3	254.79	331.3	0.9733	17.66	19.4417227
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22.05.2015 12:13:40.5	251.65	331.2	1.4914	17.74	24.0662516
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22.05.2015 12:13:40.8	249.62	331.3	1.3251	17.8	22.6848395
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22.05.2015 12:13:41.0	248.95	331.3	0.7439	17.58	16.9968586
22.05.2015 12:13:41.1	248.9	331.3	1.0209	17.75	19.9114545
22.05.2015 12:13:41.2	246.35	331.4	0.9809	17.92	19.5174803
22.05.2015 12:13:41.3	246.81	331.4	0.8983	17.78	18.6776436
22.05.2015 12:13:41.4	246.79	331.3	0.7238	17.81	16.7656607
22.05.2015 12:13:41.5	245.37	331.4	1.0046	17.79	19.7518587
22.05.2015 12:13:41.6	244.32	331.4	1.1667	17.76	21.2858493
22.05.2015 12:13:41.7	244.21	331.4	0.7401	17.64	16.9533913
22.05.2015 12:13:41.8	243.83	331.5	0.7789	17.78	17.3921085
22.05.2015 12:13:41.9	241.14	331.5	1.3397	17.84	22.8094683
22.05.2015 12:13:42.0	241.09	331.6	1.2785	17.77	22.2823889
22.05.2015 12:13:42.1	240.92	331.6	1.2126	17.64	21.7005212
22.05.2015 12:13:42.2	239.83	331.7	1.1679	17.71	21.2967931
22.05.2015 12:13:42.3	238.7	331.6	1.9146	17.88	27.2678195
22.05.2015 12:13:42.4	238.47	331.7	1.0727	17.71	20.4103534
22.05.2015 12:13:42.5	238.51	331.7	0.8846	17.61	18.5346697
22.05.2015 12:13:42.6	236.83	331.8	1.6607	17.6	25.3955122
22.05.2015 12:13:42.7	236.73	331.7	1.218	17.72	21.7487864
22.05.2015 12:13:42.8	235.78	331.7	1.8848	17.58	27.0547808
22.05.2015 12:13:42.9	234.85	331.7	1.4127	17.59	23.4226676
22.05.2015 12:13:43.0	233.32	331.7	1.4737	17.75	23.9230157
22.05.2015 12:13:43.1	233.06	331.7	1.1613	17.82	21.236532
22.05.2015 12:13:43.2	233	331.7	1.2371	17.73	21.9186492
22.05.2015 12:13:43.3	230.85	331.7	0.9372	17.75	19.0777662
22.05.2015 12:13:43.4	230.66	331.7	1.1722	17.89	21.3359626
22.05.2015 12:13:43.5	230.5	331.7	1.2525	17.87	22.0546541
22.05.2015 12:13:43.6	230.48	331.7	1.1835	17.75	21.4385552
22.05.2015 12:13:43.7	228.06	331.7	1.2418	17.72	21.9602465
22.05.2015 12:13:43.8	228.37	331.8	1.4907	17.74	24.0606031
22.05.2015 12:13:43.9	228.09	331.8	1.6891	17.74	25.6117388
22.05.2015 12:13:44.0	226.15	331.8	1.1895	17.74	21.4928301
22.05.2015 12:13:44.1	224.95	331.8	0.986	17.76	19.5681532
22.05.2015 12:13:44.2	225.34	331.8	0.4773	17.86	13.6146694
22.05.2015 12:13:44.3	225.02	331.8	0.9352	17.77	19.0573992
22.05.2015 12:13:44.4	221.97	331.8	1.5746	17.69	24.7284279
22.05.2015 12:13:44.5	222.71	331.8	1.3292	17.77	22.719907
22.05.2015 12:13:44.6	222.8	331.8	1.1169	17.84	20.8266073
22.05.2015 12:13:44.7	220.57	331.8	1.2614	17.72	22.1328732
22.05.2015 12:13:44.8	219.86	331.8	1.3983	17.76	23.3029853
22.05.2015 12:13:44.9	220.65	331.8	1.7105	17.8	25.7734717
22.05.2015 12:13:45.0	219	331.8	1.709	17.81	25.7621684
22.05.2015 12:13:45.1	216.99	331.8	1.8981	17.67	27.1500684
22.05.2015 12:13:45.2	217.18	331.8	1.3096	17.76	22.5517743
22.05.2015 12:13:45.3	217.67	331.8	1.4756	17.83	23.9384324
22.05.2015 12:13:45.4	214.92	331.8	1.378	17.79	23.1332149
22.05.2015 12:13:45.5	214.76	331.7	1.4055	17.66	23.3629031

