

**Environmental Monitoring Report  
Of  
Bharatpur Area  
For  
April-2025**

**Talcher Coalfield**



**Mahanadi Coalfields Limited**



**सीएमपीडीआई**  
मिनी रत्न  
**cmpdi**  
Mini Ratna

**Central Mine Planning & Design Institute Ltd.**  
(A Subsidiary of Coal India Ltd.)

**Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)**  
[Assistance from Environment Division, CMPDI(HQs), Ranchi ]

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सीएमपीडी  
Cmpdi  
Central Pollution Control Board

Test Report

AMBIENT AIR QUALITY DATA

Area :

Bharatpur

(Compliance Station)

Project :

Bharatpur OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
11-Apr-25	Near Regional Store	203	80	41	18.27	41.82	Mining Activities	About 500m
11-Apr-25	North-West Point of the Mine	203	87	44	13.33	25.09	Domestic & Mining Activities	About 500m
11-Apr-25	Near ETP/Workshop	218	96	49	13.59	37.82	Mining Activities & Coal Stock	Above 500m
21-Apr-25	Near Regional Store	218	91	45	12.00	24.31	Mining Activities	About 500m
21-Apr-25	North-West Point of the Mine	212	84	41	11.11	29.01	Domestic & Mining Activities	About 500m
21-Apr-25	Near ETP/Workshop	203	88	45	12.44	26.66	Mining Activities & Coal Stock	Above 500m

MoEF Standards Notification dated 25th September, 2000

600

300

120

120

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Authorized Signatory  
Cmpdi, H-111, LAB  
BHUBANESWAR

**AMBIENT AIR QUALITY DATA**

Area :

**Bharatpur**

(Reference Station)

Project :

**Bharatpur OCP**

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Apr-25	Khajuria Village	172	71	30	13.83	22.65		
01-Apr-25	Karnapur Village	174	60	35	14.67	33.72		
01-Apr-25	Near Joragdia Village	189	73	38	14.22	24.31	Transportation, Domestic Cooking	About 1km
01-Apr-25	Kalinga Colony	170	74	39	11.43	34.35		
02-Apr-25	Near Joragdia Village	173	66	34	15.80	39.21	Transportation, Domestic Cooking	About 1km
02-Apr-25	Khajuria Village	189	67	44	17.33	35.29		
02-Apr-25	Karnapur Village	167	68	30	11.11	24.31		
02-Apr-25	Kalinga Colony	168	62	32	16.84	33.02		
03-Apr-25	East of the Mine, Natedi Village (Reported Only)	175	71	39	10.67	25.88	Coal Transportation Road	About 2km
04-Apr-25	East of the Mine, Natedi Village (Reported Only)	168	69	36	10.82	32.73	Coal Transportation Road	About 2km
07-Apr-25	Karnapur Village	183	66	39	15.56	36.07		
07-Apr-25	Near Joragdia Village	165	60	32	15.31	38.34	Transportation, Domestic Cooking	About 1km
07-Apr-25	Kalinga Colony	174	58	35	12.75	18.41		
07-Apr-25	Khajuria Village	168	57	35	13.10	31.37		
08-Apr-25	Kalinga Colony	163	55	30	16.16	32.08		
08-Apr-25	Khajuria Village	156	78	29	17.28	22.65		
08-Apr-25	Karnapur Village	167	63	35	12.00	36.07		
08-Apr-25	Near Joragdia Village	159	56	29	14.81	33.98	Transportation, Domestic Cooking	About 1km
09-Apr-25	East of the Mine, Natedi Village (Reported Only)	165	65	31	13.54	23.90	Coal Transportation Road	About 2km
10-Apr-25	East of the Mine, Natedi Village (Reported Only)	132	60	28	18.27	34.85	Coal Transportation Road	About 2km
16-Apr-25	Karnapur Village	184	77	38	20.25	38.34		
16-Apr-25	Near Joragdia Village	157	57	30	10.86	32.24	Transportation, Domestic Cooking	About 1km
16-Apr-25	Khajuria Village	195	81	41	14.39	29.87		

\*NAAQS,2009

100 60 80 80

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Authorised Signatory  
CMPDI, PAVI, LAB  
BHUBANESWAR

Project :

Bharatpur OCP

(conc. in µg/cu.m.)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
16-Apr-25	Kalinga Colony	157	63	30	16.84	27.24		
17-Apr-25	Khajuria Village	176	79	38	20.25	24.40		
17-Apr-25	Karnapur Village	194	73	36	18.25	34.67		
17-Apr-25	Near Joragdia Village	166	64	34	16.16	28.51	Transportation, Domestic Cooking	About 1km
17-Apr-25	Kalinga Colony	167	67	32	10.43	23.87		
18-Apr-25	East of the Mine, Natedi Village (Reported Only)	175	74	36	13.33	27.88	Coal Transportation Road	About 2km
19-Apr-25	East of the Mine, Natedi Village (Reported Only)	169	70	33	18.27	35.72	Coal Transportation Road	About 2km
23-Apr-25	Karnapur Village	183	75	38	18.71	30.54		
23-Apr-25	Kalinga Colony	183	75	38	15.56	36.07		
23-Apr-25	Near Joragdia Village	186	72	38	16.30	28.75	Transportation, Domestic Cooking	About 1km
23-Apr-25	Khajuria Village	170	67	32	16.89	34.50		
24-Apr-25	Kalinga Colony	176	69	35	10.86	32.24		
24-Apr-25	Khajuria Village	165	63	30	17.31	26.41		
24-Apr-25	Karnapur Village	175	69	35	12.16	37.14		
24-Apr-25	Near Joragdia Village	171	66	35	17.31	31.37	Transportation, Domestic Cooking	About 1km
25-Apr-25	East of the Mine, Natedi Village (Reported Only)	156	63	29	9.33	32.93	Coal Transportation Road	About 2km
26-Apr-25	East of the Mine, Natedi Village (Reported Only)	180	71	35	15.31	35.72	Coal Transportation Road	About 2km
29-Apr-25	Kalinga Colony	152	60	29	12.35	27.01		
29-Apr-25	Karnapur Village	154	58	28	20.25	32.24		
29-Apr-25	Khajuria Village	174	73	35	11.56	35.29		
29-Apr-25	Near Joragdia Village	168	63	32	16.16	24.95	Transportation, Domestic Cooking	About 1km
30-Apr-25	Near Joragdia Village	155	59	28	13.83	31.37	Transportation, Domestic Cooking	About 1km
30-Apr-25	Kalinga Colony	165	65	31	10.22	33.72		
30-Apr-25	Karnapur Village	146	54	25	18.27	33.11		
30-Apr-25	Khajuria Village	163	64	31	12.89	23.52		

\*N44QS,2009

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 CMPDI, R-V-T, LAB  
 BHUBANESWAR



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**NOISE LEVEL MONITORING DATA**

AREA :

Bharatpur

PROJECT :

Bharatpur OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
04-Apr-25	North West Point of the Mine	66.2	57.4
04-Apr-25	Near Regional Store	64.5	53.2
04-Apr-25	Near Wokshop	68.7	55.7
04-Apr-25	Natedi Village (Reported)	49.8	37.4
04-Apr-25	Kalinga Colony	50.9	39.6
18-Apr-25	North West Point of the Mine	65.9	56.8
18-Apr-25	Near Regional Store	65.1	54.1
18-Apr-25	Near Wokshop	67.8	54.9
18-Apr-25	Kalinga Colony	49.8	40.1
19-Apr-25	Natedi Village (Reported)	48.8	38.1

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Near Joragadia Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
01-Apr-2025	<20.0	20.17	<0.1	<1.0	<1.0	1.4	BQL(QL =0.7)	BQL
02-Apr-2025	<20.0	27.32	<0.1	<1.0	<1.0	1.2	BQL(QL =0.7)	BQL
07-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	1.3	BQL(QL =0.7)	BQL
08-Apr-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.1	BQL(QL =0.7)	BQL
16-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	0.9	BQL(QL =0.7)	BQL
17-Apr-2025	<20.0	14.9	<0.1	<1.0	<1.0	1.2	BQL(QL =0.7)	BQL
23-Apr-2025	<20.0	19.55	<0.1	<1.0	<1.0	1.1	BQL(QL =0.7)	BQL
24-Apr-2025	<20.0	21.1	<0.1	<1.0	<1.0	1.0	BQL(QL =0.7)	BQL
29-Apr-2025	<20.0	20.48	<0.1	<1.0	<1.0	1.4	BQL(QL =0.7)	BQL
30-Apr-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.3	BQL(QL =0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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BHUBANESWAR



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**cmpdi**  
MAI, Bhubaneswar

**AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)**

Area: **Bharatpur**

Project	Bharatpur OCP							
Monitoring Station	Kalinga Colony							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
01-Apr-2025	<20.0	24.32	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	26.51	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	24.32	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	19.68	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	18.36	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	24.78	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	23.84	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	26.81	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	25.43	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	20.68	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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BHUBANESWAR



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Khajuria Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	25.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	17.07	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	18	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	25.45	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	19.23	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	17.68	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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BHUBANESWAR



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Kamapur Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
01-Apr-2025	<20.0	13.97	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	20.17	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	12.72	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	13.65	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	13.97	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	21.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Near Natedi Village(Reported Only)							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
04-Apr-2025	<20.0	17.07	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
09-Apr-2025	<20.0	23.9	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
10-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL(QL=2.5)
18-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
19-Apr-2025	<20.0	12.72	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
25-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL(QL=2.5)
26-Apr-2025	<20.0	17.68	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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Authorised Signatory  
CMPDI, Ri-VII, LAB  
BHUBANESWAR

## EFFLUENT QUALITY DATA

Area :

Bharatpur

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Bharatpur OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
09-Apr-25	STP INLET	8.34	-	36	-	<2	94
09-Apr-25	STP Outlet (PH,TSS,MPN,BOD)	8.49	-	28	-	<2	63
24-Apr-25	STP INLET	7.53	-	43	-	<2	70
25-Apr-25	STP Outlet (PH,TSS,MPN,BOD)	7.67	-	31	-	<2	58

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)	6.5-9.0	-	<100	-	30	<1000
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 Authorised Signatory  
 CMPDI, Ri-VII, LAB  
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CMPDI  
भारत सरकार

TABLE--

**EFFLUENT QUALITY DATA**

Area :

Bharatpur

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Bharatpur OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
09-Apr-25	Workshop ETP Clear Water Tank	7.78	<4.0	64	40	-	
10-Apr-25	Mine Sump Water - Main Sump	8.39	<4.0	20	12	-	
10-Apr-25	Mine Sump Water - Old Quarry Sump	7.46	<4.0	28	12	-	
10-Apr-25	Rakas Quarry Sump	6.30	<4.0	41	24	-	
24-Apr-25	Workshop ETP Clear Water Tank	7.54	5.2	74	132	-	

MoEF Standard Notification dated 25th September, 2009  
and MoEF Schedule VI, General standard for discharge  
of Environmental Pollutants Part A: Effluents

5.5-9.0    10    100    250    30

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CMPDI, RI-VII, LAB  
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## Drinking Water Quality Data Bharatpur Area

Project / OCP	Bharatpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Time Office, BOCP		
Date of Sampling	9-Apr-2025	Acceptable	Permissible
Colour(Hazen)	2	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	5
pH	6.95	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	21.01	200	600
Chloride(mg/L)	38.9	250	1000
Sulphate(mg/L)	55.06	200	400
Nitrate(mg/L)	16.88	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	99.6	200	600
Calcium(mg/L)	27.15	75	200
Fluoride(mg/L)	<0.3	1	1.5
Total Dissolve Solid(mg/L)	206	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	0.05	0.1	0.3
Iron(mg/L)	<0.1	1.0	No relaxation
Zinc(mg/L)	<0.04	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	0.5	2.4

