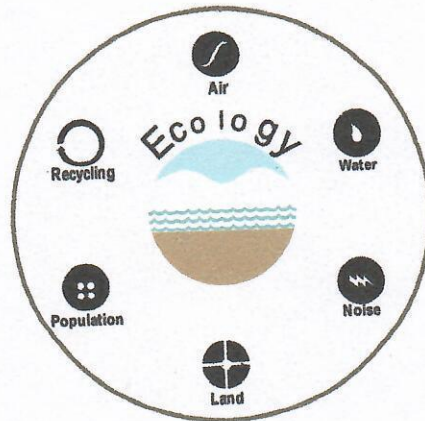


**Environmental Monitoring Report
Of
Jagannath Area
For
July-2025**

Talcher Coalfield



Mahanadi Coalfields Limited



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Mini Ratna

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

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

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Ambient Air Quality

Test Report

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Compliance Station)

Project :

Jagannath OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Jul-25	Near MDTP	214	89	45	10.86	17.47	Railway Siding CHP	About 800m
05-Jul-25	Near NBVL Station	193	83	41	10.55	29.58	CHP, CT Road	About 600m
23-Jul-25	Near MDTP	197	80	42	19.66	22.34	Railway Siding CHP	About 800m
23-Jul-25	Near NBVL Station	218	113	46	11.87	24.78	CHP, CT Road	About 600m

MoEF Standards Notification dated 25th
September, 2000

500	250		120	120
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Authorised Signatory
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BHUBANESWAR

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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
05-Jul-25	North East of Mine	185	84	38	15.39	28.78	Open-Cast Mine	Less than 500m
05-Jul-25	Near NBVL Station (REPORTED)	193	83	41	10.55	29.58	CHP, CT Road	About 600m
23-Jul-25	North East of Mine	226	96	44	12.29	21.45	Open-Cast Mine	Less than 500m
23-Jul-25	Near NBVL Station (REPORTED)	218	113	46	11.87	24.78	CHP, CT Road	About 600m

MoEF Standards Notification dated 25th September, 2000

500 250 120 120

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BHUBANESWAR

Jagannath



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AIR QUALITY

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
05-Jul-25	Near NBVL Station (Reported)	193	83	41	10.55	29.58	CHP, CT Road	About 600m
23-Jul-25	Near NBVL Station (Reported)	218	113	46	11.87	24.78	CHP, CT Road	About 600m

MoEF Standards Notification dated 25th September, 2000

500 250 120 120

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Jagannath

AMBIENT AIR QUALITY DATA

Area :

Jagannath

(Reference Station)

Project :

Jagannath OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Jul-25	CWS Colony, Meeti	110	35	17	13.00	26.16	Mining Activity	About 1500 m
01-Jul-25	Kurihan Village	138	48	27	19.49	22.79		
02-Jul-25	CWS Colony, Meeti	146	57	29	17.59	30.38	Mining Activity	About 1500 m
02-Jul-25	Kurihan Village	135	65	29	16.71	23.63		
03-Jul-25	Central Nursery (Reported Only)	128	45	21	11.43	31.98	Open-Cast Mine	Less than 500m
04-Jul-25	Central Nursery (Reported Only)	137	50	26	15.39	19.99	Open-Cast Mine	Less than 500m
07-Jul-25	CWS Colony, Meeti	132	47	25	12.07	24.47	Mining Activity	About 1500 m
07-Jul-25	Kurihan Village	116	45	20	17.17	34.60		
08-Jul-25	CWS Colony, Meeti	114	39	19	16.71	23.55	Mining Activity	About 1500 m
08-Jul-25	Kurihan Village	138	52	24	17.15	27.98		
11-Jul-25	Central Nursery (Reported Only)	120	44	23	16.71	25.82	Open-Cast Mine	Less than 500m
12-Jul-25	Central Nursery (Reported Only)	127	48	25	10.03	28.86	Open-Cast Mine	Less than 500m
14-Jul-25	Kurihan Village	109	39	16	17.17	32.91		
14-Jul-25	CWS Colony, Meeti	132	46	24	17.59	31.98	Mining Activity	About 1500 m
15-Jul-25	CWS Colony, Meeti	126	40	22	10.99	25.58	Mining Activity	About 1500 m
15-Jul-25	Kurihan Village	150	65.	31	17.64	28.69		
18-Jul-25	Central Nursery (Reported Only)	111	39	16	12.11	22.03	Open-Cast Mine	Less than 500m
19-Jul-25	Central Nursery (Reported Only)	132	49	20	13.78	30.38	Open-Cast Mine	Less than 500m
21-Jul-25	CWS Colony, Meeti	145	63	26	11.70	26.58	Mining Activity	About 1500 m
21-Jul-25	Kurihan Village	162	49	25	13.19	27.18		
22-Jul-25	CWS Colony, Meeti	136	44	21	8.75	16.64	Mining Activity	About 1500 m
22-Jul-25	Kurihan Village	171	62	27	14.51	17.59		
28-Jul-25	Kurihan Village	143	46	21	11.87	19.99		

*NAAQS, 2009

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Project :

Jagannath OCP

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

<i>Date of Sampling</i>	<i>Monitoring Station</i>	<i>SPM</i>	<i>PM10</i>	<i>PM2.5</i>	<i>SO2</i>	<i>NOx</i>	<i>Dust Generating Source(DGS)</i>	<i>Distance from DGS</i>
28-Jul-25	CWS Colony, Meeti	115	42	19	15.87	26.58	Mining Activity	About 1500 m
29-Jul-25	CWS Colony, Meeti	108	36	16	11.70	23.55	Mining Activity	About 1500 m
29-Jul-25	Kurihan Village	132	38	18	19.03	29.54		
30-Jul-25	Central Nursery (Reported Only)	137	45	22	13.13	28.21	Open-Cast Mine	Less than 500m
31-Jul-25	Central Nursery (Reported Only)	109	43	17	10.25	26.93	Open-Cast Mine	Less than 500m

*NAAQS,2009

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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-Jul-25	Guthasahi Village	136	52	25	16.71	22.79	Mining Activities	About 3km
03-Jul-25	Asanabahali Village	148	58	30	15.32	29.54	Domestic and Mining Activities	About 4km
03-Jul-25	Sibarampur Village	146	53	27	17.15	28.78	Domestic and Mining Activities	About 4km
03-Jul-25	Central Nursery	128	45	21	11.43	31.98	Open-Cast Mine	Less than 500m
04-Jul-25	Sibarampur Village	134	49	25	12.95	22.79	Domestic and Mining Activities	About 4km
04-Jul-25	Guthasahi Village	147	57	29	13.63	25.58	Mining Activities	About 3km
04-Jul-25	Central Nursery	137	50	26	15.39	19.99	Open-Cast Mine	Less than 500m
04-Jul-25	Asanabahali Village	118	41	22	15.32	32.07	Domestic and Mining Activities	About 4km
11-Jul-25	Central Nursery	120	44	23	16.71	25.82	Open-Cast Mine	Less than 500m
11-Jul-25	Sibarampur Village	138	45	22	19.49	27.01	Domestic and Mining Activities	About 4km
11-Jul-25	Guthasahi Village	130	47	23	17.64	27.85	Mining Activities	About 3km
11-Jul-25	Asanabahali Village	134	45	26	12.75	27.18	Domestic and Mining Activities	About 4km
12-Jul-25	Sibarampur Village	168	62	30	14.51	24.78	Domestic and Mining Activities	About 4km
12-Jul-25	Guthasahi Village	140	54	28	13.92	30.38	Mining Activities	About 3km
12-Jul-25	Asanabahali Village	128	43	24	16.71	18.39	Domestic and Mining Activities	About 4km
12-Jul-25	Central Nursery	127	48	25	10.03	28.86	Open-Cast Mine	Less than 500m
18-Jul-25	Guthasahi Village	139	60	27	9.67	22.39	Mining Activities	About 3km
18-Jul-25	Sibarampur Village	140	53	25	12.34	19.19	Domestic and Mining Activities	About 4km
18-Jul-25	Asanabahali Village	142	47	28	16.71	21.10	Domestic and Mining Activities	About 4km
18-Jul-25	Central Nursery	111	39	16	12.11	22.03	Open-Cast Mine	Less than 500m
19-Jul-25	Sibarampur Village	128	44	23	15.32	27.01	Domestic and Mining Activities	About 4km
19-Jul-25	Guthasahi Village	145	50	23	13.46	28.69	Mining Activities	About 3km
19-Jul-25	Central Nursery	132	49	20	13.78	30.38	Open-Cast Mine	Less than 500m

*NAAQS, 2009

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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
19-Jul-25	Asanabahali Village	135	44	26	15.78	25.32	Domestic and Mining Activities	About 4km
30-Jul-25	Central Nursery	137	45	22	13.13	28.21	Open-Cast Mine	Less than 500m
30-Jul-25	Guthasahi Village	110	42	18	14.85	21.10	Mining Activities	About 3km
30-Jul-25	Asanabahali Village	123	35	18	11.43	19.19	Domestic and Mining Activities	About 4km
30-Jul-25	Sibarampur Village	171	63	28	17.59	19.99	Domestic and Mining Activities	About 4km
31-Jul-25	Sibarampur Village	125	45	20	11.14	32.07	Domestic and Mining Activities	About 4km
31-Jul-25	Asanabahali Village	130	39	22	13.00	19.41	Domestic and Mining Activities	About 4km
31-Jul-25	Guthasahi Village	168	60	29	17.59	23.19	Mining Activities	About 3km
31-Jul-25	Central Nursery	109	43	17	10.25	26.93	Open-Cast Mine	Less than 500m

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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 (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-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	20.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	20.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.5	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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BHUBANESWAR

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Jagannath OCP							
Monitoring Station	CWS Colony, Meeti							
Date of sampling	Ammonia (NH 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)
01-Jul-2025	<20.0	12.50	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	24.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	25.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	13.75	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	26.50	<0.1	<1.0	<1.0	0.7	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)

K. Jaiswal
Authorised Signatory
CMPDI, RI-VII, LAB
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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)
01-Jul-2025	<20.0	27.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	28.50	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	24.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Central Nursery							
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-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	20.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	20.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT 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 (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-Jul-2025	<20.0	12.50	<0.1	<1.0	<1.0	0.3	BQL(Q L=0.7)	BQL
04-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.7	BQL(Q L=0.7)	BQL
11-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.3	BQL(Q L=0.7)	BQL
12-Jul-2025	<20.0	24.00	<0.1	<1.0	<1.0	0.5	BQL(Q L=0.7)	BQL
18-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
19-Jul-2025	<20.0	17.50	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
30-Jul-2025	<20.0	21.00	<0.1	<1.0	<1.0	0.7	BQL(Q L=0.7)	BQL
31-Jul-2025	<20.0	23.25	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Sibarampur Village							
Date of sampling	Ammonia (NH 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-Jul-2025	<20.0	27.00	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	0.3	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	25.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	23.00	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP							
Monitoring Station	Asanabahali 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-Jul-2025	<20.0	12.25	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	20.50	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	26.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	20.50	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	16.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	20.25	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	13.00	<0.1	<1.0	<1.0	0.3	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(hou r)	1.0(24h ours)	6.0(Ann ual)	20(Ann ual)	02(8hou rs)	01(annual)	05(annu al)

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AMBIENT AIR QUALITY DATA

Area: Jagannath

Project	Ananta OCP
Monitoring Station	North-East of the Mine
Date of sampling	Carbon Monoxide (CO)
	mg/m³
05-Jul-2025	0.6
23-Jul-2025	0.8
Standard	02(8 Hours)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Jagannath OCP				
Monitoring Station	Near NBVL Park)				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(μg/m ³)	(μg/m ³)
21-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Jagannath OCP				
Monitoring Station	Near MDTP				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(μg/m ³)	(μg/m ³)
21-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Ananta OCP				
Monitoring Station	North-East of Mine				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
21-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Ananta OCP				
Monitoring Station	Near NBVL Park (REPORTED)				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
21-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(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
09-Jul-25	Near NBVL Station	65.1	53.5
09-Jul-25	Near MDTP	64.3	55.4
09-Jul-25	CWS Colony, MEETI	48.7	39.6
09-Jul-25	Central Nursery (Reported only)	60.8	52.5
24-Jul-25	Near NBVL Station	63.7	55.8
24-Jul-25	Near MDTP	66.2	56.6
24-Jul-25	CWS Colony, MEETI	50.2	40.1
24-Jul-25	Central Nursery (Reported only)	62.6	53.0

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



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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Ananta OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
09-Jul-25	North East of the Mine	66.4	56.1
09-Jul-25	Guthasahi Village	49.2	40.6
09-Jul-25	Central Nursery	60.8	52.5
24-Jul-25	North East of the Mine	66.3	56.7
24-Jul-25	Guthasahi Village	50.7	37.8
24-Jul-25	Central Nursery	62.6	53.0

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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Jatlaw



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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
09-Jul-25	Near NBVL Station (Reported only)	65.1	53.5
24-Jul-25	Near NBVL Station (Reported only)	63.7	55.8

