

Environmental Monitoring Report For October-2025

**Project: Balanda OCP
Area: Jagannath
Coalfield: Talcher**



Mahanadi Coalfields Limited



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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 :

Jagannath

(Compliance Station)

Project :

Balanda 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
08-Oct-25	Near NBVL Station (Reported)	243	117	56	19.49	26.24	CHP, CT Road	About 600m
25-Oct-25	Near NBVL Station (Reported)	263	138	57	15.29	27.93	CHP, CT Road	About 600m

MoEF Standards Notification dated 25th September, 2009

500	250		120	120
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J. Patraik
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Jagannath



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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
11-Oct-25	Near NBVL Station (Reported only)	60.9	52.2
25-Oct-25	Near NBVL Station (Reported only)	65.2	53.1

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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Drinking Water Quality Data Jagannath Area

Project / OCP	Balanda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Balanda Colony (Reported Only)	Acceptable	Permissible
Date of Sampling	15-Oct-2025		
Colour (Hazen)	2	5	15
Turbidity (NTU)	2	1	5
pH	7.01	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	54.62	200	600
Chloride(mg/L)	15.5	250	1000
Sulphate(mg/L)	114.46	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	172.57	200	600
Calcium(mg/L)	45.59	75	200
Fluoride(mg/L)	0.66	1	1.5
Total Dissolve Solid(mg/L)	274	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.1	0.3
Iron(mg/L)	<0.1	1.0	No relaxation
Zinc(mg/L)	0.05	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

K. Pattnaik
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J. Prasad



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Drinking Water Quality Data Jagannath Area

Project / OCP	Balanda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Balanda Colony (Reported Only)	Acceptable	Permissible
Date of Sampling	15-Oct-2025	0.01	No relaxation
Selenium(mg/L)	<0.005		
Sodium(mg/L)	12.65		
Potassium(mg/L)	5.89		
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	-	-

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Jagannath

Environmental Monitoring Report For October-2025

Project: Jagannath OCP
Area: Jagannath
Coalfield: Talcher



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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
08-Oct-25	Near MDTP	231	102	49	19.60	16.76	Railway Siding CHP	About 800m
08-Oct-25	Near NBVL Station	243	117	56	19.49	26.24	CHP, CT Road	About 600m
25-Oct-25	Near MDTP	241	117	50	18.33	15.33	Railway Siding CHP	About 800m
25-Oct-25	Near NBVL Station	263	138	57	15.29	27.93	CHP, CT Road	About 600m

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Jagannath

MoEF Standards Notification dated 25th
September, 2009

500	250		120	120
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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
03-Oct-25	Central Nursery (Reported Only)	210	82	39	19.34	33.73	Open-Cast Mine	Less than 500m
04-Oct-25	Central Nursery (Reported Only)	198	89	42	17.83	39.11	Open-Cast Mine	Less than 500m
06-Oct-25	CWS Colony, Meeti	187	85	40	20.58	36.66	Mining Activity	About 1500 m
06-Oct-25	Kurihan Village	185	83	39	18.93	29.33	Mining Activities	About 500m
07-Oct-25	CWS Colony, Meeti	196	73	35	9.80	32.12	Mining Activity	About 1500 m
07-Oct-25	Kurihan Village	181	79	37	18.03	25.14	Mining Activities	About 500m
09-Oct-25	Central Nursery (Reported Only)	200	72	35	17.28	36.66	Open-Cast Mine	Less than 500m
10-Oct-25	Central Nursery (Reported Only)	205	91	45	19.93	25.47	Open-Cast Mine	Less than 500m
13-Oct-25	CWS Colony, Meeti	180	66	31	19.75	27.13	Mining Activity	About 1500 m
13-Oct-25	Kurihan Village	168	69	33	18.63	40.13	Mining Activities	About 500m
14-Oct-25	Kurihan Village	184	81	38	19.93	38.59	Mining Activities	About 500m
14-Oct-25	CWS Colony, Meeti	194	80	38	18.93	35.20	Mining Activity	About 1500 m
16-Oct-25	Central Nursery (Reported Only)	159	68	29	16.09	22.00	Open-Cast Mine	Less than 500m
17-Oct-25	Central Nursery (Reported Only)	199	85	33	22.53	24.70	Open-Cast Mine	Less than 500m
20-Oct-25	CWS Colony, Meeti	149	62	27	22.07	30.66	Mining Activity	About 1500 m
20-Oct-25	Kurihan Village	167	65	28	23.87	14.66	Mining Activities	About 500m
22-Oct-25	CWS Colony, Meeti	187	75	32	20.20	11.33	Mining Activity	About 1500 m
22-Oct-25	Kurihan Village	196	81	35	21.40	27.86	Mining Activities	About 500m
23-Oct-25	Central Nursery (Reported Only)	222	95	40	22.73	23.04	Open-Cast Mine	Less than 500m
24-Oct-25	Central Nursery (Reported Only)	173	74	30	19.99	14.66	Open-Cast Mine	Less than 500m
27-Oct-25	CWS Colony, Meeti	155	57	26	25.10	13.93	Mining Activity	About 1500 m
27-Oct-25	Kurihan Village	172	76	32	21.81	15.40	Mining Activities	About 500m
28-Oct-25	Kurihan Village	180	81	43	26.75	27.13	Mining Activities	About 500m
28-Oct-25	CWS Colony, Meeti	171	76	29	24.69	22.35	Mining Activity	About 1500 m
29-Oct-25	Central Nursery (Reported Only)	201	86	37	20.16	10.27	Open-Cast Mine	Less than 500m

*N.A.Q.S. 2009

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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
30-Oct-25	Central Nursery (Reported Only)	185	79	31	28.59	29.33	Open-Cast Mine	Less than 500m

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*NAAQS, 2009

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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project		Jagannath OCP						
Monitoring Station		Central Nursery (Reported Only)						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	24.07	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	15.23	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	20.32	<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)

J. J. J.
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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Jagannath OCP							
Monitoring Station	CWS Colony, Meeti							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	16.30	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	22.18	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	23.52	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	16.03	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	15.77	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	20.85	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	0.8	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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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project		Jagannath OCP						
Monitoring Station		Kurihan Village						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
06-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	15.77	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	24.60	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	0.7	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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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Jagannath OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Near NBVL Station	60.9	52.2
11-Oct-25	Near MDTP	62.3	51.7
11-Oct-25	CWS Colony, MEETI	47.7	39.3
11-Oct-25	Central Nursery (Reported only)	57.3	49.7
25-Oct-25	Near NBVL Station	65.2	53.1
25-Oct-25	Near MDTP	62.7	51.3
25-Oct-25	CWS Colony, MEETI	48.2	37.9
25-Oct-25	Central Nursery (Reported only)	57.3	48.1

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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Jagannath

TABLE--



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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
15-Oct-25	Face Sump	7.58	<4.0	22	16	-	
15-Oct-25	O & G Trap Inlet	7.44	<4.0	47	40	-	
15-Oct-25	O & G Trap Outlet	7.75	<4.0	26	20	-	
31-Oct-25	O & G Trap Inlet	7.13	<4.0	41	32	-	
31-Oct-25	O & G Trap Outlet	7.61	<4.0	30	24	-	

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Jagannath

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 :

Jagannath OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
15-Oct-25	STP INLET	7.20	-	44	-	3.0	120
15-Oct-25	STP OUTLET	7.26	-	35	-	<2.0	94
31-Oct-25	STP INLET	7.31	-	39	-	2.6	150
31-Oct-25	STP OUTLET	7.49	-	26	-	<2.0	110


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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	
	Monitoring Station	Jagannath Colony	Rakas Village Well Water	Balanda Colony	
Date of Sampling	15-Oct-2025	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Colour (Hazen)	3	2	2	5	15
Turbidity (NTU)	2	3	2	1	5
pH	7.13	7.28	7.01	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	71.43	75.63	54.62	200	600
Chloride(mg/L)	19.43	25.26	15.5	250	1000
Sulphate(mg/L)	132.6	118.26	114.46	200	400
Nitrate(mg/L)	0.74	0.52	<0.5	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	219.63	184.33	172.57	200	600
Calcium(mg/L)	64.45	59.74	45.59	75	200
Fluoride(mg/L)	0.8	0.74	0.66	1	1.5
Total Dissolve Solid(mg/L)	326	320	274	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.23	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.14	1.16	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 Jagannath Area

Project / OCP	Jagannath OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Jagannath Colony	Rakas Village Well Water	Balanda Colony	
Date of Sampling	15-Oct-2025	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	10.56	16.96	12.65		
Potassium(mg/L)	4.28	8.97	5.89		
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	-	-

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Jagannath OCP

Kurihan village

Legend
Monitoring Station

Near MDTP
Central Nursery
Near NBVL Station
CWS Colony, MEETI

Google Earth



**Environmental Monitoring Report
For
October-2025**

**Project: Ananta OCP
Area: Jagannath
Coalfield: Talcher**



Mahanadi Coalfields Limited



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

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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	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
08-Oct-25	North East of Mine	241	116	54	16.85	30.73	Open-Cast Mine	Less than 500m
08-Oct-25	Near NBVL Station (Reported)	243	117	56	19.49	26.24	CHP, CT Road	About 600m
25-Oct-25	North East of Mine	237	120	51	25.56	13.12	Open-Cast Mine	Less than 500m
25-Oct-25	Near NBVL Station (Reported)	263	138	57	15.29	27.93	CHP, CT Road	About 600m

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CMPDI, RI-VII, LAB
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MoEF Standards Notification dated 25th
September, 2000

500	250		120	120
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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
03-Oct-25	Guthasahi Village	194	78	37	17.38	33.40	Mining Activities	About 3km
03-Oct-25	Asanabahali Village	179	71	31	13.58	29.33	Domestic and Mining Activities	About 4km
03-Oct-25	Central Nursery	210	82	39	19.34	33.73	Open-Cast Mine	Less than 500m
03-Oct-25	Sibarampur Village	203	85	40	16.89	29.33	Domestic and Mining Activities	About 4km
04-Oct-25	Asanabahali Village	166	59	28	16.46	24.70	Domestic and Mining Activities	About 4km
04-Oct-25	Sibarampur Village	153	50	26	14.17	43.99	Domestic and Mining Activities	About 4km
04-Oct-25	Central Nursery	198	89	42	17.83	39.11	Open-Cast Mine	Less than 500m
04-Oct-25	Guthasahi Village	175	66	32	21.23	40.13	Mining Activities	About 3km
09-Oct-25	Asanabahali Village	175	65	30	16.00	26.89	Domestic and Mining Activities	About 4km
09-Oct-25	Sibarampur Village	168	61	30	17.28	36.66	Domestic and Mining Activities	About 4km
09-Oct-25	Guthasahi Village	168	61	29	15.23	16.13	Mining Activities	About 3km
09-Oct-25	Central Nursery	200	72	35	17.28	36.66	Open-Cast Mine	Less than 500m
10-Oct-25	Sibarampur Village	185	70	34	16.46	31.64	Domestic and Mining Activities	About 4km
10-Oct-25	Guthasahi Village	206	83	40	17.76	25.47	Mining Activities	About 3km
10-Oct-25	Central Nursery	205	91	45	19.93	25.47	Open-Cast Mine	Less than 500m
10-Oct-25	Asanabahali Village	198	78	35	16.46	25.66	Domestic and Mining Activities	About 4km
16-Oct-25	Central Nursery	159	68	29	16.09	22.00	Open-Cast Mine	Less than 500m
16-Oct-25	Guthasahi Village	185	86	34	21.95	18.16	Mining Activities	About 3km
16-Oct-25	Asanabahali Village	157	67	28	22.22	30.06	Domestic and Mining Activities	About 4km
16-Oct-25	Sibarampur Village	205	80	36	24.30	18.85	Domestic and Mining Activities	About 4km
17-Oct-25	Central Nursery	199	85	33	22.53	24.70	Open-Cast Mine	Less than 500m
17-Oct-25	Guthasahi Village	174	79	31	18.29	29.33	Mining Activities	About 3km
17-Oct-25	Asanabahali Village	194	83	33	18.11	27.13	Domestic and Mining Activities	About 4km
17-Oct-25	Sibarampur Village	214	83	37	18.52	10.27	Domestic and Mining Activities	About 4km
23-Oct-25	Asanabahali Village	199	85	36	17.24	11.87	Domestic and Mining Activities	About 4km