22.05.2015 12:13:45.6	214.61	331.7	1.1893	17.71	21.4910232
22.05.2015 12:13:45.7	214.26	331.7	1.6917	17.81	25.6314431
22.05.2015 12:13:45.8	212.31	331.7	1.2961	17.75	22.4352358
22.05.2015 12:13:45.9	212.51	331.7	1.2496	17.63	22.029107
22.05.2015 12:13:46.0	212.38	331.7	1.6684	17.74	25.4543185
22.05.2015 12:13:46.1	210.93	331.7	1.6452	17.82	25.2767209
22.05.2015 12:13:46.2	209.59	331.6	1.6724	17.69	25.4848137
22.05.2015 12:13:46.3	209.19	331.6	1.6055	17.71	24.9698848
22.05.2015 12:13:46.4	209.67	331.6	2.0472	17.74	28.1962609
22.05.2015 12:13:46.5	206.85	331.6	1.2711	17.86	22.2178097
22.05.2015 12:13:46.6	206.51	331.6	1.4133	17.82	23.4276411
22.05.2015 12:13:46.7	206.43	331.6	1.5589	17.72	24.6048381
22.05.2015 12:13:46.8	205.73	331.6	1.2575	17.81	22.0986315
22.05.2015 12:13:46.9	204.37	331.6	1.1459	17.89	21.0952532
22.05.2015 12:13:47.0	204.22	331.6	1.1774	17.84	21.3832345
22.05.2015 12:13:47.1	204.21	331.6	1.1255	17.85	20.9066348
22.05.2015 12:13:47.2	202.26	331.7	1.4338	17.93	23.5969391
22.05.2015 12:13:47.3	201.59	331.7	1.4632	17.93	23.8376385
22.05.2015 12:13:47.4	201.54	331.7	0.8871	17.87	18.560842
22.05.2015 12:13:47.5	200.53	331.7	1.391	17.88	23.2420777
22.05.2015 12:13:47.6	198.55	331.8	1.2221	18.03	21.7853607
22.05.2015 12:13:47.7	198.65	331.8	1.6581	17.89	25.3756247
22.05.2015 12:13:47.8	198.54	331.8	1.7616	17.88	26.1556209
22.05.2015 12:13:47.9	196.57	331.8	1.609	17.92	24.9970872
22.05.2015 12:13:48.0	196.39	331.8	1.1742	18.01	21.3541565
22.05.2015 12:13:48.1	196.4	331.8	1.2788	17.9	22.285003
22.05.2015 12:13:48.2	195.61	331.8	1.4765	17.8	23.9457315
22.05.2015 12:13:48.3	193.82	331.9	1.4109	17.71	23.4077408
22.05.2015 12:13:48.4	194.1	331.9	1.3451	17.87	22.8553917
22.05.2015 12:13:48.5	193.22	331.9	0.7787	17.72	17.3898754
22.05.2015 12:13:48.6	191.39	331.9	1.4988	17.66	24.1258835
22.05.2015 12:13:48.7	190.86	331.9	1.0375	17.63	20.0726835
22.05.2015 12:13:48.8	190.77	331.9	1.5047	17.74	24.1733224
22.05.2015 12:13:48.9	190.43	331.9	1.3602	17.79	22.9833202
22.05.2015 12:13:49.0	187.79	331.8	1.7379	17.81	25.9790805
22.05.2015 12:13:49.1	188.28	331.8	1.383	17.87	23.1751457
22.05.2015 12:13:49.2	187.92	331.8	2.2162	17.92	29.3370107
22.05.2015 12:13:49.3	187.38	331.8	1.6536	17.85	25.3411672
22.05.2015 12:13:49.4	185.48	331.7	1.5419	17.79	24.4703109
22.05.2015 12:13:49.5	185.86	331.8	1.9942	17.95	27.8288807
22.05.2015 12:13:49.6	185.7	331.8	1.7099	17.87	25.768951
22.05.2015 12:13:49.7	183.14	331.7	2.0553	17.83	28.2519868
22.05.2015 12:13:49.8	182.43	331.7	1.7519	17.84	26.0835104
22.05.2015 12:13:49.9	182.74	331.7	1.5828	18.01	24.792733
22.05.2015 12:13:50.0	182	331.7	1.5577	17.83	24.5953662
22.05.2015 12:13:50.1	179.42	331.7	1.3813	17.77	23.1608977
22.05.2015 12:13:50.2	180.05	331.7	1.4936	17.7	24.0839954
22.05.2015 12:13:50.3	180.24	331.7	1.5861	17.79	24.8185649
22.05.2015 12:13:50.4	177.2	331.7	1.5415	17.72	24.4671367
22.05.2015 12:13:50.5	177.18	331.7	1.2503	17.68	22.0352762
22.05.2015 12:13:50.6	177.94	331.7	1.3013	17.71	22.4801962
22.05.2015 12:13:50.7	177.34	331.6	1.5765	17.84	24.7433427
22.05.2015 12:13:50.8	174.45	331.6	1.2884	17.77	22.3684938
22.05.2015 12:13:50.9	174.8	331.6	1.1477	17.69	21.1118151
22.05.2015 12:13:51.0	175.43	331.6	1.3963	17.72	23.2863142
22.05.2015 12:13:51.1	172.76	331.6	1.3928	17.74	23.2571108
22.05.2015 12:13:51.2	172.14	331.6	1.2897	17.68	22.3797759
22.05.2015 12:13:51.3	171.94	331.6	0.8356	17.65	18.0140183
22.05.2015 12:13:51.4	172.08	331.6	1.3364	17.78	22.7813584
22.05.2015 12:13:51.5	169.07	331.7	1.8752	17.74	26.9857927
22.05.2015 12:13:51.6	169.23	331.7	1.1553	17.58	21.1816004
22.05.2015 12:13:51.7	169.08	331.7	0.9235	17.74	18.9378134
22.05.2015 12:13:51.8	168.04	331.7	0.8682	17.92	18.3620546
22.05.2015 12:13:51.9	166.59	331.7	1.1573	17.79	21.1999267
22.05.2015 12:13:52.0	166.75	331.8	1.4109	17.72	23.4077408
22.05.2015 12:13:52.1	167.2	331.8	1.3614	17.85	22.9934562
22.05.2015 12:13:52.2	164.75	331.8	1.8003	17.9	26.4413621
22.05.2015 12:13:52.3	164.32	331.8	1.3355	17.85	22.7736861
22.05.2015 12:13:52.4	163.9	331.8	1.1567	17.75	21.1944305
22.05.2015 12:13:52.5	162.63	331.8	1.2974	17.82	22.4464844
22.05.2015 12:13:52.6	161.89	331.8	1.3259	17.88	22.6916862

