

### Billing Proforma for Ambient Air Quality Monitored by : Jharkhand State Pollution Control Board

Name of city : Dhanbad  
Name of State : Jharkhand

S.No.	Sampling Location	Station Type	Station Code	Month	Year	Parameters Monitored	Remarks
1	Regional Office Dhanbad	R	44	March	2008	Meteorological Data SO <sub>2</sub> , NO <sub>x</sub> , RSPM, SPM	
2	MADA, Jharia	I	332	March	2008	SO <sub>2</sub> , NO <sub>x</sub> , RSPM, SPM	
3	PDIL, Sindi	R	46	March	2008	SO <sub>2</sub> , NO <sub>x</sub> , RSPM, SPM	

Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

Total number of monitoring stations. = 03 (Three)

Amount to be released = Rs 4266 × 3 = 12798.00

In words (Rs. Twelve Thousand Seven Hundred Ninty Eight Only )

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**TABLE C : Summary of Ambient Air Quality Data Monitored by : Jhankhand State Pollution Control Board**

Name of City : Dhanbad  
Name of State : Jharkhand

S. No.	Sampling Location Address	Station Type	Station Code	Month and Year	SO2				M				RSPM					SPM				
					n	A.M.	S.D.	Max.	n	A.M.	S.D.	Max.	n	A.M.	G.M.	S.D.	Max.	n	A.M.	G.M.	S.D.	Max.
1	R.O Dhanbad	R	44	March 2008	25	22.02	3.48	52.30	25	48.44	8.27	73.46	12	134.52	130.29	35.93	194.00	12	191.61	192.39	51.34	287.00
2	MADA Jharia	I	332	March 2008	18	23.00	2.47	32.30	18	53.93	9.66	74.85	9	157.66	156.01	27.83	202.00	9	250.10	247.47	42.84	303.00
3	PDIL Sindri	R	46	March 2008	40	21.19	6.12	50.21	40	45.40	10.16	80.91	20	153.29	148.47	37.43	211.00	20	237.41	232.40	39.26	329.00

\* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

\* Kindly fill in Whether conditions as Clear / Cloudy/ Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note n = No of observation (in days)  
A.M = Arithmetic mean in ug/m<sup>3</sup>  
S.D = Standard Deviation  
Max = Max value (24 hours average in ug/m<sup>3</sup>)  
G.M = Geometric Mean in ug/m<sup>3</sup>

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**TABLE D : Meteorological Data Monitored by : Jhankhand State Pollution Control Board**