*NAQS,2009

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Author: *Katavak*
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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
23-Oct-25	Guthasahi Village	193	87	35	17.76	26.24	Mining Activities	About 3km
23-Oct-25	Sibarampur Village	186	77	31	16.87	23.46	Domestic and Mining Activities	About 4km
23-Oct-25	Central Nursery	222	95	40	22.73	23.04	Open-Cast Mine	Less than 500m
24-Oct-25	Asanabahali Village	175	75	30	20.99	27.86	Domestic and Mining Activities	About 4km
24-Oct-25	Central Nursery	173	74	30	19.99	14.66	Open-Cast Mine	Less than 500m
24-Oct-25	Guthasahi Village	204	92	38	25.99	30.10	Mining Activities	About 3km
24-Oct-25	Sibarampur Village	213	83	36	17.21	17.33	Domestic and Mining Activities	About 4km
29-Oct-25	Central Nursery	201	86	37	20.16	10.27	Open-Cast Mine	Less than 500m
29-Oct-25	Guthasahi Village	178	75	33	21.16	22.35	Mining Activities	About 3km
29-Oct-25	Sibarampur Village	180	74	33	23.91	27.93	Domestic and Mining Activities	About 4km
29-Oct-25	Asanabahali Village	217	93	37	25.48	19.55	Domestic and Mining Activities	About 4km
30-Oct-25	Sibarampur Village	209	83	36	28.81	17.92	Domestic and Mining Activities	About 4km
30-Oct-25	Asanabahali Village	187	80	34	26.98	21.18	Domestic and Mining Activities	About 4km
30-Oct-25	Central Nursery	185	79	31	28.59	29.33	Open-Cast Mine	Less than 500m
30-Oct-25	Guthasahi Village	162	71	30	16.00	21.18	Mining Activities	About 3km

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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Guthasahi Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	12.03	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
04-Oct-2025	<20.0	26.47	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
09-Oct-2025	<20.0	16.83	<0.1	<1.0	<1.0	0.7	BQL(Q L=0.7)	BQL
10-Oct-2025	<20.0	13.63	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
16-Oct-2025	<20.0	25.93	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
17-Oct-2025	<20.0	20.05	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
23-Oct-2025	<20.0	16.57	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
24-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
29-Oct-2025	<20.0	16.03	<0.1	<1.0	<1.0	0.9	BQL(Q L=0.7)	BQL
30-Oct-2025	<20.0	20.58	<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(8 hours)	01(annual)	05(annual)

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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Sibarampur Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	24.33	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	20.58	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	24.07	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	23.25	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	23.52	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	23.80	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	12.03	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	20.58	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	12.57	<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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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Asanabahali Village							
Date of sampling	Ammonia (NH ₃) (µg/m ³)	Ozone (O ₃) (µg/m ³)	Lead (Pb) (µg/m ³)	Arsenic (As) (ng/m ³)	Nickel (Ni) (ng/m ³)	CO (mg/m ³)	Benzo (α) Pyrene (ng/m ³)	Benzene (µg/m ³)
03-Oct-2025	<20.0	20.05	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	18.72	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	25.40	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	24.60	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	16.83	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	14.43	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	16.03	<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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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Central Nursery							
Date of sampling	Ammonia (NH ₃) ($\mu\text{g}/\text{m}^3$)	Ozone (O ₃) ($\mu\text{g}/\text{m}^3$)	Lead (Pb) ($\mu\text{g}/\text{m}^3$)	Arsenic (As) (ng/m^3)	Nickel (Ni) (ng/m^3)	CO (mg/m^3)	Benzo (a) Pyrene (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	24.07	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	15.23	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	20.32	<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

Area: Jagannath

Project	Ananta OCP
Monitoring Station	North-East of the Mine
Date of sampling	Carbon Monoxide (CO)
	mg/m³
08-Oct-2025/14445	0.6
25-Oct-2025/14915	1.4
Standard	02(8 Hours)

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 मंडल
 CMPDI
 भारत सरकार

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Ananta OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Near NBVL Station (Reported only)	60.9	52.2
11-Oct-25	North East of the Mine	52.3	49.5
11-Oct-25	Guthasahi Village	46.7	38.1
11-Oct-25	Central Nursery	57.3	49.7
25-Oct-25	Near NBVL Station (Reported only)	65.2	53.1
25-Oct-25	North East of the Mine	65.9	55.1
25-Oct-25	Guthasahi Village	45.9	38.7
25-Oct-25	Central Nursery	57.3	48.1

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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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
15-Oct-25	Mine Sump Water	7.15	<4.0	19	12	-	
15-Oct-25	O & G Trap Inlet	6.48	<4.0	39	28	-	
15-Oct-25	O & G Trap Outlet	7.47	<4.0	24	16	-	
31-Oct-25	O & G Trap Inlet	6.69	<4.0	35	32	-	
31-Oct-25	O & G Trap Outlet	7.21	<4.0	26	20	-	

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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 Jagannath Area

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Ananta Colony	Dera Village Tube Well Water		
Monitoring Station				
Date of Sampling	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Colour (Hazen)	1	3	5	15
Turbidity (NTU)	2	2	1	5
pH	7.20	6.74	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	54.62	63.03	200	600
Chloride(mg/L)	9.71	46.63	250	1000
Sulphate(mg/L)	38.84	52.18	200	400
Nitrate(mg/L)	<0.5	20.80	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	66.67	180.41	200	600
Calcium(mg/L)	15.72	34.58	75	200
Fluoride(mg/L)	0.38	0.58	1	1.5
Total Dissolve Solid(mg/L)	140	262	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)	<0.1	<0.1	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	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Ananta Colony	Dera Village Tube Well Water		
Monitoring Station				
Date of Sampling	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	12.57	10.37		
Potassium(mg/L)	4.73	2.54		
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	-	-

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Ananta OCP

Sibarampur Village

Asanabahali Village

North East of Mine

Guthasahi Village

Central Nursery Near NBVL Station

Legend
Monitoring Station

Google Earth



**Environmental Monitoring Report
For
October-2025**

**Project: Bhubaneswari OCP
Area: Bhubaneswari
Coalfield: Talcher**



Mahanadi Coalfields Limited



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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 :

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
08-Oct-25	B.C.M.L. Workshop	244	130	51	12.15	16.06	Mining activities, O.B Dump yard	About 400 to 500m
08-Oct-25	Silo Substation Office	232	114	51	11.89	35.85	Mining Activities	About 200m
25-Oct-25	B.C.M.L. Workshop	249	131	56	19.49	29.33	Mining activities, O.B Dump yard	About 400 to 500m
25-Oct-25	Silo Substation Office	235	106	48	19.45	24.00	Mining Activities	About 200m

MoEF Standards Notification dated 25th September, 2009

600	300		120	120
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A. Pattnaik
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Prasanna



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CMPDI
भुवनेश्वर

Test Report

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
03-Oct-25	Naraharipur Village	181	80	37	19.66	25.26	Mining Activity	About 1km
03-Oct-25	Kandhal Village (Reported Only)	206	83	42	13.47	22.66	Transportation	About 1500m
04-Oct-25	Kandhal Village (Reported Only)	210	82	39	18.75	26.89	Transportation	About 1500m
04-Oct-25	Naraharipur Village	192	90	42	10.70	25.66	Mining Activity	About 1km
09-Oct-25	Kandhal Village (Reported Only)	171	62	29	19.93	24.70	Transportation	About 1500m
09-Oct-25	Naraharipur Village	159	66	31	17.24	16.06	Mining Activity	About 1km
10-Oct-25	Kandhal Village (Reported Only)	192	70	33	19.93	20.07	Transportation	About 1500m
10-Oct-25	Naraharipur Village	172	73	34	11.26	26.24	Mining Activity	About 1km
16-Oct-25	Kandhal Village (Reported Only)	200	83	39	14.11	14.66	Transportation	About 1500m
16-Oct-25	Naraharipur Village	193	90	41	23.46	16.86	Mining Activity	About 1km
17-Oct-25	Kandhal Village (Reported Only)	183	70	34	20.16	16.86	Transportation	About 1500m
17-Oct-25	Naraharipur Village	182	85	38	14.22	30.66	Mining Activity	About 1km
23-Oct-25	Naraharipur Village	174	76	32	23.19	10.67	Mining Activity	About 1km
23-Oct-25	Kandhal Village (Reported Only)	146	56	27	16.05	20.53	Transportation	About 1500m
24-Oct-25	Kandhal Village (Reported Only)	161	69	30	25.87	21.65	Transportation	About 1500m
24-Oct-25	Naraharipur Village	160	66	29	25.12	36.28	Mining Activity	About 1km
29-Oct-25	Kandhal Village (Reported Only)	157	61	29	23.52	13.27	Transportation	About 1500m
29-Oct-25	Naraharipur Village	177	83	34	20.58	25.33	Mining Activity	About 1km
30-Oct-25	Naraharipur Village	167	59	28	28.16	24.70	Mining Activity	About 1km
30-Oct-25	Kandhal Village (Reported Only)	172	65	32	25.12	32.42	Transportation	About 1500m

*N1105,2009

100	60	80	80
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J. J. J.
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BHUBANESWAR

Jaswant



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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bhubaneswari

Project	Bhubaneswari OCP							
Monitoring Station	Naraharipur Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m ³)	(μg/m ³)	(μg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(μg/m ³)
03-Oct-2025	<20.0	18.72	<0.1	<1.0	<1.0	0.9	BQL(Q L=0.7)	BQL
04-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.0	BQL(Q L=0.7)	BQL
09-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
10-Oct-2025	<20.0	14.43	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
16-Oct-2025	<20.0	13.63	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
17-Oct-2025	<20.0	14.97	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
23-Oct-2025	<20.0	16.83	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
24-Oct-2025	<20.0	17.38	<0.1	<1.0	<1.0	1.0	BQL(Q L=0.7)	BQL
29-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
30-Oct-2025	<20.0	14.17	<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)

Auth. Signatory
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BHUBANESWAR

Jamali



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AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bhubaneswari

Project	Bhubaneswari OCP							
Monitoring Station	Kandhal Village (Reported Only)							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	17.92	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
04-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
09-Oct-2025	<20.0	19.52	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
10-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
16-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
17-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
23-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
24-Oct-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
29-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
30-Oct-2025	<20.0	22.72	<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)

Kattanaik
Authorized Signatory
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BHUBANESWAR

Janaik



TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bhubaneswari

PROJECT :

Bhubaneswari OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Kandhal Village (Reported)	46.3	38.1
11-Oct-25	Naraharipur Village	47.2	38.0
11-Oct-25	Silo Substaion Office	66.1	58.1
11-Oct-25	BCML Workshop	65.4	56.9
25-Oct-25	Kandhal Village (Reported)	46.1	39.5
25-Oct-25	Naraharipur Village	47.3	38.2
25-Oct-25	Silo Substaion Office	66.9	57.9
25-Oct-25	BCML Workshop	67.1	57.2

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 :

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
11-Oct-25	Mine Sump Water	7.61	<4.0	18	16	-	
15-Oct-25	O & G Trap Inlet	6.91	<4.0	31	32	-	
15-Oct-25	O & G Trap Outlet	7.79	<4.0	25	24	-	
31-Oct-25	O & G Trap Inlet	7.09	5.4	43	48	-	
31-Oct-25	O & G Trap Outlet	7.53	<4.0	31	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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Tatavrik
Authorised Signatory
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BHUBANESWAR

Jasanti

Bhubaneswari OCP

Legend
Air Monitoring Locations

- BCML Workshop
- Naraharipur Village
- Kandhal Village
- Silo Sub Station Office



**Environmental Monitoring Report
For
October-2025**

**Project: Bharatpur OCP
Area: Bharatpur
Coalfield: Talcher**



Mahanadi Coalfields Limited



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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

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
08-Oct-25	Near Regional Store	228	114	49	16.46	37.71	Mining Activities	About 500m
08-Oct-25	North-West Point of the Mine	247	117	55	13.72	18.16	Domestic & Mining Activities	About 500m
08-Oct-25	Near ETP/Workshop	227	102	48	16.07	26.54	Mining Activities & Coal Stock	Above 500m
25-Oct-25	Near Regional Store	244	130	54	21.16	17.46	Mining Activities	About 500m
25-Oct-25	North-West Point of the Mine	224	114	49	19.83	14.66	Domestic & Mining Activities	About 500m
25-Oct-25	Near ETP/Workshop	244	128	52	14.11	13.97	Mining Activities & Coal Stock	Above 500m