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BHUBANESWAR



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विशेष एम  
cmpdi  
Mini Bhatra

## Drinking Water Quality Data Bharatpur Area

Project / OCP	Bharatpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Time Office, BOCP	Acceptable	Permissible
Date of Sampling	9-Apr-2025	0.01	No relaxation
Selenium(mg/L)	<0.005	0.001	0.002
Phenolics(mg/L)	<0.001	0.2	1.0
Residual Free Chlorine(mg/L)	<0.2	-	-
MPN (Index/100 ml)	Not Detected	-	-
Sodium(mg/L)	19.64	-	-
Potassium(mg/L)	5.44	-	-

  
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BHUWANE SWAR



**Environmental Monitoring Report  
Of  
Bhubaneswari Area  
For  
April-2025**

**IB Valley Coalfield**



**Mahanadi Coalfields Limited**



**सीएमपीडीआई**  
विनी रत्न  
**cmpdi**  
Mini Ratna

**Central Mine Planning & Design Institute Ltd.**  
(A Subsidiary of Coal India Ltd.)

**Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)**  
[Assistance from Environment Division, CMPDI(HQs), Ranchi]

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LAB

Test Report

AMBIENT AIR QUALITY DATA

Area :

Bhubaneswari

(Compliance Station)

Project :

Bhubaneswari OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
04-Apr-25	Silo Substation Office	246	96	52	12.00	29.01		
05-Apr-25	B.C.M.L. Workshop	317	102	49	11.85	20.91	Mining activities, O.B Dump yard	About 400 to 500m
21-Apr-25	Silo Substation Office	214	94	45	12.35	29.62		
21-Apr-25	B.C.M.L. Workshop	256	102	46	12.63	35.49	Mining activities, O.B Dump yard	About 400 to 500m

MoEF Standards Notification dated 25th September, 2009

600	300		120	120
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BHUBANESWAR



सीएमपीडी  
CMPDI  
भारत सरकार

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bhubaneswari

PROJECT :

Bhubaneswari OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
03-Apr-25	Naraharipur Village	49.8	39.7
03-Apr-25	Silo Substaion Office	69.9	58.7
03-Apr-25	BCML Workshop	68.6	59.2
04-Apr-25	Kandhal Village (Reported)	48.7	37.8
17-Apr-25	Naraharipur Village	50.2	39.5
17-Apr-25	Silo Substaion Office	68.6	57.9
17-Apr-25	BCML Workshop	67.8	60.3
18-Apr-25	Kandhal Village (Reported)	49.1	36.6

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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BHUBANESWAR



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भारत सरकार

TABLE--

### EFFLUENT QUALITY DATA

Area :

Bhubaneswari

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Bhubaneswari OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
09-Apr-25	Mine Sump Water	7.40	<4.0	28	8	-	
09-Apr-25	O & G Trap Inlet	7.52	<4.0	63	32	-	
09-Apr-25	O & G Trap Outlet	7.71	<4.0	38	12	-	
24-Apr-25	O & G Trap Inlet	8.02	<4.0	35	16	-	
24-Apr-25	O & G Trap Outlet	6.68	<4.0	58	28	-	

MoEF Standard Notification dated 25th September, 2000  
and MoEF Schedule VI, General standard for discharge  
of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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CMPDI, Ri-VII, LAB  
SHUBANESWAR

**Environmental Monitoring Report  
Of  
Hingula Area  
For  
April-2025**

**Talcher Coalfield**



**MCL**

**Mahanadi Coalfields Limited**



**सीएमपीडीआई**  
मिनी रत्ना  
**cmpdi**  
Mini Ratna

**Central Mine Planning & Design Institute Ltd.**  
(A Subsidiary of Coal India Ltd.)

**Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)**  
[Assistance from Environment Division, CMPDI(HQs), Ranchi ]

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AMBIENT AIR QUALITY DATA

Area :

Hingula

(Compliance Station)

Project :

Balaram OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	Dust Generating Source(DGS)	Distance from DGS
12-Apr-25	Pump House near Outsourcing Working Patch	209	87	43	13.33	20.39	Mining Operation And Coal Transportation Road	About 200m
12-Apr-25	Near Project Office	209	88	44	11.36	34.85	Mining Activities	About 500m
22-Apr-25	Pump House near Outsourcing Working Patch	215	85	42	12.00	33.72	Mining Operation And Coal Transportation Road	About 200m
22-Apr-25	Near Project Office	231	94	48	15.80	27.88	Mining Activities	About 500m

MoEF Standards Notification dated 23rd September, 2000

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AMBIENT AIR QUALITY DATA

Area :

Hingula

(Compliance Station)

Project :

Hingula OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	Dust Generating Source(DGS)	Distance from DGS
12-Apr-25	Time Office	219	95	48	12.28	35.85	Mining Operations and Haul Road	About 200m
12-Apr-25	South West Side of the Mine	215	91	46	10.76	38.79	Mining Operations	About 300m
22-Apr-25	Time Office	218	95	44	14.69	26.59	Mining Operations and Haul Road	About 200m
22-Apr-25	South West Side of the Mine	214	90	43	18.77	33.11	Mining Operations	About 300m

MoEF Standards Notification dated 25th September, 2009	500	250		120	120
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BHUBANESWAR

AMBIENT AIR QUALITY DATA

Area :

Hingula

(Reference Station)

Project :

Balram OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Apr-25	Purunasahi Village	168	70	34	12.93	24.95		
03-Apr-25	East of the Mine, Natedi Village	175	71	39	10.67	25.88	Coal Transportation Road	About 2km
03-Apr-25	North West of the Mine, Solda Village (Reported Only)	164	64	31	10.58	26.14	Coal Transportation Road	About 2km
03-Apr-25	Natada Village	155	63	28	13.91	21.14	Anthropogenic Activities, Local	About 2km
04-Apr-25	North West of the Mine, Solda Village (Reported Only)	175	69	34	14.22	25.88	Coal Transportation Road	About 2km
04-Apr-25	Purunasahi Village	185	75	38	10.43	19.09		
04-Apr-25	Natada Village	163	66	30	14.30	18.41	Anthropogenic Activities, Local	About 2km
04-Apr-25	East of the Mine, Natedi Village	168	69	36	10.82	32.73	Coal Transportation Road	About 2km
09-Apr-25	Natada Village	175	77	36	16.00	23.52	Anthropogenic Activities, Local	About 2km
09-Apr-25	North West of the Mine, Solda Village (Reported Only)	165	59	30	13.97	20.91	Coal Transportation Road	About 2km
09-Apr-25	Purunasahi Village	181	72	37	15.85	17.73		
09-Apr-25	East of the Mine, Natedi Village	163	65	31	13.54	23.90	Coal Transportation Road	About 2km
10-Apr-25	North West of the Mine, Solda Village (Reported Only)	145	53	26	13.14	23.18	Coal Transportation Road	About 2km
10-Apr-25	Purunasahi Village	169	69	33	14.81	28.75		
10-Apr-25	East of the Mine, Natedi Village	132	60	28	18.27	34.85	Coal Transportation Road	About 2km
10-Apr-25	Natada Village	162	70	29	16.84	23.94	Anthropogenic Activities, Local	About 2km
18-Apr-25	Purunasahi Village	152	61	29	20.25	37.47		
18-Apr-25	North West of the Mine, Solda Village (Reported Only)	167	69	33	16.30	33.11	Coal Transportation Road	About 2km
18-Apr-25	East of the Mine, Natedi Village	175	74	36	13.33	27.88	Coal Transportation Road	About 2km
18-Apr-25	Natada Village	177	73	38	16.89	27.45	Anthropogenic Activities, Local	About 2km
19-Apr-25	North West of the Mine, Solda Village (Reported Only)	173	75	36	13.33	27.45	Coal Transportation Road	About 2km
19-Apr-25	Purunasahi Village	172	69	33	13.83	29.62		
19-Apr-25	Natada Village	168	65	34	12.63	34.67	Anthropogenic Activities, Local	About 2km

\*N44QS.2009

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BHUBANESWAR

Project :

Balram OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
19-Apr-25	East of the Mine, Natedi Village	169	70	33	18.27	35.72	Coal Transportation Road	About 2km
25-Apr-25	Natada Village	164	60	31	17.78	30.58	Anthropogenic Activities, Local	About 2km
25-Apr-25	Purunasahi Village	157	63	30	12.84	27.88		
25-Apr-25	East of the Mine, Natedi Village	156	63	29	9.33	32.93	Coal Transportation Road	About 2km
25-Apr-25	North West of the Mine, Solda Village (Reported Only)	158	60	29	16.44	29.80	Coal Transportation Road	About 2km
26-Apr-25	North West of the Mine, Solda Village (Reported Only)	163	63	30	19.75	30.49	Coal Transportation Road	About 2km
26-Apr-25	East of the Mine, Natedi Village	180	71	35	15.31	35.72	Coal Transportation Road	About 2km
26-Apr-25	Purunasahi Village	168	74	35	14.22	26.66		
26-Apr-25	Natada Village	176	68	35	13.10	23.11	Anthropogenic Activities, Local	About 2km

\*N.A.Q.S, 2009

	100	60	80	80
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 BHUBANESWAR

**AMBIENT AIR QUALITY DATA**

Area :

Hingula

(Reference Station)

Project :

Hingula OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Apr-25	Balichandrapur Village	166	67	34	17.31	28.06		
03-Apr-25	Banabaspur Village	159	65	33	15.85	28.64		
03-Apr-25	North East of the Mine, Solda Village	164	64	31	10.58	26.14	Coal Transportation Road	About 2km
03-Apr-25	Kankarei Village	191	77	39	15.56	18.82		
03-Apr-25	Sanamahitala Village	158	65	32	16.44	30.58		
04-Apr-25	Kankarei Village	189	74	37	10.51	26.38		
04-Apr-25	Balichandrapur Village	172	71	36	17.35	20.91		
04-Apr-25	North East of the Mine, Solda Village	175	69	34	14.22	25.88	Coal Transportation Road	About 2km
04-Apr-25	Banabaspur Village	168	71	35	13.53	26.59		
04-Apr-25	Sanamahitala Village	155	61	30	13.78	20.39		
09-Apr-25	Sanamahitala Village	152	56	28	13.33	30.58		
09-Apr-25	Kankarei Village	162	65	30	10.91	29.94		
09-Apr-25	North East of the Mine, Solda Village	165	59	30	13.97	20.91	Coal Transportation Road	About 2km
09-Apr-25	Banabaspur Village	169	65	33	9.74	20.16		
09-Apr-25	Balichandrapur Village	159	61	30	12.28	33.61		
10-Apr-25	North East of the Mine, Solda Village	145	53	26	13.14	23.18	Coal Transportation Road	About 2km
10-Apr-25	Banabaspur Village	157	62	30	11.11	21.96		
10-Apr-25	Sanamahitala Village	141	52	24	14.69	32.05		
10-Apr-25	Balichandrapur Village	133	36	27	13.33	27.80		
10-Apr-25	Kankarei Village	156	53	27	12.37	25.23		
18-Apr-25	Banabaspur Village	181	69	38	17.78	38.34		
18-Apr-25	North East of the Mine, Solda Village	167	69	33	16.30	33.11	Coal Transportation Road	About 2km
18-Apr-25	Kankarei Village	196	81	40	13.33	36.59		

