

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

Talcher Coalfield



Mahanadi Coalfields Limited



cmpdi

A Mini Ratna Company

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



सीएनपीडीआई
LAB AND
cmpdi
LABORATORY

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-Sep-25	Near MDTP	225	115	44	12.44	22.61	Railway Siding CHP	About 800m
05-Sep-25	Near NBVL Station	208	96	40	19.05	19.55	CHP, CT Road	About 600m
25-Sep-25	Near MDTP	202	103	43	14.92	31.74	Railway Siding CHP	About 800m
25-Sep-25	Near NBVL Station	190	90	39	11.52	25.02	CHP, CT Road	About 600m

Amrat
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Amrat

MoEF Standards Notification dated 25th
 September, 2000

500 250 120 120



सीएमपीडीआई
 1986-87
 cmpdi
 CHEMICAL ANALYSIS

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-Sep-25	North East of Mine	196	86	37	14.83	32.55	Open-Cast Mine	Less than 500m
05-Sep-25	Near NBVL Station (Reported)	208	96	40	19.05	19.55	CHP, CT Road	About 600m
25-Sep-25	North East of Mine	212	102	43	12.83	29.72	Open-Cast Mine	Less than 500m
25-Sep-25	Near NBVL Station (Reported)	190	90	39	11.52	25.02	CHP, CT Road	About 600m

Jagannath
 Authorised Signatory
 CMPDI, RI-VII, LAB
 GHUBANESWAR

[Signature]

MoEF Standards Notification dated 25th September, 2000	500	250		120	120
--	-----	-----	--	-----	-----



राष्ट्रीय पर्यावरण संरक्षण आयोग
भारत
cmpdi
CENTRAL POLLUTION CONTROL BOARD

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-Sep-25	Near NBVL Station (Reported)	208	96	40	19.05	19.55	CHP, CT Road	About 600m
25-Sep-25	Near NBVL Station (Reported)	190	90	39	11.52	25.02	CHP, CT Road	About 600m

Jagannath
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]

MoEF Standards Notification dated 25th September, 2000	500	250		120	120
--	-----	-----	--	-----	-----



सीएमपीडीआई
CMPDI
भुवनेश्वर

Test Report

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-Sep-25	CWS Colony, Meeti	123	40	19	12.83	31.84	Mining Activity	About 1500 m
01-Sep-25	Kurihan Village	137	53	23	10.94	29.72		
02-Sep-25	CWS Colony, Meeti	129	49	22	17.26	19.31	Mining Activity	About 1500 m
02-Sep-25	Kurihan Village	148	59	27	10.76	28.06		
03-Sep-25	Central Nursery (Reported Only)	117	44	19	14.62	32.84	Open-Cast Mine	Less than 500m
04-Sep-25	Central Nursery (Reported Only)	131	55	24	13.05	26.00	Open-Cast Mine	Less than 500m
08-Sep-25	Kurihan Village	129	46	20	15.15	15.60		
08-Sep-25	CWS Colony, Meeti	139	53	26	14.18	21.11	Mining Activity	About 1500 m
09-Sep-25	CWS Colony, Meeti	152	66	29	9.57	10.13	Mining Activity	About 1500 m
09-Sep-25	Kurihan Village	143	56	25	15.01	16.15		
10-Sep-25	Central Nursery (Reported Only)	176	68	32	13.01	32.42	Open-Cast Mine	Less than 500m
11-Sep-25	Central Nursery (Reported Only)	135	55	27	10.02	39.62	Open-Cast Mine	Less than 500m
15-Sep-25	CWS Colony, Meeti	116	38	17	16.43	33.96	Mining Activity	About 1500 m
15-Sep-25	Kurihan Village	155	72	31	11.86	20.26		
16-Sep-25	CWS Colony, Meeti	138	57	25	10.52	35.66	Mining Activity	About 1500 m
16-Sep-25	Kurihan Village	148	66	27	14.83	29.72		
17-Sep-25	Central Nursery (Reported Only)	136	55	24	10.52	23.77	Open-Cast Mine	Less than 500m
18-Sep-25	Central Nursery (Reported Only)	129	49	22	12.83	22.64	Open-Cast Mine	Less than 500m
19-Sep-25	CWS Colony, Meeti	145	63	28	14.73	24.52	Mining Activity	About 1500 m
19-Sep-25	Kurihan Village	112	38	17	16.84	36.32		
20-Sep-25	Kurihan Village	141	59	25	16.84	33.96		
20-Sep-25	CWS Colony, Meeti	141	59	26	12.63	25.66	Mining Activity	About 1500 m
22-Sep-25	Central Nursery (Reported Only)	148	68	30	16.41	25.26	Open-Cast Mine	Less than 500m
23-Sep-25	Central Nursery (Reported Only)	137	56	25	17.77	39.62	Open-Cast Mine	Less than 500m

[Signature]

*N.A. (25, 2009)

100 60 40 20

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Test Report



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-Sep-25	Guthasahi Village	182	68	33	11.69	34.67	Mining Activities	About 3km
03-Sep-25	Asanabahali Village	184	75	33	16.84	28.93	Domestic and Mining Activities	About 4km
03-Sep-25	Sibarampur Village	146	63	28	14.50	36.32	Domestic and Mining Activities	About 4km
03-Sep-25	Central Nursery	117	44	19	14.62	32.84	Open-Cast Mine	Less than 500m
04-Sep-25	Sibarampur Village	137	56	25	15.57	32.69	Domestic and Mining Activities	About 4km
04-Sep-25	Guthasahi Village	121	43	19	19.49	18.77	Mining Activities	About 3km
04-Sep-25	Central Nursery	131	55	24	13.05	26.00	Open-Cast Mine	Less than 500m
04-Sep-25	Asanabahali Village	140	70	28	12.43	22.64	Domestic and Mining Activities	About 4km
10-Sep-25	Central Nursery	176	68	32	13.01	32.42	Open-Cast Mine	Less than 500m
10-Sep-25	Sibarampur Village	129	47	22	10.42	31.13	Domestic and Mining Activities	About 4km
10-Sep-25	Guthasahi Village	132	51	24	12.63	13.37	Mining Activities	About 3km
10-Sep-25	Asanabahali Village	132	66	26	12.63	31.20	Domestic and Mining Activities	About 4km
11-Sep-25	Sibarampur Village	110	41	18	13.39	29.72	Domestic and Mining Activities	About 4km
11-Sep-25	Guthasahi Village	134	59	25	17.68	26.00	Mining Activities	About 3km
11-Sep-25	Asanabahali Village	159	78	30	10.02	27.59	Domestic and Mining Activities	About 4km
11-Sep-25	Central Nursery	135	55	27	10.02	39.62	Open-Cast Mine	Less than 500m
17-Sep-25	Guthasahi Village	152	68	30	13.63	19.10	Mining Activities	About 3km
17-Sep-25	Sibarampur Village	146	57	25	19.94	29.72	Domestic and Mining Activities	About 4km
17-Sep-25	Asanabahali Village	133	52	24	14.03	31.84	Domestic and Mining Activities	About 4km
17-Sep-25	Central Nursery	136	55	24	10.52	23.77	Open-Cast Mine	Less than 500m
18-Sep-25	Sibarampur Village	115	43	19	16.84	21.54	Domestic and Mining Activities	About 4km
18-Sep-25	Guthasahi Village	144	62	26	18.16	31.28	Mining Activities	About 3km
18-Sep-25	Central Nursery	129	49	22	12.83	22.64	Open-Cast Mine	Less than 500m
18-Sep-25	Asanabahali Village	145	63	29	13.39	29.04	Domestic and Mining Activities	About 4km
22-Sep-25	Central Nursery	148	68	30	16.41	25.26	Open-Cast Mine	Less than 500m