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BHUBANESWAR

Janaki

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
03-Oct-25	Khajuria Village	147	55	28	12.72	26.00	Mining Activities	About 1 KM
03-Oct-25	Karnapur Village	174	74	35	13.17	37.39	Anthropogenic Activities, Local	About 2km
03-Oct-25	Near Joragdia Village	169	67	33	11.37	34.92	Transportation, Domestic Cooking	About 1km
03-Oct-25	Kalinga Colony	171	63	31	20.58	33.73	Mining allied activities	About 500m
04-Oct-25	Near Joragdia Village	146	55	27	15.34	21.33	Transportation, Domestic Cooking	About 1km
04-Oct-25	Khajuria Village	178	77	36	13.99	29.33	Mining Activities	About 1 KM
04-Oct-25	Karnapur Village	193	89	43	14.59	21.33	Anthropogenic Activities, Local	About 2km
04-Oct-25	Kalinga Colony	185	70	34	21.66	28.56	Mining allied activities	About 500m
06-Oct-25	East of the Mine, Natedi Village (Reported Only)	192	77	35	14.50	31.42	Coal Transportation Road	About 2km
07-Oct-25	East of the Mine, Natedi Village (Reported Only)	195	79	37	13.89	32.08	Coal Transportation Road	About 2km
09-Oct-25	Karnapur Village	172	73	34	10.29	19.80	Anthropogenic Activities, Local	About 2km
09-Oct-25	Near Joragdia Village	151	62	29	18.19	41.68	Transportation, Domestic Cooking	About 1km
09-Oct-25	Kalinga Colony	196	83	40	10.58	32.12	Mining allied activities	About 500m
09-Oct-25	Khajuria Village	159	60	31	11.76	16.76	Mining Activities	About 1 KM
10-Oct-25	Kalinga Colony	149	53	25	17.38	40.74	Mining allied activities	About 500m
10-Oct-25	Khajuria Village	175	74	35	14.29	27.79	Mining Activities	About 1 KM
10-Oct-25	Karnapur Village	183	80	38	13.86	33.19	Anthropogenic Activities, Local	About 2km
10-Oct-25	Near Joragdia Village	172	76	34	13.00	23.93	Transportation, Domestic Cooking	About 1km
13-Oct-25	East of the Mine, Natedi Village (Reported Only)	184	71	33	18.93	30.06	Coal Transportation Road	About 2km
14-Oct-25	East of the Mine, Natedi Village (Reported Only)	203	85	40	16.05	35.20	Coal Transportation Road	About 2km
16-Oct-25	Karnapur Village	168	70	29	23.39	16.98	Anthropogenic Activities, Local	About 2km
16-Oct-25	Near Joragdia Village	157	58	27	15.68	16.76	Transportation, Domestic Cooking	About 1km
16-Oct-25	Khajuria Village	190	74	30	13.09	16.66	Mining Activities	About 1 KM
16-Oct-25	Kalinga Colony	177	77	32	22.07	22.00	Mining allied activities	About 500m
17-Oct-25	Khajuria Village	161	78	34	19.93	34.73	Mining Activities	About 1 KM

*N.I.Q.S.2009

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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
17-Oct-25	Karnapur Village	153	58	26	21.23	34.73	Anthropogenic Activities, Local	About 2km
17-Oct-25	Near Joragdia Village	204	74	33	16.09	29.33	Transportation, Domestic Cooking	About 1km
17-Oct-25	Kalinga Colony	206	84	38	24.32	12.66	Mining allied activities	About 500m
20-Oct-25	East of the Mine, Natedi Village (Reported Only)	213	87	36	25.10	24.20	Coal Transportation Road	About 2km
22-Oct-25	East of the Mine, Natedi Village (Reported Only)	146	64	25	23.19	18.00	Coal Transportation Road	About 2km
23-Oct-25	Karnapur Village	193	79	37	14.11	22.35	Anthropogenic Activities, Local	About 2km
23-Oct-25	Kalinga Colony	158	73	28	18.33	16.66	Mining allied activities	About 500m
23-Oct-25	Near Joragdia Village	183	68	30	16.46	19.55	Transportation, Domestic Cooking	About 1km
23-Oct-25	Khajuria Village	153	69	32	23.52	19.55	Mining Activities	About 1 KM
24-Oct-25	Kalinga Colony	172	76	32	24.32	21.33	Mining allied activities	About 500m
24-Oct-25	Khajuria Village	164	76	35	25.08	10.47	Mining Activities	About 1 KM
24-Oct-25	Karnapur Village	166	74	35	18.93	12.46	Anthropogenic Activities, Local	About 2km
24-Oct-25	Near Joragdia Village	193	74	32	16.09	28.00	Transportation, Domestic Cooking	About 1km
27-Oct-25	East of the Mine, Natedi Village (Reported Only)	193	81	34	26.86	35.50	Coal Transportation Road	About 2km
28-Oct-25	East of the Mine, Natedi Village (Reported Only)	204	88	36	21.49	16.29	Coal Transportation Road	About 2km
29-Oct-25	Kalinga Colony	200	89	37	18.75	18.74	Mining allied activities	About 500m
29-Oct-25	Karnapur Village	163	74	31	25.10	28.60	Anthropogenic Activities, Local	About 2km
29-Oct-25	Khajuria Village	155	59	27	14.59	27.33	Mining Activities	About 1 KM
29-Oct-25	Near Joragdia Village	210	82	35	19.99	11.17	Transportation, Domestic Cooking	About 1km
30-Oct-25	Near Joragdia Village	165	72	27	24.69	35.85	Transportation, Domestic Cooking	About 1km
30-Oct-25	Kalinga Colony	157	76	29	20.99	11.00	Mining allied activities	About 500m
30-Oct-25	Karnapur Village	203	81	39	23.78	31.77	Anthropogenic Activities, Local	About 2km
30-Oct-25	Khajuria Village	186	82	38	20.58	17.60	Mining Activities	About 1 KM

*N.L.QS, 2009

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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 ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	16.30	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	17.38	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	12.57	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	17.92	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	21.65	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	17.12	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	16.83	<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

Jatavak



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Kalinga Colony							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m ³)	(μg/m ³)	(μg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(μg/m ³)
03-Oct-2025	<20.0	15.23	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	21.38	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	23.52	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	19.25	<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: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Khajuria Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m ³)	(μg/m ³)	(μg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(μg/m ³)
03-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	20.58	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	18.72	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	25.40	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	16.03	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	16.83	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	14.17	<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)

J. J. J.
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J. J. J.



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Karnapur Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m ³)	(μg/m ³)	(μg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(μg/m ³)
03-Oct-2025	<20.0	17.92	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	14.43	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	22.45	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	17.38	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	14.97	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	21.12	<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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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Near Natedi Village (Reported Only)							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
06-Oct-2025	<20.0	14.97	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
07-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
13-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
14-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
20-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
22-Oct-2025	<20.0	14.17	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
27-Oct-2025	<20.0	15.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
28-Oct-2025	<20.0	21.12	<0.1	<1.0	<1.0	1.2	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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Kattarai

Jasmati



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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bharatpur

PROJECT :

Bharatpur OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Natedi Village (Reported)	45.1	36.2
11-Oct-25	North West Point of the Mine	62.1	52.3
11-Oct-25	Near Regional Store	59.2	52.7
11-Oct-25	Near Wokshop	64.3	55.7
11-Oct-25	Kalinga Colony	47.6	39.8
25-Oct-25	Natedi Village (Reported)	45.6	37.0
25-Oct-25	North West Point of the Mine	61.3	52.5
25-Oct-25	Near Regional Store	64.1	51.3
25-Oct-25	Near Wokshop	62.4	52.1
25-Oct-25	Kalinga Colony	47.8	38.5

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)

N. K. Nataraj
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Jaswant



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C.M.P.D.I.
भुवनेश्वर

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
15-Oct-25	Mine Sump Water - Main Sump	7.18	<4.0	41	40	-	
15-Oct-25	Mine Sump Water - Old Quarry Sump	6.71	-	-	-	-	
15-Oct-25	Rakas Quarry Sump	4.22	-	-	-	-	
15-Oct-25	Workshop ETP Clear Water Tank	7.61	4.6	63	96	-	
15-Oct-25	Workshop Inlet	7.37	5.4	78	124	-	
31-Oct-25	Workshop ETP Clear Water Tank	7.47	<4.0	34	32	-	
31-Oct-25	Workshop Inlet	7.18	4.6	55	68	-	

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Jaswant

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 :

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
15-Oct-25	STP INLET	7.14	-	48	-	3.4	110
15-Oct-25	STP Outlet (PH,TSS,MPN,BOD)	7.31	-	24	-	<2.0	79
31-Oct-25	STP INLET	7.29	-	41	-	2.9	170
31-Oct-25	STP Outlet (PH,TSS,MPN,BOD)	7.43	-	27	-	<2.0	94

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Jamat

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 Bharatpur Area

Project / OCP	Bharatpur OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Time Office,BOCP	Acceptable	Permissible
Date of Sampling	15-Oct-2025		
Colour (Hazen)	2	5	15
Turbidity (NTU)	3	1	5
pH	6.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	42.02	200	600
Chloride(mg/L)	23.32	250	1000
Sulphate(mg/L)	64.04	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	125.50	200	600
Calcium(mg/L)	33.01	75	200
Fluoride(mg/L)	0.63	1	1.5
Total Dissolve Solid(mg/L)	196	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	0.34	0.1	0.3
Iron(mg/L)	<0.1	1.0	No relaxation
Zinc(mg/L)	0.17	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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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	15-Oct-2025		
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	8.65		
Potassium(mg/L)	3.11		
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	-	-

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Jamali

Bharatpur OCP

Legend
Monitoring Station

Khajuria Village
Near Joragadia Village
North-West Point of the Mine
Near ETP/Workshop
Near Regional Store
Natedi Village
Kalinga Colony
Karnapur Village

Google Earth



30m



**Environmental Monitoring Report
For
October-2025**

**Project: Lingaraj OCP
Area: Lingaraj
Coalfield: Talcher**



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
08-Oct-25	GM Office Lingraj	231	108	55	12.93	24.44	Transportation	About 500m
08-Oct-25	Near Silo Conveyor Belt	235	118	52	19.75	22.00	Mining Operations	About 200m
25-Oct-25	GM Office Lingraj	241	117	54	24.69	25.47	Transportation	About 500m
25-Oct-25	Near Silo Conveyor Belt	232	118	49	21.70	27.33	Mining Operations	About 200m

MoEF Standards Notification dated 25th
September, 2000

500 250 120 120

A. Tattar
Authorised Signatory
CMPOI, RI-VII, LAB
CHUBANESWAR

J. S. S. S.



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Test Report

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
03-Oct-25	Balunga Khamar Village	188	82	40	15.59	29.33	Mining Activities, Transportation	About 500m
03-Oct-25	Kandhal Village	206	83	42	13.47	22.66	Transportation	About 1500m
04-Oct-25	Balunga Khamar Village	186	74	35	12.76	19.06	Mining Activities, Transportation	About 500m
04-Oct-25	Kandhal Village	210	82	39	18.75	26.89	Transportation	About 1500m
04-Oct-25	Lingaraj Township	154	59	29	21.66	28.56	Mining Activities, Transportation	About 500m
04-Oct-25	Lingaraj Township	141	55	26	15.09	42.36	Mining Activities, Transportation	About 500m
09-Oct-25	Kandhal Village	171	62	29	19.93	24.70	Transportation	About 1500m
09-Oct-25	Balunga Khamar Village	172	68	33	12.93	25.14	Mining Activities, Transportation	About 500m
09-Oct-25	Lingaraj Township	158	65	31	13.58	17.60	Mining Activities, Transportation	About 500m
10-Oct-25	Lingaraj Township	170	75	35	16.03	34.73	Mining Activities, Transportation	About 500m
10-Oct-25	Kandhal Village	192	70	33	19.93	20.07	Transportation	About 1500m
10-Oct-25	Balunga Khamar Village	207	80	38	22.86	26.89	Mining Activities, Transportation	About 500m
16-Oct-25	Balunga Khamar Village	159	68	27	17.33	12.35	Mining Activities, Transportation	About 500m
16-Oct-25	Kandhal Village	200	83	39	14.11	14.66	Transportation	About 1500m
16-Oct-25	Lingaraj Township	183	75	32	21.70	25.33	Mining Activities, Transportation	About 500m
17-Oct-25	Balunga Khamar Village	173	74	29	13.72	31.42	Mining Activities, Transportation	About 500m
17-Oct-25	Lingaraj Township	174	62	29	22.73	19.55	Mining Activities, Transportation	About 500m
17-Oct-25	Kandhal Village	183	70	34	20.16	16.86	Transportation	About 1500m
23-Oct-25	Balunga Khamar Village	189	81	33	14.50	32.12	Mining Activities, Transportation	About 500m
23-Oct-25	Kandhal Village	146	56	27	16.05	20.53	Transportation	About 1500m
23-Oct-25	Lingaraj Township	187	84	35	23.94	30.00	Mining Activities, Transportation	About 500m
24-Oct-25	Kandhal Village	161	69	30	25.87	21.65	Transportation	About 1500m
24-Oct-25	Lingaraj Township	210	88	36	18.52	31.53	Mining Activities, Transportation	About 500m
24-Oct-25	Balunga Khamar Village	145	57	25	28.81	35.85	Mining Activities, Transportation	About 500m
29-Oct-25	Balunga Khamar Village	173	74	30	21.16	13.27	Mining Activities, Transportation	About 500m