22.05.2015 12:13:52.7	161.3	331.8	1.581	17.75	24.7786316
22.05.2015 12:13:52.8	161.17	331.8	1.5025	17.63	24.1556442
22.05.2015 12:13:52.9	159.87	331.8	1.2247	17.76	21.8085224
22.05.2015 12:13:53.0	159.17	331.9	1.2234	17.87	21.7969447
22.05.2015 12:13:53.1	158.81	331.8	1.799	17.8	26.4318137
22.05.2015 12:13:53.2	157.29	331.8	1.5879	17.83	24.8326437
22.05.2015 12:13:53.3	156.31	331.8	1.549	17.98	24.5265855
22.05.2015 12:13:53.4	156.52	331.8	1.4619	17.93	23.8270467
22.05.2015 12:13:53.5	156.33	331.8	1.6903	17.87	25.620835
22.05.2015 12:13:53.6	153.75	331.7	2.0355	17.87	28.1155729
22.05.2015 12:13:53.7	153.99	331.7	2.0519	17.98	28.2286091
22.05.2015 12:13:53.8	153.63	331.7	1.7493	17.89	26.0641479
22.05.2015 12:13:53.9	151.76	331.7	1.4541	17.84	23.7633968
22.05.2015 12:13:54.0	150.81	331.7	1.0577	17.89	20.2671478
22.05.2015 12:13:54.1	151.1	331.7	1.3103	18.03	22.5578006
22.05.2015 12:13:54.2	150	331.7	1.3578	17.91	22.9630349
22.05.2015 12:13:54.3	148.01	331.7	1.0019	17.9	19.7252979
22.05.2015 12:13:54.4	148.36	331.8	0.9181	17.94	18.8823645
22.05.2015 12:13:54.5	148.65	331.7	0.6949	17.97	16.4275402
22.05.2015 12:13:54.6	146.08	331.7	1.1392	17.9	21.0334916
22.05.2015 12:13:54.7	145.76	331.7	1.3167	17.76	22.6128239
22.05.2015 12:13:54.8	146.38	331.8	1.2036	17.88	21.6198399
22.05.2015 12:13:54.9	146.13	331.8	1.4311	17.83	23.5747108
22.05.2015 12:13:55.0	142.94	331.8	0.9974	17.81	19.6809503
22.05.2015 12:13:55.1	143.13	331.7	1.4107	17.84	23.4060817
22.05.2015 12:13:55.2	143.91	331.8	1.0409	17.95	20.1055467
22.05.2015 12:13:55.3	141.65	331.8	1.0099	17.89	19.8038929
22.05.2015 12:13:55.4	140.37	331.8	0.7813	17.77	17.4188827
22.05.2015 12:13:55.5	140.45	331.8	0.9691	17.76	19.3997298
22.05.2015 12:13:55.6	140.82	331.8	1.2245	17.77	21.8067416
22.05.2015 12:13:55.7	137.59	331.8	1.5422	17.64	24.4726913
22.05.2015 12:13:55.8	137.77	331.8	1.3503	17.52	22.8995273
22.05.2015 12:13:55.9	137.55	331.8	1.4939	17.57	24.086414
22.05.2015 12:13:56.0	136.74	331.8	1.8957	17.79	27.1328984
22.05.2015 12:13:56.1	135.26	331.7	1.4081	17.78	23.3845024
22.05.2015 12:13:56.2	135.46	331.8	0.7101	17.73	16.6062335
22.05.2015 12:13:56.3	134.99	331.7	1.1402	17.88	21.0427212
22.05.2015 12:13:56.4	133.13	331.7	1.1533	17.91	21.1632581
22.05.2015 12:13:56.5	132.77	331.7	1.2251	17.8	21.8120836
22.05.2015 12:13:56.6	132.2	331.7	1.0366	17.63	20.0639753
22.05.2015 12:13:56.7	131.4	331.7	1.6399	17.67	25.2359737
22.05.2015 12:13:56.8	130.25	331.7	1.5709	17.74	24.6993573
22.05.2015 12:13:56.9	129.72	331.7	1.3932	17.59	23.2604502
22.05.2015 12:13:57.0	128.9	331.7	1.4633	17.58	23.8384531
22.05.2015 12:13:57.1	127.6	331.7	1.1881	17.6	21.4801783
22.05.2015 12:13:57.2	127.49	331.7	1.5335	17.65	24.4035649
22.05.2015 12:13:57.3	127.17	331.7	1.3781	17.48	23.1340542
22.05.2015 12:13:57.4	124.77	331.7	1.5984	17.65	24.9146115
22.05.2015 12:13:57.5	125.6	331.6	1.3308	17.71	22.7335772
22.05.2015 12:13:57.6	125.31	331.6	1.4371	17.65	23.6240786
22.05.2015 12:13:57.7	123.93	331.6	1.3346	17.54	22.7660111
22.05.2015 12:13:57.8	122.32	331.5	1.5591	17.6	24.6064164
22.05.2015 12:13:57.9	122.62	331.5	1.4323	17.69	23.5845926
22.05.2015 12:13:58.0	122.36	331.5	0.6776	17.73	16.2217641
22.05.2015 12:13:58.1	119.79	331.5	1.357	17.6	22.9562691
22.05.2015 12:13:58.2	119.7	331.5	1.4474	17.67	23.7085868
22.05.2015 12:13:58.3	120.02	331.4	1.3759	17.86	23.1155813
22.05.2015 12:13:58.4	119.01	331.4	1.3408	17.76	22.8188306
22.05.2015 12:13:58.5	116.65	331.4	1.3784	17.77	23.1365722
22.05.2015 12:13:58.6	117.41	331.4	1.2977	17.84	22.4490794
22.05.2015 12:13:58.7	118.03	331.4	1.4156	17.97	23.4466964
22.05.2015 12:13:58.8	115.09	331.4	1.5884	17.85	24.8365531
22.05.2015 12:13:58.9	114.09	331.4	1.6213	17.81	25.0924504
22.05.2015 12:13:59.0	115.01	331.5	1.1182	17.83	20.8387242
22.05.2015 12:13:59.1	114.3	331.5	1.1433	17.83	21.0713075
22.05.2015 12:13:59.2	111.19	331.5	1.6708	17.63	25.47262
22.05.2015 12:13:59.3	111.46	331.4	1.2941	17.62	22.4179193
22.05.2015 12:13:59.4	112.12	331.4	1.5595	17.75	24.6095727
22.05.2015 12:13:59.5	110.27	331.4	1.5717	17.73	24.7056458
22.05.2015 12:13:59.6	109.06	331.4	1.2596	17.74	22.1170759
22.05.2015 12:13:59.7	109.05	331.4	0.8935	17.78	18.6276754