*W/MS, 2009

100 90 80 80

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
22-Sep-25	Guthasahi Village	131	50	22	12.40	25.02	Mining Activities	About 3km
22-Sep-25	Asanabahali Village	141	59	27	14.31	23.03	Domestic and Mining Activities	About 4km
22-Sep-25	Sibarampur Village	126	49	21	11.48	33.09	Domestic and Mining Activities	About 4km
23-Sep-25	Sibarampur Village	132	51	20	10.42	31.84	Domestic and Mining Activities	About 4km
23-Sep-25	Asanabahali Village	124	41	19	19.64	37.97	Domestic and Mining Activities	About 4km
23-Sep-25	Guthasahi Village	139	53	25	19.49	35.19	Mining Activities	About 3km
23-Sep-25	Central Nursery	137	56	25	17.77	39.62	Open-Cast Mine	Less than 500m


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



*NAAQS,2009

100 60 80 80



सीएमपीडीआई
निर्मल
cmpdi
Mini Ratna

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-Sep-2025	<20.0	19.22	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	17.53	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	21.20	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	15.83	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	20.35	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	23.18	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	24.32	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	14.13	<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)

Signature

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
रिसेच लैब
cmpdi
Mini kutna

AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project	Jagannath OCP							
Monitoring Station	CWS Colony, Meeti							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	16.42	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	18.88	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	21.90	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	23.53	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	12.58	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	24.37	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	19.43	<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(Annual)	20(Annual)	02(Shou rs)	01(annual)	05(annual)


Authenticated Signatory
CMPDI, RI-VII, LAG
BHUBANESWAR



सीएमपीडीआई
रिसेच लैब
cmpdi
Mini Ratna

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 (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-Sep-2025	<20.0	18.33	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	25.73	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	19.70	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	12.32	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	15.05	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	23.27	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	18.88	<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)

Arora


Ananta Kumar
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
लिमिटेड
cmpdi
Mini Report

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-Sep-2025	<20.0	19.22	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	17.53	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	21.20	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	15.83	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	20.35	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	23.18	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	24.32	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	14.13	<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)

Ananta
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Ananta



सीएमपीडीआई
मिनी रॉबोट
cmpdi
Mini Robots

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-Sep-2025	<20.0	18.88	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	15.87	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	12.58	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	25.73	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	12.87	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	16.70	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	18.62	<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)

[Handwritten Signature]

[Handwritten Signature]
Authorized Signatory
CMPDI, RI-VII, LAG
BHUBANESWAR



सीएमपीडीआई
रिसेच लैब
cmpdi
Mini Ratna

AIR QUALITY DATA (NAAQS PARAMETER)

Area: Jagannath

Project		Ananta OCP						
Monitoring Station		Sibarampur Village						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	17.78	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	12.87	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	20.80	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	24.08	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	20.80	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	15.60	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	23.27	<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)

Signature

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
मिसे रल
cmpdi
Mini Roberto

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 (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	18.33	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	12.58	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	20.80	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	17.78	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	16.15	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	21.90	<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)

[Handwritten signature]

[Handwritten signature]
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
विश्वे त्म
cmpdi
सर्वोत्तम

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-Sep-2025	1.1
25-Sep-2025	1.0
Standard	02(8 Hours)

[Handwritten signature]

[Handwritten signature]
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडी
RI-VII, LAB
BHUWANE
cmpdi

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Jagannath OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Near NBVL Station	61.9	52.3
05-Sep-25	Near MDTP	64.7	55.1
05-Sep-25	CWS Colony, MEETI	47.3	39.1
05-Sep-25	Central Nursery (Reported only)	58.1	49.7
24-Sep-25	Near NBVL Station	65.1	51.7
24-Sep-25	Near MDTP	62.4	54.3
24-Sep-25	CWS Colony, MEETI	47.2	39.3
24-Sep-25	Central Nursery (Reported only)	60.1	51.9

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)

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएनपीडी आई
भुवनेश्वर
cmpdi
भुवनेश्वर

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Ananta OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Near NBVL Station (Reported only)	61.9	52.3
05-Sep-25	North East of the Mine	65.2	55.4
05-Sep-25	Guthasahi Village	47.2	38.4
05-Sep-25	Central Nursery	58.1	49.7
24-Sep-25	Near NBVL Station (Reported only)	65.1	51.7
24-Sep-25	North East of the Mine	64.3	56.3
24-Sep-25	Guthasahi Village	48.4	38.1
24-Sep-25	Central Nursery	60.1	51.9

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)

Janak
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
CMPDI
एन सी ई ओ

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Jagannath

PROJECT :

Balanda OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Near NBVL Station (Reported only)	61.9	52.3
24-Sep-25	Near NBVL Station (Reported only)	65.1	51.7

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)

Sanjay
Authorised Signatory
CMPDI, RI-VII, LAB
CHANDIGARH

Sanjay

TABLE-



संयुक्त प्रदूषण नियंत्रण बोर्ड
INDIA
cmpdi
CENTRAL POLLUTION CONTROL BOARD

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
13-Sep-25	Face Sump	4.36	<4.0	30	20	-	
13-Sep-25	O & G Trap Inlet	7.23	<4.0	39	32	-	
13-Sep-25	O & G Trap Outlet	7.39	<4.0	21	16	-	
27-Sep-25	O & G Trap Inlet	7.31	<4.0	47	40	-	
27-Sep-25	O & G Trap Outlet	7.47	<4.0	33	28	-	

forval
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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-



राष्ट्रीय प्रदूषण नियंत्रण बोर्ड
cmpdi
 CENTRAL POLLUTION CONTROL BOARD

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
13-Sep-25	STP INLET	7.69	-	33	-	2.2	150
13-Sep-25	STP OUTLET	7.83	-	24	-	<2.0	84
27-Sep-25	STP INLET	7.54	-	39	-	2.7	150
27-Sep-25	STP OUTLET	7.89	-	26	-	<2.0	94