*N44QS,2009

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Signature

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
29-Oct-25	Kandhal Village	157	61	29	23.52	13.27	Transportation	About 1500m
29-Oct-25	Lingaraj Township	155	60	26	25.08	20.25	Mining Activities, Transportation	About 500m
30-Oct-25	Lingaraj Township	174	83	35	17.28	24.93	Mining Activities, Transportation	About 500m
30-Oct-25	Balunga Khamar Village	155	66	26	18.03	20.25	Mining Activities, Transportation	About 500m
30-Oct-25	Kandhal Village	172	65	32	25.12	32.42	Transportation	About 1500m

*N44QS.2009

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Lingaraj

Project	Lingaraj OCP							
Monitoring Station	Kandhal Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
03-Oct-2025	<20.0	17.92	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
04-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
09-Oct-2025	<20.0	19.52	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
10-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
16-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
17-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
23-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
24-Oct-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
29-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
30-Oct-2025	<20.0	22.72	<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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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Lingaraj

Project	Lingaraj OCP							
Monitoring Station	Lingaraj Township							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	23.25	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
04-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
09-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
10-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
16-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
17-Oct-2025	<20.0	22.45	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
23-Oct-2025	<20.0	20.58	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
24-Oct-2025	<20.0	25.40	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
29-Oct-2025	<20.0	22.45	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
30-Oct-2025	<20.0	19.25	<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: Lingaraj

Project	Lingaraj OCP							
Monitoring Station	Balungakhamar Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m ³)	(μg/m ³)	(μg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(μg/m ³)
03-Oct-2025	<20.0	17.12	<0.1	<1.0	<1.0	1.6	BQL(Q L=0.7)	BQL
04-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
09-Oct-2025	<20.0	16.30	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
10-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
16-Oct-2025	<20.0	24.33	<0.1	<1.0	<1.0	1.3	BQL(Q L=0.7)	BQL
17-Oct-2025	<20.0	19.52	<0.1	<1.0	<1.0	1.5	BQL(Q L=0.7)	BQL
23-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.4	BQL(Q L=0.7)	BQL
24-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.1	BQL(Q L=0.7)	BQL
29-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	1.2	BQL(Q L=0.7)	BQL
30-Oct-2025	<20.0	13.37	<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(8 hours)	01(annual)	05(annual)

Tattaraj
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Jaswant

 सीएमपीडीआई निरीक्षण cmpdi निरीक्षण	AMBIENT AIR QUALITY DATA Area: Lingaraj
	Project LingarajOCP Monitoring Station Near Silo Conveyor Belt Date of sampling Carbon Monoxide (CO) 08-Oct-2025 mg/m ³ 1.2 25-Oct-2025 1.3 Standard 02(8 Hours)

Project LingarajOCP Monitoring Station GM OfficeLingaraj Date of sampling Carbon Monoxide (CO) 08-Oct-2025 mg/m ³ 1.3 25-Oct-2025 1.4 Standard 02(8 Hours)
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Jettanai



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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
11-Oct-25	Lingaraj Township	44.4	37.3
11-Oct-25	Balunga Khamar Village	47.4	39.1
11-Oct-25	Kandhal Village	46.3	38.1
11-Oct-25	Near Silo Conveyor Belt	65.5	56.7
25-Oct-25	Lingaraj Township	44.7	37.1
25-Oct-25	Balunga Khamar Village	48.1	39.9
25-Oct-25	Kandhal Village	46.1	39.5
25-Oct-25	Near Silo Conveyor Belt	65.6	56.2

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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Signature



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
15-Oct-25	Clear Water Reservoir of ETP Near Dumper Parking	7.26	<4.0	42	40	-	
15-Oct-25	Filter Outlet of Workshop ETP	6.51	<4.0	40	36	-	
15-Oct-25	Inlet of ETP Near Dumper Parking	6.76	4.6	59	68	-	
15-Oct-25	Inlet of Workshop ETP	6.25	4.8	67	80	-	
15-Oct-25	Mine Sump Water	7.20	<4.0	22	16	-	
31-Oct-25	Clear Water Reservoir of ETP Near Dumper Parking	6.89	<4.0	36	36	-	
31-Oct-25	Filter Outlet of Workshop ETP	6.48	<4.0	38	36	-	
31-Oct-25	Inlet of ETP Near Dumper Parking	6.44	4.6	54	68	-	
31-Oct-25	Inlet of Workshop ETP	6.35	4.8	59	80	-	


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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 :

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
15-Oct-25	STP Inlet at Lingaraj Township	7.18	-	35	-	2.7	210
15-Oct-25	STP Outlet at Lingaraj Township	7.68	-	23	-	<2.0	94
31-Oct-25	STP Inlet at Lingaraj Township	7.33	-	40	-	3.0	140
31-Oct-25	STP Outlet at Lingaraj Township	7.74	-	31	-	2.1	94


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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 Lingraj Area

Project / OCP	Lingraj OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	GM Office, Lingraj Area	Acceptable	Permissible
Date of Sampling	15-Oct-2025		
Colour (Hazen)	2	5	15
Turbidity (NTU)	1	1	5
pH	7.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	46.22	200	600
Chloride(mg/L)	7.77	250	1000
Sulphate(mg/L)	25.2	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	54.90	200	600
Calcium(mg/L)	12.58	75	200
Fluoride(mg/L)	0.48	1	1.5
Total Dissolve Solid(mg/L)	106	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.1	0.3
Iron(mg/L)	0.20	1.0	No relaxation
Zinc(mg/L)	0.54	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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J. Hanai



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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	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	7.36	-	-
Potassium(mg/L)	2.47	-	-
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	-	-

T. H. H. H.
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J. H. H.

Lingraj OCP

Legend
Air Monitoring Locations

Kandhal Village

Balunga village

GM Office, Lingraj

Near Conveyor belt

Lingraj Township

Google Earth



Environmental Monitoring Report For October-2025

Project: Kaniha OCP
Area: Kaniha
Coalfield: Talcher



Mahanadi Coalfields Limited



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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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CMPDI
CENTRAL POLLUTION CONTROL BOARD

Test Report

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
11-Oct-25	Near External OB Dump, Jamania	241	106	53	18.71	16.00	Mining Activities	About 500m
11-Oct-25	New Time Office (Near Z-Patch)	223	106	47	19.34	30.80	Mining Activities	About 500m
11-Oct-25	Near Project Office	256	123	60	10.85	31.33	Mining Activities	About 500m
31-Oct-25	Near External OB Dump, Jamania	263	143	58	23.87	32.26	Mining Activities	About 500m
31-Oct-25	New Time Office (Near Z-Patch)	274	145	59	23.87	11.00	Mining Activities	About 500m
31-Oct-25	Near Project Office	227	123	52	21.81	28.60	Mining Activities	About 500m


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MoEF Standards Notification dated 25th
September, 2000

500	250		120	120
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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
06-Oct-25	South Of Proposed Quarry Limit of KOCP	184	69	33	17.70	20.53	Mining Activities	About 500m
06-Oct-25	Guland, South West of Mine	200	83	39	10.10	22.66	Mining Activities	About 750m
06-Oct-25	Gandaberna	191	75	36	15.55	35.03	Coal Transportation Road	About 500m
06-Oct-25	Kaniha (North of the Mine)	178	65	32	13.99	33.00	Mining Activities	About 500m
06-Oct-25	Near Harichandanpur	189	86	41	11.97	16.00	Mining Activities	About 2km
06-Oct-25	Kansamunda Village (West of the mine)	155	59	30	14.50	16.06	Mining Activities	About 500m
07-Oct-25	Near Harichandanpur	174	71	35	15.16	32.42	Mining Activities	About 2km
07-Oct-25	South Of Proposed Quarry Limit of KOCP	153	46	25	10.48	15.33	Mining Activities	About 500m
07-Oct-25	Kansamunda Village (West of the mine)	189	87	41	20.16	19.80	Mining Activities	About 500m
07-Oct-25	Kaniha (North of the Mine)	198	83	39	15.71	34.00	Mining Activities	About 500m
07-Oct-25	Gandaberna	208	90	43	12.80	25.26	Coal Transportation Road	About 500m
07-Oct-25	Guland, South West of Mine	204	86	41	21.23	20.84	Mining Activities	About 750m
13-Oct-25	Kaniha (North of the Mine)	219	91	45	12.13	20.84	Mining Activities	About 500m
13-Oct-25	Gandaberna	172	64	31	15.16	20.07	Coal Transportation Road	About 500m
13-Oct-25	Guland, South West of Mine	185	81	38	18.19	20.07	Mining Activities	About 750m
13-Oct-25	South Of Proposed Quarry Limit of KOCP	167	53	28	18.03	37.01	Mining Activities	About 500m
13-Oct-25	Near Harichandanpur	183	80	38	14.17	30.14	Mining Activities	About 2km
13-Oct-25	Kansamunda Village (West of the mine)	144	58	27	14.89	25.14	Mining Activities	About 500m
14-Oct-25	Kansamunda Village (West of the mine)	160	68	32	19.93	29.33	Mining Activities	About 500m
14-Oct-25	Gandaberna	181	69	33	14.81	29.33	Coal Transportation Road	About 500m
14-Oct-25	South Of Proposed Quarry Limit of KOCP	189	72	35	12.15	28.63	Mining Activities	About 500m
14-Oct-25	Guland, South West of Mine	173	68	32	18.29	29.33	Mining Activities	About 750m
14-Oct-25	Near Harichandanpur	186	84	40	18.29	19.55	Mining Activities	About 2km
14-Oct-25	Kaniha (North of the Mine)	183	79	37	20.58	35.93	Mining Activities	About 500m
20-Oct-25	Gandaberna	187	74	31	16.87	19.06	Coal Transportation Road	About 500m

*NAAQS, 2009

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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
20-Oct-25	Kaniha (North of the Mine)	170	63	31	15.64	22.73	Mining Activities	About 500m
20-Oct-25	Guiland, South West of Mine	190	81	35	15.68	15.36	Mining Activities	About 750m
20-Oct-25	Kansamunda Village (West of the mine)	178	70	30	17.70	30.80	Mining Activities	About 500m
20-Oct-25	Near Harichandanpur	183	78	30	25.93	19.80	Mining Activities	About 2km
20-Oct-25	South Of Proposed Quarry Limit of KOCP	164	53	27	14.11	12.57	Mining Activities	About 500m
22-Oct-25	Guiland, South West of Mine	143	65	25	17.38	38.29	Mining Activities	About 750m
22-Oct-25	Gandaberna	210	85	38	17.70	24.93	Coal Transportation Road	About 500m
22-Oct-25	Kansamunda Village (West of the mine)	143	55	25	27.29	25.47	Mining Activities	About 500m
22-Oct-25	Near Harichandanpur	165	63	28	14.59	19.33	Mining Activities	About 2km
22-Oct-25	South Of Proposed Quarry Limit of KOCP	212	87	39	28.59	30.87	Mining Activities	About 500m
22-Oct-25	Kaniha (North of the Mine)	200	75	37	19.99	18.85	Mining Activities	About 500m
27-Oct-25	Gandaberna	189	77	32	16.84	12.00	Coal Transportation Road	About 500m
27-Oct-25	Guiland, South West of Mine	161	74	29	19.60	14.66	Mining Activities	About 750m
27-Oct-25	Kaniha (North of the Mine)	190	68	33	15.34	12.66	Mining Activities	About 500m
27-Oct-25	Kansamunda Village (West of the mine)	195	64	32	17.83	13.85	Mining Activities	About 500m
27-Oct-25	Near Harichandanpur	179	74	29	23.39	35.50	Mining Activities	About 2km
27-Oct-25	South Of Proposed Quarry Limit of KOCP	219	93	40	23.52	13.97	Mining Activities	About 500m
28-Oct-25	Guiland, South West of Mine	193	98	38	26.34	17.60	Mining Activities	About 750m
28-Oct-25	Kaniha (North of the Mine)	153	57	28	16.87	21.26	Mining Activities	About 500m
28-Oct-25	Kansamunda Village (West of the mine)	170	82	30	24.69	33.19	Mining Activities	About 500m
28-Oct-25	Near Harichandanpur	212	93	40	17.28	13.93	Mining Activities	About 2km
28-Oct-25	South Of Proposed Quarry Limit of KOCP	186	74	31	21.56	11.87	Mining Activities	About 500m
29-Oct-25	Gandaberna	213	94	39	19.66	15.48	Coal Transportation Road	About 500m