Sampling Location Address : Regional Office, Dhanbad

Name of City : Dhanbad  
Name of State : Jharkhand

Station Type : R  
Station Code : 44  
Month : February  
Year : 2008

S. N O	Hrs	06-10				10-14				14-18				18-22				22-02				06.02				Weather Conditions	Remark	
		Date	Temp	R.H	W.S	W.D.	Temp	R.H	W.S.	W.D.	Temp	R.H	W.S	W.D.	Temp	R.H	W.S	W.D.	Temp	R.H	W.S	W.D.	Temp.	R.H	W.S			W.D.
1	3/4-03-08	19.25	78.00	1.025	EEN	25.25	65.25	1.175	SSW	26.500	67.50	1.475	EEN	22.000	76.50	1.450	EEN	19.25	80.25	0.850	EEN	18.25	80.000	1.025	EEN	Clear		
2	5/6-03-08	18.00	82.55	0.675	WWS	19.75	83.00	0.975	SSW	19.50	81.00	1.150	SSW	18.750	83.25	0.85	SSW	17.75	85.00	3.050	WWS	17.00	84.00	2.45	WWS	Clear		
3	10/11-03-08	19.50	80.25	6.200	NNE	23.500	67.50	7.125	NNE	26.50	70.25	3.150	EEN	21.750	72.50	1.750	EEN	19.00	85.25	1.000	EEN	17.250	89.00	1.250	EEN	Clear		
4	12/13-03-08	19.500	80.00	1.950	WWN	24.50	77.75	2.025	WWN	27.50	76.00	1.925	WWN	25.00	74.75	0.525	WWS	23.00	87.50	0.62	WWN	19.75	78.25	2.200	WWN	Clear		
5	14/15-03-08	25.25	69.50	4.575	WWN	30.500	65.50	2.575	WWN	30.500	62.50	1.400	WWN	27.50	55.25	1.075	WWN	24.175	60.00	0.675	WWN	22.250	72.25	1.050	WWN	Clear		
6	17/18-03-08	24.000	72.75	5.550	EEN	30.50	70.25	15.45 0	WWN	29.000	76.25	3.225	NNE	25.50	89.00	0.500	EEN	23.000	91.00	0.325	EEN	22.00	74.00	0.525	EEN	Clear		
7	19/20-03-08	25.750	69.25	0.875	SSW	30.50	65.50	1.100	SSW	34.50	70.75	2.175	WWN	29.75	77.75	1.800	WWN	25.25	82.50	0.575	WWN	21.75	84.00	4.300	EEN	Clear		
8	25/26-03-08	23.290	76.25	0.225	SSW	26.000	75.25	0.550	WWN	30.000	76.00	0.775	WWN	27.75	73.75	0.825	NNE	24.500	78.25	0.900	WWN	22.500	81.00	1.175	WWN	Clear		

\* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area  
\* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note Temp = Average Temperature ( in C)  
R.H = Average Relative Humidity (in %)  
W.S = Average Wind Speed (in Km/Hr)  
W.D = Predominant Wind Direction

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**TABLE A : Ambient Air Quality Data for SO2 and NOx Monitoring by : Jharkhand State Pollution Control Board**

Sampling Location Address : Regione Office Dhanbad

City : Dhanbad

State : Jharkhand

Station Code : 44

Station Type : R

Month: March

Year : 2008

Parameter	Units
SO2	ug/M <sup>3</sup>
NOx	ug/ m <sup>3</sup>

S. No	Hrs. Date	SO2								NOx								Weather Conditions	Remarks
		06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs Max	24 Hrs-Avg	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs. Max	24 Hrs. Avg		
1	3/4-03-08	-	-	-	-	22.31	21.91	22.31	22.11	-	-	-	-	48.70	47.16	48.25	47.70	Clear	
2	5/6-03-08	12.03	18.83	15.16	52.30	-	-	52.30	24.58	24.76	38.09	31.42	45.70	-	-	45.70	34.99	Clear	
3	10/11-03-08	16.88	19.08	24.22	26.42	15.16	39.23	39.23	23.44	50.79	46.78	48.12	53.46	33.33	73.46	73.46	50.99	Clear	
4	12/13-03-08	24.06	-	22.31	23.71	19.07	22.17	24.06	22.26	60.95	-	43.17	44.44	35.71	41.49	60.95	45.15	Clear	
5	14/15-03-08	20.92	20-00	26.15	20.40	27.89	31.38	31.88	24.49	54.60	63.49	66.66	42.78	60.95	71.11	71.11	59.93	Clear	
6	17/18-03-08	13.60	16.88	-	-	-	-	16.88	15.24	40.95	62.82	-	-	-	-	62.88	51.88	Clear	

\* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

\* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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**TABLE B : Ambient Air Quality Data for RSPM and SPM Monitoring by : Jharkhand State Pollution Control Board**

Sampling Location Address : Regione Office Dhanbad

City : Dhanbad

State : Jharkhand

Station Code : 44

Station Type : R

Month : March

Year : 2008

Parameter	Units
SO <sub>2</sub>	ug/m <sup>3</sup>
NO <sub>x</sub>	ug/ m <sup>3</sup>