Jana
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

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
---------	---	------	---	----	-------

Jana

TABLE-



सीएमपीडी.आई.
 CMPDI
 Bhubaneswar

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
13-Sep-25	Mine Sump Water	6.88	<4.0	19	16	-	
13-Sep-25	O & G Trap Inlet	6.78	<4.0	37	28	-	
13-Sep-25	O & G Trap Outlet	6.93	<4.0	24	20	-	
27-Sep-25	O & G Trap Inlet	6.91	<4.0	49	44	-	
27-Sep-25	O & G Trap Outlet	7.37	<4.0	27	24	-	

Jagannath
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

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
---------	----	-----	-----	----

Jagannath

TABLE--



सौरभपीडीआई
CMPDI
नवी दिल्ली

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
13-Sep-25	STP INLET	7.38	-	39	-	2.8	94
13-Sep-25	STP OUTLET	7.63	-	25	-	<2.0	63
27-Sep-25	STP INLET	7.47	-	43	-	3.0	110
27-Sep-25	STP OUTLET	7.76	-	30	-	<2.0	79

Janant
Authorized Signatory
CMPDI, RI-VII, LAB
दिल्ली एन सी १५

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
---------	---	------	---	----	-------

Janant



सीएमपीडीआई
रिसेच लैब
cmpdi
MINI RANGE

Effluent Quality (all Parameter): Jagannath Area

Project (OCP / UG)	Jagannath	MoEF-Sch-VI Standards
NAME OF THE STATION	Face Sump	
Date of Sampling	30-Aug-25	
Odour	Unobjectionable	-
Colour(Hazen)	4	-
Temperature(oC)	28.8	Shall not exceed 5 °C above the receiving temperature
pH	6.78	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	806.62	-
Total Dissolved Solids, mg/L	1042	-
Nitrate Nitrogen(mg/L)(As N)	<0.11	10
Ammonical Nitrogen , mg/l (As N)	4.36	50
Total Kjeldhal Nitrogen, mg/l (As N)	9.04	100
Sulphide (mg/L)	<0.1	2
BOD [3 days at 27°C] (mg/L)	3.8	30
Fluoride(mg/L)	<0.30	2
Copper(mg/L)	<0.03	3
Manganese(mg/L)	0.27	2
Iron(mg/L)	<0.1	3
Zinc(mg/L)	<0.04	5
Lead, mg/l	<0.005	0.1
Cadmium, mg/l	<0.001	2.0
Total Chromium(mg/L)	<0.01	2.0
Hexavalent Chromium(mg/L)	<0.05	0.1
Nickel(mg/L)	<0.02	3
Arsenic, mg/l	<0.005	0.2
Selenium (mg/L)	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	5
Phenolics (mg/L)	<0.001	1

Jagannath
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
विनी एन
cmpdi
Mini Ratna

Effluent Quality (all Parameter): Jagannath Area

Project (OCP / UG)	Ananta	MoEF-Sch-VI Standards
NAME OF THE STATION	Mine Sump Water	
Date of Sampling	30-Aug-25	
Odour	Unobjectionable	-
Colour(Hazen)	3	-
Temperature(oC)	28.5	Shall not exceed 5 ^{oC} above the receiving temperature
pH	7.53	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	580.13	-
Total Dissolved Solids, mg/L	886	-
Nitrate Nitrogen(mg/L)(As N)	<0.11	10
Ammonical Nitrogen , mg/l (As N)	0.67	50
Total Kjeldhal Nitrogen, mg/l (As N)	30.1	100
Sulphide (mg/L)	<0.1	2
BOD [3 days at 27°C] (mg/L)	3.2	30
Fluoride(mg/L)	0.58	2
Copper(mg/L)	<0.03	3
Manganese(mg/L)	0.05	2
Iron(mg/L)	<0.1	3
Zinc(mg/L)	<0.04	5
Lead, mg/l	<0.005	0.1
Cadmium, mg/l	<0.001	2.0
Total Chromium(mg/L)	<0.01	2.0
Hexavalent Chromium(mg/L)	<0.05	0.1
Nickel(mg/L)	<0.02	3
Arsenic, mg/l	<0.005	0.2
Selenium (mg/L)	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	5
Phenolics (mg/L)	<0.001	1

Signature
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
नैनी लाल
cmpdi
Mini Ratna

Drinking Water Quality Data Jagannath Area

Project / OCP Monitoring Station	Jagannath OCP			Indian Drinking Standards (IS-10500):2012	
	Jagannath Colony	Rakas Village Well Water	Balanda Colony	Acceptable	Permissible
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025	5	15
Colour (Hazen)	2	1	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	2	2	1	5
pH	7.23	7.48	7.93	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	46.22	42.02	54.62	200	600
Chloride(mg/L)	9.71	13.60	17.5	250	1000
Sulphate(mg/L)	54.22	58.76	106.46	200	400
Nitrate(mg/L)	0.68	0.64	<0.5	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	86.28	90.20	160.80	200	600
Calcium(mg/L)	26.72	28.29	44.01	75	200
Fluoride(mg/L)	0.72	0.56	0.82	1	1.5
Total Dissolve Solid(mg/L)	162	176	268	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)	<0.04	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

Signature
Authorised Signatory
CMPDI, RI-VII, LAB

Signature



सीएमपीडीआई
रिपोर्टर
cmpdi
Mini Ratna

Drinking Water Quality Data Jagannath Area

Project / OCP	Jagannath OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Jagannath Colony	Rakas Village Well Water		
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	9.78	12.48	14.76	-	-
Potassium(mg/L)	5.46	5.78	6.68	-	-
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	-	-

Janant
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Janant



सीएमपीडीआई
रिसेच लैब
cmpdi
Mini Ratna

Drinking Water Quality Data Jagannath Area

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Ananta Colony	Dera Village Tube Well Water	
Date of Sampling	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Colour (Hazen)	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	3	1	5
pH	7.32	6.26	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	33.61	75.63	200	600
Chloride(mg/L)	11.65	46.63	250	1000
Sulphate(mg/L)	30.54	58.19	200	400
Nitrate(mg/L)	<0.5	22.80	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	50.98	184.33	200	600
Calcium(mg/L)	12.57	50.30	75	200
Fluoride(mg/L)	0.62	0.66	1	1.5
Total Dissolve Solid(mg/L)	114	286	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	<0.04	<0.04	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

Janaki
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Janaki



सीएमपीडीआई
मिनी रत्न
cmpdi
Mini Ratna

Drinking Water Quality Data Jagannath Area

Project / OCP	Ananta OCP		Indian Drinking Standards (IS-10500):2012	
	Monitoring Station			
	Ananta Colony	Dera Village Tube Well Water		
Date of Sampling	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	11.12	10.76		
Potassium(mg/L)	4.76	3.12		
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	-	-