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

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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
16-Jul-25	Face Sump	5.09	<4.0	47	52	-	
16-Jul-25	O & G Trap Inlet	7.02	4.4	61	68	-	
16-Jul-25	O & G Trap Outlet	7.16	<4.0	34	28	-	
31-Jul-25	O & G Trap Inlet	7.61	4.8	43	92	-	
31-Jul-25	O & G Trap Outlet	8.49	<4.0	40	36	-	

 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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 Jattawal
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Jattawal

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
16-Jul-25	STP INLET	6.89	-	43	-	3.3	150
16-Jul-25	STP OUTLET	7.47	-	30	-	2.2	70
31-Jul-25	STP INLET	6.76	-	49	-	3.6	170
31-Jul-25	STP OUTLET	7.33	-	35	-	2.5	94

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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Jatanaik

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Jatanaik


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
16-Jul-25	Mine Sump Water	7.04	<4.0	23	20	-	
16-Jul-25	O & G Trap Intlet	6.56	<4.0	43	36	-	
16-Jul-25	O & G Trap Outlet	7.15	<4.0	35	28	-	
31-Jul-25	O & G Trap Intlet	8.23	4.2	53	64	-	
31-Jul-25	O & G Trap Outlet	8.64	<4.0	39	32	-	

 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

TABLE--



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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	MPN/100mL
16-Jul-25	STP INLET	6.82	-	39	-	3.1	150
16-Jul-25	STP OUTLET	6.90	-	28	-	2.3	94
31-Jul-25	STP INLET	6.54	-	47	-	4.1	170
31-Jul-25	STP OUTLET	6.78	-	38	-	3.2	140

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	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	3	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	4	2	3	1	5
pH	6.88	7.51	6.97	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	54.62	50.42	46.22	200	600
Chloride(mg/L)	21.4	19.4	17.5	250	1000
Sulphate(mg/L)	124	107	94.2	200	400
Nitrate(mg/L)	0.78	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	196.10	168.64	145.11	200	600
Calcium(mg/L)	58.16	47.16	42.44	75	200
Fluoride(mg/L)	0.88	0.84	0.78	1	1.5
Total Dissolve Solid(mg/L)	318	280	248	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)	0.07	0.05	0.07	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	<0.005	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	Acceptable
Date of Sampling	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	11.49	11.89	11.25	—	—
Potassium(mg/L)	7.46	6.59	5.97	—	—
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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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	16-Jul-2025		
Colour(Hazen)	2	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	5
pH	6.97	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	46.22	200	600
Chloride(mg/L)	17.5	250	1000
Sulphate(mg/L)	94.2	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	145.11	200	600
Calcium(mg/L)	42.44	75	200
Fluoride(mg/L)	0.78	1	1.5
Total Dissolve Solid(mg/L)	248	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)	0.07	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	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 Jagannath Area

Project / OCP	Balanda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Balanda Colony (Reported Only)	Acceptable	Permissible
Date of Sampling	16-Jul-2025		
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	11.25	—	—
Potassium(mg/L)	5.97	—	—
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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Drinking Water Quality Data Jagannath Area

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Ananta Colony		
Date of Sampling	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	1	5
pH	7.20	6.20	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	21.01	84.04	200	600
Chloride(mg/L)	11.7	54.4	250	1000
Sulphate(mg/L)	28.2	66.2	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	47.06	156.88	200	600
Calcium(mg/L)	12.58	47.16	75	200
Fluoride(mg/L)	0.44	0.68	1	1.5
Total Dissolve Solid(mg/L)	96	318	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)	1.76	0.28	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	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	
	Monitoring Station	Ananta Colony		
Date of Sampling	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	7.64	25.52	-	-
Potassium(mg/L)	1.79	13.43	-	-
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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Jagannath

Legend
Monitoring Station

Kurihan village

Jagannath OCP

Near MDTP

Central Nursery

Near NBVL Station

CWS Colony, MEETI



Google Earth

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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

Image © 2015 Airbus

4 km

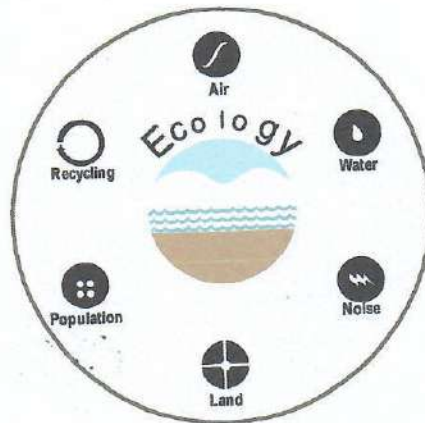


**Environmental Monitoring Report
Of
Bhubaneswari Area
For
July-2025**

Talcher Coalfield



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
Air Quality Monitoring

Test Report

AMBIENT AIR QUALITY DATA

Area :

Bhubaneswari

(Compliance Station)

Project :

Bhubaneswari OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Jul-25	B.C.M.L. Workshop	179	87	35	13.46	36.29	Mining activities, O.B Dump yard	About 400 to 500m
05-Jul-25	Silo Substation Office	197	88	43	16.71	19.41		
23-Jul-25	B.C.M.L. Workshop	176	95	40	13.78	19.75	Mining activities, O.B Dump yard	About 400 to 500m
23-Jul-25	Silo Substation Office	210	107	45	16.29	22.79		

MoEF Standards Notification dated 25th September, 2000

600 300 120 120

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
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AMBIENT AIR QUALITY DATA

Area :

Bhubaneswari**(Reference Station)**

Project :

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Jul-25	Naraharipur Village	124	48	22	16.71	24.47		
03-Jul-25	Kandhal Village (Reported Only)	134	45	26	15.78	35.45		
04-Jul-25	Kandhal Village (Reported Only)	111	37	18	19.03	21.94		
04-Jul-25	Naraharipur Village	156	65	29	12.31	28.78		
11-Jul-25	Naraharipur Village	135	53	26	14.95	20.79		
11-Jul-25	Kandhal Village (Reported Only)	108	40	22	18.56	25.32		
12-Jul-25	Kandhal Village (Reported Only)	133	49	26	14.95	25.58		
12-Jul-25	Naraharipur Village	115	46	20	20.42	34.60		
18-Jul-25	Naraharipur Village	129	49	22	11.87	26.38		
18-Jul-25	Kandhal Village (Reported Only)	147	50	22	17.15	20.79		
19-Jul-25	Kandhal Village (Reported Only)	111	40	17	13.46	27.85		
19-Jul-25	Naraharipur Village	164	58	26	17.15	19.99		
30-Jul-25	Kandhal Village (Reported Only)	148	56	24	14.85	23.63		
30-Jul-25	Naraharipur Village	112	44	18	18.03	31.18		
31-Jul-25	Naraharipur Village	135	59	25	14.95	20.79		
31-Jul-25	Kandhal Village (Reported Only)	144	46	19	16.71	31.18		

*NAAQS, 2009

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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 (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-Jul-2025	<20.0	24.50	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
04-Jul-2025	<20.0	23.00	<0.1	<1.0	<1.0	0.5	BQL(Q L=0.7)	BQL
11-Jul-2025	<20.0	18.75	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
12-Jul-2025	<20.0	26.50	<0.1	<1.0	<1.0	0.3	BQL(Q L=0.7)	BQL
18-Jul-2025	<20.0	26.75	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
19-Jul-2025	<20.0	11.50	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
30-Jul-2025	<20.0	16.75	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
31-Jul-2025	<20.0	17.75	<0.1	<1.0	<1.0	0.5	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: 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-Jul-2025	<20.0	21.50	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
04-Jul-2025	<20.0	15.00	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
11-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
12-Jul-2025	<20.0	13.00	<0.1	<1.0	<1.0	0.7	BQL(Q L=0.7)	BQL
18-Jul-2025	<20.0	16.75	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
19-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	0.7	BQL(Q L=0.7)	BQL
30-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.5	BQL(Q L=0.7)	BQL
31-Jul-2025	<20.0	16.00	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bhubaneswari

Project	Bhubaneswari OCP				
Monitoring Station	BCML Workshop				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
20-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Bhubaneswari OCP				
Monitoring Station	SILO Substation Office				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
21-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

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TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bhubaneswari

PROJECT :

Bhubaneswari OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
09-Jul-25	Naraharipur Village	50.1	40.6
09-Jul-25	Silo Substaion Office	60.7	60.6
09-Jul-25	BCML Workshop	69.4	58.3
10-Jul-25	Kandhal Village (Reported)	48.1	41.4
24-Jul-25	Naraharipur Village	47.9	39.1
24-Jul-25	Silo Substaion Office	62.5	61.2
24-Jul-25	BCML Workshop	69.6	56.4
25-Jul-25	Kandhal Village (Reported)	49.5	41.8

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

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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
16-Jul-25	Mine Sump Water	7.70	<4.0	28	24	-	
16-Jul-25	O & G Trap Inlet	7.27	<4.0	51	44	-	
16-Jul-25	O & G Trap Outlet	7.51	<4.0	36	32	-	
31-Jul-25	O & G Trap Inlet	7.29	4.8	63	96	-	
31-Jul-25	O & G Trap Outlet	7.42	<4.0	47	40	-	

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

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Test Report

AMBIENT AIR QUALITY DATA

Area :

Bharatpur

(Compliance Station)

Project :

Bharatpur OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
05-Jul-25	Near Regional Store	204	96	45	14.20	32.66	Mining Activities	About 500m
05-Jul-25	North-West Point of the Mine	196	92	43	16.27	33.58	Domestic & Mining Activities	About 500m
05-Jul-25	Near ETP/Workshop	183	85	42	11.87	26.38	Mining Activities & Coal Stock	Above 500m
23-Jul-25	Near Regional Store	180	81	38	13.92	25.32	Mining Activities	About 500m
23-Jul-25	North-West Point of the Mine	194	83	42	14.95	22.39	Domestic & Mining Activities	About 500m
23-Jul-25	Near ETP/Workshop	223	104	45	13.29	17.26	Mining Activities & Coal Stock	Above 500m

MoEF Standards Notification dated 25th September, 2000	600	300		120	120
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AMBIENT AIR QUALITY DATA

Area :

Bharatpur**(Reference Station)**

Project :

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Jul-25	East of the Mine, Natedi Village (Reported Only)	137	48	25	10.55	19.99	Coal Transportation Road	About 2km
02-Jul-25	East of the Mine, Natedi Village (Reported Only)	157	65	32	12.07	21.94	Coal Transportation Road	About 2km
03-Jul-25	Karnapur Village	118	41	23	18.47	18.39		
03-Jul-25	Near Joragdia Village	126	38	20	10.99	20.79	Transportation, Domestic Cooking	About 1km
03-Jul-25	Kalinga Colony	135	48	26	12.95	30.38		
03-Jul-25	Khajuria Village	129	47	23	11.28	27.34		
04-Jul-25	Khajuria Village	123	40	21	11.87	21.59		
04-Jul-25	Karnapur Village	155	57	29	14.07	19.19		
04-Jul-25	Near Joragdia Village	131	46	23	18.10	32.07	Transportation, Domestic Cooking	About 1km
04-Jul-25	Kalinga Colony	128	44	23	10.44	28.86		
07-Jul-25	East of the Mine, Natedi Village (Reported Only)	132	47	24	16.71	25.06	Coal Transportation Road	About 2km
08-Jul-25	East of the Mine, Natedi Village (Reported Only)	118	41	22	12.31	28.78	Coal Transportation Road	About 2km
11-Jul-25	Near Joragdia Village	148	53	27	12.75	33.58	Transportation, Domestic Cooking	About 1km
11-Jul-25	Kalinga Colony	150	59	29	10.44	22.03		
11-Jul-25	Khajuria Village	115	42	18	11.14	35.45		
11-Jul-25	Karnapur Village	120	45	24	16.27	28.78		
12-Jul-25	Khajuria Village	126	56	23	11.87	20.79		
12-Jul-25	Kalinga Colony	119	47	24	10.86	31.14		
12-Jul-25	Near Joragdia Village	126	44	21	19.96	32.07	Transportation, Domestic Cooking	About 1km
12-Jul-25	Karnapur Village	148	50	27	14.85	23.63		
14-Jul-25	East of the Mine, Natedi Village (Reported Only)	116	38	20	12.75	27.18	Coal Transportation Road	About 2km
15-Jul-25	East of the Mine, Natedi Village (Reported Only)	146	50	27	13.92	25.32	Coal Transportation Road	About 2km
18-Jul-25	Khajuria Village	165	60	27	15.39	28.78		