*N/AQS,2009

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project		Kaniha OCP						
Monitoring Station		Kansamunda Village (West of the mine)						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)
06-Oct-2025	<20.0	17.65	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	21.38	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	14.43	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	23.25	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	21.12	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	21.65	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	23.25	<0.1	<1.0	<1.0	1.3	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: Kaniha

Project		Kaniha OCP						
Monitoring Station		South of Proposed Quarry Limit of KOCP						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	15.23	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	15.77	<0.1	<1.0	<1.0	4.6	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	24.60	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	14.17	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	19.78	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	17.65	<0.1	<1.0	<1.0	1.5	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 ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	18.98	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	12.30	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	12.30	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	22.18	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	16.57	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	23.52	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	24.07	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.5	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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मिनी रोल
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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	Near Harichandanpur							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	25.93	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	24.07	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	25.40	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	17.12	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	24.07	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	12.30	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.7	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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Jasmati



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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 ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene	
	(µg/m ³)	(µg/m ³)	(µg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(µg/m ³)	
06-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL	
07-Oct-2025	<20.0	12.30	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL	
13-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL	
14-Oct-2025	<20.0	24.07	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL	
20-Oct-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL	
22-Oct-2025	<20.0	20.85	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL	
27-Oct-2025	<20.0	12.30	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL	
28-Oct-2025	<20.0	17.65	<0.1	<1.0	<1.0	1.6	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: Kaniha

Project	Kaniha OCP							
Monitoring Station	Gandaberana							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	20.58	<0.1	<1.0	<1.0	1.8	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	14.70	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	16.83	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	12.03	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	21.65	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	14.43	<0.1	<1.0	<1.0	1.5	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)

H. Pattnaik
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 सीएमपीडीआई निजी नम cmpdi Mini Ratna	AMBIENT AIR QUALITY DATA Area: Kaniha
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Project	KanihaOCP
Monitoring Station	Near Project Office
Date of sampling	Carbon Monoxide (CO)
	mg/m³
11-Oct-2025	0.9
31-Oct-2025	1.0
Standard	02(8 Hours)

Project	KanihaOCP
Monitoring Station	New Time Office (Near Z-Patch)
Date of sampling	Carbon Monoxide (CO)
	mg/m³
11-Oct-2025	1.2
31-Oct-2025	1.3
Standard	02(8 Hours)

Project	KanihaOCP
Monitoring Station	Near External OB Dump, Jamania
Date of sampling	Carbon Monoxide (CO)
	mg/m³
11-Oct-2025	1.6
31-Oct-2025	1.5
Standard	02(8 Hours)


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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Kaniha

PROJECT :

Kaniha OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Kansamunda Village (West of the Mine)	48.7	39.3
11-Oct-25	Near External OB Dump, Jamania	63.9	52.1
11-Oct-25	Near Time Office (Near Z-Patch)	64.1	51.0
11-Oct-25	Near Project Office	62.3	52.7
25-Oct-25	Kansamunda Village (West of the Mine)	48.3	39.5
25-Oct-25	Near External OB Dump, Jamania	62.1	51.7
25-Oct-25	Near Time Office (Near Z-Patch)	67.1	52.8
25-Oct-25	Near Project Office	65.1	55.3

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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J. S. S. S.



EFFLUENT QUALITY DATA

Area :

Kaniha

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

Project :

Kaniha OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
15-Oct-25	Clear Water Pond	7.63	<4.0	41	40	-	
15-Oct-25	Kansamunda Sump	7.68	<4.0	36	32	-	
15-Oct-25	Pre Sedimentation Pond	7.70	<4.0	45	44	-	
15-Oct-25	Z-Patch Sump	7.82	<4.0	31	28	-	
31-Oct-25	Clear Water Pond	7.54	<4.0	37	32	-	
31-Oct-25	Pre Sedimentation Pond	7.39	<4.0	34	28	-	

K. K. Kishore
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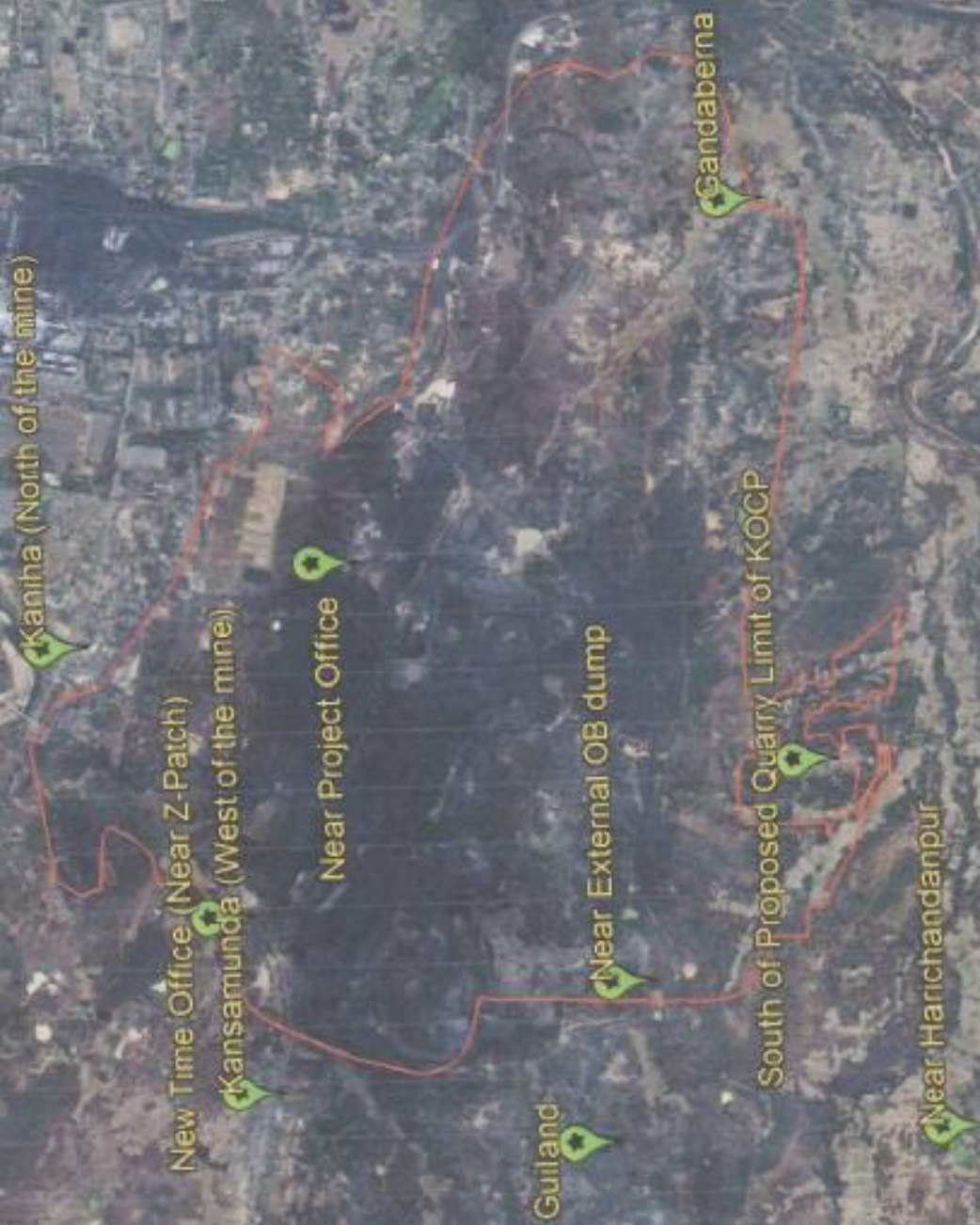
J. Prasad

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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Kanlha OCP

Legend
Monitoring Station



**Environmental Monitoring Report
For
October-2025**

**Project: Hingula OCP
Area: Hingula
Coalfield: Talcher**



Mahanadi Coalfields Limited



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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



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संरक्षण बोर्ड
CMPD
भारत सरकार

Test Report

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	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
11-Oct-25	Time Office	239	111	53	20.36	18.52	Mining Operations and Haul Road	About 200m
11-Oct-25	South West Side of the Mine	253	116	57	15.64	35.93	Mining Operations	About 300m
31-Oct-25	Time Office	267	148	59	24.30	27.23	Mining Operations and Haul Road	About 200m
31-Oct-25	South West Side of the Mine	252	134	55	23.57	14.00	Mining Operations	About 300m

MoEF Standards Notification dated 25th
September, 2000

500 250 120 120

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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
06-Oct-25	Balichandrapur Village	193	85	42	14.40	39.59	Mining Activities	About 1 KM
06-Oct-25	Banabaspur Village	201	76	36	19.06	18.52	Mining Activities	About 1500 m
06-Oct-25	Solda Village	178	75	35	14.11	32.12	Coal Transportation Road	About 2km
06-Oct-25	Kankarei Village	167	59	38	12.76	32.26	Mining Activities	About 1500 m
06-Oct-25	Sanamahitala Village	167	58	30	20.58	22.00	Transportation road	About 1 KM
07-Oct-25	Kankarei Village	165	71	33	19.34	22.73	Mining Activities	About 1500 m
07-Oct-25	Balichandrapur Village	176	76	30	13.99	28.60	Mining Activities	About 1 KM
07-Oct-25	Solda Village	167	56	29	11.22	34.66	Coal Transportation Road	About 2km
07-Oct-25	Banabaspur Village	177	64	30	17.76	32.42	Mining Activities	About 1500 m
07-Oct-25	Sanamahitala Village	181	67	32	10.19	32.12	Transportation road	About 1 KM
13-Oct-25	Sanamahitala Village	192	77	36	17.83	39.11	Transportation road	About 1 KM
13-Oct-25	Kankarei Village	177	79	36	19.60	16.76	Mining Activities	About 1500 m
13-Oct-25	Solda Village	161	48	26	13.47	14.66	Coal Transportation Road	About 2km
13-Oct-25	Banabaspur Village	192	70	33	21.49	24.44	Mining Activities	About 1500 m
13-Oct-25	Balichandrapur Village	195	67	34	13.43	40.91	Mining Activities	About 1 KM
14-Oct-25	Solda Village	195	75	37	13.86	41.68	Coal Transportation Road	About 2km
14-Oct-25	Banabaspur Village	163	57	27	11.76	25.14	Mining Activities	About 1500 m
14-Oct-25	Sanamahitala Village	198	81	38	18.81	29.33	Transportation road	About 1 KM
14-Oct-25	Balichandrapur Village	204	75	37	16.87	30.80	Mining Activities	About 1 KM
14-Oct-25	Kankarei Village	138	54	25	11.93	31.53	Mining Activities	About 1500 m
20-Oct-25	Banabaspur Village	217	93	39	25.61	22.81	Mining Activities	About 1500 m
20-Oct-25	Solda Village	179	68	31	19.93	13.89	Coal Transportation Road	About 2km
20-Oct-25	Kankarei Village	170	63	30	26.42	26.24	Mining Activities	About 1500 m
20-Oct-25	Sanamahitala Village	196	76	35	17.64	13.97	Transportation road	About 1 KM
20-Oct-25	Sanamahitala Village	219	93	40	17.38	34.22	Transportation road	About 1 KM

*NAAQS,2009

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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
20-Oct-25	Balichandrapur Village	171	73	29	15.29	30.03	Mining Activities	About 1 KM
22-Oct-25	Kankarei Village	185	66	33	26.86	35.50	Mining Activities	About 1500 m
22-Oct-25	Balichandrapur Village	182	78	31	23.12	27.23	Mining Activities	About 1 KM
22-Oct-25	Solda Village	188	79	33	23.05	22.73	Coal Transportation Road	About 2km
22-Oct-25	Banabaspur Village	180	77	30	23.39	20.84	Mining Activities	About 1500 m
27-Oct-25	Solda Village	169	61	28	17.70	25.66	Coal Transportation Road	About 2km
27-Oct-25	Sanamahitala Village	206	85	38	16.46	27.13	Transportation road	About 1 KM
27-Oct-25	Kankarei Village	210	82	39	23.52	22.35	Mining Activities	About 1500 m
27-Oct-25	Banabaspur Village	199	85	34	12.72	15.33	Mining Activities	About 1500 m
27-Oct-25	Balichandrapur Village	210	90	38	14.50	27.23	Mining Activities	About 1 KM
28-Oct-25	Solda Village	150	57	26	22.34	22.35	Coal Transportation Road	About 2km
28-Oct-25	Banabaspur Village	210	90	38	21.23	19.30	Mining Activities	About 1500 m
28-Oct-25	Sanamahitala Village	186	74	31	29.72	12.22	Transportation road	About 1 KM
28-Oct-25	Balichandrapur Village	201	86	34	23.32	19.55	Mining Activities	About 1 KM
28-Oct-25	Kankarei Village	172	64	36	25.10	27.86	Mining Activities	About 1500 m