Sanmati

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

San



सीएमपीडीआई
मिनी रॉल
cmpdi
Mini Roll

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	13-Sep-2025	5	15
Colour (Hazen)	3	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	1	5
pH	7.93	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	54.62	200	600
Chloride(mg/L)	17.5	250	1000
Sulphate(mg/L)	106.46	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	160.80	200	600
Calcium(mg/L)	44.01	75	200
Fluoride(mg/L)	0.82	1	1.5
Total Dissolve Solid(mg/L)	268	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)	<0.04	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	0.5	2.4

Sanat
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Sanat



सीएमपीडीआई
मिनी रात्र
cmpdi
Mini Ratna

Drinking Water Quality Data Jagannath Area

Project / OCP	Balanda OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	Balanda Colony (Reported Only)		
Date of Sampling	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	14.76		
Potassium(mg/L)	6.68		
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	-	-

Signature
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
मिनी एल
cmpdi
Mini Rotna

Surface Water Quality Data Jagannath Area

Project/OCP	Jagannath				IS:2296-1982 Tolerance for inland Surface water (Class C)
	Downstream of Bangaru Jhor nalla	Downstream of Brahmani River where Bangaru Water meets	Upstream of Brahmani River where Bangaru Water meets	Upstream of Bangaru Jhor river near Joragarhia as downstream of Bharatpur OCP (Upstream for Jagannath) (Reported)	
Date of sampling	30-Aug-25	30-Aug-25	30-Aug-25	30-Aug-25	
pH	7.66	8.11	7.70	7.84	6.5-8.5
Color (Hazen unit)	3	2	3	2	300
Dissolved Oxygen(mg/L)	6.6	6.4	6.7	6.5	4
BOD (3 days 27°C)(mg/L)	2.1	2.0	2.2	2.2	3
Chlorides(mg/L)	23.48	23.48	21.53	23.48	600
Sulphate(mg/L)	156.05	28.16	136.18	129.34	400
Nitrate(mg/L)	8.04	0.93	2.18	0.64	50
Fluoride(mg/L)	<0.3	0.58	<0.3	<0.30	1.5
Total Hardness(mg/L)	310.34	171.08	306.36	310.34	-
Total dissolved solids (mg/L)	450	294	454	408	1500
TSS(mg/L)	35	34	34	29	-
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	0.13	0.1	0.49	0.8	50
Zinc(mg/L)	0.05	<0.04	0.04	<0.04	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	<0.005	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺)(mg/L)	<0.05	<0.05	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	<4.0	<4.0	0.1
MPN (Index/100 ml)	210	170	130	220	-

Signature
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडी आई
1982-88
cmpdi
भारत सरकार

Surface Water Quality Data Jagannath Area

Project/OCP	Ananta				IS:2296-1982 Tolerance for inland Surface water (Class C)
	Upstream of Bangaru Jhor as downstream water point of Jagannath OCP (Reported)	Down stream of Bangaru Jhor (upstream of Bhubaneswari)	Dera Pond South	Brundabanpur Pond North	
NAME OF STATIONS					
Date of sampling	30-Aug-25	30-Aug-25	30-Aug-25	30-Aug-25	6.5-8.5
pH	7.66	7.70	7.56	7.87	300
Color (Hazen unit)	3	3	1	2	4
Dissolved Oxygen(mg/L)	6.6	6.7	6.7	6.5	3
BOD (3 days 27°C(mg/L))	2.1	2.2	2.3	2.1	600
Chlorides(mg/L)	23.48	21.53	13.70	23.48	400
Sulphate(mg/L)	156.05	136.18	41.05	90.53	50
Nitrate(mg/L)	8.04	2.18	0.58	1.04	1.5
Fluoride(mg/L)	-0.30	-0.30	0.48	0.50	-
Total Hardness(mg/L)	310.34	306.36	99.46	234.74	1500
Total dissolved solids (mg/L)	450	454	175	346	-
TSS(mg/L)	35	34	32	34	1.5
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	50
Iron(mg/L)	0.13	0.5	<0.1	0.3	15
Zinc(mg/L)	0.05	0.04	0.0	<0.04	0.1
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.2
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.05
Selenium(mg/L)	<0.005	<0.005	<0.005	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺ (mg/L)	<0.05	<0.05	<0.05	<0.05	0.005
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.1
Oil & Grease (mg/L)	<4.0	<4.0	<4.0	<4.0	
MPN (Index/100 ml)	210	150	94	70	

Jasmati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
रि-वी एल
cmpdi
Mini Ratna

Surface Water Quality Data Jagannath Area

Project/OCF	Balanda		IS:2296-1982 Tolerance for inland Surface water (Class C)
	Main Sump near Quarry II	Main Sump near Quarry III	
NAME OF STATIONS			
Date of sampling	30-Aug-25	30-Aug-25	
pH	7.57	7.20	6.5-8.5
Color (Hazen unit)	2	3	300
Dissolved Oxygen(mg/L)	6.8	6.5	4
BOD (3 days 27°C)(mg/L)	2.3	2.2	3
Chlorides(mg/L)	19.57	35.22	600
Sulphate(mg/L)	135.00	135.68	400
Nitrate(mg/L)	<0.5	<0.5	50
Fluoride(mg/L)	0.71	<0.30	1.5
Total Hardness(mg/L)	262.60	202.91	-
Total dissolved solids (mg/L)	388	374	1500
TSS(mg/L)	41	42	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	0.97	0.4	50
Zinc(mg/L)	0.15	0.04	15
Lead(mg/L)	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺) (mg/L)	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	0.1
MPN (Index/100 ml)	63	58	-
Residual Free Chlorine(mg/L)	<0.2	<0.2	0.2

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature

Jagannath OCP

Kurihan village

Legend
Monitoring Station

Near MDTP

Central Nursery

Near NBVL Station

CWS Colony: MEETI

Google Earth



Ananta OCP

Legend
Monitoring Station

Sibarampur Village

Asanabahali Village

North East of Mine

Guthasahi Village

Central Nursery Near NBVL Station

Google Earth



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

Talcher Coalfield



Mahanadi Coalfields Limited



सीएमपीडीआई
मिनी रत्ना
cmpdi
Mini Ratna

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

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

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

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	SO ₂	NO _x	Dust Generating Source(DGS)	Distance from DGS
05-Sep-25	B.C.M.L. Workshop	218	125	45	16.43	19.81	Mining activities, O.B Dump yard	About 400 to 500m
05-Sep-25	Silo Substation Office	214	94	41	9.57	29.72		
25-Sep-25	B.C.M.L. Workshop	187	92	40	17.28	25.81	Mining activities, O.B Dump yard	About 400 to 500m
25-Sep-25	Silo Substation Office	232	113	47	12.21	21.54		

