

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	November	2007	Meteorological Data SO ₂ , NO _x , RSPM, SPM	
2	MADA, Jharia	I	332	November	2007	SO ₂ , NO _x , RSPM, SPM	
3	PDIL, Sindi	R	46	November	2007	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)

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R.O. Dhanbad

TABLE C : Summry 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	November 2007	31	15.65	4.24	21.22	31	41.15	6.61	48.71	16	101.93	89.50	58.99	221.00	16	150.47	127.84	103.41	369.50
2	MADA Jharia	I	332	November 2007	42	16.65	2.24	19.14	42	42.25	5.65	54.60	21	197.52	186.14	71.18	303.00	21	260.81	245.49	97.69	420.66
3	PDIL Sindri	R	46	November 2007	42	15.52	2.99	20.55	42	40.53	4.64	45.81	21	114.71	109.12	38.02	180.33	21	162.52	155.17	55.31	41.00

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

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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 : November
Year : 2007

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	6/7-11-07	27.50	72.25	0.950	EES	31.25	64.00	0.975	EES	25.250	78.50	0.125	EES	20.750	72.50	0.100	EEN	19.00	76.00	0.100	EEN	17.00	76.00	0.100	EEN	Clear		
2	12/13-11-07	17.00	91.50	1.225	WWN	19.50	92.00	2.025	WWN	20.50	86.00	0.925	WWN	18.75	75.00	2.000	EEN	17.25	72.25	2.600	EES	15.75	69.50	3.525	EES	Clear		
3	19/20-11-07	16.00	62.75	0.650	WWN	17.750	64.25	0.450	WWN	19.50	64.50	0.400	WWN	18.250	63.75	0.350	WWN	17.00	64.50	0.700	WWN	15.500	66.00	1.650	WWN	Clear		
4	21/22-11-07	16.500	65.50	1.000	SSW	20.00	73.75	0.750	SSW	23.00	76.00	0.425	NNE	18.00	81.25	0.400	NNE	13.750	69.000	0.575	WWS	12.000	71.250	0.325	WWS	Clear		
5	23/24-11-07	21.50	82.50	1.150	WWN	24.000	85.75	1.175	WWN	24.00	74.25	0.700	NNE	22.25	79.25	1.250	NNE	18.25	67.25	0.750	EEN	14.000	71.25	0.700	EEN	Clear		
6	25/26-11-07	23.620	74.25	0.925	WWS	26.50	75.75	0.425	WWS	23.620	76.50	0.125	WWS	21.87	75.50	0.200	WWS	-	-	-	-	-	-	-	-	-	Clear	
7	29/30-11-07	-	-	-	-	-	-	-	-	19.00	70.25	0.125	NNE	17.00	88.50	0.125	NNE	15.00	90.00	0.225	NNE	12.50	90.25	0.200	WWS	Clear		

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Note Tomp = 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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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: November

Year : 2007

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	6/7-11-07	16.73	18.83	21.96	23.01	23.91	22.91	23.91	21.22	41.90	45.71	53.33	55.23	48.97	47.16	55.23	48.71	Clear	
2	12/13-11-07	8.36	14.64	.	-	-	-	14.64	11.50	27.93	31.74	-	-	-	-	31.74	29.83	Clear	
3	19/20-11-07	-	11.98	9.80	12.53	11.44	12.55	12.55	11.66	-	47.61	42.65	48.61	52.57	46.91	52.75	47.67	Clear	
4	21/22-11-07	20.92	18.83	20.22	18.74	19.07	18.52	20.92	19.38	55.23	41.90	44.44	41.83	38.69	36.70	55.23	43.13	Clear	
5	23/24-11-07	-	-	11.98	13.07	13.70	13.62	13.62	13.06	-	-	40.67	41.66	37.14	44.64	44.64	41.02	Clear	
6	26/27-11-07	13.62	11.44	12.53	14.71	-	-	14.71	13.07	31.74	33.73	36.70	40.67	-	-	40.67	35.71	Clear	
7	29/30-11-07	-	-	17.61	19.82	21.29	20.01	21.29	19.68	-	-	36.01	42.77	46.78	42.32	46.78	41.99	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 / Cloud / Rainy/ Cycione/ Dust Storn/ 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 : November

Year : 2007

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	6/7-11-07	83.00	92.00	96.00	96.00	90.33	122.00	132.00	138.00	138.00	130.66	Clear	
2	12/13-11-07	41.00	-	-	41.00	41.00	59.00	-	-	59.00	59.00	Clear	
3	19/20-11-07	117.00	91.00	96.00	96.00	84.33	97.00	212.00	122.00	122.00	113.33	Clear	
4	21/22-11-07	-	118.00	108.00	118.00	114.33	166.00	161.00	145.00	161.00	157.33	Clear	
5	23/24-11-07	100.00	51.00	56.00	56.00	53.50	-	70.00	76.00	76.00	73.00	Clear	
6	26/27-11-07	-	118.00	-	118.00	109.00	139.00	162.00	-	162.00	150.50	Clear	
7	29/30-11-07		198.00	244.00	244.00	221.00	-	353.00	386.00	386.00	369.50	Clear	

