

CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
DATA SHEET FOR PARTICULATE MATTER




Annexure -I

Station : Jai Stambh Chowk, Yateyat Thana, Raipur		Date : 24.10.2011		Ist Shift		IInd Shift		IIInd Shift	
Shift :		06:00 AM -02:00 PM		02:00 PM -10:00 PM		10:00 PM -06:00 AM			
Monitoring Period :	Dhanteras	SPM	RSPM	SPM	RSPM	SPM	RSPM	SPM	RSPM
Parameter :	SPM	1.29	1.27	1.30	1.28	1.30	1.27	1.27	1.24
	RSPM	1.24	1.24	1.25	1.25	1.23	1.23	1.19	1.22
Filter Paper No.	4	1.22	1.22	1.20	1.20	1.20	1.17	1.17	1.19
Hourly Flow Rate (m ³ /minute)		1.19	1.19	1.17	1.17	1.17	1.14	1.14	1.17
		1.17	1.17	1.15	1.15	1.13	1.13	1.11	1.11
		1.14	1.14	1.13	1.13	1.10	1.10	1.09	1.09
		1.11	1.11	1.10	1.10	1.07	1.07	1.07	1.07
Average Flow Rate (m ³ /minute)		1.09	1.09	1.19	1.19	1.20	1.20	1.16	1.16
Total Operation Time (Minutes)	480	480	480	480	480	480	480	480	480
Initial Weight of Filter Paper (gms.)	2.5908	2.5908	2.5484	2.5484	2.5484	2.5484	2.5708	2.5708	2.5708
Final Weight of Filter Paper (gms.)	2.7124	2.7124	2.6782	2.6782	2.6782	2.6786	2.6786	2.6786	2.6786
Dust Contents (gms.)	0.1098	-	0.1152	-	0.1108	-	0.1108	-	0.1108
Total Volume of Air Sampled (m ³)	571.2	571.2	576.0	576.0	556.8	556.8	556.8	556.8	556.8
Concentration (µg/m ³)	405.11	212.88	425.34	225.34	392.60	193.60	193.60	193.60	193.60
24 Hourly Average SPM (µg/m ³)			24 Hourly Average RSPM (µg/m ³)						
Remarks :			407.68	210.60					
Name & Signature of Official on Duty :									

S.K. Khanna Lab Asst. Gr. 2
 A.K. Mishra Lab Asst. Gr. 2
 H.M. Tripathi Lab Asst. Gr. 1
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CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
DATA SHEET FOR PARTICULATE MATTER

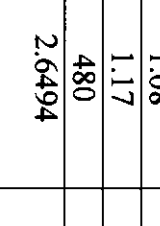
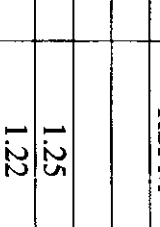
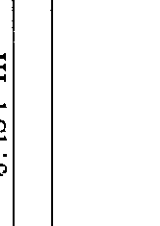
Annexure -1

Station : City Kotwali, Raipur		Date : 24.10.2011					
Shift :	Ist Shift			IInd Shift		IIIrd Shift	
Monitoring Period : Dhanteras	06:00 AM -02:00 PM		02:00 PM -10:00 PM		10:00 PM -06:00 AM		
Parameter : SPM	SPM	RSPM	SPM	RSPM	SPM	RSPM	
Filter Paper No.	1		2		3		
Hourly Flow Rate (m ³ /minute)	1.27	1.27	1.30	1.30	1.29	1.29	
	1.25	1.25	1.28	1.28	1.26	1.26	
	1.20	1.20	1.25	1.25	1.23	1.23	
	1.15	1.15	1.22	1.22	1.21	1.21	
	1.13	1.13	1.19	1.19	1.18	1.18	
	1.11	1.11	1.16	1.16	1.15	1.15	
	1.09	1.09	1.14	1.14	1.12	1.12	
	1.07	1.07	1.11	1.11	1.10	1.10	
	1.05	1.05	1.09	1.09	1.08	1.08	
Average Flow Rate (m ³ /minute)	1.14	1.14	1.19	1.19	1.18	1.18	
Total Operation Time (Minutes)	480	480	480	480	480	480	
Initial Weight of Filter Paper (gms.)	2.5862	2.5862	2.6002	2.6002	2.5408	2.5408	
Final Weight of Filter Paper (gms.)	2.6904	2.6904	2.7312	2.7312	2.6518	2.6518	
Dust Contents (gms.)	0.0998	-	0.1074	-	0.1086	-	
Total Volume of Air Sampled (m ³)	547.2	547.2	571.2	571.2	566.4	566.4	
Concentration (µg/m ³)	372.80	190.42	417.36	229.34	387.71	195.97	
24 Hourly Average SPM (µg/m ³)			24 Hourly Average RSPM (µg/m ³)				
Remarks :			392.62	205.24			
Name & Signature of Official on Duty :	 A.K. Mishra Lab Asstt. Gr.2		 H.M. Tripathi Lab Asstt. Gr.2		 S.K. Khanna Lab Asstt. Gr.2		