\*N44QS,2009

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BHUBANESWAR

**Project :****Hingula OCP****(conc. in µg/cu.m.)**

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
18-Apr-25	Sanamahitala Village	162	65	31	19.75	36.59		
18-Apr-25	Balichandrapur Village	142	53	25	17.31	36.32		
19-Apr-25	Kankarei Village	170	75	36	15.56	24.31		
19-Apr-25	Balichandrapur Village	173	64	31	13.78	32.93		
19-Apr-25	North East of the Mine, Solda Village	173	75	36	13.33	27.45	Coal Transportation Road	About 2km
19-Apr-25	Banabaspur Village	185	79	40	10.37	34.85		
19-Apr-25	Sanamahitala Village	157	63	30	12.89	35.29		
25-Apr-25	North East of the Mine, Solda Village	158	60	29	16.44	29.80	Coal Transportation Road	About 2km
25-Apr-25	Sanamahitala Village	186	74	38	11.31	25.66		
25-Apr-25	Kankarei Village	143	52	25	10.91	22.81		
25-Apr-25	Banabaspur Village	146	56	25	13.74	21.39		
25-Apr-25	Balichandrapur Village	185	71	39	14.55	25.66		
26-Apr-25	North East of the Mine, Solda Village	163	63	30	19.75	30.49	Coal Transportation Road	About 2km
26-Apr-25	Banabaspur Village	167	68	33	13.83	37.47		
26-Apr-25	Sanamahitala Village	148	56	27	17.78	32.93		
26-Apr-25	Balichandrapur Village	149	54	28	11.11	23.52		
26-Apr-25	Kankarei Village	178	76	37	18.71	23.94		

\*NAAQs, 2009

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 BHUBANESWAR



सीएमपीडीआई  
रिपोर्टिंग  
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Mini Report

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Balichandrapur Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzen e
	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(μg/m <sup>3</sup> )
03-Apr-2025	<20.0	15.83	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	13.03	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	17.38	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	12.72	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	15.83	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	21.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	19.87	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	21.72	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(h our)	1.0(24h ours)	6.0(Ann ual)	20(Ann ual)	02(8hou rs)	01(annu al)	05(ann ual)

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BHUBANESWAR



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RI-VII  
cmpdi  
Mini Ratna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Kankarei Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	25.75	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	23.27	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	15.83	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180 (hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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cmpdi  
निसि लैब

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area:Hingula

Project	Hingula OCP							
Monitoring Station	Solada Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzen e
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	20.78	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	13.65	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	12.42	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	26.68	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180 (hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Banabaspur Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzen e
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	27	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	20.78	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	19.55	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	18.93	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	20.17	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	13.03	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	26.68	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180 (hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Sanamahitala Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	0.9	BQL(QL =0.7)	BQL
04-Apr-2025	<20.0	19.87	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
09-Apr-2025	<20.0	12.1	<0.1	<1.0	<1.0	0.6	BQL(QL =0.7)	BQL
10-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	0.7	BQL(QL =0.7)	BQL
18-Apr-2025	<20.0	14.9	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
19-Apr-2025	<20.0	24.52	<0.1	<1.0	<1.0	0.6	BQL(QL =0.7)	BQL
25-Apr-2025	<20.0	18.93	<0.1	<1.0	<1.0	0.9	BQL(QL =0.7)	BQL
26-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
Standard	400(24h ours)	180 (hour)	1.0(24h ours)	6.0(Annual)	20 (Annual)	02(8hours)	01 (annual )	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	East Mine, Natedi Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
04-Apr-2025	<20.0	17.07	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
09-Apr-2025	<20.0	23.9	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
10-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL(QL=2.5)
18-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
19-Apr-2025	<20.0	12.72	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
25-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL(QL=2.5)
26-Apr-2025	<20.0	17.68	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(Shou rs)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	Natada Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
03-Apr-2025	<20.0	26.68	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL(QL=2.5)
04-Apr-2025	<20.0	19.23	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
09-Apr-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL(QL=2.5)
10-Apr-2025	<20.0	21.1	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
18-Apr-2025	<20.0	14.27	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL(QL=2.5)
19-Apr-2025	<20.0	26.07	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
25-Apr-2025	<20.0	19.55	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
26-Apr-2025	<20.0	14.9	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24h ours)	180(h our)	1.0(24h ours)	6.0(A nnual)	20(Ann ual)	02(8hou rs)	01(annu al)	05(annu al)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	Purunasahi Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	25.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	13.97	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	20.17	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	27.32	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	15.52	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	13.97	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(An nual)	02(8ho urs)	01(annual )	05(annu al)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	Solada Village (Reported Only)							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(μg/m <sup>3</sup> )
03-Apr-2025	<20.0	20.78	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	13.65	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	12.42	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	26.68	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(An nual)	02(8ho urs)	01(annual )	05(annu al)

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TABLE--

**NOISE LEVEL MONITORING DATA**

AREA :

Hingula

PROJECT :

Balarum OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Apr-25	Natada Village	48.6	37.1
05-Apr-25	Solada Village (Reported only)	50.4	38.4
05-Apr-25	Near Natedi Village	49.8	37.4
05-Apr-25	Pump House Near Outsourcing Working Patch	65.8	56.1
05-Apr-25	Near Project Office Balram OCP	66.4	54.8
17-Apr-25	Solada Village (Reported only)	51.1	39.1
19-Apr-25	Natada Village	49.1	37.8
19-Apr-25	Near Natedi Village	48.8	38.1
19-Apr-25	Pump House Near Outsourcing Working Patch	64.9	55.8
19-Apr-25	Near Project Office Balram OCP	65.8	53.9

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Hingula

PROJECT :


Hingula OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Apr-25	South West Side of the Mine	67.8	59.8
05-Apr-25	Solda Village	50.4	38.4
05-Apr-25	Kankarei Village	49.8	38.9
05-Apr-25	Time Office	68.9	59.8
17-Apr-25	South West Side of the Mine	67.7	59.4
17-Apr-25	Solda Village	51.1	39.1
17-Apr-25	Kankarei Village	50.1	39.4
17-Apr-25	Time Office	67.6	58.6

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

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 <b>सीएमपीडीआई</b> मिनी लैब <b>cmpdi</b> Mini Lab	<b>AMBIENT AIR QUALITY DATA</b> <i>Area: Hingula</i>
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<b>Project</b>	<b>Hingula OCP</b>
<b>Monitoring Station</b>	<b>Time Office</b>
<b>Date of sampling</b>	<b>Carbon Monoxide (CO)</b>
	<b>mg/m<sup>3</sup></b>
12-Apr-2025	1.8
22-Apr-2025	1.7
<b>Standard</b>	<b>02(8 Hours)</b>

<b>Project</b>	<b>Hingula OCP</b>
<b>Monitoring Station</b>	<b>South West side of Mine</b>
<b>Date of sampling</b>	<b>Carbon Monoxide (CO)</b>
	<b>mg/m<sup>3</sup></b>
12-Apr-2025	1.6
22-Apr-2025	1.8
<b>Standard</b>	<b>02(8 Hours)</b>

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TABLE--

**EFFLUENT QUALITY DATA**

Area :

Hingula

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Balram OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
11-Apr-25	Gandhisagar (Mine Sump)	7.39	<4.0	39	52	-	
11-Apr-25	Inlet of O & G Trap	8.46	4.2	39	40	-	
11-Apr-25	Outlet of O & G Trap	8.51	<4.0	27	24	-	
26-Apr-25	Inlet of O & G Trap	8.06	<4.0	38	32	-	
26-Apr-25	Outlet of O & G Trap	8.42	<4.0	23	20	-	

MoEF Standard Notification dated 25th September, 2000  
and MoEF Schedule VI, General standard for discharge  
of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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TABLE--

**EFFLUENT QUALITY DATA**

Area :

Hingula

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Balram OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
11-Apr-25	STP Inlet of Balram Colony	8	-	22		<2	84
11-Apr-25	STP Outlet of Balram Colony	7.50	-	29	-	<2	46
26-Apr-25	STP Inlet of Balram Colony	7.22	-	44	-	<2	79
26-Apr-25	STP Outlet of Balram Colony	7.42	-	27	-	<2	48

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)	6.5-9.0	-	<100	-	30	<1000
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C.M.P.D.I.  
भुवनेश्वर

TABLE--

**EFFLUENT QUALITY DATA**

Area :

Hingula

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Hingula OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
11-Apr-25	Inlet of O & G Trap	8.35	4.2	45	48	-	
11-Apr-25	Mine Sump Water	8.24	<4.0	24	16	-	
11-Apr-25	Outlet of O & G Trap	8.45	<4.0	33	24	-	
26-Apr-25	Inlet of O & G Trap	8.04	<4.0	49	40	-	
26-Apr-25	Outlet of O & G Trap	8.30	<4.0	31	20	-	

MoEF Standard Notification dated 25th September, 2000  
and MoEF Schedule VI, General standard for discharge  
of Environmental Pollutants Part A: Effluents

5.5-9.0

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100

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## Drinking Water Quality Data Hingula Area

Project / OCP	Hingula OCP			Indian Drinking Standards (IS-10500):2012	
	Time Office Water	Gopalprasad Village Bore Well Water	Kumunda Village Bore Well Water	Acceptable	Permissible
Date of Sampling	10-Apr-2025	10-Apr-2025	10-Apr-2025	Acceptable	Permissible
Colour(Hazen)	2	4	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	1	1	5
pH	7.71	8.46	8.14	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	105.05	239.51	382.38	200	600
Chloride(mg/L)	31.12	44.73	81.69	250	1000
Sulphate(mg/L)	58.18	11.43	80.26	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	167.33	175.3	414.34	200	600
Calcium(mg/L)	44.72	35.13	108.60	75	200
Fluoride(mg/L)	<0.3	0.46	0.37	1	1.5
Total Dissolve Solid(mg/L)	290	388	724	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Iron(mg/L)	0.11	0.13	0.14	1.0	No relaxation
Zinc(mg/L)	<0.04	0.13	0.26	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Hingula Area

Project / OCP	Balaram OCP			Indian Drinking Standards (IS-10500):2012	
	Danara Village Borewell Water	Balaram Colony	Nakeipasi Village Bore Well Water		
Date of Sampling	10-Apr-2025	10-Apr-2025	10-Apr-2025	Acceptable	Permissible
Colour(Hazen)	2	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	1	1	5
pH	7.73	7.89	7.92	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	71.43	63.03	281.53	200	600
Chloride(mg/L)	19.45	21.39	97.25	250	1000
Sulphate(mg/L)	69.74	152.86	143.51	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	127.49	314.74	517.92	200	600
Calcium(mg/L)	35.13	91.03	185.25	75	200
Fluoride(mg/L)	<0.3	0.57	0.38	1	1.5
Total Dissolve Solid(mg/L)	240	448	830	500	2000
Copper(mg/L)	<0.03	<0.03	0.032	0.05	1.5
Manganese(mg/L)	0.07	<0.04	<0.04	0.1	0.3
Iron(mg/L)	0.22	0.23	<0.1	1.0	No relaxation
Zinc(mg/L)	0.07	0.04	0.09	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Hingula Area

Project / OCP	Hingula OCP			Indian Drinking Standards (IS-10500):2012	
	Time Office Water	Gopalprasad Village Bore Well Water	Kumunda Village Bore Well Water		
Monitoring Station					
Date of Sampling	10-Apr-2025	10-Apr-2025	10-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-
Sodium(mg/L)	16.71	29.27	34.58		
Potassium(mg/L)	10.17	29.66	34.56		

Project / OCP	Balaram OCP			Indian Drinking Standards (IS-10500):2012	
	Danara Village Borewell Water	Balaram Colony	Nakeipasi Village Bore Well Water		
Monitoring Station					
Date of Sampling	10-Apr-2025	10-Apr-2025	10-Apr- 2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-
Sodium(mg/L)	14.59	14.12	30.78		
Potassium(mg/L)	8.25	9.53	2.46		