Signature
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Signature

MoEF Standards Notification dated 25th
 September, 2000

600	300		120	120
-----	-----	--	-----	-----



ଶ୍ରୀମତୀ ଚୀମପିଡ଼ିଏସ
 ଚୀମପିଡ଼ିଏସ
 ଚୀମପିଡ଼ିଏସ

Test Report

AMBIENT AIR QUALITY DATA

Area :

Bhubaneswari

(Reference Station)

Project :

Bhubaneswari OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
03-Sep-25	Naraharipur Village	190	75	33	11.96	35.97		
03-Sep-25	Kandhal Village (Reported Only)	162	67	30	11.36	26.00		
04-Sep-25	Kandhal Village (Reported Only)	170	78	33	15.43	20.64		
04-Sep-25	Naraharipur Village	158	66	27	13.89	27.49		
10-Sep-25	Naraharipur Village	143	63	26	9.22	27.59		
10-Sep-25	Kandhal Village (Reported Only)	140	66	27	9.18	13.51		
11-Sep-25	Kandhal Village (Reported Only)	118	37	17	9.68	12.63		
11-Sep-25	Naraharipur Village	168	70	31	13.54	11.63		
17-Sep-25	Naraharipur Village	118	42	17	11.96	28.93		
17-Sep-25	Kandhal Village (Reported Only)	132	51	23	10.42	25.47		
18-Sep-25	Kandhal Village (Reported Only)	112	37	17	15.43	40.45		
18-Sep-25	Naraharipur Village	130	50	20	12.43	22.64		
22-Sep-25	Kandhal Village (Reported Only)	140	58	25	13.01	27.01		
22-Sep-25	Naraharipur Village	111	35	16	16.03	25.47		
23-Sep-25	Naraharipur Village	149	67	27	10.94	27.49		
23-Sep-25	Kandhal Village (Reported Only)	125	45	20	18.52	24.52		

Signature
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Signature

7/11/2007

100 80 80 80



सीएमपीडीआई
मिनि लैब
cmpdi
Mini Lab

AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bhubaneswari

Project	Bhubaneswari OCP							
Monitoring Station	Kandhal Village (Reported Only)							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	21.62	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	12.87	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	15.87	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	24.63	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	23.53	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	22.17	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	13.68	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(hou r)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8hou rs)	01(annual)	05(annual)

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
रिसेच लैब
cmpdi
मिनी लैब्स

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 (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	18.07	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	26.82	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	12.87	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	13.97	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	25.73	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	18.07	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	24.37	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

Janvati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

J. Leo



सीएमपीडीआई
CMPDI
भारत सरकार

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bhubaneswari

PROJECT :

Bhubaneswari OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Kandhal Village (Reported)	44.3	38.3
05-Sep-25	Naraharipur Village	47.3	38.9
05-Sep-25	Silo Substaion Office	66.2	58.3
05-Sep-25	BCML Workshop	66.7	57.9
24-Sep-25	Kandhal Village (Reported)	45.9	38.7
24-Sep-25	Naraharipur Village	47.3	39.3
24-Sep-25	Silo Substaion Office	68.3	55.9
24-Sep-25	BCML Workshop	67.0	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)


Authorized Signatory
CMPDI, RI-VII, LAG
BHUBANESWAR



TABLE-



EFFLUENT QUALITY DATA

Area : **Bhubaneswari**

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

Project : **Bhubaneswari OCP**

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
13-Sep-25	Mine Sump Water	7.08	<4.0	15	16	-	
13-Sep-25	O & G Trap Inlet	6.94	4.4	38	48	-	
13-Sep-25	O & G Trap Outlet	7.28	<4.0	23	28	-	
27-Sep-25	O & G Trap Inlet	7.29	5.4	53	72	-	
27-Sep-25	O & G Trap Outlet	7.67	<4.0	34	36	-	

Sanat
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]

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
--	---------	----	-----	-----	----



सीएमपीडीआई
केपी एन
cmpdi
MINI TOTRA

Effluent Quality (all Parameter): - Bhubaneswari Area

Project (OCP / UG)	Bhubaneswari	MoEF-Sch-VI Standards
NAME OF THE STATION	Mine Sump Water	
Date of Sampling	30-Aug-25	
Odour	Unobjectionable	-
Colour(Hazen)	2	-
Temperature(oC)	28.4	Shall not exceed 5 °C above the receiving temperature
pH	8.01	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	194.70	-
Total Dissolved Solids, mg/L	433	-
Nitrate Nitrogen(mg/L)(As N)	0.76	10
Ammonical Nitrogen , mg/l (As N)	0.56	50
Total Kjeldhal Nitrogen, mg/l (As N)	4.52	100
Sulphide (mg/L)	<0.1	2
BOD [3 days at 27°C] (mg/L)	2.7	30
Fluoride(mg/L)	0.69	2
Copper(mg/L)	<0.03	3
Manganese(mg/L)	<0.04	2
Iron(mg/L)	<0.1	3
Zinc(mg/L)	<0.04	5
Lead, mg/l	<0.005	0.1
Cadmium, mg/l	<0.001	2.0
Total Chromium(mg/L)	<0.01	2.0
Hexavalent Chromium(mg/L)	<0.05	0.1
Nickel(mg/L)	<0.02	3
Arsenic, mg/l	<0.005	0.2
Selenium (mg/L)	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	5
Phenolics (mg/L)	<0.001	1


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
निजी लाल
cmpdi
Mini Ratna

Surface Water Quality Data Bhubaneswari Area

Project/OCP	Bhubaneswari		IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Upstream of Bangaru Jhor as downstream water point of Ananta OCP (Reported)	Down stream of Bangaru Jhor- Khaisa Pala Village	
Date of sampling	30-Aug-25	30-Aug-25	
pH	7.70	7.71	6.5-8.5
Color (Hazen unit)	3	4	300
Dissolved Oxygen(mg/L)	6.7	6.8	4
BOD (3 days 27°C)(mg/L)	2.2	<2.0	3
Chlorides(mg/L)	21.53	19.57	600
Sulphate(mg/L)	136.18	133.68	400
Nitrate(mg/L)	2.18	1.96	50
Fluoride(mg/L)	<0.30	0.64	1.5
Total Hardness(mg/L)	306.36	282.49	-
Total dissolved solids (mg/L)	454	427	1500
TSS(mg/L)	34	38	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	0.5	0.97	50
Zinc(mg/L)	0.04	<0.04	15
Lead(mg/L)	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺)(mg/L)	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	0.1
MPN (Index/100 ml)	150	280	-

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature

Bhubaneswar OCP

Legend

 Air Monitoring Locations

-  SCML Workshop
-  Narahanipur Village
-  Kandhal Village
-  Silo Sub Station Office