S. No	Hrs. Date	RSPM					SPM					Weather Conditions	Remarks
		06-14	14-22	22-06	8 Hrs Max	24 Hrs Avg	06-14	14-22	22-06	8Hrs. Avg	24 Hrs. Avg		
1	3/4-03-08	-	-	144.00	144.00	144.00	-	-	209.00	209.00	209.00	Clear	
2	5/6-03-08	93.00	127.00	-	127.00	110.00	139.00	193.00	-	193.00	166.00	Clear	
3	10/11-03-08	94.00	109.00	182.00	182.00	128.33	158.00	174.00	258.00	258.00	196.00	Clear	
4	12/13-03-08	130.00	169.00	170.00	170.00	156.33	191.00	287.00	284.00	287.00	254.00	Clear	
5	14/15-03-08	194.00	179.00	-	194.00	185.00	255.00	241.00	-	255.00	248.00	Clear	
6	17/18-03-08	83.00	-	-	83.00	83.00	118.00	-	-	118.00	118.00	Clear	

\* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

\* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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**TABLE A : Ambient Air Quality Data for SO<sub>2</sub> and NO<sub>x</sub> Monitoring by : Jharkhand State Pollution Control Board**

Sampling Location Address : MADA, Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month: March

Year : 2008

Parameter	Units
SO <sub>2</sub>	ug/M <sup>3</sup>
NO <sub>x</sub>	ug/M <sup>3</sup>

S. No	Hrs.	SO <sub>2</sub>								NO <sub>x</sub>								Weather Conditions	Remarks
	Date	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs Max	24 Hrs-Avg	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs. Max	24 Hrs. Avg		
1	17/18-03-08	17.43	25.10	27.89	24.41	27.89	32.30	32.30	25.83	54.60	57.14	69.50	60.95	69.84	74.85	74.35	64.48	Clear	Work not Completed
2	19/20-03-08	14.68	23.01	18.13	29.29	21.96	24.22	29.29	21.88	37.42	55.23	38.09	59.04	57.14	64.16	64.16	51.84	Clear	Due to Machine
3	27/28-03-08	17.43	18.83	23.53	20.40	23.53	24.06	24.06	21.29	44.44	37.14	45.71	42.85	49.52	53.33	53.33	45.49	Clear	Break down
4																			
5																			
6																			
7																			

\* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

\* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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**TABLE B : Ambient Air Quality Data for RSPM and SPM Monitoring by : Jharkhand State Pollution Control Board**

Sampling Location Address : MADA, Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month : March

Year : 2008

Parameter	Units
SO <sub>2</sub>	ug/m <sup>3</sup>
NO <sub>x</sub>	ug/ m <sup>3</sup>

S. No	Hrs. Date	RSPM					SPM					Weather Conditions	Remarks
		06-14	14-22	22-06	8 Hrs Max	24 Hrs Avg	06-14	14-22	22-06	8Hrs. Avg	24 Hrs. Avg		
1	17/18-03-08	183.00	172.00	202.00	202.00	185.66	270.00	258.00	292.00	292.00	273.33	Clear	Work not Completed
2	19/20-03-08	114.00	122.00	154.00	154.00	130.00	178.00	182.00	242.00	242.00	200.66	Clear	Due to Machine
3	27/28-03-08	166.00	151.00	155.00	166.00	157.33	276.00	250.00	303.00	303.00	276.33	Clear	Break down
4													
5													
6													
7													

\* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

\* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cycione/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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**TABLE A : Ambient Air Quality Data for SO<sub>2</sub> and NO<sub>x</sub> Monitoring by : Jharkhand State Pollution Control Board**

Sampling Location Address : PDIL , Sindri

City : Dhanbad

State : Jharkhand

Station Code : 46

Station Type : R

Month: March

Year : 2008

Parameter	Units
SO <sub>2</sub>	ug/M <sup>3</sup>
NO <sub>x</sub>	ug/M <sup>3</sup>

