

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	January	2008	Meteorological Data SO ₂ , NO _x , RSPM, SPM	
2	MADA, Jharia	I	332	January	2008	SO ₂ , NO _x , RSPM, SPM	
3	PDIL, Sindi	R	46	January	2008	SO ₂ , NO _x , 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)

J.S.A

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(S.S. Hoda)
R.O. Dhanbad

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	January 2008	50	19.08	3.70	41.89	50	47.26	8.50	114.28	26	137.53	135.59	25.83	233.00	26	221.96	218.06	45.42	354.00
2	MADA Jharia	I	332	January 2008	60	19.72	2.09	34.52	50	46.05	7.30	85.71	30	265.59	244.32	120.49	815.00	30	382.59	351.29	188.40	972.00
3	PDIL Sindri	R	46	January 2008	48	19.23	1.78	35.89	48	43.71	6.52	61.40	24	158.24	155.12	33.05	252.00	24	232.45	228.73	45.03	458.00

* 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/m³
S.D = Standard Deviation
Max = Max value (24 hours average in ug/m³)
G.M = Geometric Mean in ug/m³

(J.S.A)

(S.S. Hoda)
R.O. Dhanbad

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 : January
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		
1	2/3-01-08	16.75	40.50	0.150	WWN	22.00	39.00	0.175	WWN	21.250	35.00	0.075	WWN	16.000	38.00	0.125	WWN	13.25	43.25	0.050	WWN	11.25	38.00	0.000	WWN	Clear	
2	4/5-01-08	12.25	71.37	0.075	WWN	16.50	74.25	0.075	WWN	19.75	78.75	0.075	WWN	18.50	62.25	0.00	WWN	16.50	0.00	74.50	WWN	12.50	68.50	0.00	WWN	Clear	
3	7/8-01-08	15.25	54.25	0.175	EEN	23.000	62.50	0.475	WWN	22.50	60.25	0.050	WWN	21.000	65.00	0.050	WWN	19.00	57.00	0.025	WWN	15.000	53.25	0.000	WWN	Clear	
4	10/11-01-08	12.000	58.50	0.125	WWN	15.25	72.62	0.100	NNE	17.75	79.75	0.15	WWN	17.00	90.25	0.30	WWN	16.50	89.00	0.33	NNE	14.57	86.25	0.68	NNE	Clear	
5	16/17-01-08	13.75	58.75	0.825	NNE	19.250	68.50	4.775	WWN	23.500	63.75	0.875	NNE	21.50	56.50	0.550	NNE	20.000	52.50	0.500	NNE	17.250	55.25	0.225	NNE	Clear	
6	18/19-01-08	15.750	52.50	0.175	NNE	21.75	60.25	0.300	NNE	25.000	66.00	0.525	NNE	21.50	64.50	0.450	NNE	17.500	59.00	0.475	NNE	13.75	61.25	0.450	NNE	Clear	
7	21/22-01-08	15.500	56.25	1.950	EEN	22.50	61.50	2.175	NNE	22.50	67.50	0.125	EES	20.50	56.00	0.150	WWS	18.50	73.50	0.450	WWS	16.00	86.25	0.650	NNE	Clear	
8	24/25-01-08	11.000	64.25	2.350	NNE	12.500	64.00	1.050	NNE	14.000	74.00	1.175	EEN	13.75	82.25	0.950	EEN	12.750	86.25	1.125	EEN	12.000	88.00	1.000	EEN	Clear	
9	28/29-01-08	14.000	72.50	1.375	WWN	18.750	71.00	9.475	WWN	18.250	74.25	2.250	WWS	14.50	79.00	0.525	WWS	13.75	76.25	0.225	WWS	10.25	86.25	0.600	WWS	Clear	
10	30/31-01-08	11.000	75.00	0.075	NNE	13.000	76.00	6.000	NNE	14.250	77.00	2.450	EEN	12.25	81.50	1.275	WWS	11.50	87.00	1.025	WWS	10.75	84.50	0.775	EEN	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

(J.S.A)