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CMPDI RI-VII, LAB  
BHUBANESWAR

**Environmental Monitoring Report  
Of  
Jagannath Area  
For  
April-2025**

**Talcher Coalfield**



**Mahanadi Coalfields Limited**



**Central Mine Planning & Design Institute Ltd.**  
(A Subsidiary of Coal India Ltd.)

**Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)**  
[Assistance from Environment Division, CMPDI(HQs), Ranchi ]

*The test report shall not be reproduced in part or full without written approval of the competent authority*

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Compliance Station)

Project :

Jagannath OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Apr-25	Near MDTP	217	95	49	16.44	23.52	Railway Siding CHP	About 800m
05-Apr-25	Near NBVL Station	209	88	46	12.00	33.72	CHP, CT Road	About 600m
21-Apr-25	Near MDTP	219	98	46	10.67	27.45	Railway Siding CHP	About 800m
21-Apr-25	Near NBVL Station	206	84	43	18.25	23.94	CHP, CT Road	About 600m

MoEF Standards Notification dated 25th September, 2009

500	250		120	120
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Test Report

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Compliance Station)

Project :

Ananta OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	Dust Generating Source(DGS)	Distance from DGS
05-Apr-25	North East of Mine	213	90	46	16.37	25.59	Open-Cast Mine	Less than 500m
05-Apr-25	Near NBVL Station (Reported)	209	88	46	12.00	33.72	CHP, CT Road	About 600m
21-Apr-25	North East of Mine	216	87	43	13.78	34.50	Open-Cast Mine	Less than 500m
21-Apr-25	Near NBVL Station (Reported)	206	84	43	18.25	23.94	CHP, CT Road	About 600m

MoEF Standards Notification dated 25th September, 2000

500	250		120	120
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BHUBANESWAR

**AMBIENT AIR QUALITY DATA**

Area :

Jagannath

(Reference Station)

Project :

Ananta OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Apr-25	Guthasahi Village	172	68	35	17.28	26.14	Mining Activities	About 3km
01-Apr-25	Asanabahali Village	162	66	34	12.00	25.09	Domestic and Mining Activities	About 4km
01-Apr-25	Central Nursery	156	58	29	10.67	28.23	Open-Cast Mine	Less than 500m
01-Apr-25	Sibarampur Village	175	71	34	15.44	32.19	Domestic and Mining Activities	About 4km
02-Apr-25	Asanabahali Village	158	62	30	10.67	35.29	Domestic and Mining Activities	About 4km
02-Apr-25	Sibarampur Village	186	77	38	12.63	37.97	Domestic and Mining Activities	About 4km
02-Apr-25	Central Nursery	165	68	35	15.44	33.84	Open-Cast Mine	Less than 500m
02-Apr-25	Guthasahi Village	157	66	30	16.00	18.82	Mining Activities	About 3km
07-Apr-25	Asanabahali Village	164	71	38	15.80	29.62	Domestic and Mining Activities	About 4km
07-Apr-25	Sibarampur Village	165	65	32	11.70	37.14	Domestic and Mining Activities	About 4km
07-Apr-25	Guthasahi Village	143	63	32	14.67	26.66	Mining Activities	About 3km
07-Apr-25	Central Nursery	173	70	36	11.21	30.00	Open-Cast Mine	Less than 500m
08-Apr-25	Sibarampur Village	158	63	30	17.33	19.60	Domestic and Mining Activities	About 4km
08-Apr-25	Guthasahi Village	156	70	34	19.26	25.27	Mining Activities	About 3km
08-Apr-25	Central Nursery	157	60	29	13.78	30.58	Open-Cast Mine	Less than 500m
08-Apr-25	Asanabahali Village	146	64	33	13.78	24.31	Domestic and Mining Activities	About 4km
16-Apr-25	Central Nursery	149	58	26	15.91	33.02	Open-Cast Mine	Less than 500m
16-Apr-25	Guthasahi Village	173	66	34	16.00	34.50	Mining Activities	About 3km
16-Apr-25	Asanabahali Village	163	60	33	15.44	23.94	Domestic and Mining Activities	About 4km
16-Apr-25	Sibarampur Village	180	70	36	17.78	29.62	Domestic and Mining Activities	About 4km
17-Apr-25	Central Nursery	167	65	32	14.22	25.88	Open-Cast Mine	Less than 500m
17-Apr-25	Guthasahi Village	168	66	32	15.85	25.91	Mining Activities	About 3km
17-Apr-25	Asanabahali Village	148	55	30	11.21	21.82	Domestic and Mining Activities	About 4km

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Project :

Ananta OCP

(conc. in µg/cu.m.)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
17-Apr-25	Sibarampur Village	165	65	31	10.05	21.82	Domestic and Mining Activities	About 4km
23-Apr-25	Asanabahali Village	167	64	35	13.78	29.01	Domestic and Mining Activities	About 4km
23-Apr-25	Guthasahi Village	146	56	25	18.22	22.74	Mining Activities	About 3km
23-Apr-25	Sibarampur Village	155	60	29	14.32	27.88	Domestic and Mining Activities	About 4km
23-Apr-25	Central Nursery	174	78	35	11.23	24.76	Open-Cast Mine	Less than 500m
24-Apr-25	Asanabahali Village	146	56	27	12.93	20.67	Domestic and Mining Activities	About 4km
24-Apr-25	Central Nursery	156	65	27	14.14	32.08	Open-Cast Mine	Less than 500m
24-Apr-25	Guthasahi Village	158	64	29	16.00	26.66	Mining Activities	About 3km
24-Apr-25	Sibarampur Village	175	68	35	9.78	34.50	Domestic and Mining Activities	About 4km
29-Apr-25	Central Nursery	189	78	41	10.86	32.24	Open-Cast Mine	Less than 500m
29-Apr-25	Guthasahi Village	178	75	36	13.57	30.54	Mining Activities	About 3km
29-Apr-25	Sibarampur Village	155	58	28	16.00	33.72	Domestic and Mining Activities	About 4km
29-Apr-25	Asanabahali Village	177	67	34	16.79	33.98	Domestic and Mining Activities	About 4km
30-Apr-25	Sibarampur Village	164	65	32	15.91	37.14	Domestic and Mining Activities	About 4km
30-Apr-25	Asanabahali Village	153	57	28	11.11	31.37	Domestic and Mining Activities	About 4km
30-Apr-25	Central Nursery	159	64	30	10.29	37.14	Open-Cast Mine	Less than 500m
30-Apr-25	Guthasahi Village	149	54	26	9.33	23.52	Mining Activities	About 3km

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**AMBIENT AIR QUALITY DATA**

Area :

**Bhubaneswari**

(Reference Station)

Project :

**Bhubaneswari OCP**

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Apr-25	Kandhal Village (Reported Only)	179	76	37	11.36	27.01		
01-Apr-25	Naraharipur Village	170	70	33	15.44	34.67		
02-Apr-25	Naraharipur Village	175	75	34	17.33	21.17		
02-Apr-25	Kandhal Village (Reported Only)	167	69	35	17.28	26.14		
07-Apr-25	Kandhal Village (Reported Only)	158	63	33	14.22	37.64		
07-Apr-25	Naraharipur Village	183	79	38	14.22	29.80		
08-Apr-25	Kandhal Village (Reported Only)	154	58	28	13.12	24.64		
08-Apr-25	Naraharipur Village	172	69	32	15.56	26.66		
16-Apr-25	Kandhal Village (Reported Only)	166	66	37	18.71	37.14		
16-Apr-25	Naraharipur Village	189	79	40	17.78	24.40		
17-Apr-25	Kandhal Village (Reported Only)	197	83	40	15.31	32.24		
17-Apr-25	Naraharipur Village	174	72	36	13.78	33.72		
23-Apr-25	Kandhal Village (Reported Only)	170	71	35	10.16	32.11		
23-Apr-25	Naraharipur Village	181	77	39	15.11	24.31		
24-Apr-25	Naraharipur Village	175	69	34	14.50	25.59		
29-Apr-25	Naraharipur Village	156	62	30	12.16	36.32		
29-Apr-25	Kandhal Village (Reported Only)	156	60	29	15.44	24.76		
30-Apr-25	Kandhal Village (Reported Only)	161	65	33	15.56	24.31		
30-Apr-25	Naraharipur Village	143	51	27	15.80	33.98		

\*NAAQS, 2009

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**AMBIENT AIR QUALITY DATA**

Area :

Jagannath

(Reference Station)

Project :

Jagannath OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Apr-25	CWS Colony, Meeti	164	74	35	13.33	32.93	Mining Activity	About 1500 m
01-Apr-25	Kurihan Village	195	86	43	13.33	30.49		
02-Apr-25	CWS Colony, Meeti	149	52	27	14.81	24.40	Mining Activity	About 1500 m
02-Apr-25	Kurihan Village	185	76	37	12.89	29.80		
07-Apr-25	CWS Colony, Meeti	164	66	35	17.35	25.39	Mining Activity	About 1500 m
07-Apr-25	Kurihan Village	178	74	36	12.93	26.38		
08-Apr-25	Kurihan Village	166	60	32	14.69	32.05		
08-Apr-25	CWS Colony, Meeti	150	66	34	14.81	30.49	Mining Activity	About 1500 m
16-Apr-25	Kurihan Village	168	69	33	13.33	37.47		
16-Apr-25	CWS Colony, Meeti	143	53	24	15.44	33.84	Mining Activity	About 1500 m
17-Apr-25	CWS Colony, Meeti	176	70	34	18.71	32.19	Mining Activity	About 1500 m
17-Apr-25	Kurihan Village	171	73	35	17.78	38.34		
23-Apr-25	Kurihan Village	181	77	37	14.04	30.54		
23-Apr-25	CWS Colony, Meeti	186	74	38	18.77	38.34	Mining Activity	About 1500 m
24-Apr-25	CWS Colony, Meeti	163	65	31	9.74	27.63	Mining Activity	About 1500 m
24-Apr-25	Kurihan Village	194	83	40	11.43	29.13		
29-Apr-25	CWS Colony, Meeti	179	75	38	9.33	32.15	Mining Activity	About 1500 m
29-Apr-25	Kurihan Village	171	73	35	14.22	22.74		
30-Apr-25	Kurihan Village	155	59	29	10.22	28.23		
30-Apr-25	CWS Colony, Meeti	154	62	29	14.32	27.88	Mining Activity	About 1500 m

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TABLE--

**NOISE LEVEL MONITORING DATA**

AREA :

Jagannath

PROJECT :

Jagannath OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
03-Apr-25	Near NBVL Station	65.9	54.6
03-Apr-25	Near MDTP	63.6	54.8
03-Apr-25	CWS Colony, MEETI	48.6	39.8
03-Apr-25	Central Nursery (Reported only)	62.3	51.9
17-Apr-25	Near NBVL Station	65.4	53.8
17-Apr-25	Near MDTP	62.9	53.7
17-Apr-25	CWS Colony, MEETI	48.1	38.9
17-Apr-25	Central Nursery (Reported only)	63.1	52.7

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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BHUBANESWAR



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CMPDI  
भुवनेश्वर

**TABLE--**

**NOISE LEVEL MONITORING DATA**

AREA :

Jagannath

PROJECT :

Ananta OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
03-Apr-25	North East of the Mine	65.3	44.1
03-Apr-25	Guthasahi Village	50.9	39.8
03-Apr-25	Central Nursery	62.3	51.9
17-Apr-25	North East of the Mine	64.9	43.8
17-Apr-25	Guthasahi Village	49.8	40.7
17-Apr-25	Central Nursery	63.1	52.7