[Handwritten Signature]
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CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
DATA SHEET FOR PARTICULATE MATTER

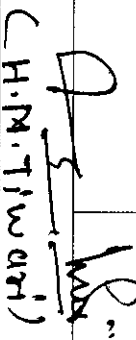

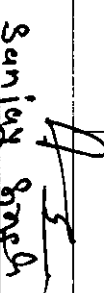
Annexure -1

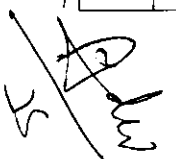
Station : Jai Stambh Chowk, Yatayat Thana, Raipur		Date : 26.10.2011					
Shift :		Ist Shift		IInd Shift		IIInd Shift	
Monitoring Period : Deepawali		06:00 AM -02:00 PM		02:00 PM -10:00 PM		10:00 PM -06:00 AM	
Parameter :	SPM	RSPM	SPM	RSPM	SPM	RSPM	RSPM
Filter Paper No.	7		8		9		
Hourly Flow Rate (m ³ /minute)							
	1.27	1.27	1.25	1.25	1.26	1.26	1.26
	1.24	1.24	1.22	1.22	1.23	1.23	1.23
	1.22	1.22	1.19	1.19	1.20	1.20	1.20
	1.20	1.20	1.17	1.17	1.16	1.16	1.16
	1.17	1.17	1.14	1.14	1.14	1.14	1.14
	1.14	1.14	1.11	1.11	1.12	1.12	1.12
	1.12	1.12	1.09	1.09	1.10	1.10	1.10
	1.10	1.10	1.07	1.07	1.08	1.08	1.08
	1.08	1.08	1.05	1.05	1.06	1.06	1.06
Average Flow Rate (m ³ /minute)	1.17	1.17	1.14	1.14	1.15	1.15	1.15
Total Operation Time (Minutes)	480	480	480	480	480	480	480
Initial Weight of Filter Paper (gms.)	2.6494	2.6494	2.7808	2.7808	2.6717	2.6717	2.6717
Final Weight of Filter Paper (gms.)	2.7936	2.7936	2.9650	2.9650	2.8456	2.8456	2.8456
Dust Contents (gms.)	0.082	-	0.089	-	0.0809	-	-
Total Volume of Air Sampled (m ³)	561.6	561.6	547.2	547.2	552.0	552.0	552.0
Concentration (µg/m ³)	402.77	256.76	499.26	336.62	461.59	315.03	315.03
24 Hourly Average SPM (µg/m ³)			24 Hourly Average RSPM (µg/m ³)				
Remarks :			454.54		302.80		
Name & Signature of Official on Duty :	 Sanjay Singh Lab Attendant		 H.M. Tiwari Lab Asst. Gr. I		 S.K. Khanna Lab Asst. Gr. II		



CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
DATA SHEET FOR PARTICULATE MATTER