Google Earth



13.7



**Environmental Monitoring Report
Of
Bharatpur Area
For
September-2025
Talcher Coalfield**



MCL

Mahanadi Coalfields Limited



cmpdi

A Mini Ratna Company

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

Test Report



सीएम्पीडीआई
1985-88
cmpdi
भारत

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-Sep-25	Near Regional Store	210	95	40	15.69	18.91	Mining Activities	About 500m
05-Sep-25	North-West Point of the Mine	214	113	45	15.99	27.49	Domestic & Mining Activities	About 500m
05-Sep-25	Near ETP/Workshop	210	105	43	16.43	38.91	Mining Activities & Coal Stock	Above 500m
25-Sep-25	Near Regional Store	227	116	49	10.02	31.13	Mining Activities	About 500m
25-Sep-25	North-West Point of the Mine	196	89	38	15.69	28.36	Domestic & Mining Activities	About 500m
25-Sep-25	Near ETP/Workshop	204	95	44	14.43	26.89	Mining Activities & Coal Stock	Above 500m

Jaswanti
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]

<i>MoEF Standards Notification dated 25th September, 2000</i>	600	300		120	120
---	-----	-----	--	-----	-----

Test Report



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-Sep-25	East of the Mine, Natedi Village (Reported Only)	114	38	17	15.99	30.46	Coal Transportation Road	About 2km
02-Sep-25	East of the Mine, Natedi Village (Reported Only)	178	69	32	12.63	26.00	Coal Transportation Road	About 2km
03-Sep-25	Kalinga Colony	127	58	23	17.68	34.92		
03-Sep-25	Karnapur Village	130	54	23	14.54	15.53		
03-Sep-25	Near Joragdia Village	124	41	18	11.78	16.34	Transportation, Domestic Cooking	About 1km
03-Sep-25	Khajuria Village	148	65	27	9.22	12.74		
04-Sep-25	Karnapur Village	143	68	27	16.45	18.91		
04-Sep-25	Kalinga Colony	142	63	27	11.96	21.11		
04-Sep-25	Near Joragdia Village	139	54	23	12.40	20.33	Transportation, Domestic Cooking	About 1km
04-Sep-25	Khajuria Village	145	53	25	14.73	18.57		
08-Sep-25	East of the Mine, Natedi Village (Reported Only)	143	63	27	10.94	25.26	Coal Transportation Road	About 2km
09-Sep-25	East of the Mine, Natedi Village (Reported Only)	132	57	23	13.63	33.96	Coal Transportation Road	About 2km
10-Sep-25	Khajuria Village	136	45	23	13.91	28.42		
10-Sep-25	Karnapur Village	131	56	24	10.10	30.46		
10-Sep-25	Near Joragdia Village	159	62	26	14.83	18.40	Transportation, Domestic Cooking	About 1km
10-Sep-25	Kalinga Colony	122	42	19	17.64	24.76		
11-Sep-25	Near Joragdia Village	166	70	31	13.39	18.23	Transportation, Domestic Cooking	About 1km
11-Sep-25	Khajuria Village	166	72	31	16.84	37.54		
11-Sep-25	Kalinga Colony	113	35	16	12.63	17.83		
11-Sep-25	Karnapur Village	123	48	20	14.16	24.99		
15-Sep-25	East of the Mine, Natedi Village (Reported Only)	124	44	20	15.23	33.25	Coal Transportation Road	About 2km
16-Sep-25	East of the Mine, Natedi Village (Reported Only)	137	56	24	15.23	33.96	Coal Transportation Road	About 2km
17-Sep-25	Kalinga Colony	147	65	28	15.30	21.61		
17-Sep-25	Karnapur Village	123	44	19	18.94	24.52		
17-Sep-25	Near Joragdia Village	134	53	22	11.08	32.84	Transportation, Domestic Cooking	About 1km

*NAAQIS, 2009

100 80 60 40

Authorized Signatory
CMPDI, RI-VII, LAG
BHUBANESWAR

Project :

Bharatpur OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
17-Sep-25	Khajuria Village	141	53	24	14.03	34.67		
18-Sep-25	Karnapur Village	164	71	31	11.86	20.26		
18-Sep-25	Kalinga Colony	139	58	24	14.18	25.81		
18-Sep-25	Near Joragdia Village	143	61	25	16.10	21.32	Transportation, Domestic Cooking	About 1km
18-Sep-25	Khajuria Village	145	60	26	18.52	29.72		
19-Sep-25	East of the Mine, Natedi Village (Reported Only)	123	43	19	18.16	37.54	Coal Transportation Road	About 2km
20-Sep-25	East of the Mine, Natedi Village (Reported Only)	118	34	15	17.30	27.24	Coal Transportation Road	About 2km
22-Sep-25	Near Joragdia Village	127	47	21	11.62	27.59	Transportation, Domestic Cooking	About 1km
22-Sep-25	Khajuria Village	149	67	29	16.03	26.89		
22-Sep-25	Karnapur Village	147	58	27	16.39	23.46		
22-Sep-25	Kalinga Colony	145	63	27	18.94	20.06		
23-Sep-25	Khajuria Village	134	53	23	14.62	31.28		
23-Sep-25	Near Joragdia Village	153	63	28	17.77	26.41	Transportation, Domestic Cooking	About 1km
23-Sep-25	Kalinga Colony	120	41	18	15.15	36.40		
23-Sep-25	Karnapur Village	127	47	20	11.78	32.69		

Signature
 Authorised Signatory
 CMPDI, RI-VII, CAS
 BHUBANESWAR

*NAIQS,2009

100 80 80 80



सीएमपीडीआई
निर्देशक
cmpdi
भुवनेश्वर

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-Sep-2025	<20.0	24.32	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	23.18	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	12.72	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	14.42	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	24.32	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	13.85	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	21.48	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	23.18	<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)

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
निसं वन
cmpdi
LAB Bhuban

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Near Natedi Village (Reported Only)							
Date of sampling	Ammonia (NH ₃) ($\mu\text{g}/\text{m}^3$)	Ozone (O ₃) ($\mu\text{g}/\text{m}^3$)	Lead (Pb) ($\mu\text{g}/\text{m}^3$)	Arsenic (As) (ng/m^3)	Nickel (Ni) (ng/m^3)	CO (mg/m^3)	Benzo (a) Pyrene (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	16.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
02-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
08-Sep-2025	<20.0	21.07	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
09-Sep-2025	<20.0	12.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
15-Sep-2025	<20.0	13.68	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
16-Sep-2025	<20.0	26.28	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
19-Sep-2025	<20.0	18.33	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
20-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

Janaki

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Janaki



सीएमपीडीआई
विश्वीय लैब
cimpdi
Mini Bhubna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project		Bharatpur OCP						
Monitoring Station		Near Joragadia Village						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (α) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	16.70	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	12.58	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	15.33	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	14.23	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	23.53	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	22.45	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	16.15	<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)