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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BHUBANESWAR



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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Balanda OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
03-Apr-25	Near NBVL Station (Reported only)	66.71	54.6
17-Apr-25	Near NBVL Station (Reported only)	65.4	53.8

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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BHUBANESWAR



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*AMBIENT AIR QUALITY DATA*

*Area: Jagannath*

<b>Project</b>	<b>Ananta OCP</b>
<b>Monitoring Station</b>	<b>Central Nursery</b>
<b>Date of sampling</b>	<b>Carbon Monoxide (CO)</b>
	<b>mg/m<sup>3</sup></b>
10-Apr-2025	1.3
30-Apr-2025	1.6
<b>Standard</b>	<b>02(8 Hours)</b>

<b>Project</b>	<b>Ananta OCP</b>
<b>Monitoring Station</b>	<b>North-East of the Mine</b>
<b>Date of sampling</b>	<b>Carbon Monoxide (CO)</b>
	<b>mg/m<sup>3</sup></b>
05-Apr-2025	1.7
21-Apr-2025	1.8
<b>Standard</b>	<b>02(8 Hours)</b>

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Mini Ratna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Guthasahi Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	22.35	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
02-Apr-2025	<20.0	13.03	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
07-Apr-2025	<20.0	15.83	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
08-Apr-2025	<20.0	18	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
16-Apr-2025	<20.0	22.03	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
17-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
23-Apr-2025	<20.0	18.93	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
24-Apr-2025	<20.0	24.52	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
29-Apr-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
30-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Sibarampur Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(μg/m <sup>3</sup> )
01-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	17.07	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	22.65	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	13.03	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	21.42	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	17.68	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	24.2	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	25.75	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Asanabahali Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	15.52	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	24.2	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	12.42	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	15.52	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	15.83	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	18	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	20.78	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	23.9	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(hou r)	1.0(24h ours)	6.0(Ann ual)	20(Ann ual)	02(8hou rs)	01(annual )	05(annu al)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Central Nursery							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
01-Apr-2025	<20.0	14.64	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	15.68	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	18.64	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	19.24	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	16.84	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	17.69	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	18.35	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	16.84	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(hou r)	1.0(24h ours)	6.0(Ann ual)	20(Ann ual)	02(8hou rs)	01(annual )	05(annu al)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Jagannath OCP							
Monitoring Station	CWS Colony, Meeti							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	14.27	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	22.97	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	22.35	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	22.65	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	12.75	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
Standard	400(24h hours)	180(hour)	1.0(24h hours)	6.0(Annual)	20(Annual)	02(8hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Jagannath OCP							
Monitoring Station	Kurihan Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	14.27	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	22.65	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	24.83	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	15.83	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	21.72	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	25.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	14.27	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
Standard	400(24h hours)	180(hour)	1.0(24h hours)	6.0(Annual)	20(Annual)	02(8hours)	01(annual)	05(annual)

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**EFFLUENT QUALITY DATA**

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Ananta OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
09-Apr-25	Mine Sump Water	6.70	<4.0	19	8	-	
09-Apr-25	O & G Trap Inlet	7.27	<4.0	41	32		
09-Apr-25	O & G Trap Outlet	7.73	<4.0	24	16		
24-Apr-25	O & G Trap Inlet	6.84	<4.0	39	24		
24-Apr-25	O & G Trap Outlet	7.74	<4.0	27	12		

MoEF Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents

5.5-9.0    10    100    250    30

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TABLE--

## EFFLUENT QUALITY DATA

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Ananta OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
09-Apr-25	STP INLET	6.96	-	44	-	<2	110
09-Apr-25	STP OUTLET	7.06	-	33	-	<2	63
24-Apr-25	STP INLET	6.79	-	34	-	<2	84
24-Apr-25	STP OUTLET	7.05	-	23	-	<2	49

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)

6.5-9.0

-

<100

-

30

<1000

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**EFFLUENT QUALITY DATA**

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Jagannath OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
09-Apr-25	Face Sump	7.75	<4.0	17	8	-	
09-Apr-25	O & G Trap Inlet	7.49	<4.0	33	28	-	
09-Apr-25	O & G Trap Outlet	7.65	<4.0	23	12	-	
24-Apr-25	O & G Trap Inlet	7.33	<4.0	43	28	-	

MoEF Standard Notification dated 25th September, 2000  
 and MoEF Schedule VI, General standard for discharge  
 of Environmental Pollutants Part A: Effluents

5.5-9.0    10    100    250    30

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**EFFLUENT QUALITY DATA**

Area :

Jagannath

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Jagannath OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
09-Apr-25	STP INLET	7.15	-	39	-	<2	94
09-Apr-25	STP OUTLET	7.85	-	32	-	<2	58
24-Apr-25	STP INLET	7.08	-	37	-	<2	110
24-Apr-25	STP OUTLET	7.13	-	24	-	<2	63

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)	6.5-9.0	-	<100	-	30	<1000
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## Drinking Water Quality Data Jagannath Area

Project / OCP	Jagannath OCP			Indian Drinking Standards (IS-10500):2012	
	Balanda Colony	Jagannath Colony	Rakas Village Well Water	Acceptable	Permissible
Date of Sampling	9-Apr-2025	9-Apr-2025	9-Apr-2025	Acceptable	Permissible
Colour(Hazen)	2	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	1	1	5
pH	7.73	7.79	7.91	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	58.83	58.83	63.03	200	600
Chloride(mg/L)	15.56	17.50	17.50	250	1000
Sulphate(mg/L)	116.62	108.44	122.60	200	400
Nitrate(mg/L)	<0.05	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	203.18	203.18	231.07	200	600
Calcium(mg/L)	55.89	51.10	71.86	75	200
Fluoride(mg/L)	0.39	0.52	0.42	1	1.5
Total Dissolve Solid(mg/L)	312	302	340	500	2000
Copper(mg/L)	0.032	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Iron(mg/L)	0.11	0.11	0.13	1.0	No relaxation
Zinc(mg/L)	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Jagannath Area

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Ananta Colony	Dera Village Tube Well Water		
Monitoring Station				
Date of Sampling	9-Apr-2025	9-Apr-2025	Acceptable	Permissible
Colour(Hazen)	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	1	5
pH	7.93	7.26	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	50.42	63.03	200	600
Chloride(mg/L)	11.67	44.73	250	1000
Sulphate(mg/L)	17.92	61.95	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	67.73	155.38	200	600
Calcium(mg/L)	15.97	47.91	75	200
Fluoride(mg/L)	<0.3	<0.3	1	1.5
Total Dissolve Solid(mg/L)	112	328	500	2000
Copper(mg/L)	<0.03	0.033	0.05	1.5
Manganese(mg/L)	<0.04	0.05	0.1	0.3
Iron(mg/L)	0.12	0.12	1.0	No relaxation
Zinc(mg/L)	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Jagannath Area

Project / OCP	Jagannath OCP			Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Balanda Colony	Jagannath Colony	Rakas Village Well Water	Acceptable	Permissible
Date of Sampling	9-Apr-2025	9-Apr-2025	9-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-
Sodium(mg/L)	11.89	12.34	14.13	-	-
Potassium(mg/L)	5.73	5.55	6.91	-	-

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Ananta Colony	Dera Village Tube Well Water	Acceptable	Permissible
Date of Sampling	9-Apr-2025	9-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-
Sodium(mg/L)	9.67	27.62	-	-
Potassium(mg/L)	3.37	11.33	-	-

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*Signature*

**Environmental Monitoring Report  
Of  
Kaniha Area  
For  
April-2025**

**Talcher Coalfield**



**Mahanadi Coalfields Limited**



**Central Mine Planning & Design Institute Ltd.**  
(A Subsidiary of Coal India Ltd.)

**Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)**  
[Assistance from Environment Division, CMPDI(HQs), Ranchi ]

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**AMBIENT AIR QUALITY DATA**

Area :

Kaniha

(Compliance Station)

Project :

Kaniha OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
12-Apr-25	Near External OB Dump, Jamania	211	90	46	19.75	40.95	Mining Activities	About 500m
12-Apr-25	New Time Office (Near Z-Patch)	221	97	49	18.77	29.62	Mining Activities	About 500m
12-Apr-25	Near Project Office	216	93	47	15.80	24.40	Mining Activities	About 500m
22-Apr-25	Near External OB Dump, Jamania	215	95	48	9.70	23.52	Mining Activities	About 500m
22-Apr-25	New Time Office (Near Z-Patch)	205	82	40	18.22	21.96	Mining Activities	About 500m
22-Apr-25	Near Project Office	209	87	44	9.29	31.37	Mining Activities	About 500m

MoEF Standards Notification dated 23rd September, 2000	800	300		120	120
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 cmpdi  
 AIR & WATER

Test Report

**AMBIENT AIR QUALITY DATA**

Area :

Kaniha

(Reference Station)

Project :

Kaniha OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Apr-25	Near Harichandanpur	170	67	33	16.37	32.19		
01-Apr-25	Kaniha (North of the Mine)	174	74	36	10.16	28.38	Mining Activities	About 500m
02-Apr-25	Near Harichandanpur	184	70	36	13.78	29.01		
02-Apr-25	Kaniha (North of the Mine)	164	68	33	14.55	28.51	Mining Activities	About 500m
03-Apr-25	Kansamunda Village	201	76	42	11.21	19.09		
03-Apr-25	Gandaberna	159	72	34	11.70	38.79		
03-Apr-25	Guiland, South West of Mine	163	62	33	10.22	32.93		
03-Apr-25	South Of Proposed Quarry Limit of KOCP	186	77	39	14.14	23.52	Mining Activities	About 500m
04-Apr-25	South Of Proposed Quarry Limit of KOCP	178	74	36	12.37	23.18	Mining Activities	About 500m
04-Apr-25	Kansamunda Village	175	68	32	14.67	28.23		
04-Apr-25	Gandaberna	156	63	32	14.65	21.09		
04-Apr-25	Guiland, South West of Mine	169	69	34	10.82	28.64		
07-Apr-25	Kaniha (North of the Mine)	158	63	30	15.56	25.88	Mining Activities	About 500m
07-Apr-25	Near Harichandanpur	175	77	31	14.22	36.07		
08-Apr-25	Near Harichandanpur	148	55	27	14.22	33.72		
08-Apr-25	Kaniha (North of the Mine)	151	59	28	10.67	20.39	Mining Activities	About 500m
09-Apr-25	Kansamunda Village	184	73	35	11.56	35.29		
09-Apr-25	South Of Proposed Quarry Limit of KOCP	169	64	31	15.07	30.68	Mining Activities	About 500m
09-Apr-25	Gandaberna	184	73	42	11.31	20.67		
09-Apr-25	Guiland, South West of Mine	160	65	32	13.53	20.46		
10-Apr-25	South Of Proposed Quarry Limit of KOCP	143	52	24	14.55	25.66	Mining Activities	About 500m
10-Apr-25	Kansamunda Village	153	57	26	17.35	26.14		
10-Apr-25	Guiland, South West of Mine	149	55	26	9.29	19.96		

*N-4(QS, 2009)		100	60	80	80
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**Project :****Kaniha OCP****(conc. in µg/cu.m.)**