*NAQS, 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
18-Jul-25	Near Joragdia Village	132	44	23	10.21	27.85	Transportation, Domestic Cooking	About 1km
18-Jul-25	Kalinga Colony	135	48	21	17.13	20.51		
18-Jul-25	Karnapur Village	131	58	25	13.00	31.23		
19-Jul-25	Near Joragdia Village	119	35	15	13.19	27.98	Transportation, Domestic Cooking	About 1km
19-Jul-25	Kalinga Colony	159	51	25	12.33	18.08		
19-Jul-25	Karnapur Village	110	34	15	10.99	29.58		
19-Jul-25	Khajuria Village	133	66	30	12.53	22.79		
21-Jul-25	East of the Mine, Natedi Village (Reported Only)	129	43	21	14.62	26.58	Coal Transportation Road	About 2km
22-Jul-25	East of the Mine, Natedi Village (Reported Only)	153	65	27	14.20	22.03	Coal Transportation Road	About 2km
28-Jul-25	East of the Mine, Natedi Village (Reported Only)	148	45	23	10.11	21.59	Coal Transportation Road	About 2km
29-Jul-25	East of the Mine, Natedi Village (Reported Only)	114	42	17	10.44	23.55	Coal Transportation Road	About 2km
30-Jul-25	Near Joragdia Village	165	50	26	15.39	20.79	Transportation, Domestic Cooking	About 1km
30-Jul-25	Khajuria Village	126	52	22	10.03	25.06		
30-Jul-25	Karnapur Village	135	46	22	17.17	27.01		
30-Jul-25	Kalinga Colony	121	36	16	16.71	24.31		
31-Jul-25	Khajuria Village	151	54	26	16.71	21.59		
31-Jul-25	Kalinga Colony	123	43	19	13.78	28.86		
31-Jul-25	Near Joragdia Village	142	47	23	10.99	31.18	Transportation, Domestic Cooking	About 1km
31-Jul-25	Karnapur Village	155	54	26	16.24	23.63		

*NAAQS, 2009

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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-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.3	BQL(QL =0.7)	BQL
04-Jul-2025	<20.0	18.00	<0.1	<1.0	<1.0	0.4	BQL(QL =0.7)	BQL
11-Jul-2025	<20.0	19.50	<0.1	<1.0	<1.0	0.6	BQL(QL =0.7)	BQL
12-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.5	BQL(QL =0.7)	BQL
18-Jul-2025	<20.0	19.00	<0.1	<1.0	<1.0	0.4	BQL(QL =0.7)	BQL
19-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	0.6	BQL(QL =0.7)	BQL
30-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	0.4	BQL(QL =0.7)	BQL
31-Jul-2025	<20.0	17.50	<0.1	<1.0	<1.0	0.6	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)
01-Jul-2025	<20.0	17.50	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	22.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	19.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	16.00	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	19.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	13.75	<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	Near Joragadia 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)
03-Jul-2025	<20.0	14.75	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	15.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	23.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	13.50	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	21.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
Standard	400(24hours)	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)	02(8hours)	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-Jul-2025	<20.0	20.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	19.50	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	25.00	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	23.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	12.00	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	15.50	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	26.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	21.50	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
Standard	400(24hours)	180(hour)	1.0(24hours)	6.0(Annual)	20(Annual)	02(8hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Karanpur 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-Jul-2025	<20.0	12.25	<0.1	<1.0	<1.0	0.3	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	27.75	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	18.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	14.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	13.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	27.00	<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	Near ETP/Workshop			
Date of sampling	Lead (Pb)	Arsenic (As)	Mercury (Hg)	Chromium (Cr)
	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
20-May-2025	<0.1	<1.0	<1.0	<0.1
Standard	1.0(24hours)	6.0(Annual)	-	-

Project	Bharatpur OCP			
Monitoring Station	North-West Point of the Mine			
Date of sampling	Lead (Pb)	Arsenic (As)	Mercury (Hg)	Chromium (Cr)
	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
21-May-2025	<0.1	<1.0	<1.0	<0.1
Standard	1.0(24hours)	6.0(Annual)	-	-

Project	Bharatpur OCP			
Monitoring Station	Near Regional Store			
Date of sampling	Lead (Pb)	Arsenic (As)	Mercury (Hg)	Chromium (Cr)
	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
21-May-2025	<0.1	<1.0	<1.0	<0.1
Standard	1.0(24hours)	6.0(Annual)	-	-

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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
10-Jul-25	North West Point of the Mine	63.5	53.9
10-Jul-25	Near Regional Store	66.8	54.2
10-Jul-25	Near Wokshop	65.3	55.4
10-Jul-25	Kalinga Colony	49.2	40.6
11-Jul-25	Natedi Village (Reported)	46.7	40.3
25-Jul-25	North West Point of the Mine	65.5	54.4
25-Jul-25	Near Regional Store	67.1	54.7
25-Jul-25	Near Wokshop	67.3	56.0
25-Jul-25	Kalinga Colony	50.7	41.1
26-Jul-25	Natedi Village (Reported)	48.2	40.8

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

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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
16-Jul-25	Mine Sump Water - Main Sump	6.84	-	-	-	-	
16-Jul-25	Mine Sump Water - Old Quarry Sump	6.99	-	-	-	-	
16-Jul-25	Rakas Quarry Sump	6.99	<4.0	43	32	-	
16-Jul-25	Workshop ETP Clear Water Tank	7.61	4.2	47	60	-	
16-Jul-25	Workshop Inlet	7.42	5.0	67	84	-	
31-Jul-25	Workshop ETP Clear Water Tank	8.19	<4.0	37	44	-	
31-Jul-25	Workshop Inlet	8.58	4.6	58	80	-	

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
16-Jul-25	STP INLET	8.15	-	31	-	2.2	170
16-Jul-25	STP Outlet (PH,TSS,MPN,BOD)	8.48	-	22	-	<2	110
31-Jul-25	STP INLET	8.57	-	37	-	2.4	280
31-Jul-25	STP Outlet (PH,TSS,MPN,BOD)	8.39	-	25	-	<2	120

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		
Date of Sampling	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	3	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	1	5
pH	6.77	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	142.87	200	600
Chloride(mg/L)	36.9	250	1000
Sulphate(mg/L)	44.28	200	400
Nitrate(mg/L)	0.98	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	184.33	200	600
Calcium(mg/L)	50.52	75	200
Fluoride(mg/L)	0.86	1	1.5
Total Dissolve Solid(mg/L)	290	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	0.26	0.1	0.3
Iron(mg/L)	<0.1	1.0	No relaxation
Zinc(mg/L)	3.13	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	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	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	6.45	—	—
Potassium(mg/L)	4.23	—	—
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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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

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3 km

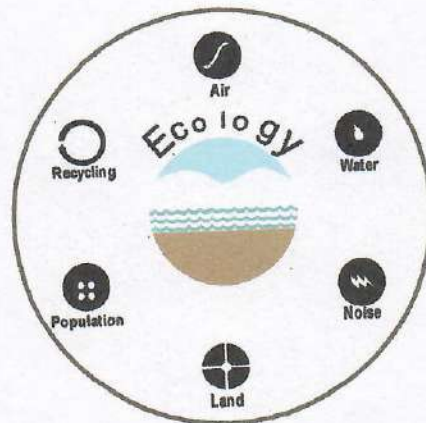


**Environmental Monitoring Report
Of
Lingaraj Area
For
July-2025**

Talcher Coalfield



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



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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
09-Jul-25	GM Office Lingraj	205	87	42	14.95	31.98		
09-Jul-25	Near Silo Conveyor Belt	178	90	39	16.29	18.99		
24-Jul-25	GM Office Lingraj	210	93	39	17.59	20.79		
24-Jul-25	Near Silo Conveyor Belt	231	108	46	13.46	21.94		

MoEF Standards Notification dated 25th September, 2000

500 250 120 120

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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-Jul-25	Kandhal Village	134	45	26	15.78	35.45		
03-Jul-25	Lingaraj Township	147	56	29	14.95	31.98		
03-Jul-25	Balunga Khamar Village	122	44	25	15.32	32.07		
04-Jul-25	Balunga Khamar Village	119	37	22	11.70	20.51		
04-Jul-25	Kandhal Village	111	37	18	19.03	21.94		
04-Jul-25	Lingaraj Township	135	45	24	11.28	17.47		
11-Jul-25	Lingaraj Township	110	33	15	12.95	23.55		
11-Jul-25	Balunga Khamar Village	131	48	26	19.35	25.58		
11-Jul-25	Kandhal Village	108	40	22	18.56	25.32		
12-Jul-25	Balunga Khamar Village	127	45	24	17.59	30.38		
12-Jul-25	Kandhal Village	133	49	26	14.95	25.58		
12-Jul-25	Lingaraj Township	147	51	27	10.44	26.58		
18-Jul-25	Kandhal Village	147	50	22	17.15	20.79		
18-Jul-25	Lingaraj Township	149	52	23	13.76	19.66		
18-Jul-25	Balunga Khamar Village	141	47	25	12.75	18.39		
19-Jul-25	Balunga Khamar Village	118	43	19	16.71	24.78		
19-Jul-25	Kandhal Village	111	40	17	13.46	27.85		
19-Jul-25	Lingaraj Township	113	43	19	11.01	22.79		
30-Jul-25	Balunga Khamar Village	130	45	21	13.78	30.38		
30-Jul-25	Kandhal Village	148	56	24	14.85	23.63		
30-Jul-25	Lingaraj Township	155	62	27	16.27	19.99		
31-Jul-25	Lingaraj Township	141	49	20	11.70	29.62		
31-Jul-25	Balunga Khamar Village	165	53	27	14.85	22.79		
31-Jul-25	Kandhal Village	144	46	19	16.71	31.18		

*NAAQS, 2009		100	60	80	80
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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-Jul-2025	<20.0	24.50	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
04-Jul-2025	<20.0	23.00	<0.1	<1.0	<1.0	0.5	BQL(Q L=0.7)	BQL
11-Jul-2025	<20.0	18.75	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
12-Jul-2025	<20.0	26.50	<0.1	<1.0	<1.0	0.3	BQL(Q L=0.7)	BQL
18-Jul-2025	<20.0	26.75	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
19-Jul-2025	<20.0	11.50	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
30-Jul-2025	<20.0	16.75	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
31-Jul-2025	<20.0	17.75	<0.1	<1.0	<1.0	0.5	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 (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-Jul-2025	<20.0	20.00	<0.1	<1.0	<1.0	0.7	BQL(Q L=0.7)	BQL
04-Jul-2025	<20.0	25.25	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
11-Jul-2025	<20.0	28.50	<0.1	<1.0	<1.0	0.5	BQL(Q L=0.7)	BQL
12-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
18-Jul-2025	<20.0	12.25	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
19-Jul-2025	<20.0	23.75	<0.1	<1.0	<1.0	0.3	BQL(Q L=0.7)	BQL
30-Jul-2025	<20.0	15.00	<0.1	<1.0	<1.0	0.8	BQL(Q L=0.7)	BQL
31-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.7	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-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
04-Jul-2025	<20.0	12.50	<0.1	<1.0	<1.0	0.6	BQL(Q L=0.7)	BQL
11-Jul-2025	<20.0	16.25	<0.1	<1.0	<1.0	0.5	BQL(Q L=0.7)	BQL
12-Jul-2025	<20.0	23.25	<0.1	<1.0	<1.0	0.7	BQL(Q L=0.7)	BQL
18-Jul-2025	<20.0	12.25	<0.1	<1.0	<1.0	0.5	BQL(Q L=0.7)	BQL
19-Jul-2025	<20.0	20.75	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
30-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	0.3	BQL(Q L=0.7)	BQL
31-Jul-2025	<20.0	23.75	<0.1	<1.0	<1.0	0.4	BQL(Q L=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

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J. Pattnaik



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AMBIENT AIR QUALITY DATA

Area: Lingaraj

Project	Lingaraj OCP
Monitoring Station	Near Silo Conveyor Belt
Date of sampling	Carbon Monoxide (CO)
	mg/m³
09-Jul-2025	0.4
24-Jul-2025	0.5
Standard	02(8 Hours)

Project	Lingaraj OCP
Monitoring Station	GM Office Lingaraj
Date of sampling	Carbon Monoxide (CO)
	mg/m³
09-Jul-2025	0.4
24-Jul-2025	0.6
Standard	02(8 Hours)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Lingaraj

Project	Lingaraj OCP				
Monitoring Station	Near Conveyor Belt				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
21-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	

Project	Lingaraj OCP				
Monitoring Station	GM Office Lingaraj				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
21-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	

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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
10-Jul-25	Lingaraj Township	46.3	37.6
10-Jul-25	Balunga Khamar Village	49.7	40.4
10-Jul-25	Kandhal Village	48.1	41.4
10-Jul-25	Near Silo Conveyor Belt	67.9	58.2
25-Jul-25	Lingaraj Township	47.7	38.1
25-Jul-25	Balunga Khamar Village	51.2	40.8
25-Jul-25	Kandhal Village	49.5	41.8
25-Jul-25	Near Silo Conveyor Belt	64.9	57.8

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

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Central Pollution Control Board
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भारत सरकार

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
13-Jun-25	Clear Water Reservoir of ETP Near Dumper Parking	6.90	<4.0	29	16	-	
13-Jun-25	Filter Outlet of Workshop ETP	6.84	<4.0	37	32	-	
13-Jun-25	Inlet of ETP Near Dumper Parking	6.44	<4.0	45	52	-	
13-Jun-25	Inlet of Workshop ETP	6.56	4.4	53	68	-	
13-Jun-25	Mine Sump Water	7.81	<4.0	38	52	-	
27-Jun-25	Clear Water Reservoir of ETP Near Dumper Parking	7.38	<4.0	31	36	-	
27-Jun-25	Filter Outlet of Workshop ETP	6.40	<4.0	31	32	-	
27-Jun-25	Inlet of ETP Near Dumper Parking	6.02	<4.0	43	64	-	
27-Jun-25	Inlet of Workshop ETP	6.16	4.6	47	76	-	