(S.S. Hoda)
R.O. Dhanbad

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: January Year : 2008

Parameter	Units
SO2	ug/M ³
NOx	ug/ m ³

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	2/3-01-08	17.78	14.64	14.64	27.20	16.21	16.93	27.20	17.90	59.04	34.28	39.04	81.90	39.99	48.89	81.90	50.62	Clear	
2	4/5-01-08	16.73	18.83	18.84	-	22.31	17.78	22.31	18.89	55.23	59.04	66.80	-	49.52	40.95	66.80	54.30	Clear	
3	7/8-01-08	12.55	14.64	-	-	10.98	14.64	14.64	13.20	34.28	28.57	-	-	37.14	39.99	39.99	34.99	Clear	
4	10/11-01-08	20.22	32.43	15.25	-	23.01	30.13	32.43	24.20	48.25	74.28	34.72	-	52.06	67.34	74.28	55.34	Clear	
5	15/16-01-08	14.64	14.71	11.90	21.29	16.34	20.04	21.29	16.50	38.09	34.72	31.74	40.10	30.75	46.75	46.75	37.02	Clear	
6	18/19-01-08	16.04	13.25	17.43	18.83	13.25	16.04	18.83	15.80	39.36	44.44	40.63	45.71	43.17	36.82	45.71	41.68	Clear	
7	21/22-01-08	41.84	20.22	16.73	16.04	25.10	15.69	41.84	22.60	114.28	36.82	41.90	64.76	66.66	32.96	114.28	59.58	Clear	
8	28/29-01-08	21.23	23.75	25.69	28.63	19.61	21.03	28.63	23.24	45.11	49.79	52.13	62.15	38.69	43.47	62.15	48.47	Clear	
9	30/31-01-08	21.51	15.25	15.11	20.99	19.52	23.49	23.49	19.46	56.37	37.69	37.74	44.44	39.36	45.44	56.37	43.50	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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(S.S. Hoda)
 R.O. Dhanbad

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 : January

Year : 2008

Parameter	Units
SO ₂	ug/m ³
NO _x	ug/ m ³

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	2/3-01-08	117.00	145.00	123.00	145.00	128.33	172.00	211.00	179.00	211.00	187.33	Clear	
2	4/5-01-08	104.00	134.00	129.00	134.00	122.33	168.00	233.00	187.00	233.00	196.00	Clear	
3	7/8-01-08	130.00	-	133.00	133.00	131.60	190.00	-	144.00	190.00	167.00	Clear	
4	10/11-01-08	139.00	101.00	111.00	139.00	117.00	251.00	218.00	225.00	251.00	231.33	Clear	
5	15/16-01-08	99.00	114.00	121.00	121.00	111.33	170.00	193.00	214.00	214.00	192.33	Clear	
6	18/19-01-08	128.00	133.00	137.00	137.00	132.66	192.00	201.00	203.00	203.00	198.00	Clear	
7	21/22-01-08	214.00	180.00	171.00	214.00	188.33	354.00	278.00	286.00	354.00	306.00	Clear	
8	28/29-01-08	144.00	233.00	142.00	233.00	173.00	244.00	317.00	206.00	317.00	249.00	Clear	
9	30/31-01-08	167.00	134.00	99.00	167.00	133.33	272.00	246.00	292.00	292.00	270.00	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 SO₂ and NO_x Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : MADA, Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month: January

Year : 2008

Parameter	Units
SO ₂	ug/M ³
NO _x	ug/M ³

S. No	Hrs. Date	SO ₂								NO _x								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	2/3-01-08	16.73	21.62	26.42	15.69	23.71	19.61	26.42	20.63	46.66	58.41	58.81	36.19	50.79	41.66	58.81	48.75	Clear	
2	4/5-01-08	21.62	23.01	25.10	20.22	16.73	23.71	25.10	21.73	60.95	63.49	55.87	49.52	39.99	54.60	63.49	54.07	Clear	
3	7/8-01-08	16.89	17.43	17.98	24.96	19.61	20.16	24.96	19.50	40.67	41.66	43.65	57.47	44.64	45.63	57.47	45.62	Clear	
4	10/11-01-08	19.07	21.29	19.61	23.49	20.16	19.33	23.49	20.49	40.67	46.78	39.68	49.45	42.65	40.37	49.95	43.26	Clear	
5	15/16-01-08	23.01	17.78	18.30	25.10	20.70	20.16	25.10	20.84	53.33	39.04	40.95	55.87	46.64	45.63	55.87	46.57	Clear	
6	18/19-01-08	10.98	14.16	19.52	18.19	14.71	20.46	20.46	16.33	29.52	35.71	41.90	39.33	36.70	42.44	42.44	37.60	Clear	
7	21/22-01-08	23.01	14.16	13.62	17.43	14.71	18.52	23.01	16.90	44.44	31.74	36.70	41.40	38.69	41.66	44.44	39.10	Clear	
8	24/25-01-08	22.75	19.07	21.29	18.52	19.61	18.76	22.75	20.00	49.45	40.67	52.13	42.65	41.66	39.33	52.13	44.31	Clear	
9	28/29-01-08	15.25	18.19	19.82	19.07	17.43	18.52	19.82	18.04	32.73	38.30	42.77	38.69	40.67	45.63	45.63	39.79	Clear	
10	30/31-01-08	34.52	24.41	26.50	21.29	17.78	13.07	34.52	22.92	85.71	66.03	54.60	52.13	53.33	57.14	85.71	61.49	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/ Cyclopedia/ 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 : January