22.05.2015 12:13:59.8	109.26	331.4	1.6146	17.77	25.0405496
22.05.2015 12:13:59.9	106.67	331.4	1.7368	17.71	25.9708575
22.05.2015 12:14:00.0	106.56	331.4	1.1951	17.64	21.5433634
22.05.2015 12:14:00.1	106.36	331.3	1.223	17.61	21.793381
22.05.2015 12:14:00.2	105.84	331.3	1.0272	17.63	19.972797
22.05.2015 12:14:00.3	103.56	331.3	1.053	17.62	20.2220681
22.05.2015 12:14:00.4	103.23	331.4	1.6796	17.53	25.5396132
22.05.2015 12:14:00.5	103.78	331.4	1.2648	17.59	22.1626818
22.05.2015 12:14:00.6	101.96	331.5	1.3067	17.65	22.526791
22.05.2015 12:14:00.7	100.81	331.5	1.4179	17.68	23.4657362
22.05.2015 12:14:00.8	100.77	331.6	1.4058	17.56	23.3653964
22.05.2015 12:14:00.9	100.93	331.6	1.6546	17.62	25.3488285
22.05.2015 12:14:01.0	98.6	331.7	0.9955	17.67	19.6621958
22.05.2015 12:14:01.1	98.2	331.7	1.2269	17.64	21.8281016
22.05.2015 12:14:01.2	98.13	331.7	1.0267	17.55	19.9679355
22.05.2015 12:14:01.3	97.27	331.7	1.4273	17.67	23.5433911
22.05.2015 12:14:01.4	95.45	331.7	1.5388	17.64	24.4456997
22.05.2015 12:14:01.5	95.53	331.7	1.7126	17.58	25.7892881
22.05.2015 12:14:01.6	94.69	331.7	1.3349	17.6	22.7685697
22.05.2015 12:14:01.7	92.96	331.7	1.6195	17.81	25.0785175
22.05.2015 12:14:01.8	93.09	331.8	1.0865	17.86	20.5412207
22.05.2015 12:14:01.9	92.96	331.8	1.3957	17.67	23.2813105
22.05.2015 12:14:02.0	90.92	331.8	1.5055	17.69	24.1797476
22.05.2015 12:14:02.1	90.97	331.8	1.6471	17.69	25.2913124
22.05.2015 12:14:02.2	90.82	331.8	1.3444	17.65	22.8494439
22.05.2015 12:14:02.3	89.16	331.9	1.3022	17.49	22.4879687
22.05.2015 12:14:02.4	88.15	331.9	1.5926	17.57	24.8693674
22.05.2015 12:14:02.5	88.36	331.8	1.3271	17.72	22.7019524
22.05.2015 12:14:02.6	87.63	331.8	1.6605	17.73	25.3939829
22.05.2015 12:14:02.7	84.98	331.8	1.2103	17.57	21.6799312
22.05.2015 12:14:02.8	85.67	331.8	0.8718	17.68	18.4000844
22.05.2015 12:14:02.9	85.45	331.8	1.3835	17.79	23.1793346
22.05.2015 12:14:03.0	84.42	331.8	1.3698	17.83	23.0642833
22.05.2015 12:14:03.1	82.37	331.8	1.3161	17.77	22.6076712
22.05.2015 12:14:03.2	83.51	331.8	1.217	17.9	21.7398565
22.05.2015 12:14:03.3	83.15	331.8	1.7586	17.86	26.1333399
22.05.2015 12:14:03.4	80.77	331.8	1.7275	17.81	25.9012314
22.05.2015 12:14:03.5	79.78	331.8	1.7155	17.9	25.8111137
22.05.2015 12:14:03.6	80.06	331.8	1.3617	17.99	22.9959895
22.05.2015 12:14:03.7	79.48	331.8	1.6319	17.97	25.1743435
22.05.2015 12:14:03.8	77	331.8	1.6785	17.84	25.5312487
22.05.2015 12:14:03.9	77.13	331.8	1.5718	17.96	24.7064317
22.05.2015 12:14:04.0	77.45	331.8	1.5805	18	24.7747131
22.05.2015 12:14:04.1	75.9	331.7	1.4472	17.89	23.7069487
22.05.2015 12:14:04.2	74.67	331.7	1.2781	17.79	22.2789029
22.05.2015 12:14:04.3	75.08	331.7	1.5006	17.7	24.1403662
22.05.2015 12:14:04.4	75.37	331.7	1.5828	17.83	24.792733
22.05.2015 12:14:04.5	71.81	331.7	1.573	17.72	24.715861
22.05.2015 12:14:04.6	71.21	331.7	1.7383	17.61	25.98207
22.05.2015 12:14:04.7	72.22	331.7	1.5886	17.66	24.8381167
22.05.2015 12:14:04.8	71.24	331.7	1.5919	17.86	24.8639014
22.05.2015 12:14:04.9	68.82	331.7	1.8013	17.7	26.4487047
22.05.2015 12:14:05.0	68.96	331.6	1.5487	17.73	24.5242103
22.05.2015 12:14:05.1	69.5	331.6	1.4828	17.86	23.9967635
22.05.2015 12:14:05.2	67.57	331.7	1.9627	17.81	27.608216
22.05.2015 12:14:05.3	66.8	331.6	1.6099	17.77	25.0040773
22.05.2015 12:14:05.4	66.76	331.6	1.273	17.72	22.2344087
22.05.2015 12:14:05.5	66.63	331.6	1.3549	17.89	22.9384995
22.05.2015 12:14:05.6	63.55	331.5	1.3667	17.88	23.0381701
22.05.2015 12:14:05.7	63.69	331.5	1.4508	17.9	23.7364167
22.05.2015 12:14:05.8	63.47	331.5	1.5453	17.9	24.4972755
22.05.2015 12:14:05.9	62.43	331.5	1.2972	17.91	22.4447542
22.05.2015 12:14:06.0	60.98	331.5	1.4633	17.82	23.8384531
22.05.2015 12:14:06.1	60.88	331.5	1.4246	17.67	23.5211122
22.05.2015 12:14:06.2	60.62	331.5	1.7217	17.72	25.8577137
22.05.2015 12:14:06.3	59.2	331.4	1.3654	17.68	23.0272106
22.05.2015 12:14:06.4	58.72	331.4	1.6102	17.64	25.0064069
22.05.2015 12:14:06.5	58.15	331.5	1.6675	17.6	25.447452
22.05.2015 12:14:06.6	57.17	331.4	1.5067	17.7	24.1893822
22.05.2015 12:14:06.7	56.24	331.4	1.5706	17.69	24.6969988
22.05.2015 12:14:06.8	55.65	331.4	1.3121	17.65	22.5732895