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

5.5-9.0

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TABLE--



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EFFLUENT QUALITY DATA

Area :

Lingaraj

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

Project :

Lingaraj OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
16-Jul-25	Clear Water Reservoir of ETP Near Dumper Parking	8.33	<4.0	35	36	-	
16-Jul-25	Filter Outlet of Workshop ETP	6.54	<4.0	45	48	-	
16-Jul-25	Inlet of ETP Near Dumper Parking	6.51	<4.0	49	56	-	
16-Jul-25	Inlet of Workshop ETP	6.40	5.2	65	96	-	
16-Jul-25	Mine Sump Water	7.55	<4.0	29	24	-	
31-Jul-25	Clear Water Reservoir of ETP Near Dumper Parking	6.82	<4.0	35	32	-	
31-Jul-25	Filter Outlet of Workshop ETP	6.90	<4.0	43	40	-	
31-Jul-25	Inlet of ETP Near Dumper Parking	6.85	<4.0	44	48	-	
31-Jul-25	Inlet of Workshop ETP	6.68	4.4	61	84	-	

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

5.5-9.0

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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
16-Jul-25	STP Inlet at Lingaraj Township	8.30	-	37	-	3.0	210
16-Jul-25	STP Outlet at Lingaraj Township	7.52	-	25	-	<2	130
31-Jul-25	STP Inlet at Lingaraj Township	7.38	-	39	-	2.4	220
31-Jul-25	STP Outlet at Lingaraj Township	7.95	-	26	-	<2	130

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

6.5-9.0

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Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP	Indian Drinking Standards (IS-10500):2012	
		Acceptable	Permissible
Monitoring Station	GM Office, Lingraj Area		
Date of Sampling	16-Jul-2025		
Colour(Hazen)	1	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	5
pH	7.79	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	33.62	200	600
Chloride(mg/L)	11.7	250	1000
Sulphate(mg/L)	26.8	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	58.83	200	600
Calcium(mg/L)	15.72	75	200
Fluoride(mg/L)	0.45	1	1.5
Total Dissolve Solid(mg/L)	104	500	2000
Copper(mg/L)	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.1	0.3
Iron(mg/L)	0.10	1.0	No relaxation
Zinc(mg/L)	0.12	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	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 Lingraj Area

Project / OCP	Lingraj OCP	Indian Drinking Standards (IS-10500):2012	
		Acceptable	Permissible
Monitoring Station	GM Office, Lingraj Area		
Date of Sampling	16-Jul-2025		
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	6.02		
Potassium(mg/L)	1.85		
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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Lingraj OCP

Legend

Air Monitoring Locations

Kandhal Village

Balunga village

GM Office Lingraj

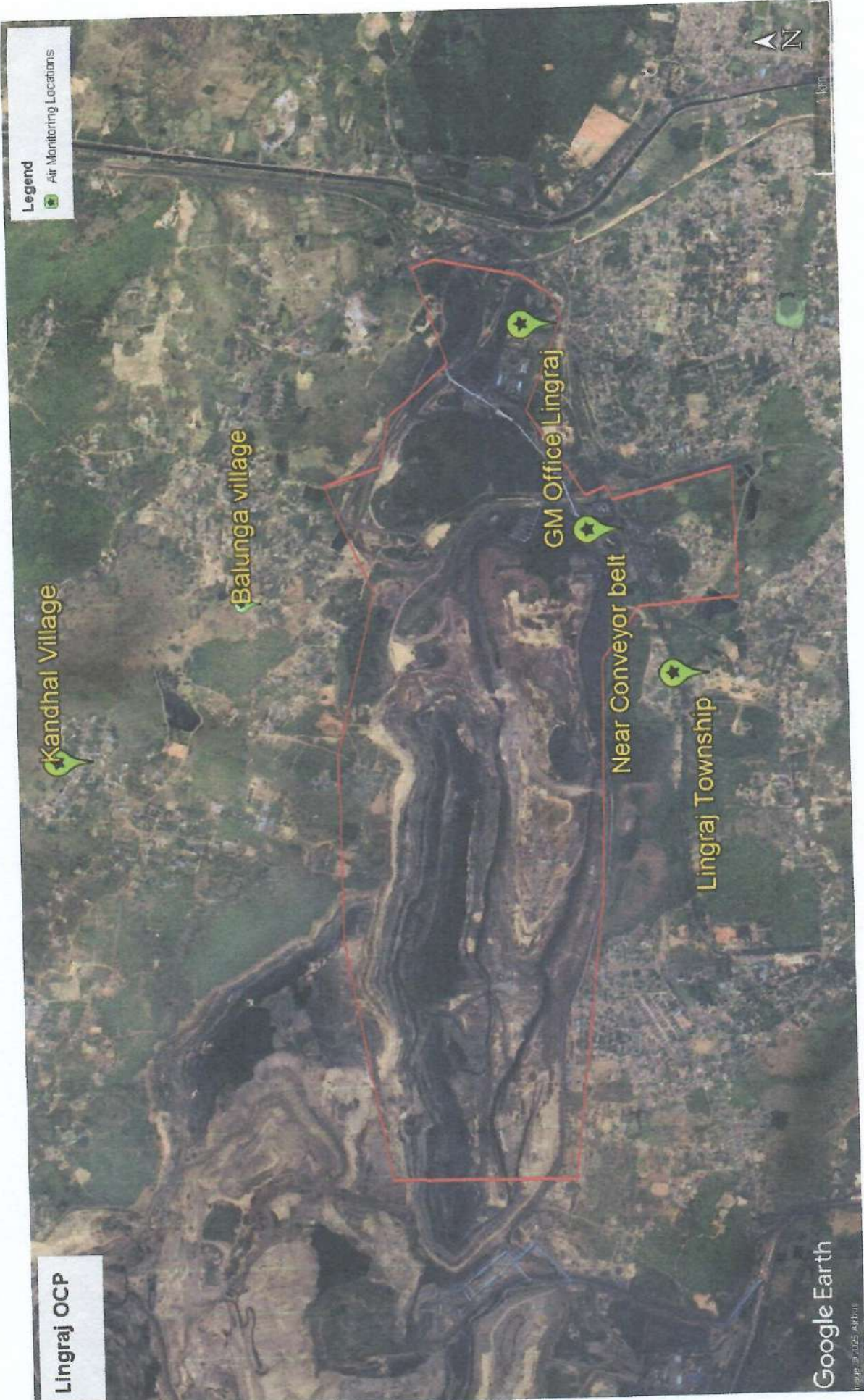
Near Conveyor belt

Lingraj Township

N

Google Earth

Image © 2025 Earthstar

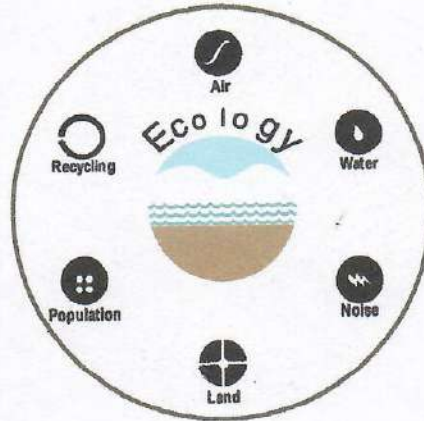


**Environmental Monitoring Report
Of
Kaniha Area
For
July-2025**

Talcher Coalfield



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 :

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
09-Jul-25	Near External OB Dump, Jamania	204	93	46	14.51	33.58	Mining Activities	About 500m
09-Jul-25	New Time Office (Near Z-Patch)	215	110	48	11.70	22.79	Mining Activities	About 500m
09-Jul-25	Near Project Office	187	80	42	15.83	31.18	Mining Activities	About 500m
24-Jul-25	Near External OB Dump, Jamania	184	85	37	11.87	21.59	Mining Activities	About 500m
24-Jul-25	New Time Office (Near Z-Patch)	214	86	42	9.67	23.19	Mining Activities	About 500m
24-Jul-25	Near Project Office	196	84	41	10.67	32.91	Mining Activities	About 500m

MoEF Standards Notification dated 25th
September, 2000

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AMBIENT AIR QUALITY DATA

Area :

Kaniha

(Reference Station)

Project :

Kaniha OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Jul-25	Kaniha (North of the Mine)	116	33	17	11.87	20.79	Mining Activities	About 500m
01-Jul-25	South Of Proposed Quarry Limit of KOCP	165	45	26	17.13	17.47	Mining Activities	About 500m
01-Jul-25	Guiland, South West of Mine	136	52	25	12.53	19.75		
01-Jul-25	Near Harichandanpur	165	57	30	11.43	33.58		
01-Jul-25	Gandaberna	150	53	29	13.46	32.91		
01-Jul-25	Kansamunda Village (West of the mine)	116	41	20	16.71	31.23		
02-Jul-25	Near Harichandanpur	135	47	24	16.71	20.79		
02-Jul-25	Kansamunda Village (West of the mine)	109	36	17	12.75	23.99		
02-Jul-25	South Of Proposed Quarry Limit of KOCP	151	59	28	15.04	24.31	Mining Activities	About 500m
02-Jul-25	Kaniha (North of the Mine)	129	52	23	19.03	21.10	Mining Activities	About 500m
02-Jul-25	Guiland, South West of Mine	147	60	28	15.83	23.19		
02-Jul-25	Gandaberna	131	43	25	16.71	28.69		
07-Jul-25	Guiland, South West of Mine	140	54	26	17.96	24.31		
07-Jul-25	Kaniha (North of the Mine)	141	49	27	18.47	34.38	Mining Activities	About 500m
07-Jul-25	Near Harichandanpur	144	55	27	15.46	27.34		
07-Jul-25	South Of Proposed Quarry Limit of KOCP	116	43	20	19.03	34.60	Mining Activities	About 500m
07-Jul-25	Gandaberna	144	49	28	13.63	30.38		
07-Jul-25	Kansamunda Village (West of the mine)	136	45	25	12.31	33.58		
08-Jul-25	South Of Proposed Quarry Limit of KOCP	148	56	27	15.04	27.34	Mining Activities	About 500m
08-Jul-25	Near Harichandanpur	127	43	22	12.53	28.69		
08-Jul-25	Kansamunda Village (West of the mine)	153	50	28	12.31	32.78		
08-Jul-25	Kaniha (North of the Mine)	116	40	19	20.42	32.91	Mining Activities	About 500m
08-Jul-25	Guiland, South West of Mine	152	66	30	16.71	33.58		

*NAAQS,2009

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Project :

Kaniha OCP

(conc. in µg/cu.m.)

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
08-Jul-25	Gandaberna	127	41	22	14.07	25.58		
14-Jul-25	Kansamunda Village (West of the mine)	129	40	24	13.00	34.60		
14-Jul-25	Guiland, South West of Mine	135	51	24	15.78	22.79		
14-Jul-25	Near Harichandanpur	107	37	19	18.10	34.60		
14-Jul-25	Gandaberna	111	35	17	12.07	28.69		
14-Jul-25	Kaniha (North of the Mine)	138	47	23	17.15	30.38	Mining Activities	About 500m
14-Jul-25	South Of Proposed Quarry Limit of KOCP	132	53	23	15.87	24.31	Mining Activities	About 500m
15-Jul-25	Gandaberna	117	48	23	14.07	23.19		
15-Jul-25	South Of Proposed Quarry Limit of KOCP	122	40	18	16.71	22.79	Mining Activities	About 500m
15-Jul-25	Guiland, South West of Mine	144	57	27	14.95	23.99		
15-Jul-25	Near Harichandanpur	137	53	25	17.59	28.78		
15-Jul-25	Kaniha (North of the Mine)	145	51	27	10.86	27.34	Mining Activities	About 500m
15-Jul-25	Kansamunda Village (West of the mine)	105	33	16	13.92	34.60		
21-Jul-25	Kansamunda Village (West of the mine)	143	53	22	19.03	29.54		
21-Jul-25	Kaniha (North of the Mine)	162	53	27	11.01	21.41	Mining Activities	About 500m
21-Jul-25	Near Harichandanpur	173	67	30	17.64	22.79		
21-Jul-25	South Of Proposed Quarry Limit of KOCP	138	51	25	9.61	17.47	Mining Activities	About 500m
21-Jul-25	Guiland, South West of Mine	120	37	18	12.73	24.59		
21-Jul-25	Gandaberna	148	47	25	17.64	22.79		
22-Jul-25	Kaniha (North of the Mine)	136	45	23	16.29	30.38	Mining Activities	About 500m
22-Jul-25	South Of Proposed Quarry Limit of KOCP	118	42	19	10.63	27.62	Mining Activities	About 500m
22-Jul-25	Near Harichandanpur	150	56	27	16.24	18.57		
22-Jul-25	Gandaberna	164	67	28	17.17	33.76		
22-Jul-25	Kansamunda Village (West of the mine)	149	57	26	10.67	28.69		
22-Jul-25	Guiland, South West of Mine	137	49	22	13.63	19.99		
28-Jul-25	Near Harichandanpur	128	48	25	13.46	27.85		