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
10-Apr-25	Gandaberna	155	59	31	17.78	34.50		
16-Apr-25	Kaniha (North of the Mine)	140	51	23	10.76	26.41	Mining Activities	About 500m
16-Apr-25	Near Harichandanpur	153	57	28	18.27	31.37		
17-Apr-25	Kaniha (North of the Mine)	167	71	34	13.59	37.82	Mining Activities	About 500m
17-Apr-25	Near Harichandanpur	171	66	35	9.82	31.37		
18-Apr-25	Guiland, South West of Mine	172	78	35	9.33	25.09		
18-Apr-25	South Of Proposed Quarry Limit of KOCP	168	69	33	12.35	27.01	Mining Activities	About 500m
18-Apr-25	Gandaberna	167	67	33	12.84	33.11		
18-Apr-25	Kansamunda Village	174	72	36	14.67	21.96		
19-Apr-25	Kansamunda Village	166	67	32	11.36	33.11		
19-Apr-25	Guiland, South West of Mine	188	74	37	12.26	24.34		
19-Apr-25	South Of Proposed Quarry Limit of KOCP	174	73	35	9.31	23.15	Mining Activities	About 500m
19-Apr-25	Gandaberna	159	64	30	10.67	21.96		
23-Apr-25	Guiland, South West of Mine	154	59	28	9.78	24.31		
23-Apr-25	Kaniha (North of the Mine)	149	56	27	11.36	38.34	Mining Activities	About 500m
23-Apr-25	Gandaberna	154	62	29	13.74	21.39		
23-Apr-25	Near Harichandanpur	157	60	32	13.14	25.91		
24-Apr-25	Gandaberna	179	77	38	14.67	21.96		
24-Apr-25	Guiland, South West of Mine	182	75	37	9.78	21.96		
24-Apr-25	Kaniha (North of the Mine)	173	73	35	12.63	23.11	Mining Activities	About 500m
24-Apr-25	Near Harichandanpur	176	68	36	9.31	31.37		
24-Apr-25	South Of Proposed Quarry Limit of KOCP	155	57	28	12.11	29.01	Mining Activities	About 500m
25-Apr-25	Kansamunda Village	160	60	29	16.89	35.29		
26-Apr-25	Kansamunda Village	144	52	23	18.77	27.88		
26-Apr-25	South Of Proposed Quarry Limit of KOCP	164	65	31	17.33	25.09	Mining Activities	About 500m
29-Apr-25	Near Harichandanpur	166	64	34	14.50	35.49		

\*NAAQS, 2009

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**Project :**

**Kaniha OCP**

**(conc. in  $\mu\text{g}/\text{cu.m.}$ )**

<i>Date of Sampling</i>	<i>Monitoring Station</i>	<i>SPM</i>	<i>PM10</i>	<i>PM2.5</i>	<i>SO2</i>	<i>NOx</i>	<i>Dust Generating Source(DGS)</i>	<i>Distance from DGS</i>
29-Apr-25	Kaniha (North of the Mine)	184	75	38	15.11	30.58	Mining Activities	About 500m
30-Apr-25	Near Harichandarpur	153	55	27	12.44	23.52		
30-Apr-25	Kaniha (North of the Mine)	148	54	26	10.86	37.47	Mining Activities	About 500m

\*N-44(QS, 2009)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	Near Harichandanpur							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	24.83	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	13.03	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	21.72	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	18	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	27	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	27.32	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
Standard	400(24h hours)	180(hour)	1.0(24h hours)	6.0 (Annual)	20(Annual)	02(8hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	Kaniha North of the Mine							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	13.65	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
02-Apr-2025	<20.0	14.9	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
07-Apr-2025	<20.0	19.87	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
08-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
16-Apr-2025	<20.0	22.35	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
17-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	22.03	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	21.72	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
29-Apr-2025	<20.0	25.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	South of Proposed Quarry Limit of KOCP							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(μg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(μg/m <sup>3</sup> )
03-Apr-2025	<20.0	24.52	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	18	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	20.78	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	24.2	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	27	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	Kansamunda Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	12.1	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	12.42	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	12.42	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	20.17	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	18.93	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(Ann ual)	02(8hou rs)	01(annua l)	05(annu al)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	Guiland, South West of the Mine							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	22.97	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	22.35	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	21.42	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	26.07	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	26.07	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	24.52	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	20.78	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	Gandaberana							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
03-Apr-2025	<20.0	25.45	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	21.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	20.48	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	21.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
23-Apr-2025	<20.0	22.03	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
24-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(Ann ual)	02(8hou rs)	01(annua l)	05(annu al)

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**AMBIENT AIR QUALITY DATA**

**Area: Kaniha**

<b>Project</b>	<b>KanihaOCP</b>
<b>Monitoring Station</b>	<b>Near Project Office</b>
<b>Date of sampling</b>	<b>Carbon Monoxide (CO)</b>
	<b>mg/m<sup>3</sup></b>
12-Apr-2025	1.8
22-Apr-2025	1.9
<b>Standard</b>	<b>02(8 Hours)</b>

<b>Project</b>	<b>KanihaOCP</b>
<b>Monitoring Station</b>	<b>New Time Office (Near Z-Patch)</b>
<b>Date of sampling</b>	<b>Carbon Monoxide (CO)</b>
	<b>mg/m<sup>3</sup></b>
12-Apr-2025	1.8
22-Apr-2025	1.7
<b>Standard</b>	<b>02(8 Hours)</b>

<b>Project</b>	<b>KanihaOCP</b>
<b>Monitoring Station</b>	<b>Near External OB Dump, Jamania</b>
<b>Date of sampling</b>	<b>Carbon Monoxide (CO)</b>
	<b>mg/m<sup>3</sup></b>
12-Apr-2025/9418	1.6
22-Apr-2025/9670	1.8
<b>Standard</b>	<b>02(8 Hours)</b>

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TABLE--

**NOISE LEVEL MONITORING DATA**

AREA :

Kanha

PROJECT :

Kanha OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
04-Apr-25	Kansamunda Village (West of the Mine)	51.2	40.8
04-Apr-25	Near External OB Dump, Jamania	66.8	53.8
04-Apr-25	Near Time Office (Near Z-Patch)	65.8	54.3
04-Apr-25	Near Project Office	66.7	57.6
18-Apr-25	Kansamunda Village (West of the Mine)	50.9	40.8
18-Apr-25	Near External OB Dump, Jamania	67.4	52.8
18-Apr-25	Near Time Office (Near Z-Patch)	64.9	55.1
18-Apr-25	Near Project Office	65.8	56.4

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

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**EFFLUENT QUALITY DATA**

Area :

Kaniha

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Kanha OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
10-Apr-25	Clear Water Pond	8.18	<4.0	40	28	-	
10-Apr-25	Kansamunda Sump	8.21	<4.0	44	32	-	
10-Apr-25	Pre Sedimentation Pond	8.23	<4.0	43	32	-	
10-Apr-25	Z-Patch Sump	8.44	<4.0	37	40	-	
25-Apr-25	Clear Water Pond	8.40	<4.0	57	56	-	
25-Apr-25	Pre Sedimentation Pond	8.32	<4.0	53	48	-	

MoEF Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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Authorized Signatory  
CMPDI, RI. VII, LAB  
BHUBANESWAR

**Environmental Monitoring Report  
Of  
Lingaraj Area  
For  
April-2025**

**Talcher Coalfield**



**Mahanadi Coalfields Limited**



**Central Mine Planning & Design Institute Ltd.**  
(A Subsidiary of Coal India Ltd.)

**Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)**  
[Assistance from Environment Division, CMPDI(HQs), Ranchi ]

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Test Report

AMBIENT AIR QUALITY DATA

Area :

Lingaraj

(Compliance Station)

Project :

Lingaraj OCP

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
11-Apr-25	Near Coal Corridor	203	88	46	15.24	33.61		
11-Apr-25	Near Silo Conveyor Belt	207	80	42	11.56	23.52		
22-Apr-25	Near Coal Corridor	208	92	47	10.51	31.37		
22-Apr-25	Near Silo Conveyor Belt	214	85	41	14.30	21.82		

*Setawan*  
Authorised Signatory  
CMPDI, RI-VII, LAB  
BHUBANESWAR

MoEF Standards Notification dated 25th September, 2009	500	250		120	120
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**AMBIENT AIR QUALITY DATA**

Area :

**Lingaraj**

(Reference Station)

Project :

**Lingaraj OCP**

 (conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Apr-25	Balunga Khamar Village	163	60	31	14.97	39.62		
01-Apr-25	Kandhal Village	179	76	37	11.36	27.01		
01-Apr-25	Lingaraj Township	175	75	36	13.57	32.19		
02-Apr-25	Balunga Khamar Village	172	69	34	13.97	27.63		
02-Apr-25	Kandhal Village	167	69	35	17.28	26.14		
02-Apr-25	Lingaraj Township	155	62	29	11.21	31.37		
07-Apr-25	Kandhal Village	158	63	33	14.22	37.64		
07-Apr-25	Balunga Khamar Village	175	68	37	14.95	31.37		
07-Apr-25	Lingaraj Township	187	58	38	16.89	30.58		
08-Apr-25	Lingaraj Township	173	78	34	12.63	35.49		
08-Apr-25	Kandhal Village	154	58	28	13.12	24.64		
08-Apr-25	Balunga Khamar Village	151	56	28	10.76	28.06		
16-Apr-25	Balunga Khamar Village	173	64	35	14.32	28.75		
16-Apr-25	Kandhal Village	166	66	37	18.71	37.14		
16-Apr-25	Lingaraj Township	163	63	30	16.37	26.41		
17-Apr-25	Balunga Khamar Village	179	71	36	20.25	28.75		
17-Apr-25	Lingaraj Township	192	80	41	15.69	35.98		
17-Apr-25	Kandhal Village	197	83	40	15.31	32.24		
23-Apr-25	Balunga Khamar Village	169	63	33	15.80	34.85		
23-Apr-25	Kandhal Village	170	71	35	10.16	32.11		
23-Apr-25	Lingaraj Township	169	69	35	12.89	31.37		
24-Apr-25	Kandhal Village	128	53	22	13.54	27.63		
24-Apr-25	Lingaraj Township	156	65	33	16.79	33.11		

\*NAAQS, 2009

100	80	80	80
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**Project :**

**Lingaraj OCP**

**(conc. in  $\mu\text{g}/\text{cu.m.}$ )**

<i>Date of Sampling</i>	<i>Monitoring Station</i>	<i>SPM</i>	<i>PM10</i>	<i>PM2.5</i>	<i>SO2</i>	<i>NOx</i>	<i>Dust Generating Source(DGS)</i>	<i>Distance from DGS</i>
24-Apr-25	Balunga Khamar Village	166	60	31	10.22	24.31		
29-Apr-25	Balunga Khamar Village	145	50	26	14.81	29.62		
29-Apr-25	Kandhal Village	156	60	29	15.44	24.76		
29-Apr-25	Lingaraj Township	175	74	36	12.00	25.88		
30-Apr-25	Lingaraj Township	153	55	29	9.33	32.93		
30-Apr-25	Balunga Khamar Village	156	57	29	17.28	24.40		
30-Apr-25	Kandhal Village	161	65	33	15.56	24.31		

\*N.44QS.2009

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**Authorised Signatory  
CMPDI, RI-VII, LAB  
BHUBANESWAR**



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Lingaraj

Project	Lingaraj OCP							
Monitoring Station	Kandhal Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
01-Apr-2025	<20.0	21.72	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
02-Apr-2025	<20.0	12.72	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
07-Apr-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
08-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
16-Apr-2025	<20.0	16.13	<0.1	<1.0	<1.0	1.8	BQL(Q L=0.7)	BQL
17-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	1.7	BQL(Q L=0.7)	BQL
23-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
24-Apr-2025	<20.0	13.65	<0.1	<1.0	<1.0	1.8	BQL(Q L=0.7)	BQL
29-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
30-Apr-2025	<20.0	19.23	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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Authorised Signatory  
CMPDI, K. VII, LAB  
BHUBANESWAR