Authorised Signatory
CIMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआउ
निसंवे लभ
cmpdi
Mini India

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Bharatpur

Project	Bharatpur OCP							
Monitoring Station	Khajuria Village							
Date of sampling	Ammonia (NH ₃) ($\mu\text{g}/\text{m}^3$)	Ozone (O ₃) ($\mu\text{g}/\text{m}^3$)	Lead (Pb) ($\mu\text{g}/\text{m}^3$)	Arsenic (As) (ng/m^3)	Nickel (Ni) (ng/m^3)	CO (mg/m^3)	Benzo (a) Pyrene (ng/m^3)	Benzene ($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	19.43	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	15.33	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	13.97	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	26.55	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	13.97	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	22.72	<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)


Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
रिसेच लैब
cmpdi
Mini Ratna

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 (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	19.17	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	14.23	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	19.70	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	20.53	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	26.55	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	13.42	<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)

Jamali

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Arora



सीएमपीडी
CMPDI
भुवनेश्वर

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Bharatpur

PROJECT :

Bharatpur OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	North West Point of the Mine	62.8	53.1
05-Sep-25	Near Regional Store	64.3	55.3
05-Sep-25	Near Wokshop	64.3	55.9
05-Sep-25	Kalinga Colony	47.4	39.1
06-Sep-25	Natedi Village (Reported)	45.9	37.3
24-Sep-25	North West Point of the Mine	61.1	51.1
24-Sep-25	Near Regional Store	60.9	50.8
24-Sep-25	Near Wokshop	64.4	55.7
24-Sep-25	Kalinga Colony	47.1	37.4
25-Sep-25	Natedi Village (Reported)	44.5	36.1

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

Jaswant
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jaswant

TABLE--



संरक्षणपीडीआई
 सं. ७७
cmpdi
 Bhubaneswar

EFFLUENT QUALITY DATA

Area :

Bharatpur

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

Project :

Bharatpur OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
13-Sep-25	Mine Sump Water - Main Sump	7.54	<4.0	29	32	-	
13-Sep-25	Mine Sump Water - Old Quarry Sump	6.87	-	-	-	-	
13-Sep-25	Rakas Quarry Sump	4.77	-	-	-	-	
13-Sep-25	Workshop ETP Clear Water Tank	7.71	<4.0	40	44	-	
13-Sep-25	Workshop Inlet	7.39	5.4	69	92	-	
27-Sep-25	Workshop ETP Clear Water Tank	7.64	<4.0	36	44	-	
27-Sep-25	Workshop Inlet	7.28	4.8	57	84	-	

Jasmati

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

A. S. S.

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--



सीएनपीडी आई
2015 एन
cmpdi
भारत सरकार

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
13-Sep-25	STP INLET	7.47	-	34	-	2.4	170
13-Sep-25	STP Outlet (PH,TSS,MPN,BOD)	7.70	-	23	-	<2.0	120
27-Sep-25	STP INLET	7.44	-	39	-	3.1	210
27-Sep-25	STP Outlet (PH,TSS,MPN,BOD)	7.80	-	25	-	<2.0	170

Janaki
Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Janaki

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
---------	---	------	---	----	-------



सीएमपीडीआई
मिनी लैब
cmpdi
Mini Lab

Effluent Quality (all Parameter): - Bharatpur Area

Project (OCP / UG)	Bharatpur		MoEF-Sch-VI Standards
	Mine Sump Water-Mine Sump	Mine Sump (Old Quarry Sump)	
NAME OF THE STATION			
Date of Sampling	30-Aug-25	30-Aug-25	
Odour	Unobjectionable	Unobjectionable	-
Colour(Hazen)	3	2	-
Temperature(oC)	29.40	28.7	Shall not exceed 5 °C above the receiving temperature
pH	6.46	6.52	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	139.07	194.70	-
Total Dissolved Solids, mg/L	203	366	-
Nitrate Nitrogen(mg/L)(As N)	<0.11	<0.11	10
Ammonical Nitrogen , mg/l (As N)	0.43	0.49	50
Total Kjeldhal Nitrogen, mg/l (As N)	3.01	4.52	100
Sulphide (mg/L)	<0.1	<0.1	2
BOD [3 days at 27°C] (mg/L)	2.9	3.0	30
Fluoride(mg/L)	<0.30	0.48	2
Copper(mg/L)	<0.03	<0.03	3
Manganese(mg/L)	0.12	1.53	2
Iron(mg/L)	<0.1	<0.1	3
Zinc(mg/L)	<0.04	0.54	5
Lead, mg/l	<0.005	<0.005	0.1
Cadmium, mg/l	<0.001	<0.001	2.0
Total Chromium(mg/L)	<0.01	<0.01	2.0
Hexavalent Chromium(mg/L)	<0.05	<0.05	0.1
Nickel(mg/L)	<0.02	<0.02	3
Arsenic, mg/l	<0.005	<0.005	0.2
Selenium (mg/L)	<0.005	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	<4.0	5
Phenolics (mg/L)	<0.001	<0.001	1


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
मिनी ब्लॉक
cmpdi
Mini Blotting

Drinking Water Quality Data Bharatpur Area

Project / OCP	Bharatpur OCP	Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Time Office,BOCP	
Date of Sampling	13-Sep-2025	Acceptable	Permissible
Colour (Hazen)	2	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	2	1	5
pH	6.41	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	105.05	200	600
Chloride(mg/L)	17.48	250	1000
Sulphate(mg/L)	30.86	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	109.81	200	600
Calcium(mg/L)	29.86	75	200
Fluoride(mg/L)	0.60	1	1.5
Total Dissolve Solid(mg/L)	188	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)	0.04	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	0.5	2.4


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
जिनी एन
cmpdi
Mini Ratna

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	13-Sep-2025		
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	9.16		
Potassium(mg/L)	2.46		
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	-	-

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
विभी रेल
cmpdi
Mini Ratna

Surface Water Quality Data Bharatpur Area

Project/OCP	Bharatpur		IS:2296-1982 Tolerance for inland Surface water (Class C)
	Bangaru Jhor river near Joragadia as downstream water point of Bharatpur OCP	Upstream of Bangaru Jhor river of Bharatpur OCP as downstream of Balram OCP (Reported)	
NAME OF STATIONS			
Date of sampling	30-Aug-25	30-Aug-25	
pH	7.84	7.71	6.5-8.5
Color (Hazen unit)	2	3	300
Dissolved Oxygen(mg/L)	6.5	6.0	4
BOD (3 days 27°C)(mg/L)	2.2	<2.0	3
Chlorides(mg/L)	23.48	29.35	600
Sulphate(mg/L)	129.34	60.26	400
Nitrate(mg/L)	0.64	2.76	50
Fluoride(mg/L)	<0.30	0.46	1.5
Total Hardness(mg/L)	310.34	385.94	-
Total dissolved solids (mg/L)	408	425	1500
TSS(mg/L)	29	46	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	0.8	0.30	50
Zinc(mg/L)	<0.04	0.19	15
Lead(mg/L)	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	0.05
Hexavalent Chromium(as Cr ⁶⁺)(mg/L)	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	0.1
MPN (Index/100 ml)	220	220	-