*NAAQS, 2009

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Signature

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
28-Jul-25	South Of Proposed Quarry Limit of KOCP	107	36	15	13.13	25.32	Mining Activities	About 500m
28-Jul-25	Kansamunda Village (West of the mine)	133	51	20	14.39	32.07		
28-Jul-25	Kaniha (North of the Mine)	166	54	25	13.53	28.21	Mining Activities	About 500m
28-Jul-25	Guiland, South West of Mine	127	42	20	11.60	20.25		
28-Jul-25	Gandaberna	134	57	23	18.56	19.41		
29-Jul-25	Kansamunda Village (West of the mine)	166	61	28	10.11	26.38		
29-Jul-25	South Of Proposed Quarry Limit of KOCP	168	74	31	17.54	26.58	Mining Activities	About 500m
29-Jul-25	Guiland, South West of Mine	141	56	25	11.60	20.25		
29-Jul-25	Near Harichandanpur	122	40	17	17.64	22.79		
29-Jul-25	Gandaberna	126	46	20	17.59	19.19		
29-Jul-25	Kaniha (North of the Mine)	182	75	30	9.67	27.18	Mining Activities	About 500m

*NAAQS,2009

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T. Pattanayak
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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)
01-Jul-2025	<20.0	22.50	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	25.25	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	25.75	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	20.25	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	21.00	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	13.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	15.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	25.75	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	11.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(hour)	1.0(24h ours)	6.0(Annual)	20(Annual)	02(8hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: 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 (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)
1-Jul-2025	<20.0	18.75	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
2-Jul-2025	<20.0	23.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
7-Jul-2025	<20.0	18.00	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
8-Jul-2025	<20.0	12.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	28.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	19.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	26.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	13.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	27.25	<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: 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 (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)
01-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	17.75	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	15.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	21.00	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	23.75	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	19.00	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	26.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	13.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

T. Patra
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J. Sahoo



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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	Be nzo (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)
01-Jul-2025	<20.0	17.50	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	22.75	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	22.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	17.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	19.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	28.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	14.75	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0 (Annual)	20(Annual)	02(8hou rs)	01(annu al)	05(annu al)

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BHUBANESWAR

Jamali

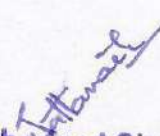


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मिनी रत्न
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Mini Ratna

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)
01-Jul-2025	<20.0	11.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	27.50	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	19.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	13.75	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	22.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	13.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	20.00	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	23.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	18.00	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
Standard	400(24h hours)	180(hour)	1.0(24h hours)	6.0(Annual)	20(Annual)	02(8hours)	01(annual)	05(annual)


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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	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)	($\mu\text{g}/\text{m}^3$)
01-Jul-2025	<20.0	14.00	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	15.25	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	24.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	25.00	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	28.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	27.75	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	25.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	24.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	12.50	<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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AMBIENT AIR QUALITY DATA

Area: Kaniha

Project	KanihaOCP
Monitoring Station	Near Project Office
Date of sampling	Carbon Monoxide (CO)
	mg/m³
09-Jul-2025	0.7
24-Jul-2025	0.8
Standard	02(8 Hours)

Project	KanihaOCP
Monitoring Station	New Time Office (Near Z-Patch)
Date of sampling	Carbon Monoxide (CO)
	mg/m³
09-Jul-2025	0.8
24-Jul-2025	0.6
Standard	02(8 Hours)

Project	KanihaOCP
Monitoring Station	Near External OB Dump, Jamania
Date of sampling	Carbon Monoxide (CO)
	mg/m³
09-Jul-2025	0.7
24-Jul-2025	0.9
Standard	02(8 Hours)

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Jatwanati



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Mini Ratna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP				
Monitoring Station	Project Office				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
22-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Kaniha OCP				
Monitoring Station	New Time Office (Near Z-Patch)				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
22-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Kaniha OCP				
Monitoring Station	Near External OB Dump, Jamania				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
22-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

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Signature



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Ministry of Coal

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Kaniha

PROJECT :

Kaniha OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Jul-25	Kansamunda Village (West of the Mine)	50.2	40.5
11-Jul-25	Near External OB Dump, Jamania	62.8	54.6
11-Jul-25	Near Time Office (Near Z-Patch)	65.4	52.5
11-Jul-25	Near Project Office	63.1	55.3
26-Jul-25	Kansamunda Village (West of the Mine)	51.7	40.9
26-Jul-25	Near External OB Dump, Jamania	64.7	55.1
26-Jul-25	Near Time Office (Near Z-Patch)	67.4	53.0
26-Jul-25	Near Project Office	65.0	55.9

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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Jaswanti



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CMPDI
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TABLE--

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
16-Jul-25	Clear Water Pond	6.96	<4.0	37	28	-	
16-Jul-25	Kansamunda Sump	6.95	<4.0	44	32	-	
16-Jul-25	Pre Sedimentation Pond	6.79	<4.0	42	32	-	
16-Jul-25	Z-Patch Sump	6.94	<4.0	35	48	-	
31-Jul-25	Clear Water Pond	8.74	<4.0	48	40	-	
31-Jul-25	Pre Sedimentation Pond	8.53	<4.0	54	44	-	

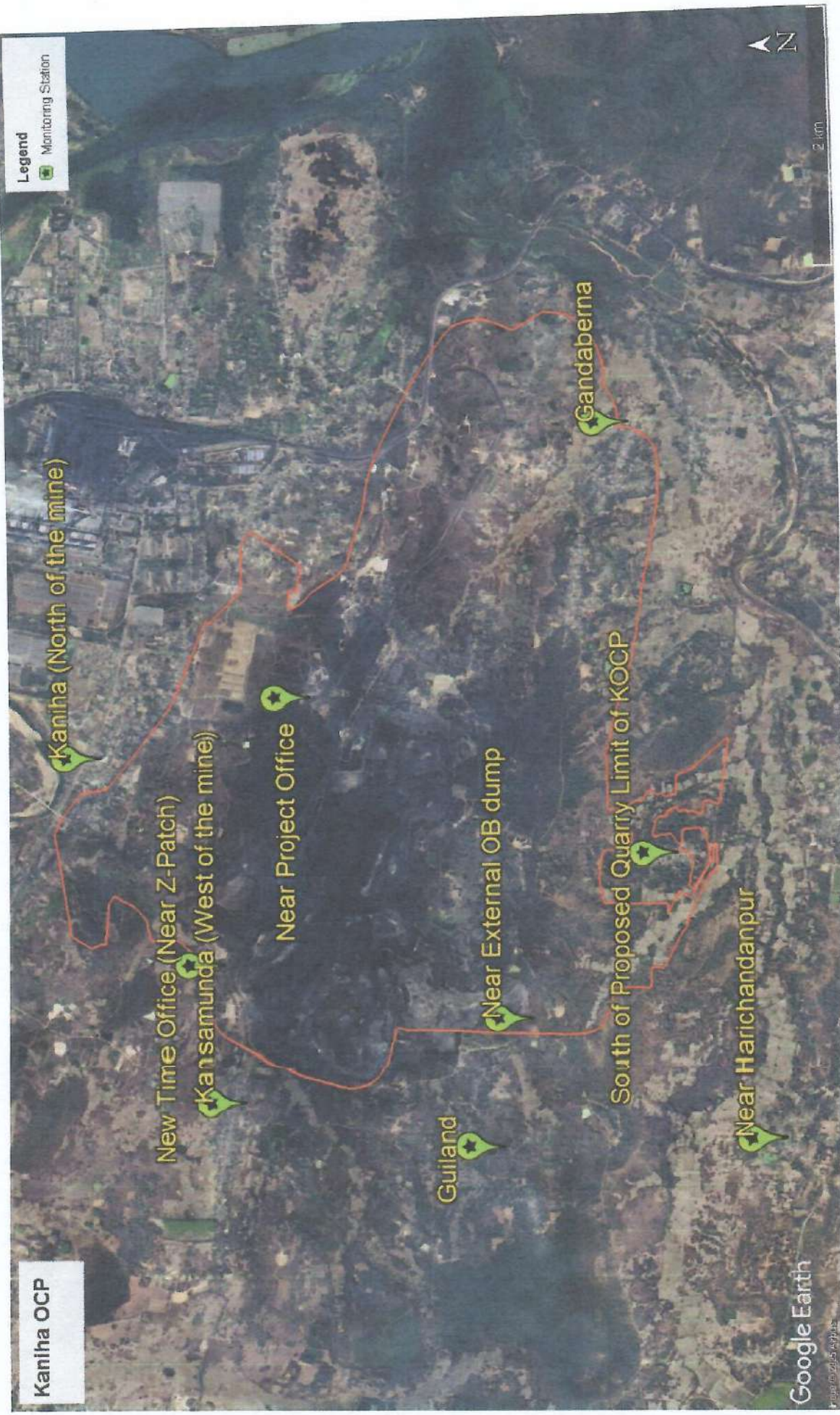
MoEF Standard Notification dated 25th September, 2000 and MoEF Schedule VI, General standard for discharge of Environmental Pollutants Part A: Effluents	5.5-9.0	10	100	250	30
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Signature

Kaniha OCP

Legend
Monitoring Station



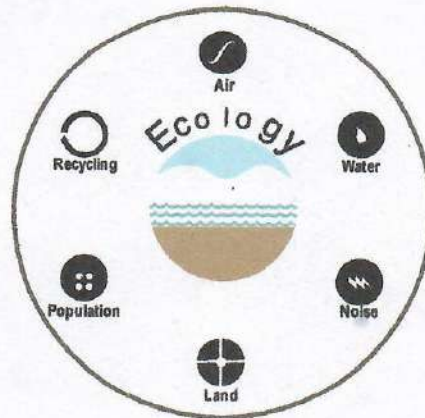
**Environmental Monitoring Report
Of
Hingula Area
For
July-2025**

Talcher Coalfield



MCL

Mahanadi Coalfields Limited



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Mini Ratna

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

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

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विश्व स्तर
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MINE RATING

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
09-Jul-25	Time Office	186	87	39	10.55	28.78	Mining Operations and Haul Road	About 200m
09-Jul-25	South West Side of the Mine	208	104	45	14.62	27.34	Mining Operations	About 300m
25-Jul-25	Time Office	216	96	44	11.54	16.64	Mining Operations and Haul Road	About 200m
25-Jul-25	South West Side of the Mine	205	90	43	13.78	27.34	Mining Operations	About 300m

MoEF Standards Notification dated 25th September, 2000

500	250		120	120
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Janani

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CMPDI, RI-VII, LAB
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Test Report

AMBIENT AIR QUALITY DATA

Area :

Hingula

(Compliance Station)

Project :

Balaram OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO ₂	NO _x	Dust Generating Source(DGS)	Distance from DGS
09-Jul-25	Pump House near Outsourcing Working Patch	188	87	41	13.63	29.58	Mining Operation And Coal Transportation Road	About 200m
09-Jul-25	Near Project Office	183	88	43	14.20	27.34	Mining Activities	About 500m
25-Jul-25	Pump House near Outsourcing Working Patch	183	89	38	13.37	29.62	Mining Operation And Coal Transportation Road	About 200m
25-Jul-25	Near Project Office	205	90	43	12.91	16.57	Mining Activities	About 500m

MoEF Standards Notification dated 25th September, 2009

600	300		120	120
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Signature

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
01-Jul-25	Solda Village	138	53	25	18.47	30.38	Coal Transportation Road	About 2km
01-Jul-25	Banabaspur Village	115	38	20	14.20	17.47		
01-Jul-25	Kankarei Village	131	43	25	14.85	20.25		
01-Jul-25	Sanamahitala Village	146	50	27	12.53	27.01		
01-Jul-25	Balichandrapur Village	139	51	27	19.35	29.58		
02-Jul-25	Balichandrapur Village	114	40	22	18.03	19.19		
02-Jul-25	Banabaspur Village	145	53	28	16.27	24.78		
02-Jul-25	Kankarei Village	163	62	30	17.15	27.18		
02-Jul-25	Sanamahitala Village	133	45	24	16.29	23.55		
02-Jul-25	Solda Village	124	38	17	16.71	29.62	Coal Transportation Road	About 2km
07-Jul-25	Sanamahitala Village	128	41	22	13.00	33.76		
07-Jul-25	Balichandrapur Village	131	46	25	18.47	22.39		
07-Jul-25	Kankarei Village	141	49	26	16.71	26.38		
07-Jul-25	Solda Village	146	53	28	10.86	28.10	Coal Transportation Road	About 2km
07-Jul-25	Banabaspur Village	133	41	24	11.60	26.16		
08-Jul-25	Solda Village	119	44	22	13.00	26.16	Coal Transportation Road	About 2km
08-Jul-25	Kankarei Village	129	44	23	18.56	32.91		
08-Jul-25	Banabaspur Village	126	38	22	18.91	24.78		
08-Jul-25	Sanamahitala Village	114	35	20	13.19	25.58		
08-Jul-25	Balichandrapur Village	119	43	21	12.07	23.63		
14-Jul-25	Solda Village	144	50	26	14.51	24.78	Coal Transportation Road	About 2km
14-Jul-25	Sanamahitala Village	139	58	26	13.00	31.23		
14-Jul-25	Kankarei Village	155	59	29	15.39	23.19		
14-Jul-25	Balichandrapur Village	141	58	31	19.35	25.58		
14-Jul-25	Banabaspur Village	145	48	27	20.42	24.47		