Annexure -1

Station : City Kotwali, Raipur		Date : 26.10.2011					
Shift :		Ist Shift		IInd Shift		IIIRD Shift	
Monitoring Period : Deepawali		06:00 AM -02:00 PM	02:00 PM -10:00 PM	10:00 PM -06:00 AM			
Parameter : SPM	RSPM	SPM	RSPM	SPM	RSPM	SPM	RSPM
Filter Paper No.	10			11		12	
Hourly Flow Rate (m ³ /minute)							
		1.28	1.28	1.26	1.26	1.25	1.25
		1.25	1.25	1.23	1.23	1.22	1.22
		1.23	1.23	1.21	1.21	1.19	1.19
		1.20	1.20	1.19	1.19	1.17	1.17
		1.18	1.18	1.16	1.16	1.15	1.15
		1.15	1.15	1.14	1.14	1.12	1.12
		1.12	1.12	1.12	1.12	1.10	1.10
		1.10	1.10	1.09	1.09	1.08	1.08
		1.07	1.07	1.07	1.07	1.06	1.06
		1.17	1.17	1.16	1.16	1.14	1.14
		480	480	480	480	480	480
		2.6843	2.6843	2.6831	2.6831	2.6804	2.6804
		2.8160	2.8160	2.8332	2.8332	2.7965	2.7965
		0.1068	-	0.1132	-	0.1084	-
		561.6	561.6	556.8	556.8	547.2	547.2
		424.67	234.50	472.88	269.57	410.27	212.17
		24 Hourly Average SPM (µg/m ³)		24 Hourly Average RSPM (µg/m ³)			
				435.94	238.74		
		Remarks :					
		Name & Signature of Official on Duty :					
		 H.M. Tiwari Lab Asst. Gr. I		 S.K. Khanna Lab Asst. Gr. II		 Sanjay Singh Lab Attendant	



CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
DATA SHEET FOR GASEOUS AIR POLLUTIONS

Annexure -II

Station : City Kotwali, Raipur		Date : 24.10.2011												
Shift :		Ist Shift				IInd Shift				IIIrd Shift				
Monitoring Period : Dhanteras		06:00 AM -10:00 AM		10:00 AM -02:00 PM		02:00 PM -06:00 PM		06:00 PM -10:00 PM		10:00 PM -02:00 AM		02:00 AM -06:00 AM		
Parameter :	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂
Average Flow Rate (lpm)														
Total Operation Time (Minutes)														
Initial Volume of Sample (ml)		30	30	30	30	30	30	30	30	30	30	30	30	30
Final Volume of Sample (ml)		24	23	25	25	24	22	23	25	23	24	24	23	23
Volume Taken For Analysis (ml)		10	10	10	10	10	10	10	10	10	10	10	10	10
Total Volume of Air Sampled (lit.)														
Absorbance (Blank)		0.003	0.003	0.002	0.003	0.002	0.002	0.002	0.003	0.002	0.003	0.003	0.002	0.002
Absorbance (Sample)		0.015	0.050	0.016	0.053	0.018	0.054	0.023	0.056	0.020	0.053	0.016	0.051	0.051
Concentration (µg/m ³)		13.39	34.10	15.62	36.28	17.85	37.73	22.32	38.45	20.08	36.28	14.50	35.53	35.53
24 Hourly Average SO ₂ (µg/m ³)		24 Hourly Average NO ₂ (µg/m ³)												
Remarks :														
Name & Signature of Official on Duty :														

A.K. Mishra
Lab Area II

H.M. Tiwari
Lab Area I

S.K. Sharma
Lab Area III

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CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
DATA SHEET FOR GASEOUS AIR POLLUTIONS