22.05.2015 12:14:06.9	54.51	331.4	1.5148	17.65	24.254316
22.05.2015 12:14:07.0	53.58	331.4	1.4336	17.71	23.5952933
22.05.2015 12:14:07.1	53.45	331.5	1.5276	17.83	24.3565744
22.05.2015 12:14:07.2	53.5	331.4	1.5327	17.82	24.3971986
22.05.2015 12:14:07.3	51.4	331.4	1.6128	17.77	25.0265878
22.05.2015 12:14:07.4	51.43	331.4	1.6333	17.83	25.1851397
22.05.2015 12:14:07.5	50.99	331.4	1.4159	17.81	23.4491807
22.05.2015 12:14:07.6	49.27	331.4	1.5312	17.7	24.3852574
22.05.2015 12:14:07.7	48.16	331.4	2.106	17.64	28.598323
22.05.2015 12:14:07.8	48.53	331.4	1.5777	17.72	24.752758
22.05.2015 12:14:07.9	47.46	331.4	1.1548	17.62	21.1770163
22.05.2015 12:14:08.0	45.39	331.4	1.5872	17.56	24.8271696
22.05.2015 12:14:08.1	45.68	331.4	1.6322	17.62	25.1766574
22.05.2015 12:14:08.2	46.31	331.4	1.9509	17.74	27.5250989
22.05.2015 12:14:08.3	44.04	331.4	1.0242	17.78	19.9436098
22.05.2015 12:14:08.4	42.87	331.5	1.3939	17.76	23.266293
22.05.2015 12:14:08.5	43.74	331.5	1.602	17.8	24.9426527
22.05.2015 12:14:08.6	43.36	331.5	1.4332	17.94	23.5920013
22.05.2015 12:14:08.7	40.06	331.5	1.8755	17.75	26.9879513
22.05.2015 12:14:08.8	40.21	331.5	1.4861	17.64	24.0234513
22.05.2015 12:14:08.9	40.97	331.5	1.6658	17.62	25.434477
22.05.2015 12:14:09.0	38.19	331.6	1.7149	17.68	25.8065996
22.05.2015 12:14:09.1	37.97	331.6	1.5211	17.59	24.3047001
22.05.2015 12:14:09.2	38.16	331.6	1.2995	17.62	22.4646432
22.05.2015 12:14:09.3	38.02	331.6	1.4792	17.7	23.9676157
22.05.2015 12:14:09.4	35.43	331.7	1.4497	17.77	23.7274164
22.05.2015 12:14:09.5	35.58	331.7	1.9359	17.55	27.4190778
22.05.2015 12:14:09.6	35.4	331.7	1.4363	17.65	23.6175021
22.05.2015 12:14:09.7	34.67	331.7	1.4141	17.71	23.4342708
22.05.2015 12:14:09.8	32.67	331.7	1.7851	17.63	26.3295028
22.05.2015 12:14:09.9	32.76	331.8	1.8319	17.61	26.6724104
22.05.2015 12:14:10.0	32.48	331.8	1.3075	17.69	22.5336857
22.05.2015 12:14:10.1	30.21	331.8	1.2112	17.75	21.6879905
22.05.2015 12:14:10.2	30.34	331.8	1.3496	17.68	22.8935909
22.05.2015 12:14:10.3	29.66	331.8	1.4783	17.58	23.9603232
22.05.2015 12:14:10.4	29.17	331.8	1.5797	17.63	24.7684422
22.05.2015 12:14:10.5	27.82	331.8	1.7725	17.8	26.2364158
22.05.2015 12:14:10.6	27.09	331.8	1.8856	17.75	27.0605219
22.05.2015 12:14:10.7	26.97	331.8	2.0117	17.71	27.9507195
22.05.2015 12:14:10.8	25.28	331.9	1.5958	17.81	24.8943398
22.05.2015 12:14:10.9	24.85	331.9	1.4699	17.79	23.8921525
22.05.2015 12:14:11.0	24.64	331.9	1.5146	17.68	24.2527148
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22.05.2015 12:14:11.5	19.87	331.8	1.7308	17.6	25.9259588
22.05.2015 12:14:11.6	19.55	331.8	2.0451	17.69	28.1817954
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22.05.2015 12:14:11.8	18.8	331.8	1.7364	17.52	25.9678666
22.05.2015 12:14:11.9	16.44	331.8	1.3918	17.67	23.2487603
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22.05.2015 12:14:12.9	9.16	331.7	1.6329	17.56	25.1820556
22.05.2015 12:14:13.0	8.48	331.7	1.4127	17.51	23.4226676
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22.05.2015 12:14:14.0	0.8	331.8	1.6762	17.62	25.5137503
22.05.2015 12:14:14.1	1.1	331.9	1.3536	17.55	22.9274923
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22.05.2015 12:14:14.4	-1.54	331.9	1.4049	17.74	23.3579159
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22.05.2015 12:14:14.6	-2.23	332	1.6926	17.64	25.6382602
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22.05.2015 12:14:14.8	-4.33	332.1	1.6486	17.62	25.3028261
22.05.2015 12:14:14.9	-4.45	332.1	1.4508	17.5	23.7364167
22.05.2015 12:14:15.0	-5.84	332.1	1.5428	17.61	24.4774515
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22.05.2015 12:14:15.3	-7.32	332.2	1.5689	17.59	24.6836293
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22.05.2015 12:14:17.5	-25.2	331.9	1.8131	17.49	26.5351937
22.05.2015 12:14:17.6	-26.08	331.8	1.2833	17.53	22.3241782
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22.05.2015 12:14:18.3	-31.24	331.9	1.8193	17.53	26.5805243
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22.05.2015 12:14:21.0	-50.5	331.8	1.6932	17.74	25.642804

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22.05.2015 12:14:21.6	-54.94	332	1.6812	17.91	25.551775
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22.05.2015 12:14:25.8	-86.21	332.5	1.4183	17.7	23.4690459
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22.05.2015 12:14:28.7	-107.27	332.8	1.3714	17.74	23.0777495
22.05.2015 12:14:28.8	-110.12	332.9	1.428	17.78	23.5491636
22.05.2015 12:14:28.9	-110.28	332.9	1.58	17.63	24.770794
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22.05.2015 12:14:29.3	-112.4	332.9	1.5798	17.63	24.7692261
22.05.2015 12:14:29.4	-112.52	332.9	1.728	17.65	25.9049795
22.05.2015 12:14:29.5	-113.96	333	1.2311	17.78	21.8654313
22.05.2015 12:14:29.6	-115.22	333	1.7227	17.71	25.865222
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22.05.2015 12:14:29.8	-116.17	333	1.7357	17.81	25.9626318
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22.05.2015 12:14:30.2	-119.79	332.9	1.5136	17.68	24.2447072
22.05.2015 12:14:30.3	-119.76	332.9	1.4127	17.79	23.4226676
22.05.2015 12:14:30.4	-120.71	332.9	1.5382	17.79	24.4409334
22.05.2015 12:14:30.5	-122.1	332.9	1.6525	17.56	25.3327372
22.05.2015 12:14:30.6	-122.7	332.9	1.088	17.67	20.5553952
22.05.2015 12:14:30.7	-122.98	332.9	1.5339	17.73	24.4067474
22.05.2015 12:14:30.8	-123.68	332.9	1.3778	17.74	23.1315361
22.05.2015 12:14:30.9	-126	332.9	1.6237	17.65	25.1110156
22.05.2015 12:14:31.0	-125.5	332.9	1.4416	17.86	23.6610368
22.05.2015 12:14:31.1	-125.86	332.9	1.3146	17.78	22.5947842
22.05.2015 12:14:31.2	-126.55	332.9	1.5642	17.79	24.6466288
22.05.2015 12:14:31.3	-128.46	332.9	1.3905	17.76	23.2379001
22.05.2015 12:14:31.4	-127.78	332.9	1.4033	17.93	23.3446112
22.05.2015 12:14:31.5	-128.02	332.9	1.4861	17.83	24.0234513
22.05.2015 12:14:31.6	-130.42	332.9	1.8655	17.59	26.9159064
22.05.2015 12:14:31.7	-131.26	332.9	1.7874	17.63	26.3464594
22.05.2015 12:14:31.8	-131	332.9	1.5852	17.71	24.8115225
22.05.2015 12:14:31.9	-131.36	332.9	1.6346	17.66	25.1951606
22.05.2015 12:14:32.0	-133.93	333	1.5583	17.56	24.6001026
22.05.2015 12:14:32.1	-133.82	333	1.7733	17.62	26.2423359
22.05.2015 12:14:32.2	-133.63	333	1.4323	17.64	23.5845926
22.05.2015 12:14:32.3	-134.62	333	1.6164	17.61	25.0545037
22.05.2015 12:14:32.4	-136.81	333	1.4306	17.47	23.5705922
22.05.2015 12:14:32.5	-135.82	333	1.4255	17.59	23.5285408
22.05.2015 12:14:32.6	-135.67	333.1	1.681	17.69	25.5502551
22.05.2015 12:14:32.7	-139.46	333	1.3162	17.66	22.6085301
22.05.2015 12:14:32.8	-139.38	333	1.1435	17.62	21.0731505
22.05.2015 12:14:32.9	-138.73	333.1	0.9101	17.65	18.7999174
22.05.2015 12:14:33.0	-140.29	333.1	1.2254	17.73	21.8147541
22.05.2015 12:14:33.1	-142.44	333.1	1.879	17.53	27.0131216
22.05.2015 12:14:33.2	-142.19	333	1.6763	17.69	25.5145114
22.05.2015 12:14:33.3	-141.8	333	1.8753	17.75	26.9865123
22.05.2015 12:14:33.4	-143.06	333	2.2591	17.73	29.6195947
22.05.2015 12:14:33.5	-144.57	333	1.7891	17.57	26.3589855
22.05.2015 12:14:33.6	-144.48	333	1.1575	17.82	21.2017585
22.05.2015 12:14:33.7	-144.38	333.1	1.6385	17.79	25.2251993
22.05.2015 12:14:33.8	-147.31	333.1	1.3768	17.76	23.1231402
22.05.2015 12:14:33.9	-147.58	333.2	1.4591	17.68	23.8042176
22.05.2015 12:14:34.0	-147.16	333.3	1.9278	17.69	27.3616555
22.05.2015 12:14:34.1	-148.51	333.3	1.9871	17.77	27.7792966
22.05.2015 12:14:34.2	-150.4	333.3	1.2212	17.8	21.7773375
22.05.2015 12:14:34.3	-150.59	333.4	1.4733	17.62	23.9197688
22.05.2015 12:14:34.4	-150.39	333.4	1.761	17.67	26.1511662
22.05.2015 12:14:34.5	-152.61	333.4	1.5932	17.7	24.8740517
22.05.2015 12:14:34.6	-152.82	333.4	2.0139	17.67	27.9659988
22.05.2015 12:14:34.7	-152.45	333.4	1.5701	17.57	24.6930673
22.05.2015 12:14:34.8	-153.74	333.5	1.4075	17.66	23.3795197
22.05.2015 12:14:34.9	-155.02	333.5	0.8927	17.68	18.6193344
22.05.2015 12:14:35.0	-155.06	333.5	1.1295	17.5	20.9437527
22.05.2015 12:14:35.1	-155.15	333.4	0.9482	17.55	19.1893984
22.05.2015 12:14:35.2	-157.06	333.5	1.1311	17.64	20.9585814