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Lingaraj

Project	Lingaraj OCP							
Monitoring Station	Lingaraj Township							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	26.68	<0.1	<1.0	<1.0	1.8	BQL(Q L=0.7)	BQL
02-Apr-2025	<20.0	20.78	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
07-Apr-2025	<20.0	26.07	<0.1	<1.0	<1.0	1.7	BQL(Q L=0.7)	BQL
08-Apr-2025	<20.0	24.52	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
16-Apr-2025	<20.0	23.9	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
17-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
23-Apr-2025	<20.0	22.65	<0.1	<1.0	<1.0	1.8	BQL(Q L=0.7)	BQL
24-Apr-2025	<20.0	23.27	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
29-Apr-2025	<20.0	20.17	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
30-Apr-2025	<20.0	13.03	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(Shou rs)	01(annual)	05(annual)

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BHUBANESWAR



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Lingaraj

Project	Lingaraj OCP							
Monitoring Station	Balunga Khamar Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
01-Apr-2025	<20.0	22.65	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
02-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
07-Apr-2025	<20.0	27.32	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
08-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
16-Apr-2025	<20.0	17.38	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
17-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
23-Apr-2025	<20.0	18.	<0.1	<1.0	<1.0	0.9	BQL(Q L=0.7)	BQL
24-Apr-2025	<20.0	21.42	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
29-Apr-2025	<20.0	14.27	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
30-Apr-2025	<20.0	22.97	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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Authorized Signatory  
CMPDI, RI-VII, LAB  
BHUBANESWAR



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TABLE--

**NOISE LEVEL MONITORING DATA**

AREA :

Lingaraj

PROJECT :


Lingaraj OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
04-Apr-25	Lingaraj Township	49.8	37.8
04-Apr-25	Balunga Khamar Village	50.9	39.8
04-Apr-25	Kandhal Village	48.7	37.9
04-Apr-25	Near Silo Conveyor Belt	68.6	59.1
18-Apr-25	Lingaraj Township	48.7	38.1
18-Apr-25	Balunga Khamar Village	50.1	39.5
18-Apr-25	Kandhal Village	49.1	38.6
18-Apr-25	Near Silo Conveyor Belt	67.9	58.7

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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BHUBANESWAR

 <b>सीएमपीडीआई</b> मिनी प्लान <b>cmpdi</b> Mini Ratna	<b>AMBIENT AIR QUALITY DATA</b>  <b>Area: Lingaraj</b>
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<b>Project</b>	Lingaraj OCP
<b>Monitoring Station</b>	Near Silo Conveyor Belt
<b>Date of sampling</b>	Carbon Monoxide (CO)
	mg/m <sup>3</sup>
11-Apr-2025	1.6
22-Apr-2025	1.5
<b>Standard</b>	02(8 Hours)

<b>Project</b>	Lingaraj OCP
<b>Monitoring Station</b>	Near Coal Corridor
<b>Date of sampling</b>	Carbon Monoxide (CO)
	mg/m <sup>3</sup>
11-Apr-2025	1.7
22-Apr-2025	1.8
<b>Standard</b>	02(8 Hours)

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 Authorised Signatory  
 CMPDI, LAB  
 SHUBANESWAR

**EFFLUENT QUALITY DATA**

Area :

Lingaraj

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Lingaraj OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
10-Apr-25	Clear Water Reservoir of ETP Near Dumper Parking	8.02	<4.0	31	28	-	
10-Apr-25	Filter Outlet of Workshop ETP	8.09	<4.0	33	20	-	
10-Apr-25	Inlet of ETP Near Dumper Parking	5.47	4.4	69	72	-	
10-Apr-25	Inlet of Workshop ETP	5.48	4.8	78	104	-	
25-Apr-25	Clear Water Reservoir of ETP Near Dumper Parking	7.78	<4.0	44	56	-	
25-Apr-25	Filter Outlet of Workshop ETP	7.75	<4.0	34	32	-	
25-Apr-25	Inlet of ETP Near Dumper Parking	5.32	5.0	77	88	-	
25-Apr-25	Inlet of Workshop ETP	5.58	4.6	69	96	-	

MoEF Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents

5.5-9.0    10    100    250    30

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**EFFLUENT QUALITY DATA**

Area :

Lingaraj

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Lingaraj OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
10-Apr-25	STP Inlet at Lingaraj Township	7.75	-	47	-	<2	84
10-Apr-25	STP Outlet at Lingaraj Township	8.38	-	31	-	<2	47
25-Apr-25	STP Inlet at Lingaraj Township	7.10	-	40	-	<2	70
25-Apr-25	STP Outlet at Lingaraj Township	7.62	-	28	-	<2	41

G.S.R. 1265(E) Effluent discharge standards (applicable to all mode of disposal), Sewage Treatment Plants (STPs)	6.5-9.0	-	<100	-	30	<1000
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 BHUBANESWAR



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## Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	GM Office, Lingraj Area	Acceptable	Permissible
Date of Sampling	9-Apr-2025		
Colour(Hazen)	1	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	5
pH	7.68	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	50.42	200	600
Chloride(mg/L)	9.72	250	1000
Sulphate(mg/L)	12.21	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	55.78	200	600
Calcium(mg/L)	14.37	75	200
Fluoride(mg/L)	<0.3	1	1.5
Total Dissolve Solid(mg/L)	108	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.1	0.3
Iron(mg/L)	0.15	1.0	No relaxation
Zinc(mg/L)	0.06	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	0.5	2.4

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BHUBANESWAR



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## Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	GM Office, Lingraj Area		
Date of Sampling	9-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	-	-
Sodium(mg/L)	11.82	-	-
Potassium(mg/L)	2.17	-	-

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CMPDI, PI-VII, LAB  
BHUBANESWAR

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**Environmental Monitoring Report  
Of  
Talcher Area  
For  
April-2025**

**Talcher Coalfield**



**MCL**

**Mahanadi Coalfields Limited**



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**cmpdi**  
Mini Ratna

**Central Mine Planning & Design Institute Ltd.**  
(A Subsidiary of Coal India Ltd.)

**Regional Institute-VII, Samantpuri, P.O : RRL, Bhubaneswar-751013 (Odisha)**  
[Assistance from Environment Division, CMPDI(HQs), Ranchi ]

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**AMBIENT AIR QUALITY DATA**

Area :

Talcher

(Compliance Station)

Project :

Talcher Colliery

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
15-Apr-25	Near Canteen Talcher Colliery	203	78	44	15.31	22.65	Local Transportation	About 500m
15-Apr-25	Officer Club, Talcher Area	196	78	42	11.43	30.62	Mining Activities, Ananta, Lingaraj & Bharatpur OCP	About 1000m
28-Apr-25	Near Canteen Talcher Colliery	195	86	39	10.51	21.39	Local Transportation	About 500m
28-Apr-25	Officer Club, Talcher Area	200	79	39	15.35	21.39	Mining Activities, Ananta, Lingaraj & Bharatpur OCP	About 1000m

MoEF Standards Notification dated 25th September, 2009

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 Authorised Signatory  
 CMPDI, RI-VII, LAB  
 BHUBANESWAR



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LABORATORY

Test Report

**AMBIENT AIR QUALITY DATA**

Area :

Talcher

(Compliance Station)

Project :

Nandira Colliery

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
15-Apr-25	Project Office	187	76	40	15.44	25.59	Mining Activities, Transportation, CHP	About 500m
15-Apr-25	Sub-station	218	82	39	17.33	28.23	Transportation & Railway Sidings of BOCP	About 500m
28-Apr-25	Project Office	195	78	37	12.12	26.38	Mining Activities, Transportation, CHP	About 500m
28-Apr-25	Sub-station	189	79	38	17.35	25.39	Transportation & Railway Sidings of BOCP	About 500m

MoEF Standards Notification dated 25th September, 2000

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Authorized Signatory  
CMPDI, Ri-vil, LAB  
BHUBANESWAR



Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Handhidhua Colliery

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
15-Apr-25	Manager's Office	195	86	42	15.80	20.91	Local Transportation, CHP	About 500m
28-Apr-25	Manager's Office	187	78	40	15.66	32.86	Local Transportation, CHP	About 500m

MoEF Standards Notification dated 25th September, 2008	600	300		120	120
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Authoritative Signatory  
CMPDI, VII, LAB  
BHUBANESWAR

**AMBIENT AIR QUALITY DATA**

Area :

Talcher

(Reference Station)

Project :

Mandapal Sand Mine

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Apr-25	Near Pachismeshwar Temple	176	70	35	11.11	27.45	Mining Activity	Less than 500m
03-Apr-25	Near Mandapal Chowk	175	67	36	9.66	23.87	Mining Activity	Less than 500m
04-Apr-25	Near Mandapal Chowk	194	77	41	12.28	26.89	Mining Activity	Less than 500m
04-Apr-25	Near Pachismeshwar Temple	182	78	38	12.89	25.88	Mining Activity	Less than 500m
09-Apr-25	Near Pachismeshwar Temple	173	69	33	11.59	17.73	Mining Activity	Less than 500m
09-Apr-25	Near Mandapal Chowk	166	58	30	12.93	18.53	Mining Activity	Less than 500m
10-Apr-25	Near Mandapal Chowk	143	52	25	11.85	20.91	Mining Activity	Less than 500m
10-Apr-25	Near Pachismeshwar Temple	180	73	36	13.10	31.37	Mining Activity	Less than 500m
18-Apr-25	Near Pachismeshwar Temple	161	62	33	12.35	29.62	Mining Activity	Less than 500m
18-Apr-25	Near Mandapal Chowk	166	65	33	13.10	34.67	Mining Activity	Less than 500m
19-Apr-25	Near Mandapal Chowk	161	61	30	12.16	35.49	Mining Activity	Less than 500m
19-Apr-25	Near Pachismeshwar Temple	167	66	35	14.81	34.85	Mining Activity	Less than 500m
25-Apr-25	Near Mandapal Chowk	169	66	35	16.00	34.50	Mining Activity	Less than 500m
25-Apr-25	Near Pachismeshwar Temple	154	60	31	10.29	30.54	Mining Activity	Less than 500m
26-Apr-25	Near Pachismeshwar Temple	165	62	33	15.31	25.27	Mining Activity	Less than 500m
26-Apr-25	Near Mandapal Chowk	145	57	29	18.77	30.49	Mining Activity	Less than 500m

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**AMBIENT AIR QUALITY DATA**

Area :

Talcher

(Reference Station)

Project :

Nandira Colliery

(conc. in  $\mu\text{g}/\text{cu.m.}$ )

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Apr-25	Nandira Colony	185	77	36	13.78	30.58	Local Transportation,	About 500m
03-Apr-25	East of the Mine, Natedi Village (Reported Only)	175	71	39	10.67	25.88	Coal Transportation Road	About 2km
04-Apr-25	East of the Mine, Natedi Village (Reported Only)	168	69	36	10.82	32.73	Coal Transportation Road	About 2km
04-Apr-25	Nandira Colony	162	64	31	14.39	22.40	Local Transportation,	About 500m
09-Apr-25	Nandira Colony	180	74	38	10.91	29.94	Local Transportation,	About 500m
09-Apr-25	East of the Mine, Natedi Village (Reported Only)	163	65	31	13.54	23.90	Coal Transportation Road	About 2km
10-Apr-25	East of the Mine, Natedi Village (Reported Only)	132	60	28	18.27	34.85	Coal Transportation Road	About 2km
10-Apr-25	Nandira Colony	149	52	25	21.44	41.51	Local Transportation,	About 500m
18-Apr-25	Nandira Colony	154	54	28	16.08	29.87	Local Transportation,	About 500m
18-Apr-25	East of the Mine, Natedi Village (Reported Only)	175	74	36	13.33	27.88	Coal Transportation Road	About 2km
19-Apr-25	East of the Mine, Natedi Village (Reported Only)	169	70	33	18.27	35.72	Coal Transportation Road	About 2km
19-Apr-25	Nandira Colony	167	64	34	14.22	21.96	Local Transportation,	About 500m
25-Apr-25	East of the Mine, Natedi Village (Reported Only)	156	63	29	9.33	32.93	Coal Transportation Road	About 2km
25-Apr-25	Nandira Colony	179	74	39	15.56	28.23	Local Transportation,	About 500m
26-Apr-25	Nandira Colony	165	60	31	10.22	25.09	Local Transportation,	About 500m
26-Apr-25	East of the Mine, Natedi Village (Reported Only)	180	71	35	15.31	35.72	Coal Transportation Road	About 2km