Annexure - II

Station : Jai Stambh Chowk, Yatayal Thana, Raipur Date : 24.10.2011

Shift :	1st Shift						IInd Shift			IIInd Shift		
	06:00 AM -10:00 AM		10:00 AM -02:00 PM		02:00 PM -06:00 PM		06:00 PM -10:00 PM	10:00 PM -02:00 AM		02:00 AM -06:00 AM		
Monitoring Period : Dhantaras	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂	SO ₂	NO ₂
Parameter : SO ₂												
Parameter : NO ₂												
Average Flow Rate (lpm)												
Total Operation Time (Minutes)												
Initial Volume of Sample (ml)	30	30	30	30	30	30	30	30	30	30	30	30
Final Volume of Sample (ml)	24	25	23	22	24	25	25	23	23	24	25	24
Volume Taken For Analysis (ml)	10	10	10	10	10	10	10	10	10	10	10	10
Total Volume of Air Sampled (lit.)												
Absorbance (Blank)	0.003	0.003	0.002	0.003	0.002	0.002	0.002	0.003	0.002	0.003	0.003	0.002
Absorbance (Sample)	0.015	0.050	0.015	0.052	0.018	0.055	0.020	0.063	0.019	0.055	0.016	0.050
Concentration (µg/m ³)	13.39	34.10	14.50	35.55	16.74	38.45	20.08	43.53	18.97	37.73	14.50	34.82
24 Hourly Average SO ₂ (µg/m ³)	24 Hourly Average NO ₂ (µg/m ³)											
Remarks :	16.36						37.36					

Name & Signature of Official on Duty :

S.K. Khandelwal
 S.K. Khandelwal
 Lab Asstt. Gr II

A.K. Mishra
 A.K. Mishra
 Lab Asstt. Gr II

H.M. Tiwari
 H.M. Tiwari
 Lab Asstt. Gr I

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CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
 DATA SHEET FOR GASEOUS AIR POLLUTIONS

Raipur			Date : 26.10.2011												
1-10:00 AM	Ist Shift			IInd Shift				IIIrd Shift				NO ₂			
	SO ₂	NO ₂	PM	SO ₂	NO ₂	PM	SO ₂	NO ₂	PM	SO ₂	NO ₂		AM	SO ₂	AM
30	30	30		30	30	30	30	30	30	30	30	30	30	30	
25	25	24		25	23	24	25	23	23	23	23	25	24	24	
10	10	10		10	10	10	10	10	10	10	10	10	10	10	
0.002	0.002	0.003		0.002	0.003	0.003	0.003	0.003	0.002	0.003	0.002	0.002	0.002	0.003	
0.051	0.016	0.053		0.020	0.059	0.026	0.067	0.026	0.026	0.066	0.015	0.015	0.055	0.055	
35.55	15.62	36.28		20.08	40.63	25.66	46.43	26.78	45.71	14.50	37.73				
			24 Hourly Average NO ₂ (µg/m ³)												
			19.52			40.38									

J.S.
 Jyoti Singh
 Lab Asst.

M.M.
 Chem. Technician
 Lab Asst. Gr. I

S.K. Khanna
 Lab Asst. Gr. I

P. Singh
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CENTRAL POLLUTION CONTROL BOARD, DELHI
AMBIENT AIR QUALITY OF DELHI
DATA SHEET FOR GASEOUS AIR POLLUTIONS

Annexure -II

Date : 26.10.2011

M-10:00 AM	Ist Shift		IInd Shift				IIInd Shift					
	10:00 AM	PM	02:00 PM	PM	06:00 PM	PM	10:00 PM	AM	02:00 AM	AM	06:00 AM	
NO ₂												
SO ₂												
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
240	240	240	240	240	240	240	240	240	240	240	240	240
30	30	30	30	30	30	30	30	30	30	30	30	30
23	25	24	22	24	23	25	22	24	23	23	23	23
10	10	10	10	10	10	10	10	10	10	10	10	10
0.002	0.003	0.002	0.003	0.003	0.002	0.002	0.003	0.002	0.003	0.003	0.002	0.002
0.052	0.018	0.056	0.023	0.067	0.023	0.059	0.025	0.060	0.015	0.015	0.053	0.053
36.28	16.74	39.18	22.32	46.43	24.34	41.35	22.32	42.08	13.39	13.39	37.0	37.0
24 Hourly Average NO ₂ (µg/m ³)												
			19.12		40.38							

P.S.
Mul
 M. Trivedi
 Lab Asstt. GRT

S.K. Devaraja
 Lab Asstt. GRT

D.S.
 Ganpat Singh
 Lab Asstt.
Devaraja

T.S.