22.05.2015 12:14:35.3	-157.83	333.5	2.0719	17.63	28.3658485
22.05.2015 12:14:35.4	-157.9	333.4	1.4383	17.54	23.6339397
22.05.2015 12:14:35.5	-159.59	333.4	1.7528	17.74	26.0902094
22.05.2015 12:14:35.6	-160.58	333.4	1.549	17.84	24.5265855
22.05.2015 12:14:35.7	-160.68	333.4	1.2526	17.87	22.0555345
22.05.2015 12:14:35.8	-160.59	333.4	0.9783	17.64	19.4915964
22.05.2015 12:14:35.9	-161.87	333.4	1.6447	17.74	25.2728797
22.05.2015 12:14:36.0	-162.67	333.4	1.4401	17.83	23.6487238
22.05.2015 12:14:36.1	-163.12	333.4	1.4839	17.73	24.0056628
22.05.2015 12:14:36.2	-163.72	333.4	1.282	17.63	22.312868
22.05.2015 12:14:36.3	-165.96	333.4	1.5424	17.73	24.4742782
22.05.2015 12:14:36.4	-165.89	333.3	1.799	17.8	26.4318137
22.05.2015 12:14:36.5	-166.44	333.4	1.548	17.77	24.5186673
22.05.2015 12:14:36.6	-166.97	333.4	1.3561	17.78	22.9486552
22.05.2015 12:14:36.7	-168.57	333.4	1.5094	17.85	24.2110462
22.05.2015 12:14:36.8	-168.54	333.4	1.3424	17.9	22.8324416
22.05.2015 12:14:36.9	-168.97	333.4	0.9247	17.84	18.9501134
22.05.2015 12:14:37.0	-171.76	333.5	1.2432	17.84	21.972622
22.05.2015 12:14:37.1	-170.82	333.5	1.343	17.98	22.8375436
22.05.2015 12:14:37.2	-171.56	333.5	0.9965	17.95	19.6720688
22.05.2015 12:14:37.3	-172.85	333.5	1.2278	17.83	21.8361062
22.05.2015 12:14:37.4	-175.09	333.5	1.0044	17.87	19.7498925
22.05.2015 12:14:37.5	-174.05	333.5	1.3935	17.95	23.2629544
22.05.2015 12:14:37.6	-174.55	333.6	1.5719	17.94	24.7072176
22.05.2015 12:14:37.7	-175.53	333.6	1.3938	17.8	23.2654584
22.05.2015 12:14:37.8	-177.29	333.6	1.3427	17.9	22.8349927
22.05.2015 12:14:37.9	-176.73	333.6	1.0743	17.82	20.4255694
22.05.2015 12:14:38.0	-177.06	333.6	1.5534	17.88	24.5613952
22.05.2015 12:14:38.1	-180.94	333.7	1.4202	17.67	23.4847606
22.05.2015 12:14:38.2	-179.46	333.7	1.5155	17.77	24.2599194
22.05.2015 12:14:38.3	-179.62	333.7	1.1487	17.8	21.1210106
22.05.2015 12:14:38.4	-180.75	333.7	1.6479	17.67	25.2974537
22.05.2015 12:14:38.5	-183.96	333.8	1.7845	17.58	26.3250776
22.05.2015 12:14:38.6	-182.19	333.8	1.8627	17.57	26.8956993
22.05.2015 12:14:38.7	-183.06	333.8	1.34	17.73	22.812022
22.05.2015 12:14:38.8	-184.48	333.8	1.8789	17.7	27.0124028
22.05.2015 12:14:38.9	-185.78	333.8	1.1405	17.69	21.0454893
22.05.2015 12:14:39.0	-185.11	333.9	1.6734	17.77	25.4924318
22.05.2015 12:14:39.1	-185.74	334	1.5882	17.72	24.8349894
22.05.2015 12:14:39.2	-187.77	334	2.0264	17.59	28.0526551
22.05.2015 12:14:39.3	-188.43	334	1.4686	17.58	23.8815849
22.05.2015 12:14:39.4	-188.69	334.1	1.3957	17.68	23.2813105
22.05.2015 12:14:39.5	-190.24	334.2	1.5626	17.67	24.6340202
22.05.2015 12:14:39.6	-191.96	334.2	1.29	17.62	22.3823786
22.05.2015 12:14:39.7	-191.18	334.2	1.3978	17.78	23.2988187
22.05.2015 12:14:39.8	-191.7	334.2	1.0877	17.9	20.5525611
22.05.2015 12:14:39.9	-192.78	334.3	1.1709	17.82	21.3241283
22.05.2015 12:14:40.0	-194.43	334.3	1.2597	17.65	22.1179539
22.05.2015 12:14:40.1	-193.62	334.4	1.2844	17.68	22.3337439
22.05.2015 12:14:40.2	-194.05	334.4	1.4938	17.74	24.0856078
22.05.2015 12:14:40.3	-196.8	334.4	1.5856	17.67	24.8146527
22.05.2015 12:14:40.4	-196.89	334.4	1.0292	17.6	19.9922315
22.05.2015 12:14:40.5	-196.11	334.5	1.2949	17.72	22.4248475
22.05.2015 12:14:40.6	-197.17	334.5	1.6789	17.74	25.5342907
22.05.2015 12:14:40.7	-199.98	334.5	1.487	17.63	24.0307247
22.05.2015 12:14:40.8	-199.53	334.6	1.7401	17.54	25.9955187
22.05.2015 12:14:40.9	-199.32	334.7	1.7468	17.78	26.0455165
22.05.2015 12:14:41.0	-202.03	334.8	1.5496	17.83	24.5313352
22.05.2015 12:14:41.1	-202.44	334.8	1.5341	17.73	24.4083385
22.05.2015 12:14:41.2	-202.27	334.9	1.4357	17.62	23.6125686
22.05.2015 12:14:41.3	-202.5	334.9	1.2531	17.87	22.059936
22.05.2015 12:14:41.4	-205.33	335	1.3428	17.73	22.8358431
22.05.2015 12:14:41.5	-205.01	335	2.2162	17.53	29.3370107
22.05.2015 12:14:41.6	-204.6	335	1.7902	17.63	26.3670875
22.05.2015 12:14:41.7	-205.54	335	1.6686	17.72	25.4558441
22.05.2015 12:14:41.8	-207.7	335.1	1.4776	17.65	23.9546497
22.05.2015 12:14:41.9	-207.54	335.1	1.6595	17.59	25.3863353
22.05.2015 12:14:42.0	-207.39	335.2	1.3198	17.71	22.6394278
22.05.2015 12:14:42.1	-210.34	335.2	1.6441	17.78	25.2682694
22.05.2015 12:14:42.2	-210.35	335.2	1.3795	17.71	23.1458021
22.05.2015 12:14:42.3	-210.33	335.3	1.4675	17.6	23.8726394