Signature
 Authorized Signatory
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 BHUBANESWAR

Signature

*NAQS, 2009

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project		Hingula OCP						
Monitoring Station		Balichandrapur Village						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	25.40	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	17.12	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	12.57	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	20.58	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	14.70	<0.1	<1.0	<1.0	1.3	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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Jaswant



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Kankarei Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	16.83	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	23.52	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	15.50	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	15.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	25.40	<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)

T. Hawsik
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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Solada Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	19.52	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	22.18	<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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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Banabaspur Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	23.80	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	24.60	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
Standard	400(24 hours)	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	Hingula OCP							
Monitoring Station	Sanamahitala Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzen e
	(μg/m ³)	(μg/m ³)	(μg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(μg/m ³)
06-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	16.57	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	13.63	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	23.52	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	14.70	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.6	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

Area: Hingula

Project	Hingula OCP
Monitoring Station	Time Office
Date of sampling	Carbon Monoxide (CO)
	mg/m ³
11-Oct-2025	1.0
31-Oct-2025	1.1
Standard	02(8 Hours)

Project	Hingula OCP
Monitoring Station	South West side of Mine
Date of sampling	Carbon Monoxide (CO)
	mg/m ³
11-Oct-2025	1.6
31-Oct-2025	1.4
Standard	02(8 Hours)

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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
11-Oct-25	South West Side of the Mine	61.1	51.7
11-Oct-25	Solda Village	46.9	38.7
11-Oct-25	Kankarei Village	47.2	39.3
11-Oct-25	Time Office	67.3	57.2
25-Oct-25	South West Side of the Mine	61.9	51.3
25-Oct-25	Solda Village	46.1	37.1
25-Oct-25	Kankarei Village	47.7	38.1
25-Oct-25	Time Office	68.3	56.2

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 :

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
15-Oct-25	Inlet of O & G Trap	7.70	<4.0	37	32	-	
15-Oct-25	Mine Sump Water	6.94	<4.0	19	16	-	
15-Oct-25	Outlet of O & G Trap	7.78	<4.0	23	20	-	
31-Oct-25	Inlet of O & G Trap	7.40	5.2	61	96	-	
31-Oct-25	Outlet of O & G Trap	7.67	<4.0	34	40	-	

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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 Hingula Area

Project / OCP Monitoring Station	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	15-Oct-2025	15-Oct-2025	15-Oct-2025		
Colour (Hazen)	3	4	4	5	15
Turbidity (NTU)	4	2	4	1	5
pH	6.67	7.81	7.06	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	126.06	252.12	386.58	200	600
Chloride(mg/L)	34.97	44.69	87.43	250	1000
Sulphate(mg/L)	102.6	16.6	106.24	200	400
Nitrate(mg/L)	<0.5	<0.5	0.78	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	207.87	184.33	392.20	200	600
Calcium(mg/L)	51.88	33.01	102.18	75	200
Fluoride(mg/L)	0.56	0.62	0.76	1	1.5
Total Dissolve Solid(mg/L)	346	334	654	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.30	0.1	0.3
Iron(mg/L)	<0.1	<0.1	0.12	1.0	No relaxation
Zinc(mg/L)	0.04	0.18	1.37	5	15
Lead(mg/L)	<0.005	<0.04	<0.04	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	Acceptable	Permissible
Monitoring Station					
Date of Sampling	15-Oct-2025	15-Oct-2025	15-Oct-2025		
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	16.73	18.83	14.94		
Potassium(mg/L)	4.67	6.24	5.70		
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	-	-

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Hingula OCP

Legend
Monitoring Station

Banabaspur Village

Solada Village

Kankarai Village

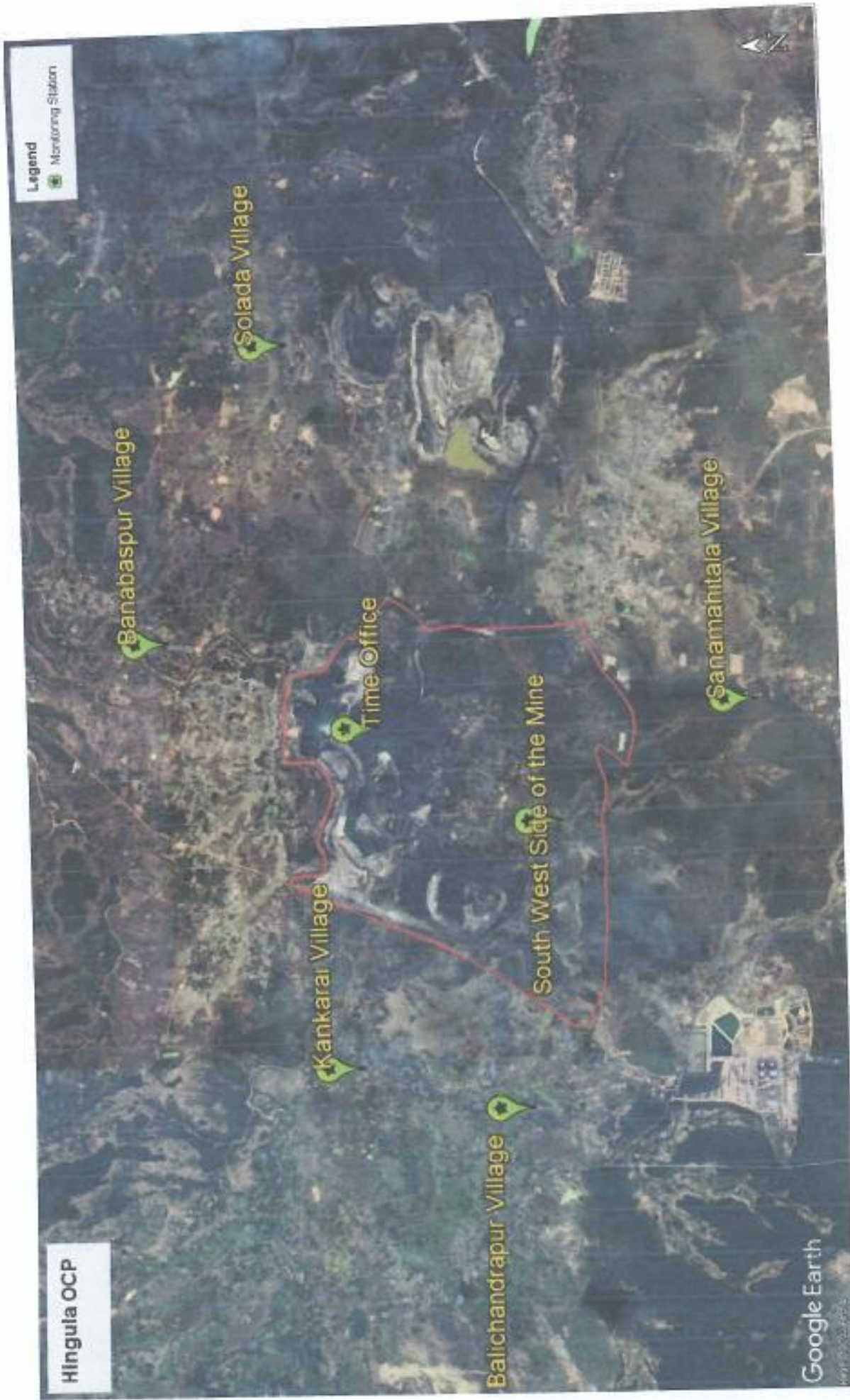
Time Office

Balichandrapur Village

South West Side of the Mine

Sanamahitaja Village

Google Earth



**Environmental Monitoring Report
For
October-2025**

**Project: Balaram OCP
Area: Hingula
Coalfield: Talcher**



Mahanadi Coalfields Limited



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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	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
11-Oct-25	Pump House near Outsourcing Working Patch	226	97	49	12.35	35.20	Mining Operation And Coal Transportation Road	About 200m
11-Oct-25	Near Project Office	240	105	53	19.93	38.59	Mining Activities	About 500m
25-Oct-25	Near Project Office	268	136	57	20.36	20.07	Mining Activities	About 500m
31-Oct-25	Pump House near Outsourcing Working Patch	260	148	57	20.77	13.27	Mining Operation And Coal Transportation Road	About 200m


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 MoEF Standards Notification dated 25th
 September, 2000

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Test Report

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-Oct-25	Khajuria Village (Reported Only)	147	55	28	12.72	26.00	Mining Activities	About 1 KM
04-Oct-25	Khajuria Village (Reported Only)	178	77	36	13.99	29.33	Mining Activities	About 1 KM
06-Oct-25	Natada Village	150	56	29	13.26	31.77	Anthropogenic Activities, Local	About 2km
06-Oct-25	Solda Village (Reported Only)	178	75	35	14.11	32.12	Coal Transportation Road	About 2km
06-Oct-25	Purnasahi Village	148	52	25	18.42	21.65	Mining Activities, Transportation	About 500m
06-Oct-25	East of the Mine, Natedi Village	192	77	35	14.50	31.42	Coal Transportation Road	About 2km
06-Oct-25	Kurihan Village (Reported Only)	185	83	39	18.93	29.33	Mining Activities	About 500m
07-Oct-25	Solda Village (Reported Only)	167	56	29	11.22	34.66	Coal Transportation Road	About 2km
07-Oct-25	Purnasahi Village	183	64	33	16.85	35.61	Mining Activities, Transportation	About 500m
07-Oct-25	Natada Village	177	76	35	20.58	37.48	Anthropogenic Activities, Local	About 2km
07-Oct-25	East of the Mine, Natedi Village	195	79	37	13.89	32.08	Coal Transportation Road	About 2km
07-Oct-25	Kurihan Village (Reported Only)	181	79	37	18.03	25.14	Mining Activities	About 500m
09-Oct-25	Khajuria Village (Reported Only)	159	60	31	11.76	16.76	Mining Activities	About 1 KM
10-Oct-25	Khajuria Village (Reported Only)	175	74	35	14.29	27.79	Mining Activities	About 1 KM
13-Oct-25	Purnasahi Village	166	57	29	18.71	29.33	Mining Activities, Transportation	About 500m
13-Oct-25	Solda Village (Reported Only)	161	48	26	13.47	14.66	Coal Transportation Road	About 2km
13-Oct-25	East of the Mine, Natedi Village	184	71	33	18.93	30.06	Coal Transportation Road	About 2km
13-Oct-25	Kurihan Village (Reported Only)	168	69	33	18.63	40.13	Mining Activities	About 500m
13-Oct-25	Natada Village	168	69	32	14.40	27.13	Anthropogenic Activities, Local	About 2km
14-Oct-25	East of the Mine, Natedi Village	203	85	40	16.05	35.20	Coal Transportation Road	About 2km
14-Oct-25	Natada Village	185	79	38	11.37	20.95	Anthropogenic Activities, Local	About 2km
14-Oct-25	Solda Village (Reported Only)	195	75	37	13.86	41.68	Coal Transportation Road	About 2km
14-Oct-25	Kurihan Village (Reported Only)	184	81	38	19.93	38.59	Mining Activities	About 500m
14-Oct-25	Purnasahi Village	188	74	34	18.11	22.00	Mining Activities, Transportation	About 500m
16-Oct-25	Khajuria Village (Reported Only)	190	74	30	13.09	16.66	Mining Activities	About 1 KM