DATA SHEET FOR AMBIENT NOISE MONITORING ON DEEPAWALI DAY

Location : City Kotwali, Raipur		Date : 24.10.2011	
Noise Level Meter			
Make	:	k d m instruments 4/5, Sarva Priya Vihar, New Delhi	
Model	:	33 Noise Level Meter Pulsar Instrument Ltd., UK	
Serial No.	:		
Calibration Result of Noise Level Meter			
Calibration	94 dB at 1000 Hz	114 dB at 1000 Hz	
Initial			
Final			
Sampling rate			
S.No.	Time duration	File No.	L equivalent dB (A)
	18:00 Hrs. to 19:00 Hrs.		69.6
	19:00 Hrs. to 20:00 Hrs.		74.2
	20:00 Hrs. to 21:00 Hrs.		78.8
	21:00 Hrs. to 22:00 Hrs.		87.5
	22:00 Hrs. to 23:00 Hrs.		93.4
	23:00 Hrs. to 24:00 Hrs.		86.2
Average L equivalent dB (A) Between (18:00 to 24:00 Hrs.)			81.6
Name & Signature of Official on Duty			

L_{\max} Between (18:00 to 24:00 Hrs.) 93.4

L_{\min} Between (18:00 to 24:00 Hrs.) 69.6

[Signature]
(H.M. Triwani)
Lab Ass't. CRI

[Signature]
S.K. Khanna
Lab Ass't. CRI


[Signature]
J.S.


DATA SHEET FOR AMBIENT NOISE MONITORING ON DEEPAWALI DAY

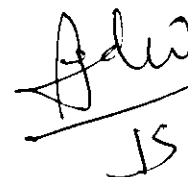
Location : Jai Stambh Chowk, Raipur		Date : 26.10.2011	
Noise Level Meter			
Make	:	k d m instruments 4/5, Sarva Priya Vihar, New Delhi	
Model	:	33 Noise Level Meter Pulsar Instrument Ltd., UK	
Serial No.	:		
Calibration Result of Noise Level Meter			
Calibration		94 dB at 1000 Hz	114 dB at 1000 Hz
Initial			
Final			
Sampling rate			
S.No.	Time duration	File No.	L equivalent dB (A)
	18:00 Hrs. to 19:00 Hrs.		92.4
	19:00 Hrs. to 20:00 Hrs.		110.6
	20:00 Hrs. to 21:00 Hrs.		116.7
	21:00 Hrs. to 22:00 Hrs.		113.8
	22:00 Hrs. to 23:00 Hrs.		98.4
	23:00 Hrs. to 24:00 Hrs.		92.6
Average L equivalent dB (A) Between (18:00 to 24:00 Hrs.)			104.0
Name & Signature of Official on Duty			

L_{max} Between (18:00 to 24:00 Hrs.) 116.7

L_{min} Between (18:00 to 24:00 Hrs.) 92.4


(H.M. Tiwari)
Lab Asstt-Gr II


S.K. Khanna
Lab Asstt-Gr II



JS

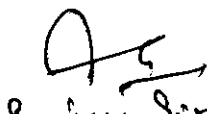
DATA SHEET FOR AMBIENT NOISE MONITORING ON DEEPAWALI DAY

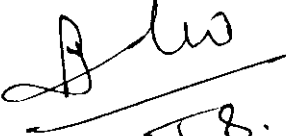
Location : City Kotwali, Raipur		Date : 26.10.2011	
Noise Level Meter			
Make	:	k d m instruments 4/5, Sarva Priya Vihar, New Delhi	
Model	:	33 Noise Level Meter Pulsar Instrument Ltd., UK	
Serial No.	:		
Calibration Result of Noise Level Meter			
Calibration	94 dB at 1000 Hz	114 dB at 1000 Hz	
Initial			
Final			
Sampling rate			
S.No.	Time duration	File No.	L equivalent dB (A)
	18:00 Hrs. to 19:00 Hrs.		111.7
	19:00 Hrs. to 20:00 Hrs.		116.6
	20:00 Hrs. to 21:00 Hrs.		127.1
	21:00 Hrs. to 22:00 Hrs.		122.3
	22:00 Hrs. to 23:00 Hrs.		106.2
	23:00 Hrs. to 24:00 Hrs.		102.5
Average L equivalent dB (A) Between (18:00 to 24:00 Hrs.)			114.4
Name & Signature of Official on Duty			

L_{max} Between (18:00 to 24:00 Hrs.) 127.1

L_{min} Between (18:00 to 24:00 Hrs.) 102.5


S.R. Khanna
Lab Asstt. - Gr II


Sanjay Singh
Lab Asstt.