22.05.2015 12:14:42.4	-210.17	335.4	1.1552	17.72	21.1806836
22.05.2015 12:14:42.5	-212.81	335.4	1.6196	17.82	25.0792917
22.05.2015 12:14:42.6	-212.76	335.4	1.4935	17.79	24.0831892
22.05.2015 12:14:42.7	-212.73	335.5	1.3035	17.79	22.4991909
22.05.2015 12:14:42.8	-213.64	335.6	1.5038	17.77	24.1660919
22.05.2015 12:14:42.9	-215.36	335.7	0.9779	17.86	19.4876112
22.05.2015 12:14:43.0	-215.2	335.7	1.5338	17.65	24.4059518
22.05.2015 12:14:43.1	-215.15	335.8	1.5945	17.7	24.8841978
22.05.2015 12:14:43.2	-216.39	335.9	1.2343	17.77	21.8938303
22.05.2015 12:14:43.3	-217.56	335.9	1.278	17.66	22.2780313
22.05.2015 12:14:43.4	-217.46	335.9	1.6408	17.45	25.2428977
22.05.2015 12:14:43.5	-217.48	336	1.7118	17.57	25.7832639
22.05.2015 12:14:43.6	-217.5	336	1.5267	17.7	24.3493984
22.05.2015 12:14:43.7	-217.5	336	1.4867	17.56	24.0283005
22.05.2015 12:14:43.8	-217.46	336.1	1.1413	17.51	21.0528692
22.05.2015 12:14:43.9	-217.43	336.1	1.1624	17.7	21.2465874
22.05.2015 12:14:44.0	-217.36	336.1	1.14	17.78	21.0408756
22.05.2015 12:14:44.1	-217.44	336.1	1.2341	17.72	21.8920565
22.05.2015 12:14:44.2	-217.45	336.1	1.6569	17.57	25.3664406
22.05.2015 12:14:44.3	-217.39	336.2	1.5636	17.58	24.6419013
22.05.2015 12:14:44.4	-217.44	336.2	1.2221	17.7	21.7853607
22.05.2015 12:14:44.5	-217.5	336.2	1.0033	17.61	19.7390746
22.05.2015 12:14:44.6	-217.43	336.3	1.0069	17.51	19.7744564
22.05.2015 12:14:44.7	-217.48	336.3	0.9696	17.71	19.4047337
22.05.2015 12:14:44.8	-217.49	336.4	1.0847	17.76	20.5241984
22.05.2015 12:14:44.9	-217.47	336.3	1.3228	17.53	22.6651437
22.05.2015 12:14:45.0	-217.44	336.3	1.4601	17.56	23.8123734
22.05.2015 12:14:45.1	-217.45	336.3	1.7842	17.67	26.3228647
22.05.2015 12:14:45.2	-217.43	336.4	1.3309	17.62	22.7344314
22.05.2015 12:14:45.3	-217.43	336.4	1.2586	17.52	22.1082948
22.05.2015 12:14:45.4	-217.44	336.4	1.486	17.64	24.022643
22.05.2015 12:14:45.5	-217.4	336.5	1.1977	17.64	21.566785
22.05.2015 12:14:45.6	-217.42	336.5	1.0537	17.63	20.2287885

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

$$y = -3.33934365E-14x^6 + 2.12348346E-12x^5 + 2.58482752E-09x^4 - 3.20935446E-08x^3 - 8.08651097E-05x^2 - 6.51804242E-03x + 2.43862592E+01$$

Please enter below Polynomial Coefficients

Order no	Coeff
6	-3.33934365E-14
5	2.12348346E-12
4	2.58482752E-09
3	-3.20935446E-08
2	-8.08651097E-05
1	-6.51804242E-03
0	2.43862592E+01

Actual Area	0.274324656	[m2]
Integrated area	0.274324656	[m2]
Area Error	0	[%]
Integrated Mass flow	3.027413187	[Kg/s]