*NAAQS, 2009

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
15-Jul-25	Kankarei Village	125	46	22	19.03	30.38		
15-Jul-25	Sanamahitala Village	114	35	18	19.35	27.98		
15-Jul-25	Banabaspur Village	144	55	29	18.56	29.54		
15-Jul-25	Balichandrapur Village	129	49	28	18.91	34.38		
15-Jul-25	Solda Village	137	47	25	19.49	26.16	Coal Transportation Road	About 2km
21-Jul-25	Solda Village	124	40	18	19.03	23.63	Coal Transportation Road	About 2km
21-Jul-25	Kankarei Village	139	51	21	12.75	28.78		
21-Jul-25	Balichandrapur Village	133	43	24	9.15	20.98		
21-Jul-25	Sanamahitala Village	127	45	21	13.63	24.78		
21-Jul-25	Banabaspur Village	138	61	26	14.85	18.57		
22-Jul-25	Balichandrapur Village	167	55	26	14.85	20.25		
22-Jul-25	Kankarei Village	170	59	28	10.68	19.99		
22-Jul-25	Banabaspur Village	126	46	19	18.03	25.58		
22-Jul-25	Solda Village	144	46	24	12.73	26.76	Coal Transportation Road	About 2km
22-Jul-25	Sanamahitala Village	123	39	17	15.83	25.58		
28-Jul-25	Solda Village	131	43	21	13.19	26.38	Coal Transportation Road	About 2km
28-Jul-25	Banabaspur Village	140	57	27	10.86	18.23		
28-Jul-25	Balichandrapur Village	133	41	21	17.13	25.82		
28-Jul-25	Sanamahitala Village	143	55	27	14.39	23.63		
28-Jul-25	Kankarei Village	158	54	24	15.39	27.98		
29-Jul-25	Sanamahitala Village	126	47	22	13.19	24.78		
29-Jul-25	Solda Village	163	55	28	10.55	19.99	Coal Transportation Road	About 2km
29-Jul-25	Banabaspur Village	136	49	24	19.49	23.63		
29-Jul-25	Kankarei Village	136	48	20	14.07	31.18		
29-Jul-25	Balichandrapur Village	125	35	19	18.03	22.39		

*NAAQS,2009

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Jasmati



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CMPDI
MINI ROTHS

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
01-Jul-25	Kurihan Village (Reported Only)	138	48	27	19.49	22.79		
01-Jul-25	Purunasahi Village	171	68	32	17.96	32.66		
01-Jul-25	East of the Mine, Natedi Village	137	48	25	10.55	19.99	Coal Transportation Road	About 2km
01-Jul-25	Natada Village	127	49	24	13.92	20.25	Anthropogenic Activities, Local	About 2km
01-Jul-25	Solda Village (Reported Only)	138	53	25	18.47	30.38	Coal Transportation Road	About 2km
02-Jul-25	Purunasahi Village	117	46	20	11.43	34.38		
02-Jul-25	Natada Village	117	44	21	15.78	20.25	Anthropogenic Activities, Local	About 2km
02-Jul-25	Kurihan Village (Reported Only)	135	65	29	16.71	23.63		
02-Jul-25	Solda Village (Reported Only)	124	38	17	16.71	29.62	Coal Transportation Road	About 2km
02-Jul-25	East of the Mine, Natedi Village	157	65	32	12.07	21.94	Coal Transportation Road	About 2km
07-Jul-25	Natada Village	146	51	25	18.47	24.78	Anthropogenic Activities, Local	About 2km
07-Jul-25	Solda Village (Reported Only)	146	53	28	10.86	28.10	Coal Transportation Road	About 2km
07-Jul-25	Purunasahi Village	139	56	27	18.10	26.16		
07-Jul-25	East of the Mine, Natedi Village	132	47	24	16.71	25.06	Coal Transportation Road	About 2km
07-Jul-25	Kurihan Village (Reported Only)	116	45	20	17.17	34.60		
08-Jul-25	Purunasahi Village	128	47	22	12.07	20.25		
08-Jul-25	Solda Village (Reported Only)	119	44	22	13.00	26.16	Coal Transportation Road	About 2km
08-Jul-25	Natada Village	160	55	29	15.83	27.98	Anthropogenic Activities, Local	About 2km
08-Jul-25	Kurihan Village (Reported Only)	138	52	24	17.15	27.98		
08-Jul-25	East of the Mine, Natedi Village	118	41	22	12.31	28.78	Coal Transportation Road	About 2km
14-Jul-25	East of the Mine, Natedi Village	116	38	20	12.75	27.18	Coal Transportation Road	About 2km
14-Jul-25	Purunasahi Village	119	44	20	12.53	25.32		
14-Jul-25	Kurihan Village (Reported Only)	109	39	16	17.17	32.91		

*NAAQS, 2009

100	60	80	80
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BHUBANESWAR

Janmat.

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
14-Jul-25	Solda Village (Reported Only)	144	50	26	14.51	24.78	Coal Transportation Road	About 2km
14-Jul-25	Natada Village	155	53	27	17.17	32.07	Anthropogenic Activities, Local	About 2km
15-Jul-25	Natada Village	169	74	23	11.70	17.47	Anthropogenic Activities, Local	About 2km
15-Jul-25	Solda Village (Reported Only)	137	47	25	19.49	26.16	Coal Transportation Road	About 2km
15-Jul-25	East of the Mine, Natedi Village	146	50	27	13.92	25.32	Coal Transportation Road	About 2km
15-Jul-25	Purunasahi Village	134	54	25	16.27	23.99		
15-Jul-25	Kurihan Village (Reported Only)	150	65	31	17.64	28.69		
21-Jul-25	Kurihan Village (Reported Only)	162	49	25	13.19	27.18		
21-Jul-25	Natada Village	155	65	28	12.75	29.58	Anthropogenic Activities, Local	About 2km
21-Jul-25	Purunasahi Village	156	48	27	17.15	19.99		
21-Jul-25	East of the Mine, Natedi Village	129	43	21	14.62	26.58	Coal Transportation Road	About 2km
21-Jul-25	Solda Village (Reported Only)	124	40	18	19.03	23.63	Coal Transportation Road	About 2km
22-Jul-25	Purunasahi Village	114	37	19	14.39	19.41		
22-Jul-25	Kurihan Village (Reported Only)	171	62	27	14.51	17.59		
22-Jul-25	Natada Village	147	47	24	17.15	17.59	Anthropogenic Activities, Local	About 2km
22-Jul-25	Solda Village (Reported Only)	144	46	24	12.73	26.76	Coal Transportation Road	About 2km
22-Jul-25	East of the Mine, Natedi Village	153	65	27	14.20	22.03	Coal Transportation Road	About 2km
28-Jul-25	Kurihan Village (Reported Only)	143	46	21	11.87	19.99		
28-Jul-25	Solda Village (Reported Only)	131	43	21	13.19	26.38	Coal Transportation Road	About 2km
28-Jul-25	Purunasahi Village	125	45	22	18.10	25.32		
28-Jul-25	Natada Village	160	44	27	10.86	27.34	Anthropogenic Activities, Local	About 2km
28-Jul-25	East of the Mine, Natedi Village	148	45	23	10.11	21.59	Coal Transportation Road	About 2km
29-Jul-25	Natada Village	178	68	31	11.14	29.54	Anthropogenic Activities, Local	About 2km
29-Jul-25	Solda Village (Reported Only)	163	55	28	10.55	19.99	Coal Transportation Road	About 2km
29-Jul-25	East of the Mine, Natedi Village	114	42	17	10.44	23.55	Coal Transportation Road	About 2km
29-Jul-25	Kurihan Village (Reported Only)	132	38	18	19.03	29.54		

*NAAQS, 2009

100	60	80	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
29-Jul-25	Purunasahi Village	110	39	16	16.71	31.25		

*NAAQS,2009

100 60 80 80

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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 (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)
01-Jul-2025	<20.0	15.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	24.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	15.75	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	23.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	26.25	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	13.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	24.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	28.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	17.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	15.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180 (hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)


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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Solada 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)
01-Jul-2025	<20.0	13.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	23.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	12.50	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	23.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	21.50	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	27.50	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	15.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
Standard	400(24hours)	180 (hour)	1.0(24hours)	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	Banabaspur 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)
01-Jul-2025	<20.0	22.00	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	19.00	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	23.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	20.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	25.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	25.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	21.00	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	24.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	15.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	27.50	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
Standard	400(24hours)	180 (hour)	1.0(24hours)	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)
01-Jul-2025	<20.0	12.50	<0.1	<1.0	<1.0	0.7	BQL(QL =0.7)	BQL
02-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
07-Jul-2025	<20.0	28.50	<0.1	<1.0	<1.0	0.7	BQL(QL =0.7)	BQL
08-Jul-2025	<20.0	22.50	<0.1	<1.0	<1.0	0.6	BQL(QL =0.7)	BQL
14-Jul-2025	<20.0	22.75	<0.1	<1.0	<1.0	0.5	BQL(QL =0.7)	BQL
15-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.4	BQL(QL =0.7)	BQL
21-Jul-2025	<20.0	12.25	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
22-Jul-2025	<20.0	20.50	<0.1	<1.0	<1.0	0.7	BQL(QL =0.7)	BQL
28-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	0.6	BQL(QL =0.7)	BQL
29-Jul-2025	<20.0	20.25	<0.1	<1.0	<1.0	0.4	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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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 (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)
01-Jul-2025	<20.0	16.75	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	27.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	16.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	15.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	13.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	22.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	18.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	15.00	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	13.75	<0.1	<1.0	<1.0	0.8	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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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)	($\mu\text{g}/\text{m}^3$)
01-Jul-2025	<20.0	13.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	23.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	12.50	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	23.00	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	21.50	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	27.50	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	15.50	<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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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 (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)
01-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	27.50	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	14.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	19.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	14.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	25.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(An nual)	02(8ho urs)	01(annual)	05(annu al)


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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	East Mine, Natedi Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Jul-2025	<20.0	17.50	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
02-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
07-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
08-Jul-2025	<20.0	22.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
14-Jul-2025	<20.0	19.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
15-Jul-2025	<20.0	16.00	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL(QL=2.5)
21-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
22-Jul-2025	<20.0	19.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
28-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
29-Jul-2025	<20.0	13.75	<0.1	<1.0	<1.0	0.8	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	Natada 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)
01-Jul-2025	<20.0	23.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
02-Jul-2025	<20.0	13.25	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
07-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
08-Jul-2025	<20.0	24.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
14-Jul-2025	<20.0	22.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL(QL=2.5)
15-Jul-2025	<20.0	22.75	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL(QL=2.5)
21-Jul-2025	<20.0	13.25	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL(QL=2.5)
22-Jul-2025	<20.0	15.00	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL(QL=2.5)
28-Jul-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL(QL=2.5)
29-Jul-2025	<20.0	19.75	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24h ours)	180(h our)	1.0(24h ours)	6.0(A nnual)	20(Ann ual)	02(8hou rs)	01(annu al)	05(annu al)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	Kurihan Village (Reported Only)							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) 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)
01-Jul-2025	<20.0	27.00	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	24.75	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	14.25	<0.1	<1.0	<1.0	0.4	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	28.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	21.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	28.50	<0.1	<1.0	<1.0	0.5	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	24.00	<0.1	<1.0	<1.0	0.4	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: Hingula

Project	Hingula OCP
Monitoring Station	Time Office
Date of sampling	Carbon Monoxide (CO)
	mg/m³
09-Jul-2025	0.7
25-Jul-2025	0.9
Standard	02(8 Hours)

Project	Hingula OCP
Monitoring Station	South West side of Mine
Date of sampling	Carbon Monoxide (CO)
	mg/m³
09-Jul-2025	1.0
25-Jul-2025	0.8
Standard	02(8 Hours)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area:Hingula

Project	Hingula OCP				
Monitoring Station	Time Office				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
22-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Hingula OCP				
Monitoring Station	South West Side of the Mine				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
22-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Balram OCP				
Monitoring Station	Near Project Office				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
22-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

Project	Balram OCP				
Monitoring Station	Pump House near Outsourcing Working Patch				
Date of sampling	Arsenic (As)	Nickel (Ni)	Mercury (Hg)	Chromium (Cr)	Cadmium (Cd)
	(ng/m ³)	(ng/m ³)	(ng/m ³)	(µg/m ³)	(µg/m ³)
22-May-2025	<1.0	<1.0	<1.0	<0.1	<0.1
Standard	6.0(Annual)	20(Annual)	-	-	-

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NOISE LEVEL MONITORING DATA

AREA :