J.B.

DATA SHEET FOR AMBIENT NOISE MONITORING ON DEEPAWALI DAY

Location : Jai Stambh Chowk, Raipur		Date : 24.10.2011	
Noise Level Meter			
Make	:	k d m instruments 4/5, Sarva Priya Vihar, New Delhi	
Model	:	33 Noise Level Meter Pulsar Instrument Ltd., UK	
Serial No.	:		
Calibration Result of Noise Level Meter			
Calibration	94 dB at 1000 Hz	114 dB at 1000 Hz	
Initial			
Final			
Sampling rate			
S.No.	Time duration	File No.	L equivalent dB (A)
	18:00 Hrs. to 19:00 Hrs.		72.2
	19:00 Hrs. to 20:00 Hrs.		68.4
	20:00 Hrs. to 21:00 Hrs.		77.4
	21:00 Hrs. to 22:00 Hrs.		81.2
	22:00 Hrs. to 23:00 Hrs.		86.4
	23:00 Hrs. to 24:00 Hrs.		69.6
Average L equivalent dB (A) Between (18:00 to 24:00 Hrs.)			75.86
Name & Signature of Official on Duty			

L_{max} Between (18:00 to 24:00 Hrs.) 86.4

L_{min} Between (18:00 to 24:00 Hrs.) 68.4

Arka Mishra
Lab Asstt. Gr II

H.M. Tiwari
Lab Asstt. Gr I

J.S.

Month : - November Year : - 2012

Date	Temperature (°C)		Rainfall (mm)	Relative Humidity (%)		Vapor pressure		Wind velocity in (Km/hr.)	Wind Direction		Evaporation (mm)	Sun shine (Hr.)	Weather condition
	Max	Min		I	II	I	II		I	II			
01	29.6	18.0	000.0	86	51	14.6	15.9	03.1	00	05	04.1	08.9	
02	30.0	22.0	010.0	96	77	19.8	20.6	04.1	00	11	03.8	03.0	
03	27.5	23.0	000.3	95	87	20.4	20.6	01.6	09	14	00.9	00.2	
04	26.2	22.3	017.0	95	91	20.2	21.2	01.1	00	00	01.4	00.0	
05	26.2	22.7	005.4	96	85	20.3	21.6	00.7	00	36	01.8	00.1	
06	27.7	20.0	000.2	98	58	17.9	17.1	01.5	36	34	01.8	03.8	
07	29.4	19.9	000.0	93	52	17.3	15.6	00.1	00	36	02.1	07.0	
08	29.5	16.8	000.0	94	33	13.0	09.5	00.4	00	34	03.7	08.6	
09	28.8	13.9	000.0	96	32	12.5	09.1	01.0	00	05	03.6	09.0	
10	28.6	14.5	000.0	94	26	13.3	07.6	00.6	00	07	02.7	08.8	
11	29.0	13.0	000.0	93	31	12.1	08.8	01.0	00	36	02.8	08.7	
12	28.4	13.0	000.0	93	33	11.9	09.7	00.8	00	05	03.2	08.5	
13	29.0	14.0	000.0	93	35	12.2	10.4	00.8	00	05	03.1	08.7	
14	29.5	14.4	000.0	93	31	12.8	09.4	01.1	00	05	02.9	09.1	
15	29.4	14.1	000.0	81	29	10.9	07.9	01.0	00	05	03.2	09.1	
16	27.7	11.5	000.0	90	35	10.2	09.0	02.4	00	05	04.2	09.3	

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