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**AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)**

**Area: Talcher**

<b>Project</b>	<b>Nandira</b>							
<b>Monitoring Station</b>	<b>Nandira Colony</b>							
<b>Date of sampling</b>	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
03-Apr-2025	<20.0	18.62	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Apr-2025	<20.0	12.72	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
09-Apr-2025	<20.0	22.65	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
10-Apr-2025	<20.0	12.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
18-Apr-2025	<20.0	16.75	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
19-Apr-2025	<20.0	14.58	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
25-Apr-2025	<20.0	15.2	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
26-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
<b>Standard</b>	<b>400(24h ours)</b>	<b>180(hour)</b>	<b>1.0(24h ours)</b>	<b>6.0(Annual)</b>	<b>20(Annual)</b>	<b>04(1hours)</b>	<b>01(annual)</b>	<b>05(annual)</b>

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Talcher

Project	Nandira							
Monitoring Station	Near Natedi Village (Reported Only)							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(µg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(ng/m <sup>3</sup> )	(µg/m <sup>3</sup> )
03-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
04-Apr-2025	<20.0	17.07	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
09-Apr-2025	<20.0	23.9	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
10-Apr-2025	<20.0	18.32	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL(QL=2.5)
18-Apr-2025	<20.0	13.35	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
19-Apr-2025	<20.0	12.72	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
25-Apr-2025	<20.0	23.58	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL(QL=2.5)
26-Apr-2025	<20.0	17.68	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	04(1 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bhubaneswari

Project	Bhubaneswari OCP							
Monitoring Station	Naraharipur Village							
Date of sampling	Ammonia (NH <sub>3</sub> )	Ozone (O <sub>3</sub> )	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )	( $\text{ng}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )
01-Apr-2025	<20.0	14.6	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
02-Apr-2025	<20.0	17.07	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
07-Apr-2025	<20.0	16.45	<0.1	<1.0	<1.0	1.0	BQL(Q L=0.7)	BQL
08-Apr-2025	<20.0	19.87	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
16-Apr-2025	<20.0	24.52	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
17-Apr-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
23-Apr-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.0	BQL(Q L=0.7)	BQL
24-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
29-Apr-2025	<20.0	27	<0.1	<1.0	<1.0	0.9	BQL(Q L=0.7)	BQL
30-Apr-2025	<20.0	26.38	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Talcher Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
04-Apr-25	Officers Club, Talcher Area	60.8	49.8
04-Apr-25	Near Canteen, Talcher Colliery	61.7	49.6
18-Apr-25	Officers Club, Talcher Area	59.9	49.7
18-Apr-25	Near Canteen, Talcher Colliery	60.8	50.1

MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

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**TABLE--****NOISE LEVEL MONITORING DATA**

AREA :

Talcher

PROJECT :

Nandira Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
04-Apr-25	Project Office	63.8	52.1
04-Apr-25	Sub Station, Nandira Colliery	65.2	53.9
18-Apr-25	Project Office	62.9	50.9
18-Apr-25	Sub Station, Nandira Colliery	63.8	51.8

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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TABLE--

**NOISE LEVEL MONITORING DATA**

AREA :

Talcher

PROJECT :

Deulbera Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
04-Apr-25	Manager's Office	62.4	51.8
18-Apr-25	Manager's Office	61.5	50.7

MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 75dB(A) (Industrial)	10.00 PM -6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 55dB(A) (Residential)	10.00 PM -6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 65dB(A) (Commercial)	10.00 PM -6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2000	6.00 AM -10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM -6.00 AM Leq 40dB(A) (Silence Zone)

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**TABLE--**

**NOISE LEVEL MONITORING DATA**

AREA :

Talcher

PROJECT :

Mandapal Sand Mine

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
04-Apr-25	Near Gopinathpur Village	49.8	36.8
18-Apr-25	Near Gopinathpur Village	48.7	35.7

MoEF Standard Notification dated 25th September, 2009	6.00 AM - 10.00 PM Leq 75dB(A) (Industrial)	10.00 PM - 6.00 AM Leq 70dB(A) (Industrial)
MoEF Standard Notification dated 25th September, 2009	6.00 AM - 10.00 PM Leq 55dB(A) (Residential)	10.00 PM - 6.00 AM Leq 45dB(A) (Residential)
MoEF Standard Notification dated 25th September, 2009	6.00 AM - 10.00 PM Leq 65dB(A) (Commercial)	10.00 PM - 6.00 AM Leq 55dB(A) (Commercial)
MoEF Standard Notification dated 25th September, 2009	6.00 AM - 10.00 PM Leq 50dB(A) (Silence Zone)	10.00 PM - 6.00 AM Leq 40dB(A) (Silence Zone)

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## EFFLUENT QUALITY DATA

Area :

Talcher

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Talcher Colliery

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
10-Apr-25	Talcher Colliery Sedimentation Tank Discharge	6.63	<4.0	29	20	-	
24-Apr-25	Talcher Colliery Sedimentation Tank Discharge	7.09	<4.0	38	28	-	

MoEF Standard Notification dated 25th September, 2000  
 and MoEF Schedule VI, General standard for discharge  
 of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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## EFFLUENT QUALITY DATA

Area :

Talcher

(All dimensions are in mg/l unless otherwise stated except pH)

Project :

Nandira Colliery

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
10-Apr-25	Nandira Colliery Sedimentation Tank Discharge	7.68	<4.0	38	24	-	
25-Apr-25	Nandira Colliery Sedimentation Tank Discharge	6.94	<4.0	30	24	-	

MoEF Standard Notification dated 25th September, 2000  
 and MoEF Schedule VI, General standard for discharge  
 of Environmental Pollutants Part A: Effluents

5.5-9.0	10	100	250	30
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## Drinking Water Quality Data Talcher Area

Project / OCP	Talcher U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen Water, GM Office	Canteen, Talcher Colliery		
Monitoring Station				
Date of Sampling	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Colour(Hazen)	3	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	1	5
pH	7.99	7.75	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	50.42	63.03	200	600
Chloride(mg/L)	11.67	27.23	250	1000
Sulphate(mg/L)	13.12	128.44	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	83.66	219.12	200	600
Calcium(mg/L)	15.97	51.10	75	200
Fluoride(mg/L)	<0.3	<0.3	1	1.5
Total Dissolve Solid(mg/L)	114	348	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.1	0.3
Iron(mg/L)	0.12	0.11	1.0	No relaxation
Zinc(mg/L)	<0.04	0.08	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Talcher Area

Project / OCP	Talcher U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen Water, GM Office	Canteen , Talcher Colliery		
Monitoring Station				
Date of Sampling	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-
Sodium(mg/L)	9.38	18.13		
Potassium(mg/L)	1.72	8.76		

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## Drinking Water Quality Data Talcher Area

Project / OCP	Nandira U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen , Nandira Colliery	Pit Top, Nandira Colliery	Acceptable	Permissible
Monitoring Station				
Date of Sampling	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Colour(Hazen)	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	1	1	5
pH	7.79	7.26	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	63.03	63.03	200	600
Chloride(mg/L)	15.56	13.61	250	1000
Sulphate(mg/L)	80.91	91.30	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	171.31	171.31	200	600
Calcium(mg/L)	41.52	41.52	75	200
Fluoride(mg/L)	<0.3	<0.3	1	1.5
Total Dissolve Solid(mg/L)	260	254	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.1	0.3
Iron(mg/L)	0.12	0.10	1.0	No relaxation
Zinc(mg/L)	0.07	2.96	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Talcher Area

Project / OCP	Nandira U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen , Nandira Colliery	Pit Top, Nandira Colliery	Acceptable	Permissible
Monitoring Station				
Date of Sampling	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	-	-
Sodium(mg/L)	36.16	6.46	-	-
Potassium(mg/L)	8.85	6.79	-	-

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## Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water	Acceptable	Permissible
Date of Sampling	11-Apr-2025	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Colour(Hazen)	1	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	4	1	5
pH	7.52	7.50	6.72	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	134.46	50.42	42.02	200	600
Chloride(mg/L)	36.95	9.72	42.79	250	1000
Sulphate(mg/L)	110.91	13.64	38.70	200	400
Nitrate(mg/L)	<0.5	<0.5	18.4	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	258.96	63.74	107.57	200	600
Calcium(mg/L)	67.07	14.37	31.94	75	200
Fluoride(mg/L)	0.49	0.58	0.30	1	1.5
Total Dissolve Solid(mg/L)	426	108	224	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.08	0.1	0.3
Iron(mg/L)	<0.1	<0.1	0.11	1.0	No relaxation
Zinc(mg/L)	0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water		
Monitoring Station					
Date of Sampling	11-Apr-2025	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-
Sodium(mg/L)	12.75	6.37	5.79	-	-
Potassium(mg/L)	12.25	3.85	5.87	-	-

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## Drinking Water Quality Data Talcher Area

Project / OCP	Handhidhua Colliery			Indian Drinking Standards (IS-10500):2012	
	19X Cut Road Bore Hole Point	Pit Top Water	RWSS (Pit Top Water)	Acceptable	Permissible
Monitoring Station					
Date of Sampling	11-Apr-2025	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Colour(Hazen)	3	4	1	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	2	1	5
pH	6.90	7.26	6.65	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	58.83	58.83	54.63	200	600
Chloride(mg/L)	29.17	29.17	27.23	250	1000
Sulphate(mg/L)	95.32	121.43	115.06	200	400
Nitrate(mg/L)	0.54	0.5	1.25	45	No relaxation
Total Hardness (Ca CO <sub>3</sub> )(mg/L)	219.12	215.14	191.23	200	600
Calcium(mg/L)	52.70	52.70	44.72	75	200
Fluoride(mg/L)	<0.3	<0.3	<0.3	1	1.5
Total Dissolve Solid(mg/L)	338	348	324	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	<0.04	0.1	0.3
Iron(mg/L)	0.19	0.14	0.10	1.0	No relaxation
Zinc(mg/L)	0.04	<0.04	0.05	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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## Drinking Water Quality Data Talcher Area

Project / OCP	Handhidhua Colliery			Indian Drinking Standards (IS-10500):2012	
	19X Cut Road Bore Hole Point	Pit Top Water	RWSS (Pit Top Water )	Acceptable	Permissible
Monitoring Station					
Date of Sampling	11-Apr-2025	11-Apr-2025	11-Apr-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.001	0.002
Residual Free Chlorine(mg/L)	<0.2	<0.2	<0.2	0.2	1.0
MPN (Index/100 ml)	Not Detected	Not Detected	Not Detected	-	-
Sodium(mg/L)	5.34	5.62	4.90		
Potassium(mg/L)	8.39	7.82	8.00		

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