Hingula

PROJECT :

Hingula OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Jul-25	South West Side of the Mine	63.3	52.5
11-Jul-25	Solda Village	47.8	39.6
11-Jul-25	Kankarei Village	49.5	40.1
11-Jul-25	Time Office	68.6	59.1
26-Jul-25	South West Side of the Mine	65.3	53.0
26-Jul-25	Solda Village	49.2	40.0
26-Jul-25	Kankarei Village	51.0	40.6
26-Jul-25	Time Office	70.7	59.7

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

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NOISE LEVEL MONITORING DATA

AREA :

Hingula

PROJECT :

Balaram OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
11-Jul-25	Natada Village	44.6	38.9
11-Jul-25	Solada Village (Reported only)	47.8	39.6
11-Jul-25	Near Natedi Village	46.7	40.3
11-Jul-25	Pump House Near Outsourcing Working Patch	62.5	53.8
11-Jul-25	Near Project Office Balram OCP	64.2	55.4
26-Jul-25	Natada Village	45.9	39.9
26-Jul-25	Solada Village (Reported only)	49.2	40.0
26-Jul-25	Near Natedi Village	48.2	40.8
26-Jul-25	Pump House Near Outsourcing Working Patch	64.5	51.5
26-Jul-25	Near Project Office Balram OCP	68.3	56.0

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
16-Jul-25	Inlet of O & G Trap	7.04	5.2	69	108	-	
16-Jul-25	Mine Sump Water	8.06	<4.0	36	28	-	
16-Jul-25	Outlet of O & G Trap	7.57	4.2	41	64	-	
31-Jul-25	Inlet of O & G Trap	8.23	5.6	76	120	-	
31-Jul-25	Outlet of O & G Trap	8.55	4.2	45	56	-	

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

5.5-9.0

10

100

250

30

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EFFLUENT QUALITY DATA

Area :

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
16-Jul-25	Gandhisagar (Mine Sump)	7.67	<4.0	26	24	-	
16-Jul-25	Inlet of O & G Trap	7.76	4.4	43	56	-	
16-Jul-25	Outlet of O & G Trap	7.91	<4.0	31	32	-	
31-Jul-25	Inlet of O & G Trap	8.31	4.4	55	72	-	
31-Jul-25	Outlet of O & G Trap	8.38	<4.0	38	36	-	

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

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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
16-Jul-25	STP Inlet of Balram Colony	6.88	-	41		3.4	210
16-Jul-25	STP Outlet of Balram Colony	7.15	-	28	-	2.1	79
31-Jul-25	STP Inlet of Balram Colony	7.38	-	57	-	4.2	240
31-Jul-25	STP Outlet of Balram Colony	8.17	-	30	-	2.4	116

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

6.5-9.0

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<100

-

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Drinking Water Quality Data Hingula Area

Project / OCP	Hingula OCP			Indian Drinking Standards (IS-10500):2012	
	Time Office Water	Gopalprasad Village Bore Well Water	Kumunda Village Bore Well Water		
Monitoring Station					
Date of Sampling	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	2	3	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	4	3	1	5
pH	6.74	7.51	7.19	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	117.66	252.12	88.24	200	600
Chloride(mg/L)	36.9	40.8	93.3	250	1000
Sulphate(mg/L)	68.8	10.31	44.8	200	400
Nitrate(mg/L)	<0.5	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	172.57	184.33	223.55	200	600
Calcium(mg/L)	48.73	36.16	62.88	75	200
Fluoride(mg/L)	0.63	0.74	0.53	1	1.5
Total Dissolve Solid(mg/L)	316	346	354	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)	0.15	0.55	0.53	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	<0.005	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	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	15.81	12.90	12.90	—	—
Potassium(mg/L)	12.66	14.27	14.27	—	—
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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Drinking Water Quality Data Hingula Area

Project / OCP	Balaram OCP			Indian Drinking Standards (IS-10500):2012	
	Danara Village Borewell Water	Balaram Colony	Nakeipasi Village Bore Well Water		
Date of Sampling	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	1	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	2	3	1	5
pH	6.59	7.23	7.10	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	75.64	71.43	252.12	200	600
Chloride(mg/L)	25.3	23.3	54.4	250	1000
Sulphate(mg/L)	56.4	134.6	8.74	200	400
Nitrate(mg/L)	4.60	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	137.27	215.71	200.02	200	600
Calcium(mg/L)	34.58	61.31	45.59	75	200
Fluoride(mg/L)	0.37	0.88	0.58	1	1.5
Total Dissolve Solid(mg/L)	226	354	344	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)	0.20	1.16	0.13	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	<0.005	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	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	11.88	12.39	5.15		
Potassium(mg/L)	1.98	10.34	2.26		
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

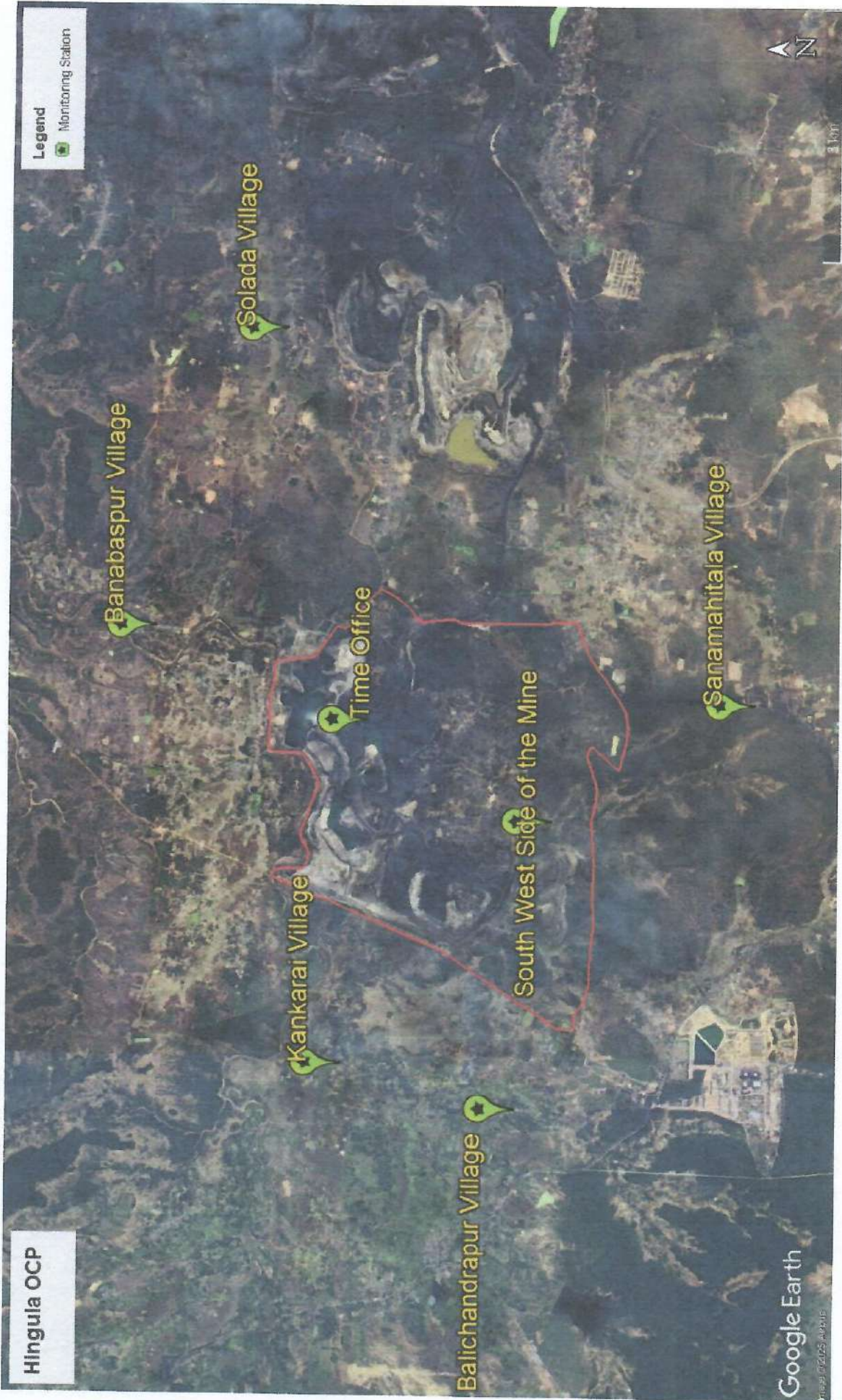
South West Side of the Mine

Sanamahitala Village

Google Earth



3 km



Balram OCP

Legend
Monitoring Station



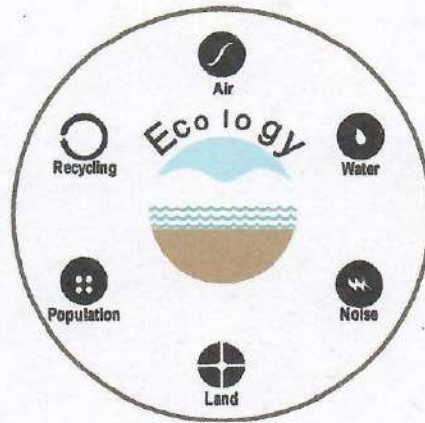
Google Earth
Imagery © 2025

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

Talcher Coalfield



Mahanadi Coalfields Limited



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

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

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Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Talcher Colliery

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
10-Jul-25	Near Canteen Talcher Colliery	187	90	44	14.96	26.57	Locl Transportation	About 500m
10-Jul-25	Officer Club, Talcher Area	203	105	46	17.96	17.47	Mining Activities, Ananta, Lingaraj	About 1000m
26-Jul-25	Near Canteen Talcher Colliery	195	89	41	16.27	23.99	Locl Transportation	About 500m
26-Jul-25	Officer Club, Talcher Area	208	90	43	15.39	24.78	Mining Activities, Ananta, Lingaraj	About 1000m

MoEF Standards Notification dated 25th September, 2000	600	300		120	120
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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
10-Jul-25	Project Office	184	83	40	15.83	28.78	Mining Activities, Transportation, CHP	About 500m
10-Jul-25	Sub-station	195	92	43	16.27	19.99	Transportation & Railway Sidings of BOCP	About 500m
23-Jul-25	Project Office	219	112	45	16.31	26.04	Mining Activities, Transportation, CHP	About 500m
26-Jul-25	Sub-station	191	83	40	10.86	28.86	Transportation & Railway Sidings of BOCP	About 500m

MoEF Standards Notification dated 25th September, 2000

600	300		120	120
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Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Deulbera

(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
09-Jul-25	GM Office Lingraj (Reported Only)	205	87	42	14.95	31.98		
24-Jul-25	GM Office Lingraj (Reported Only)	210	93	39	17.59	20.79		

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MoEF Standards Notification dated 25th
September, 2000

500	250		120	120
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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	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
10-Jul-25	Manager's Office	193	86	38	12.95	25.06	Local Transportation, CHP	About 500m
26-Jul-25	Manager's Office	195	88	39	12.11	24.31	Local Transportation, CHP	About 500m

MoEF Standards Notification dated 25th September, 2000	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
01-Jul-25	East of the Mine, Natedi Village (Reported Only)	137	48	25	10.55	19.99	Coal Transportation Road	About 2km
02-Jul-25	East of the Mine, Natedi Village (Reported Only)	157	65	32	12.07	21.94	Coal Transportation Road	About 2km
03-Jul-25	Nandira Colony	139	50	24	14.62	18.23	Local Transportation,	About 500m
04-Jul-25	Nandira Colony	123	36	16	12.53	36.29	Local Transportation,	About 500m
07-Jul-25	East of the Mine, Natedi Village (Reported Only)	132	47	24	16.71	25.06	Coal Transportation Road	About 2km
08-Jul-25	East of the Mine, Natedi Village (Reported Only)	118	41	22	12.31	28.78	Coal Transportation Road	About 2km
11-Jul-25	Nandira Colony	145	55	27	12.11	31.90	Local Transportation,	About 500m
12-Jul-25	Nandira Colony	146	62	29	15.51	28.93	Local Transportation,	About 500m
14-Jul-25	East of the Mine, Natedi Village (Reported Only)	116	38	20	12.75	27.18	Coal Transportation Road	About 2km
15-Jul-25	East of the Mine, Natedi Village (Reported Only)	146	50	27	13.92	25.32	Coal Transportation Road	About 2km
18-Jul-25	Nandira Colony	125	36	19	16.71	28.93	Local Transportation,	About 500m
19-Jul-25	Nandira Colony	156	55	27	9.19	28.10	Local Transportation,	About 500m
21-Jul-25	East of the Mine, Natedi Village (Reported Only)	129	43	21	14.62	26.58	Coal Transportation Road	About 2km
22-Jul-25	East of the Mine, Natedi Village (Reported Only)	153	65	27	14.20	22.03	Coal Transportation Road	About 2km
28-Jul-25	East of the Mine, Natedi Village (Reported Only)	148	45	23	10.11	21.59	Coal Transportation Road	About 2km
29-Jul-25	East of the Mine, Natedi Village (Reported Only)	114	42	17	10.44	23.55	Coal Transportation Road	About 2km
30-Jul-25	Nandira Colony	134	43	20	14.62	25.06	Local Transportation,	About 500m
31-Jul-25	Nandira Colony	135	52	24	11.93	25.32	Local Transportation,	About 500m