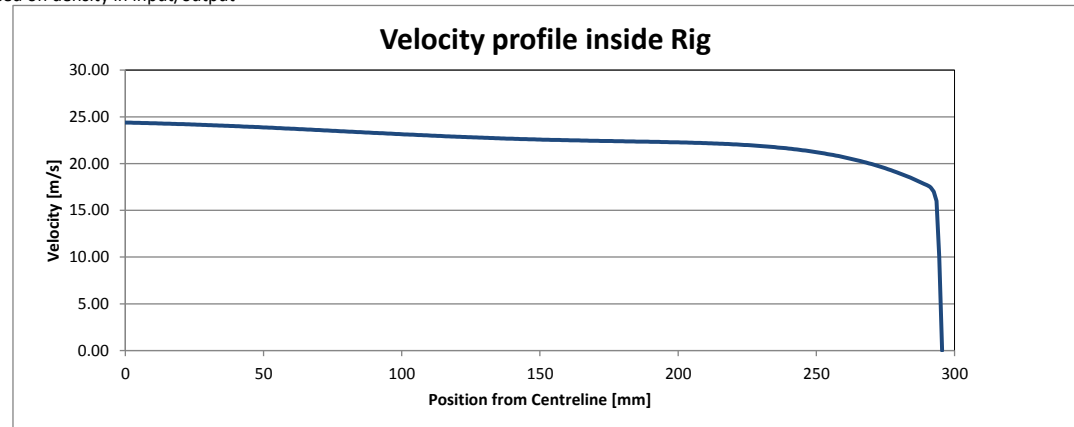
Polynomial curve (dP vs position)

Please do NOT alter any of the figures below

position [mm]	Velocity [m/s]
0	24.386259
1	24.379660
2	24.372899
3	24.365977
4	24.358892
5	24.351645
6	24.344236
7	24.336666
8	24.328934
9	24.321040
10	24.312986
11	24.304771
12	24.296397
13	24.287862
14	24.279169
15	24.270318
16	24.261309
17	24.252143
18	24.242821
19	24.233345
20	24.223714
21	24.213930
22	24.203994
23	24.193908
24	24.183672
25	24.173288
26	24.162757
27	24.152081
28	24.141260
29	24.130298
30	24.119194
31	24.107951
32	24.096570
33	24.085054

Delta Area [m2]	Delta Mass flow [Kg/s]
0	0
3.14159E-06	3.94443E-05
9.42478E-06	0.0001183
1.5708E-05	0.000197111
2.19911E-05	0.000275875
2.82743E-05	0.000354591
3.45575E-05	0.000433257
4.08407E-05	0.000511872
4.71239E-05	0.000590434
5.34071E-05	0.000668942
5.96903E-05	0.000747393
6.59734E-05	0.000825787
7.22566E-05	0.000904122
7.85398E-05	0.000982396
8.4823E-05	0.001060607
9.11062E-05	0.001138756
9.73894E-05	0.001216839
0.000103673	0.001294855
0.000109956	0.001372803
0.000116239	0.001450682
0.000122522	0.001528489
0.000128805	0.001606224
0.000135088	0.001683886
0.000141372	0.001761472
0.000147655	0.001838981
0.000153938	0.001916412
0.000160221	0.001993764
0.000166504	0.002071035
0.000172788	0.002148225
0.000179071	0.002225331
0.000185354	0.002302353
0.000191637	0.002379289
0.00019792	0.002456139
0.000204204	0.0025329

Based on density in input/output



34	24.073403
35	24.061621
36	24.049708
37	24.037668
38	24.025501
39	24.013210
40	24.000797
41	23.988265
42	23.975615
43	23.962850
44	23.949973
45	23.936985
46	23.923889
47	23.910688
48	23.897385
49	23.883981
50	23.870480
51	23.856884
52	23.843196
53	23.829418
54	23.815555
55	23.801607
56	23.787580
57	23.773474
58	23.759294
59	23.745043
60	23.730723
61	23.716337
62	23.701889
63	23.687382
64	23.672819
65	23.658204
66	23.643539
67	23.628828
68	23.614074
69	23.599281
70	23.584451
71	23.569589
72	23.554697
73	23.539780
74	23.524840
75	23.509882
76	23.494908
77	23.479921
78	23.464927
79	23.449927
80	23.434926
81	23.419927
82	23.404934
83	23.389950

0.000210487	0.002609573
0.00021677	0.002686155
0.000223053	0.002762646
0.000229336	0.002839045
0.000235619	0.002915351
0.000241903	0.002991562
0.000248186	0.003067679
0.000254469	0.003143699
0.000260752	0.003219622
0.000267035	0.003295448
0.000273319	0.003371176
0.000279602	0.003446804
0.000285885	0.003522332
0.000292168	0.00359776
0.000298451	0.003673086
0.000304734	0.00374831
0.000311018	0.003823433
0.000317301	0.003898452
0.000323584	0.003973368
0.000329867	0.00404818
0.00033615	0.004122888
0.000342434	0.004197492
0.000348717	0.004271991
0.000355	0.004346385
0.000361283	0.004420674
0.000367566	0.004494857
0.00037385	0.004568935
0.000380133	0.004642908
0.000386416	0.004716775
0.000392699	0.004790537
0.000398982	0.004864193
0.000405265	0.004937744
0.000411549	0.005011119
0.000417832	0.005084531
0.000424115	0.005157768
0.000430398	0.0052309
0.000436681	0.005303929
0.000442965	0.005376854
0.000449248	0.005449676
0.000455531	0.005522395
0.000461814	0.005595013
0.000468097	0.00566753
0.00047438	0.005739946
0.000480664	0.005812262
0.000486947	0.005884479
0.00049323	0.005956597
0.000499513	0.006028619
0.000505796	0.006100543
0.00051208	0.006172372
0.000518363	0.006244107

84	23.374978
85	23.360023
86	23.345088
87	23.330176
88	23.315290
89	23.300436
90	23.285615
91	23.270831
92	23.256089
93	23.241390
94	23.226740
95	23.212141
96	23.197597
97	23.183111
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99	23.154326
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101	23.125814
102	23.111669
103	23.097601
104	23.083615
105	23.069713
106	23.055899
107	23.042175
108	23.028544
109	23.015010
110	23.001575
111	22.988243
112	22.975015
113	22.961896
114	22.948887
115	22.935991
116	22.923210
117	22.910548
118	22.898007
119	22.885589
120	22.873296
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0.000826239	0.009674576
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226	21.958099
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228	21.918439
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231	21.852901
232	21.829333
233	21.804855

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265	20.340529
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269	20.029677
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271	19.860128
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274	19.586961
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276	19.391648
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281	18.853818
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283	18.617616

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0.001768717	0.017067587
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0.000914989	0.008199215
0.00183469	0.016062712
0.001840973	0.01516962
0.001847256	0.009513371
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:

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

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

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

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