

Chemical Analysis Report

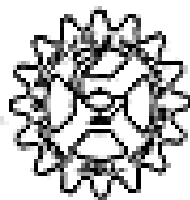
on

**Chemical Analysis of Ambient Air Quality
Monitoring Samples**

(BDG.AID/I046)

Submitted to ..

**Durgapur People's Science & Cultural Forum,
City Centre, Durgapur- 713218**



**Central Mechanical Engineering Research Institute
Mahatma Gandhi Avenue, Durgapur-713209, West Bengal**



C.M.E.R.I

CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE, DURGAPUR 713 209
(A Constituent Establishment of CSIR)



REPORT

No. Chemistry /Pollution/NGO-Phase-I/2001 Date: 10-04- 2001

Issued to : M/s. Durgapur People's Science & Cultural Forum
6/3 , Maxmular Path, City Centre,
Durgapur-713216

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CUSTOMER REF: DPSCF/F-7/WBPCB/57/2001
Date: 18-1-2001
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NATURE OF PROBLEM : Ambient Air Quality Monitoring In Selected Traffic Intersections And Industrial Areas Of Durgapur

PAGE 1 of 6 PAGES

Durgapur Science & Cultural Forum have undertaken a project on *Ambient Air Quality Monitoring In Selected Traffic Intersections And Industrial Areas Of Durgapur* sponsored by the West Bengal Pollution Control Board. As per agreement Chemistry Group, CMERI has carried out the analysis for **SPM, SO₂, NO_x** and **Pb** in the samples collected by the party from various zones as stated in the attached reports. Sampling schedules followed by the party are tabulated in the enclosed reports. Analysis was carried out by following the IS-methods (IS-5182/part-IV for SPM; IS-5182/part-II for SO₂ ; IS- 5182/part-VI for NO₂. Pb was analysed by Atomic Absorption Spectrophotometrically .IS-12074 has been used for Pb analysis. Tabulated results of analysis with regards to the 151 phase of the project are enclosed (pages 2-6).

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AREA: CITY CENTRE

Date of Sampling	SPM ($\mu\text{g}/\text{m}^3$)		SO ₂ ($\mu\text{g}/\text{m}^3$)		NO _x ($\mu\text{g}/\text{m}^3$)	
	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM
24.09.99	117	76	11	7	117	32
26.09.99	102	140	2	1	34	6
28.09.99	50	116	7	6	33	40
07.10.99	145	108	8	6	34	64
10.10.99	407	216	27	4	85	53
13.10.99	146	123	BDL	BDL	125	122
22.10.99	43	43	BDL	BDL	120	27
24.10.99	84	50	2	BDL	34	51
26.10.99	89	111	BDL	2	29	18
31.10.99	95	134	1	1	40	30
04.11.99	115	107	BDL	2	40	41
14.11.99	343	294	12	2	42	36
21.11.99	208	235	3	3	38	19
28.11.99	395	316	7	5	42	64

BDL: Bellow Detectable Limit

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AREA: KARANGAPARA

Date of Sampling	SPM ($\mu\text{g}/\text{m}^3$)		SO ₂ ($\mu\text{g}/\text{m}^3$)		NO _x ($\mu\text{g}/\text{m}^3$)	
	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM
24.09.99	96	78	10	11	26	20
26.09.99	67	92	2	1	6	12
28.09.99	62	124	BDL	1	44	35
07.10.99	91	187	13	3	31	42
10.10.99	181	311	7	4	43	58
13.10.99	201	192	1	BDL	63	88
22.10.99	91	109	BDL	BDL	66	97
24.10.99	117	159	1	2	103	75
26.10.99	132	125	1	2	85	91
31.10.99	SND	SND	SND	SND	SND	SND
04.11.99	77	123	4	2	37	45
14.11.99	541	347	36	3	124	136
21.11.99	170	178	2	BDL	149	129
28.11.99	502	564	25	32	111	149
05.12.99	164	229	6	13	75	87

BDL: Bellow Detectable Limit

SND: Sampling Not Done

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AREA: MUCHIPARA

Date of Sampling	SPM ($\mu\text{g}/\text{m}^3$)		SO ₂ ($\mu\text{g}/\text{m}^3$)		NO _x ($\mu\text{g}/\text{m}^3$)	
	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM
24.09.99	75	133	19	29	29	34
26.09.99	1184	1832	19	25	50	24
28.09.99	1533	1871	18	28	30	77
07.10.99	966	604	21	16	85	118
10.10.99	1181	1145	38	24	117	123
13.10.99	521	484	3	2	81	116
22.10.99	352	342	3	7	39	45
24.10.99	527	524	13	10	47	27
26.10.99	381	388	10	BDL	36	48
31.10.99	166	261	4	6	11	23
04.11.99	376	391	9	4	60	101
14.11.99	984	1093	16	6	181	175
21.11.99	668	652	8	9	81	82
28.11.99	1169	1378	21	38	207	204

BDL: Bellow Detectable Limit

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AREA: BHIRINGI MORE

Date of Sampling	SPM ($\mu\text{g}/\text{m}^3$)		SO ₂ ($\mu\text{g}/\text{m}^3$)		NO _x ($\mu\text{g}/\text{m}^3$)	
	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM
24.09.99	198	159	18	13	57	47
26.09.99	457	591	26	3	51	209
28.09.99	545	827	18	25	66	96
07.10.99	811	467	64	28	96	141
10.10.99	830	916	25	24	160	221
13.10.99	476	622	6	4	127	216
22.10.99	281	585	9	16	64	125
24.10.99	282	297	16	17	101	86
26.10.99	344	522	10	35	118	204
31.10.99	223	319	3	5	66	103
04.11.99	336	635	5	26	95	101
14.11.99	815	1097	45	60	132	189
21.11.99	741	899	15	69	117	164
28.11.99	999	1459	18	63	326	280

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Date of Sampling	Pb ($\mu\text{g}/\text{m}^3$) Karangapara		Pb ($\mu\text{g}/\text{m}^3$) Muchipara	
	6AM-2PM	2AM-10PM	6AM-2PM	2AM-10PM
07.10.99	0.04	0.10	0.16	0.19
14.11.99	1.01	0.39	0.90	0.39

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