*NAAQS, 2009

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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-Jul-25	Near Pachismeshwar Temple	144	54	25	13.92	33.76	Mining Activity	Less than 500m
03-Jul-25	Near Mandapal Chowk	133	44	25	11.87	19.99	Mining Activity	Less than 500m
04-Jul-25	Near Mandapal Chowk	130	37	21	11.87	30.38	Mining Activity	Less than 500m
04-Jul-25	Near Pachismeshwar Temple	162	63	29	16.27	18.39	Mining Activity	Less than 500m
11-Jul-25	Near Pachismeshwar Temple	143	55	26	16.71	23.63	Mining Activity	Less than 500m
11-Jul-25	Near Mandapal Chowk	142	55	27	15.78	32.07	Mining Activity	Less than 500m
12-Jul-25	Near Mandapal Chowk	125	46	20	14.51	21.59	Mining Activity	Less than 500m
12-Jul-25	Near Pachismeshwar Temple	131	42	23	16.71	23.63	Mining Activity	Less than 500m
18-Jul-25	Near Pachismeshwar Temple	125	45	17	14.95	19.19	Mining Activity	Less than 500m
18-Jul-25	Near Mandapal Chowk	105	42	16	17.59	17.59	Mining Activity	Less than 500m
19-Jul-25	Near Mandapal Chowk	129	47	24	15.78	31.23	Mining Activity	Less than 500m
19-Jul-25	Near Pachismeshwar Temple	163	53	26	10.67	25.32	Mining Activity	Less than 500m
30-Jul-25	Near Mandapal Chowk	146	57	26	13.92	27.85	Mining Activity	Less than 500m
30-Jul-25	Near Pachismeshwar Temple	172	60	29	14.39	21.94	Mining Activity	Less than 500m
31-Jul-25	Near Pachismeshwar Temple	136	45	24	12.53	22.79	Mining Activity	Less than 500m
31-Jul-25	Near Mandapal Chowk	138	62	27	15.83	18.39	Mining Activity	Less than 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 (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-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Jul-2025	<20.0	16.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
11-Jul-2025	<20.0	21.75	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
12-Jul-2025	<20.0	28.50	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
18-Jul-2025	<20.0	12.75	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
19-Jul-2025	<20.0	25.00	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
30-Jul-2025	<20.0	16.25	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
31-Jul-2025	<20.0	16.50	<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)	04(1hours)	01(annual)	05(annual)

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AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Talcher

Project	Nandira							
Monitoring Station	Near Natedi Village (Reported Only)							
Date of sampling	Ammonia (NH 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)	($\mu\text{g}/\text{m}^3$)
01-Jul-2025	<20.0	17.50	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
02-Jul-2025	<20.0	16.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
07-Jul-2025	<20.0	11.75	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
08-Jul-2025	<20.0	22.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
14-Jul-2025	<20.0	19.00	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
15-Jul-2025	<20.0	16.00	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
21-Jul-2025	<20.0	27.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Jul-2025	<20.0	19.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
28-Jul-2025	<20.0	18.50	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
29-Jul-2025	<20.0	13.75	<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)	04(1 hours)	01(annual)	05(annual)

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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
10-Jul-25	Officers Club, Talcher Area	56.1	49.2
10-Jul-25	Near Canteen, Talcher Colliery	60.4	52.4
25-Jul-25	Officers Club, Talcher Area	57.8	49.7
25-Jul-25	Near Canteen, Talcher Colliery	62.3	52.9

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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NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Nandira Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
10-Jul-25	Project Office	62.2	55.1
10-Jul-25	Sub Station, Nandira Colliery	64.8	57.7
25-Jul-25	Project Office	64.1	55.7
25-Jul-25	Sub Station, Nandira Colliery	66.8	58.3

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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NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Deulbera Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
10-Jul-25	Manager's Office	61.5	51.3
25-Jul-25	Manager's Office	63.2	51.8

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

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NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Mandapal Sand Mine

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
10-Jul-25	Near Gopinathpur Village	46.3	39.5
25-Jul-25	Near Gopinathpur Village	47.5	39.9

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

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TABLE--

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
16-Jul-25	Talcher Colliery Sedimentation Tank Discharge	6.17	<4.0	42	36	-	
31-Jul-25	Talcher Colliery Sedimentation Tank Discharge	6.76	<4.0	38	40	-	

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 :

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
16-Jul-25	Nandira Colliery Sedimentation Tank Discharge	6.39	<4.0	33	28	-	
31-Jul-25	Nandira Colliery Sedimentation Tank Discharge	7.16	<4.0	35	32	-	

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	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Date of Sampling	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	1	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	2	1	5
pH	7.06	6.87	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	33.62	138.67	200	600
Chloride(mg/L)	17.5	36.92	250	1000
Sulphate(mg/L)	38.48	86.48	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	50.99	200.02	200	600
Calcium(mg/L)	14.15	56.59	75	200
Fluoride(mg/L)	0.86	0.58	1	1.5
Total Dissolve Solid(mg/L)	144	370	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.22	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	3.03	0.07	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	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	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	12.90	18.38	—	—
Potassium(mg/L)	14.27	11.81	—	—
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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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	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	1	5
pH	6.99	6.59	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	67.23	67.23	200	600
Chloride(mg/L)	17.5	19.4	250	1000
Sulphate(mg/L)	88.6	87.4	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	152.96	156.88	200	600
Calcium(mg/L)	37.73	40.87	75	200
Fluoride(mg/L)	0.46	0.44	1	1.5
Total Dissolve Solid(mg/L)	256	260	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	0.25	0.1	0.3
Iron(mg/L)	<0.1	0.1	1.0	No relaxation
Zinc(mg/L)	0.31	0.28	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

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Drinking Water Quality Data Talcher Area

Project / OCP	Nandira U/G		Indian Drinking Standards (IS-10500):2012	
	Canteen , Nandira Colliery	Pit Top, Nandira Colliery	Acceptable	Permissible
Monitoring Station				
Date of Sampling	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	8.85	8.72	—	—
Potassium(mg/L)	7.82	7.98	—	—
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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Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water		
Date of Sampling	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	2	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	3	3	1	5
pH	6.88	7.09	7.54	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	54.63	256.32	71.43	200	600
Chloride(mg/L)	23.3	50.5	21.4	250	1000
Sulphate(mg/L)	75.46	76.8	48.84	200	400
Nitrate(mg/L)	5.10	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	137.27	274.54	109.82	200	600
Calcium(mg/L)	34.58	94.32	33.01	75	200
Fluoride(mg/L)	0.48	0.7	0.6	1	1.5
Total Dissolve Solid(mg/L)	240	508	202	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.07	<0.04	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.13	1.05	0.18	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	<0.005	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

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Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water	Acceptable	Permissible
Date of Sampling	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	12.42	19.59	11.29	—	—
Potassium(mg/L)	7.65	19.31	6.09	—	—
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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Drinking Water Quality Data Talcher Area

Project / OCP	Handhidhua Colliery			Indian Drinking Standards (IS-10500):2012	
	19X Cut Road Bore Hole Point	Pit Top Water	RWSS (Pit Top Water)	Acceptable	Permissible
Date of Sampling	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Colour(Hazen)	4	3	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	3	1	5
pH	6.26	6.59	6.18	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	79.84	58.83	84.04	200	600
Chloride(mg/L)	33.0	25.3	31.1	250	1000
Sulphate(mg/L)	127.4	84.2	124	200	400
Nitrate(mg/L)	<0.5	<0.5	1.14	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	211.79	141.19	207.87	200	600
Calcium(mg/L)	50.30	37.73	51.88	75	200
Fluoride(mg/L)	0.74	0.42	0.48	1	1.5
Total Dissolve Solid(mg/L)	370	258	362	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.21	<0.1	0.19	0.1	0.3
Iron(mg/L)	<0.1	0.14	<0.1	1.0	No relaxation
Zinc(mg/L)	0.43	<0.005	0.24	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.005	<0.005	<0.005	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

Tattamali
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasrat



सीएमपीडीआई
मिनी रत्न
cmpdi
Mini Ratna

Drinking Water Quality Data Talcher Area

Project / OCP	Handhidhua Colliery			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	19X Cut Road Bore Hole Point	Pit Top Water	RWSS (Pit Top Water)	
Date of Sampling	16-Jul-2025	16-Jul-2025	16-Jul-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	18.88	14.32	18.55	-	-
Potassium(mg/L)	12.23	9.77	11.77	-	-
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	-	-

Tattawai
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasmati

Talcher Air Stations

Talcher Air monitoring stations

Rodhasar

Near canteen, TC

GM office, TA

Pond

Google Earth

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Nandira Air Stations

Nandira Air monitoring stations

Kata Sandhya

Jambubahali

Natedi

Near natedi

Singida

Substation, Nandira

Project office

Baulapur

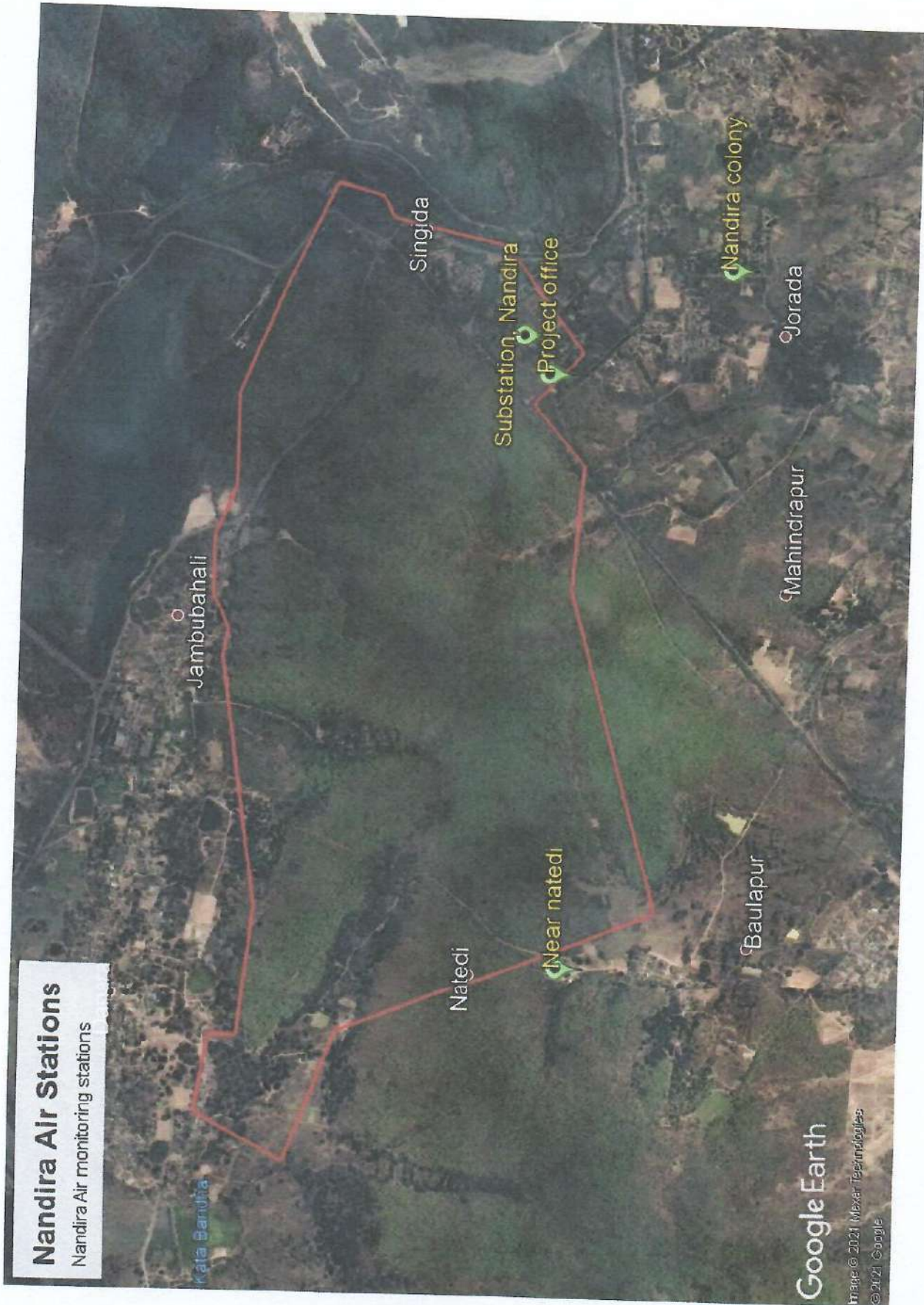
Mahindrapur

Jorada

Nandira colony

Google Earth

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Deulbera Air Stations

Deulbera Air monitoring stations



Google Earth

Maple © 2021 Maxar Technologies
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Mandapal sand mine Air Stations

Mandapal sand mine Air monitoring stations



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