Year : 2008

Parameter	Units
SO ₂	ug/m ³
NO _x	ug/ m ³

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	2/3-01-08	161.00	183.00	208.00	208.00	184.00	220.00	238.00	275.00	275.00	244.33	Clear	
2	4/5-01-08	228.00	224.00	208.00	228.00	220.00	290.00	293.00	267.00	293.00	283.33	Clear	
3	7/8-01-08	203.00	226.00	207.00	226.00	212.00	257.00	288.00	264.00	288.00	303.00	Clear	
4	10/11-01-08	276.00	307.00	304.00	307.00	295.66	360.00	407.00	399.00	407.00	388.66	Clear	
5	15/16-01-08	277.00	283.00	256.00	283.00	272.00	360.00	372.00	343.00	372.00	358.33	Clear	
6	18/19-01-08	168.00	224.00	225.00	225.00	205.66	269.00	354.00	350.00	354.00	324.33	Clear	
7	21/22-01-08	205.00	202.00	209.00	209.00	205.33	325.00	318.00	337.00	337.00	326.66	Clear	
8	24/25-01-08	97.00	127.00	130.00	130.00	118.00	174.00	214.00	202.00	214.00	196.66	Clear	
9	28/29-01-08	360.00	424.00	494.00	494.00	425.00	480.00	568.00	626.00	626.00	558.00	Clear	
10	30/31-01-08	232.00	815.00	414.00	815.00	517.33	780.00	972.00	776.00	972.00	842.66	Clear	

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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 SO₂ and NO_x Monitoring by : Jharkhand State Pollution Control Board

Sampling Location Address : PDIL , Sindri

City : Dhanbad

State : Jharkhand

Station Code : 46

Station Type : R

Month: January

Year : 2008

Parameter	Units
SO ₂	ug/M ³
NO _x	ug/M ³

S. No	Hrs. Date	SO ₂								NO _x								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	2/3-01-08	16.89	23.49	18.52	25.69	20.16	21.25	25.69	21.00	40.67	57.47	43.65	60.15	46.62	48.61	60.15	49.52	Clear	
2	4/5-01-08	18.83	17.43	22.31	18.83	16.21	33.01	33.01	21.10	45.71	48.25	48.25	46.98	40.95	49.52	49.52	46.61	Clear	
3	7/8-01-08	17.83	25.10	15.80	13.67	15.25	34.72	34.72	20.42	41.66	58.41	38.69	44.64	55.55	58.36	58.41	49.55	Clear	
4	18/19-01-08	17.43	17.29	18.30	15.25	13.62	35.89	35.89	19.74	42.65	44.64	36.19	43.65	52.57	87.66	87.66	51.22	Clear	
5	21/22-01-08	18.13	16.73	17.78	21.62	18.30	18.33	21.62	18.56	43.17	38.09	39.99	45.71	37.14	39.04	45.71	40.52	Clear	
6	24/25-01-08	13.07	16.34	15.25	18.76	13.07	16.37	18.76	15.87	27.61	31.74	29.76	36.23	33.73	38.04	38.04	32.85	Clear	
7	28/29-01-08	13.60	17.98	28.10	18.30	18.83	19.57	28.10	19.44	33.33	38.69	61.40	36.19	38.09	39.99	61.40	41.28	Clear	
8	30/31-01-08	15.84	16.89	19.07	17.98	17.43	19.33	19.33	17.75	37.79	38.69	36.70	37.69	40.67	37.36	40.67	38.13	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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R.O. Dhanbad

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: January

Year : 2008

Parameter	Units
SO ₂	ug/m ³
NO _x	ug/ m ³

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	2/3-01-08	169.00	173.00	160.00	173.00	167.33	235.00	243.00	224.00	243.00	234.00	Clear	
2	4/5-01-08	143.00	148.00	136.00	148.00	142.33	219.00	233.00	213.00	233.00	221.00	Clear	
3	7/8-01-08	220.00	177.00	199.00	220.00	198.66	291.00	243.00	261.00	291.00	266.33	Clear	
4	18/19-01-08	184.00	176.00	252.00	252.00	204.00	257.00	241.00	458.00	458.00	318.66	Clear	
5	21/22-01-08	151.00	174.00	166.00	174.00	163.66	209.00	236.00	226.00	236.00	223.66	Clear	
6	24/25-01-08	119.00	128.00	135.00	135.00	127.33	197.00	211.00	229.00	229.00	212.33	Clear	
7	28/29-01-08	91.00	102.00	129.00	129.00	107.33	139.00	160.00	189.00	189.00	162.66	Clear	
8	30/31-01-08	139.00	121.00	206.00	206.00	155.33	203.00	193.00	267.00	267.00	221.00	Clear	

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

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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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