*NAAQS,2009	100	60	40	80
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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
17-Oct-25	Khajuria Village (Reported Only)	161	78	34	19.93	34.73	Mining Activities	About 1 KM
20-Oct-25	Natada Village	203	83	35	25.61	25.26	Anthropogenic Activities, Local	About 2km
20-Oct-25	Solda Village (Reported Only)	179	68	31	19.93	13.89	Coal Transportation Road	About 2km
20-Oct-25	Purnasahi Village	195	83	36	25.99	13.12	Mining Activities, Transportation	About 500m
20-Oct-25	East of the Mine, Natedi Village	213	87	36	25.10	24.20	Coal Transportation Road	About 2km
20-Oct-25	Kurihan Village (Reported Only)	167	65	28	23.87	14.66	Mining Activities	About 500m
22-Oct-25	Solda Village (Reported Only)	188	79	33	23.05	22.73	Coal Transportation Road	About 2km
22-Oct-25	Purnasahi Village	210	90	38	14.40	31.53	Mining Activities, Transportation	About 500m
22-Oct-25	East of the Mine, Natedi Village	146	64	25	23.19	18.00	Coal Transportation Road	About 2km
22-Oct-25	Natada Village	216	94	40	16.85	15.36	Anthropogenic Activities, Local	About 2km
22-Oct-25	Kurihan Village (Reported Only)	196	81	35	21.40	27.86	Mining Activities	About 500m
23-Oct-25	Khajuria Village (Reported Only)	153	69	32	23.52	19.55	Mining Activities	About 1 KM
24-Oct-25	Khajuria Village (Reported Only)	164	76	35	25.08	10.47	Mining Activities	About 1 KM
27-Oct-25	Kurihan Village (Reported Only)	172	76	32	21.81	15.40	Mining Activities	About 500m
27-Oct-25	Natada Village	189	77	34	20.20	23.33	Anthropogenic Activities, Local	About 2km
27-Oct-25	Purnasahi Village	175	67	27	17.18	18.49	Mining Activities, Transportation	About 500m
27-Oct-25	East of the Mine, Natedi Village	193	81	34	26.86	35.50	Coal Transportation Road	About 2km
27-Oct-25	Solda Village (Reported Only)	169	61	28	17.70	25.66	Coal Transportation Road	About 2km
28-Oct-25	Natada Village	142	54	26	25.99	30.87	Anthropogenic Activities, Local	About 2km
28-Oct-25	East of the Mine, Natedi Village	204	88	36	21.49	16.29	Coal Transportation Road	About 2km
28-Oct-25	Purnasahi Village	203	85	37	17.76	20.07	Mining Activities, Transportation	About 500m
28-Oct-25	Solda Village (Reported Only)	150	57	26	22.34	22.35	Coal Transportation Road	About 2km
28-Oct-25	Kurihan Village (Reported Only)	180	81	43	26.75	27.13	Mining Activities	About 500m
29-Oct-25	Khajuria Village (Reported Only)	155	59	27	14.59	27.33	Mining Activities	About 1 KM
30-Oct-25	Khajuria Village (Reported Only)	186	82	38	20.58	17.60	Mining Activities	About 1 KM

*NLS, 2009

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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 ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	12.83	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	19.52	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	13.37	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	22.18	<0.1	<1.0	<1.0	0.9	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)

Jitendra
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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	East Mine, Natedi Village							
Date of sampling	Ammونيا (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	14.97	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
07-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
13-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
14-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
20-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
22-Oct-2025	<20.0	14.17	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
27-Oct-2025	<20.0	15.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
28-Oct-2025	<20.0	21.12	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24 hours)	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	Natada Village							
Date of sampling	Ammonia (NH ₃) ($\mu\text{g}/\text{m}^3$)	Ozone (O ₃) ($\mu\text{g}/\text{m}^3$)	Lead (Pb) ($\mu\text{g}/\text{m}^3$)	Arsenic (As) (ng/m^3)	Nickel (Ni) (ng/m^3)	CO (mg/m^3)	Benzo (a) Pyrene (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
07-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
13-Oct-2025	<20.0	14.97	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL(QL=2.5)
14-Oct-2025	<20.0	24.60	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
20-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL(QL=2.5)
22-Oct-2025	<20.0	17.38	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
27-Oct-2025	<20.0	13.63	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL(QL=2.5)
28-Oct-2025	<20.0	14.17	<0.1	<1.0	<1.0	1.5	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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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)
Area: Hingula

Project	Balram OCP							
Monitoring Station	Purunasahi Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	18.18	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	14.97	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	26.20	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	23.52	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	16.83	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	17.65	<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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Jasmati



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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Balram OCP								
Kurihan Village (Reported Only)								
Project								
Monitoring Station								
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	(μg/m ³)	(μg/m ³)	(μg/m ³)	(ng/m ³)	(ng/m ³)	(mg/m ³)	(ng/m ³)	(μg/m ³)
06-Oct-2025	<20.0	19.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
13-Oct-2025	<20.0	18.45	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
14-Oct-2025	<20.0	15.77	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
20-Oct-2025	<20.0	24.60	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
22-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
27-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
28-Oct-2025	<20.0	13.10	<0.1	<1.0	<1.0	0.7	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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[Signature]



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प्रदूषण नियंत्रण बोर्ड
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भारत सरकार

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Hingula

PROJECT :

Balaram OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Natada Village	43.1	37.2
11-Oct-25	Solada Village (Reported only)	46.9	38.7
11-Oct-25	Near Natedi Village	45.1	36.2
11-Oct-25	Pump House Near Outsourcing Working Patch	61.2	52.9
11-Oct-25	Near Project Office Balram OCP	64.3	52.1
25-Oct-25	Natada Village	44.1	38.7
25-Oct-25	Solada Village (Reported only)	46.1	37.1
25-Oct-25	Near Natedi Village	45.6	37.0
25-Oct-25	Pump House Near Outsourcing Working Patch	67.0	51.3
25-Oct-25	Near Project Office Balram OCP	65.1	55.2

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)

Auth: Hattaruchi
Fixed Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Samrat

TABLE--



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भारत सरकार

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
15-Oct-25	Gandhisagar (Mine Sump)	8.21	<4.0	16	12	-	
15-Oct-25	Inlet of O & G Trap	7.79	<4.0	35	32	-	
15-Oct-25	Outlet of O & G Trap	7.84	<4.0	27	24	-	
31-Oct-25	Inlet of O & G Trap	7.58	4.2	47	52	-	
31-Oct-25	Outlet of O & G Trap	7.86	<4.0	30	28	-	

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Jamati

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--


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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
15-Oct-25	STP Inlet of Balram Colony	7.16	-	53		3.5	150
15-Oct-25	STP Outlet of Balram Colony	7.56	-	42	-	2.3	120
31-Oct-25	STP Inlet of Balram Colony	7.39	-	47	-	3.2	210
31-Oct-25	STP Outlet of Balram Colony	7.81	-	36	-	2.4	110

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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 Hingula Area

Project / OCP	Balaram OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Danara Village Borewell Water	Balaram Colony		
Date of Sampling	15-Oct-2025	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Colour (Hazen)	1	2	3	5	15
Turbidity (NTU)	2	3	4	1	5
pH	7.93	7.57	7.87	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	84.04	75.63	134.46	200	600
Chloride(mg/L)	21.37	23.32	29.14	250	1000
Sulphate(mg/L)	56.48	118.60	112.60	200	400
Nitrate(mg/L)	17.86	<0.5	2.80	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	141.19	211.79	262.77	200	600
Calcium(mg/L)	36.16	58.16	62.88	75	200
Fluoride(mg/L)	0.58	0.68	0.78	1	1.5
Total Dissolve Solid(mg/L)	244	310	366	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)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.73	0.05	0.33	5	15
Lead(mg/L)	<0.04	<0.04	<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		
Monitoring Station					
Date of Sampling	15-Oct-2025	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	13.56	10.64	8.80		
Potassium(mg/L)	4.89	3.46	2.07		
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	-	-

H. K. Pattnaik
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

J. Prasad

Balram OCP

Legend
Monitoring Station



Google Earth

**Environmental Monitoring Report
For
October-2025**

**Project: Talcher Colliery
Area: Talcher
Coalfield: Talcher**



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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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Talcher Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Officers Club, Talcher Area	56.7	47.2
11-Oct-25	Near Canteen, Talcher Colliery	58.7	49.1
25-Oct-25	Officers Club, Talcher Area	59.1	47.2
25-Oct-25	Near Canteen, Talcher Colliery	56.7	51.1

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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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
15-Oct-25	Talcher Colliery Sedimentation Tank Discharge	6.25	<4.0	33	28	-	
31-Oct-25	Talcher Colliery Sedimentation Tank Discharge	6.47	<4.0	41	36	-	


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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	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Colour (Hazen)	2	3	5	15
Turbidity (NTU)	2	2	1	5
pH	7.66	7.13	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	50.42	54.63	200	600
Chloride(mg/L)	7.77	17.49	250	1000
Sulphate(mg/L)	28.6	68.12	200	400
Nitrate(mg/L)	<0.5	1.28	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	66.67	109.82	200	600
Calcium(mg/L)	14.15	25.15	75	200
Fluoride(mg/L)	0.52	0.56	1	1.5
Total Dissolve Solid(mg/L)	114	198	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)	0.17	<0.1	1.0	No relaxation
Zinc(mg/L)	<0.04	0.05	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	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	6.09	13.99		
Potassium(mg/L)	1.46	4.67		
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	-	-

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Jasmati

Talcher Air Stations

Talcher Air monitoring stations

Rodhasar

Near canteen, TC

GM office, TA

Pond

Google Earth

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Environmental Monitoring Report For October-2025

Project: Nandira Colliery
Area: Talcher
Coalfield: Talcher



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 :

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
11-Oct-25	Project Office	237	110	53	10.70	36.66	Mining Activities, Transportation, CHP	About 500m
11-Oct-25	Sub-station	228	102	49	15.16	30.10	Transportation & Railway Sidings of BOCP	About 500m
31-Oct-25	Project Office	234	137	52	26.34	13.20	Mining Activities, Transportation, CHP	About 500m
31-Oct-25	Sub-station	239	123	50	26.34	12.46	Transportation & Railway Sidings of BOCP	About 500m

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Jattonaik

MoEF Standards Notification dated 25th
September, 2008

600	300		120	120
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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-Oct-25	Nandira Colony	147	68	33	20.38	32.59	Local Transportation,	About 500m
04-Oct-25	Nandira Colony	185	74	37	17.58	23.93	Local Transportation,	About 500m
06-Oct-25	East of the Mine, Natedi Village (Reported Only)	192	77	35	14.50	31.42	Coal Transportation Road	About 2km
07-Oct-25	East of the Mine, Natedi Village (Reported Only)	195	79	37	13.89	32.08	Coal Transportation Road	About 2km
09-Oct-25	Nandira Colony	204	78	41	16.46	23.74	Local Transportation,	About 500m
10-Oct-25	Nandira Colony	217	86	44	18.75	24.66	Local Transportation,	About 500m
13-Oct-25	East of the Mine, Natedi Village (Reported Only)	184	71	33	18.93	30.06	Coal Transportation Road	About 2km
14-Oct-25	East of the Mine, Natedi Village (Reported Only)	203	85	40	16.05	35.20	Coal Transportation Road	About 2km
16-Oct-25	Nandira Colony	187	80	33	26.86	34.73	Local Transportation,	About 500m
17-Oct-25	Nandira Colony	146	65	27	15.59	22.38	Local Transportation,	About 500m
20-Oct-25	East of the Mine, Natedi Village (Reported Only)	213	87	36	25.10	24.20	Coal Transportation Road	About 2km
22-Oct-25	East of the Mine, Natedi Village (Reported Only)	146	64	25	23.19	18.00	Coal Transportation Road	About 2km
23-Oct-25	Nandira Colony	198	83	35	21.32	27.33	Local Transportation,	About 500m
24-Oct-25	Nandira Colony	219	96	44	22.73	32.12	Local Transportation,	About 500m
27-Oct-25	East of the Mine, Natedi Village (Reported Only)	193	81	34	26.86	35.50	Coal Transportation Road	About 2km
28-Oct-25	East of the Mine, Natedi Village (Reported Only)	204	88	36	21.49	16.29	Coal Transportation Road	About 2km
29-Oct-25	Nandira Colony	190	79	31	14.81	22.73	Local Transportation,	About 500m
30-Oct-25	Nandira Colony	173	61	28	20.95	26.00	Local Transportation,	About 500m


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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Talcher

Project	Nandira							
Monitoring Station	Nandira Colony							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Oct-2025	<20.0	17.92	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
04-Oct-2025	<20.0	24.60	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
09-Oct-2025	<20.0	17.12	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Oct-2025	<20.0	20.32	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
16-Oct-2025	<20.0	17.12	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
17-Oct-2025	<20.0	20.58	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
23-Oct-2025	<20.0	15.50	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
24-Oct-2025	<20.0	25.93	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Oct-2025	<20.0	14.43	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
30-Oct-2025	<20.0	15.50	<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)	04(1ho urs)	01(ann ual)	05(annu al)

K. S. Pattnaik
Authorized Signatory
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Jaswant



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Nani Ratna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Talcher