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

Sampling Location Address : MADA, Jharia

City : Dhanbad

State : Jharkhand

Station Code : 332

Station Type : I

Month: November

Year : 2007

Parameter	Units
SO2	ug/M ³
NOx	ug/M ³

S. No	Hrs.	SO2								NOx								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		
1	6/7-11-07	17.43	15.16	15.64	14.64	15.34	21.62	21.62	16.63	45.71	45.71	55.87	64.76	54.6	60.95	60.95	54.6	Clear	
2	12/13-11-07	12.55	17.43	19.52	11.50	12.03	13.60	19.52	14.43	28.57	40.63	43.17	36.19	38.09	39.99	43.17	37.77	Clear	
3	19/20-11-07	11.50	16.04	11.44	12.55	12.55	14.71	16.04	13.13	35.23	55.33	43.65	40.63	35.23	44.64	55.33	42.45	Clear	
4	21/22-11-07	15.69	19.07	16.89	20.70	20.16	22.34	22.34	19.14	33.33	38.69	37.69	44.64	41.66	48.61	48.61	40.77	Clear	
5	23/24-11-07	16.21	17.98	20.22	14.71	18.52	19.07	20.22	17.76	35.23	38.69	43.17	35.71	40.67	39.68	43.17	38.85	Clear	
6	26/27-11-07	16.34	16.89	15.80	20.55	18.52	25.69	25.69	18.96	35.71	37.69	32.73	46.78	39.68	54.80	54.80	41.23	Clear	
7	29/30-11-07	13.07	16.34	14.71	17.98	16.89	20.16	20.16	16.52	31.42	37.69	34.72	41.66	43.65	51.58	51.58	40.12	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 / Cloud / Rainy/ Cycione/ Dust Storn/ 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 : November

Year : 2007

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	6/7-11-07	89.00	143.00	150.00	150.00	127.33	162.00	225.00	232.00	232.00	206.33	Clear	
2	12/13-11-07	193.00	135.00	162.00	162.00	163.33	221.00	176.00	199.00	199.00	198.66	Clear	
3	19/20-11-07	91.00	112.00	117.00	117.00	106.66	100.00	153.00	154.00	154.00	135.66	Clear	
4	21/22-11-07	289.00	300.00	238.00	328.00	303.00	328.00	353.00	384.00	384.00	355.00	Clear	
5	23/24-11-07	180.00	195.00	220.00	220.00	198.33	222.00	246.00	261.00	261.00	243.00	Clear	
6	26/27-11-07	199.00	228.00	233.00	233.00	220.00	240.00	277.00	282.00	282.00	266.33	Clear	
7	29/30-11-07	234.00	271.00	287.00	287.00	264.00	370.00	433.00	459.00	459.00	420.66	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 / Cloud / Rainy/ Cycione/ Dust Storn/ Calm condition (one or more may be applicable)

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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: November

Year : 2007

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

S. No	Hrs.	SO ₂								NO _x								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		
1	6/7-11-07	14.16	15.34	10.89	11.98	15.25	16.34	16.34	13.99	40.67	57.14	38.69	35.71	39.68	42.65	57.14	42.42	Clear	
2	12/13-11-07	13.25	21.96	11.85	11.15	15.34	12.55	21.96	14.35	40.63	66.66	39.36	36.82	44.44	46.98	66.66	45.81	Clear	
3	19/20-11-07	17.43	18.52	19.61	15.80	14.71	19.61	19.61	16.71	36.70	38.69	41.66	35.71	37.69	36.23	41.66	37.78	Clear	
4	21/22-11-07	9.41	11.98	10.35	9.26	11.44	12.53	12.53	10.82	31.42	36.70	31.74	26.78	33.73	37.69	37.69	33.01	Clear	
5	23/24-11-07	13.62	16.34	15.34	15.80	14.71	17.98	17.98	15.63	28.76	34.72	39.36	38.69	37.69	44.64	44.64	37.31	Clear	
6	26/27-11-07	17.26	19.61	20.22	25.10	19.52	21.62	25.10	20.55	36.10	38.69	43.17	59.04	46.98	45.71	59.04	44.96	Clear	
7	29/30-11-07	10.98	16.88	13.07	19.82	15.16	23.49	23.49	16.56	35.23	52.13	33.33	43.77	39.04	52.13	52.13	42.43	Clear	

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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 : November

Year : 2007

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	6/7-11-07	139.00	117.00	285.00	285.00	180.00	192.00	174.00	258.00	358.00	241.00	Clear	
2	12/13-11-07	82.00	74.00	84.00	84.00	80.00	120.00	102.00	117.00	117.00	113.00	Clear	
3	19/20-11-07	61.00	63.00	60.00	63.00	61.33	91.00	98.00	96.00	98.00	95.00	Clear	
4	21/22-11-07	138.00	131.00	60.00	138.00	109.66	172.00	153.00	85.00	172.00	136.00	Clear	
5	23/24-11-07	110.00	137.00	127.00	137.00	124.66	145.00	186.00	174.00	186.00	166.33	Clear	
6	26/27-11-07	117.00	137.00	129.00	137.00	127.66	154.00	190.00	184.00	190.00	176.00	Clear	
7	29/30-11-07	107.00	121.00	130.00	130.00	119.33	194.00	211.00	226.00	226.00	210.00	Clear	

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