S. No	Hrs. Date	SO <sub>2</sub>								NO <sub>x</sub>								Weather Conditions	Remarks
		06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs Max	24 Hrs- Avg	06-10	10-14	14-18	18-22	22-02	02-06	4 Hrs. Max	24 Hrs. Avg		
1	5/6-03-08	14.64	25.10	16.73	20.40	19.61	15.16	25.10	18.60	33.33	49.52	36.19	39.04	35.71	32.38	49.52	37.69	Clear	
2	10/11-03-08	-	-	-	-	20.92	18.17	20.92	19.94	-	-	-	-	44.44	36.56	44.44	40.50	Clear	
3	12/13-03-08	19.52	24.41	23.01	18.13	25.10	26.50	26.50	22.77	50.79	57.14	48.25	44.44	55.87	52.38	57.14	51.47	Clear	
4	14/15-03-08	18.83	34.52	-	-	38.88	50.21	50.21	35.61	44.44	76.19	-	-	80.91	66.66	80.91	67.05	Clear	
5	17/18-03-08	11.98	29.29	18.13	20.92	15.80	26.35	29.29	20.41	28.76	66.66	38.09	43.17	31.74	50.89	66.66	43.21	Clear	
6	19/20-03-08	14.64	18.83	-	-	17.57	16.73	18.83	16.94	37.14	39.39	-	-	39.61	35.23	39.99	37.99	Clear	
7	25/26-03-08	15.34	16.73	18.13	20.22	15.69	16.73	20.22	17.14	36.82	43.17	38.09	40.43	31.42	33.33	43.17	37.24	Clear	
8	27/28-03-08	14.12	17.26	18.83	20.40	18.30	20.20	20.40	18.18	48.57	47.61	44.64	37.14	46.66	64.08	64.08	48.11	Clear	

\* Kindly fill in 'R' if station falls in Residential Area 'I' if station in Industrial Area 'S' if station falls in Sensitive area

\* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cystone/ Dust Storm/ Calm condition (one or more may be applicable)

Note : 1- Kindly indicate reason if monitoring is not carried out for 24 hrs in a day or less than 8 days in a month

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**TABLE B : Ambient Air Quality Data for RSPM and SPM Monitoring by : Jharkhand State Pollution Control Board**

Sampling Location Address : PDIL , Sindri

City : Dhanbad

State : Jharkhand

Station Code : 46

Station Type : R

Month: March

Year : 2008

Parameter	Units
SO <sub>2</sub>	ug/m <sup>3</sup>
NO <sub>x</sub>	ug/ m <sup>3</sup>

S. No	Hrs. Date	RSPM					SPM					Weather Conditions	Remarks
		06-14	14-22	22-06	8 Hrs Max	24 Hrs- Avg	06-14	14-22	22-06	8Hrs. Avg	24 Hrs. Avg		
1	5/6-03-08	122.00	130.00	159.00	159.00	137.00	188.00	192.00	211.00	211.00	197.00	Clear	
2	10/11-03-08	-	-	84.00	84.00	84.00	-	-	199.00	199.00	199.00	Clear	
3	12/13-03-08	176.00	211.00	176.00	211.00	187.66	244.00	278.00	234.00	278.00	252.00	Clear	
4	14/15-03-08	154.00	-	193.00	193.00	173.50	230.00	-	270.00	270.00	250.00	Clear	
5	17/18-03-08	148.00	180.00	200.00	200.00	176.00	229.00	285.00	311.00	311.00	275.00	Clear	
6	19/20-03-08	172.00	-	165.00	172.00	168.50	256.00	-	248.00	256.00	252.00	Clear	
7	25/26-03-08	119.00	105.00	122.00	122.00	115.33	185.00	171.00	173.00	185.00	176.33	Clear	
8	27/28-03-08	168.00	179.00	206.00	206.00	184.33	246.00	271.00	329.00	329.00	282.00	Clear	

\* Kindly fill in 'R' if station falls in Residential Area 'T' if station in Industrial Area 'S' if station falls in Sensitive area

\* Kindly fill in Whether conditions as Clear / Cloudy / Rainy/ Cystone/ Dust Storm/ Calm condition (one or more may be applicable)

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