Project	Nandira							
Monitoring Station	Near Natedi Village (Reported Only)							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
06-Oct-2025	<20.0	14.97	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
07-Oct-2025	<20.0	25.13	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
13-Oct-2025	<20.0	25.67	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
14-Oct-2025	<20.0	24.87	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
20-Oct-2025	<20.0	21.92	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
22-Oct-2025	<20.0	14.17	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
27-Oct-2025	<20.0	15.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
28-Oct-2025	<20.0	21.12	<0.1	<1.0	<1.0	1.2	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)

Talcher
Authorised Signatory
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Jaswal



TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Nandira Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Project Office	57.2	48.7
11-Oct-25	Sub Station, Nandira Colliery	60.1	53.4
25-Oct-25	Project Office	60.3	50.7
25-Oct-25	Sub Station, Nandira Colliery	62.1	53.3

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 :

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
15-Oct-25	Nandira Colliery Sedimentation Tank Discharge	6.33	<4.0	29	24	-	
31-Oct-25	Nandira Colliery Sedimentation Tank Discharge	6.94	<4.0	35	32	-	

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 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	Nandira U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen , Nandira Colliery	Pit Top, Nandira Colliery		
Monitoring Station				
Date of Sampling	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Colour (Hazen)	2	3	5	15
Turbidity (NTU)	3	1	1	5
pH	7.21	6.81	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	75.64	33.62	200	600
Chloride(mg/L)	15.54	17.49	250	1000
Sulphate(mg/L)	78.18	88.48	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	156.88	152.96	200	600
Calcium(mg/L)	36.16	33.01	75	200
Fluoride(mg/L)	0.66	0.60	1	1.5
Total Dissolve Solid(mg/L)	228	208	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)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.08	<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 Talcher Area

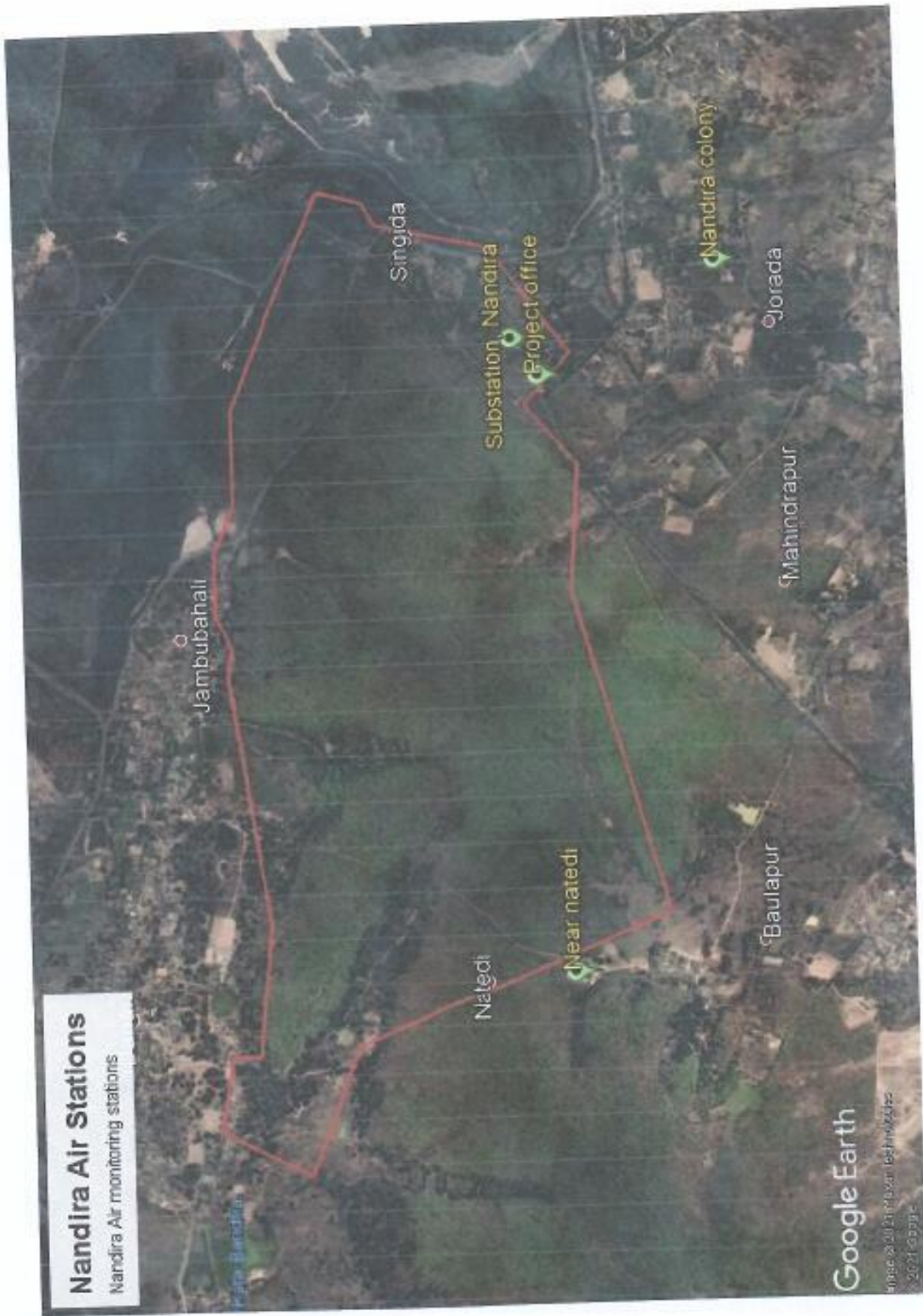
Project / OCP	Nandira U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen , Nandira Colliery	Pit Top, Nandira Colliery		
Monitoring Station				
Date of Sampling	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	6.75	4.32	-	-
Potassium(mg/L)	0.98	0.74	-	-
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	-	-

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Jitendra

Nandira Air Stations

Nandira Air monitoring stations



Google Earth

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**Environmental Monitoring Report
For
October-2025**

**Project: Deulbera Colliery
Area: Talcher
Coalfield: Talcher**



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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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Deulbera Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Oct-25	Manager's Office	59.7	50.3
25-Oct-25	Manager's Office	58.0	49.9

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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Drinking Water Quality Data Talcher Area

Project / OCP Monitoring Station	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	15-Oct-2025	15-Oct-2025	15-Oct-2025	5	15
Colour (Hazen)	4	2	2	1	5
Turbidity (NTU)	2	3	2	6.5-8.5	No relaxation
pH	7.70	6.70	7.83	200	600
Total Alkalinity(mg/L)	134.46	33.62	67.23	250	1000
Chloride(mg/L)	33.03	34.97	13.60	200	400
Sulphate(mg/L)	124.2	28.4	36.48	45	No relaxation
Nitrate(mg/L)	7.20	11.80	1.48	200	600
Total Hardness (Ca CO ₃) (mg/L)	254.93	78.44	86.28	75	200
Calcium(mg/L)	64.45	22.00	23.58	1	1.5
Fluoride(mg/L)	0.48	0.68	0.44	500	2000
Total Dissolve Solid(mg/L)	396	172	152	0.05	1.5
Copper(mg/L)	<0.03	<0.03	<0.03	0.1	0.3
Manganese(mg/L)	<0.04	<0.04	<0.04	1.0	No relaxation
Iron(mg/L)	<0.1	<0.1	<0.1	5	15
Zinc(mg/L)	0.15	0.08	0.14	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	0.003	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.05	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.5	2.4
Boron(mg/L)	<0.2	<0.2	<0.2		

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Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump		
Date of Sampling	15-Oct-2025	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	14.86	18.78	10.44	-	-
Potassium(mg/L)	4.26	6.55	2.36	-	-
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	-	-

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Deulbera Air Stations
Deulbera Air monitoring stations

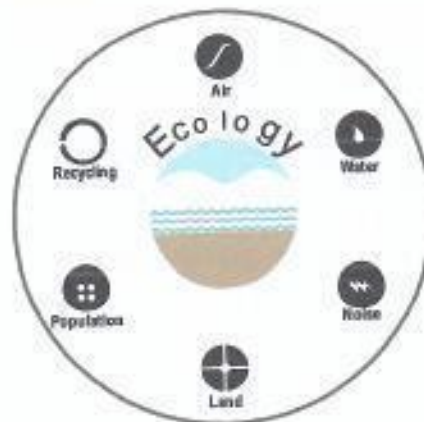
Google Earth
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**Environmental Monitoring Report
For
October-2025**

**Project: Handhidhua Colliery
Area: Talcher
Coalfield: Talcher**



Mahanadi Coalfields Limited



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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 :

Handhidhua Colliery

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO ₂	NO _x	Dust Generating Source(DGS)	Distance from DGS
08-Oct-25	Manager's Office	242	103	56	16.87	28.60	Local Transportation, CHP	About 500m
25-Oct-25	Manager's Office	230	116	52	20.79	33.19	Local Transportation, CHP	About 500m


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MoEF Standards Notification dated 25th September, 2000

600	300		120	120
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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)		
Monitoring Station				Acceptable	Permissible
Date of Sampling	15-Oct- 2025	15-Oct- 2025	15-Oct- 2025		
Colour (Hazen)	3	2	3	5	15
Turbidity (NTU)	2	3	3	1	5
pH	6.61	6.70	6.63	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	79.84	71.43	75.63	200	600
Chloride(mg/L)	29.14	29.14	27.20	250	1000
Sulphate(mg/L)	94.24	86.8	92.4	200	400
Nitrate(mg/L)	3.40	3.34	3.86	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	203.94	176.49	196.10	200	600
Calcium(mg/L)	47.16	45.59	58.16	75	200
Fluoride(mg/L)	0.82	0.76	0.67	1	1.5
Total Dissolve Solid(mg/L)	288	268	274	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.33	0.24	0.28	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.04	0.04	0.11	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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Jatani



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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)		
Monitoring Station					
Date of Sampling	15-Oct-2025	15-Oct-2025	15-Oct-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	8.69	9.23	8.09	-	-
Potassium(mg/L)	0.98	1.45	0.84	-	-
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	-	-

K. Attamish
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasmat

**Environmental Monitoring Report
For
October-2025**

**Project: Mandapal Sand Mine
Area: Talcher
Coalfield: Talcher**



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 :

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-Oct-25	Near Pachismeshwar Temple	191	69	33	20.12	37.48	Mining Activity	Less than 500m
03-Oct-25	Near Mandapal Chowk	175	73	35	13.99	35.20	Mining Activity	Less than 500m
04-Oct-25	Near Mandapal Chowk	189	87	41	18.03	20.25	Mining Activity	Less than 500m
04-Oct-25	Near Pachismeshwar Temple	167	52	28	19.75	21.26	Mining Activity	Less than 500m
09-Oct-25	Near Mandapal Chowk	180	78	36	20.16	33.73	Mining Activity	Less than 500m
09-Oct-25	Near Pachismeshwar Temple	158	48	25	16.07	34.22	Mining Activity	Less than 500m
10-Oct-25	Near Mandapal Chowk	170	71	34	18.11	35.20	Mining Activity	Less than 500m
10-Oct-25	Near Pachismeshwar Temple	213	83	40	16.87	38.86	Mining Activity	Less than 500m
16-Oct-25	Near Mandapal Chowk	193	77	35	24.23	30.96	Mining Activity	Less than 500m
16-Oct-25	Near Pachismeshwar Temple	211	92	40	18.52	16.86	Mining Activity	Less than 500m
17-Oct-25	Near Mandapal Chowk	178	58	25	18.63	22.38	Mining Activity	Less than 500m
17-Oct-25	Near Pachismeshwar Temple	210	63	25	27.89	14.66	Mining Activity	Less than 500m
23-Oct-25	Near Pachismeshwar Temple	198	91	37	24.69	18.52	Mining Activity	Less than 500m
23-Oct-25	Near Mandapal Chowk	193	53	26	20.36	23.93	Mining Activity	Less than 500m
24-Oct-25	Near Mandapal Chowk	205	76	38	16.00	27.70	Mining Activity	Less than 500m
24-Oct-25	Near Pachismeshwar Temple	194	82	35	23.82	13.89	Mining Activity	Less than 500m
29-Oct-25	Near Mandapal Chowk	167	79	28	22.90	20.40	Mining Activity	Less than 500m
29-Oct-25	Near Pachismeshwar Temple	182	74	34	24.28	30.80	Mining Activity	Less than 500m
30-Oct-25	Near Pachismeshwar Temple	178	68	31	17.21	14.66	Mining Activity	Less than 500m
30-Oct-25	Near Mandapal Chowk	214	81	40	14.40	22.00	Mining Activity	Less than 500m

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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
11-Oct-25	Near Gopinathpur Village	45.1	37.1
25-Oct-25	Near Gopinathpur Village	45.7	39.1

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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Mandapal sand mine Air Stations

Mandapal sand mine Air monitoring stations



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