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
रिपो रलन
cmpdi
Mini Ratna

Surface Water Quality Data Bharatpur Area

Project/OCP	Bharatpur		IS:2296-1982 Tolerance for inland Surface water (Class C)
	Pond Near N-W Point of the Mine	Jambubahali Village pond	
NAME OF STATIONS	30-Aug-25	30-Aug-25	
Date of sampling			
pH	7.60	7.33	6.5-8.5
Color (Hazen unit)	3	3	300
Dissolved Oxygen(mg/L)	6.6	6.4	4
BOD (3 days 27°C)(mg/L)	2.3	2.2	3
Chlorides(mg/L)	13.70	45.01	600
Sulphate(mg/L)	96.58	80.92	400
Nitrate(mg/L)	0.72	0.64	50
Fluoride(mg/L)	0.55	0.35	1.5
Total Hardness(mg/L)	441.64	497.34	-
Total dissolved solids (mg/L)	394	442	1500
TSS(mg/L)	37	42	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	0.4	0.28	50
Zinc(mg/L)	<0.04	<0.04	15
Lead(mg/L)	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	0.05
Hexavalent Chromium(as Cr ⁶⁺)(mg/L)	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	0.1
MPN (Index/100 ml)	63	70	-

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BIRANESWAR

Signature

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



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

Talcher Coalfield



MCL

Mahanadi Coalfields Limited



cmpdi

A Mini Ratna Company

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



ଶିଳାମୟୀନୀୟ
 ୧୯୯୩
cmpdi
 ୧୯୯୩

Test Report

AMBIENT AIR QUALITY DATA

Area :

Lingaraj

(Compliance Station)

Project :

Lingaraj OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
06-Sep-25	GM Office Lingraj	205	95	42	13.39	18.91		
06-Sep-25	Near Silo Conveyor Belt	215	102	43	15.69	25.66		
24-Sep-25	GM Office Lingraj	202	101	44	11.10	23.64		
24-Sep-25	Near Silo Conveyor Belt	195	94	40	17.68	25.26		

Jasanti
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

[Signature]

MoEF Standards Notification dated 25th September, 2000	500	250		120	120
--	-----	-----	--	-----	-----



संरक्षणपीडीअड
CMPDI

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-Sep-25	Kandhal Village	162	67	30	11.36	26.00		
03-Sep-25	Lingaraj Township	172	65	32	15.69	18.23		
03-Sep-25	Lingaraj Township	121	40	18	16.84	28.89		
03-Sep-25	Balunga Khamar Village	116	46	19	9.95	29.72		
04-Sep-25	Balunga Khamar Village	130	60	24	11.52	39.10		
04-Sep-25	Kandhal Village	170	78	33	15.43	20.64		
10-Sep-25	Lingaraj Township	152	49	24	18.16	32.06		
10-Sep-25	Balunga Khamar Village	144	72	28	16.41	30.46		
10-Sep-25	Kandhal Village	140	66	27	9.18	13.51		
11-Sep-25	Balunga Khamar Village	124	52	22	14.16	14.18		
11-Sep-25	Kandhal Village	118	37	17	9.68	12.63		
11-Sep-25	Lingaraj Township	108	37	17	12.24	27.01		
17-Sep-25	Kandhal Village	132	51	23	10.42	25.47		
17-Sep-25	Lingaraj Township	128	47	20	16.84	37.14		
17-Sep-25	Balunga Khamar Village	127	47	22	15.90	28.06		
18-Sep-25	Balunga Khamar Village	142	60	27	12.21	28.97		
18-Sep-25	Kandhal Village	112	37	17	15.43	40.45		
18-Sep-25	Lingaraj Township	150	68	28	14.18	36.75		
22-Sep-25	Balunga Khamar Village	153	76	33	11.36	27.49		
22-Sep-25	Kandhal Village	140	58	25	13.01	27.01		
22-Sep-25	Lingaraj Township	116	39	17	12.24	24.99		
23-Sep-25	Lingaraj Township	156	61	28	14.27	29.72		
23-Sep-25	Balunga Khamar Village	122	42	19	17.30	29.72		
23-Sep-25	Kandhal Village	125	45	20	18.52	24.52		

*NAAQS, 2009

100 80 80 80

Authorised Signatory
CMPDI, RI-VII, LAD
BHUBANESWAR

Secy



सीएमपीडीआई
विशेष रूप
cmpdi
विशेषज्ञ

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	
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)	
03-Sep-2025	<20.0	21.62	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL	
04-Sep-2025	<20.0	12.87	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL	
10-Sep-2025	<20.0	15.87	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL	
11-Sep-2025	<20.0	24.63	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL	
17-Sep-2025	<20.0	23.53	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL	
18-Sep-2025	<20.0	22.17	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL	
22-Sep-2025	<20.0	13.68	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL	
23-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL	
Standard	400(24h hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(Shou rs)	01(annu al)	05(annu al)	

Signature

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

Signature



सीएमपीडीआई
रिजिस्टर्ड
CMPDI
बिहार

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-Sep-2025	<20.0	15.87	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	17.25	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	22.17	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	13.68	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	17.53	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	12.15	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	23.47	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	20.07	<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)


Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
cmpdi
Mind Protect

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 (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
03-Sep-2025	<20.0	21.62	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	26.82	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	14.78	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	21.35	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	17.52	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	17.25	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	19.43	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	22.17	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडी
RI-VII
CMPDI
MUMBAI

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Lingaraj

PROJECT :

Lingaraj OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Lingaraj Township	45.7	37.2
05-Sep-25	Balunga Khamar Village	47.2	38.9
05-Sep-25	Kandhal Village	44.3	38.3
05-Sep-25	Near Silo Conveyor Belt	62.7	55.2
24-Sep-25	Lingaraj Township	46.1	39.2
24-Sep-25	Balunga Khamar Village	47.9	43.1
24-Sep-25	Kandhal Village	45.9	38.7
24-Sep-25	Near Silo Conveyor Belt	69.1	57.2

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

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUWANE SWAR

Signature

TABLE-



सीमापेटीआइ
CMPDI
भुवनेश्वर

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-Sep-25	Clear Water Reservoir of ETP Near Dumper Parking	7.54	<4.0	31	28	-	
13-Sep-25	Filter Outlet of Workshop ETP	7.59	<4.0	31	32	-	
13-Sep-25	Inlet of ETP Near Dumper Parking	7.33	4.2	40.	44	-	
13-Sep-25	Inlet of Workshop ETP	7.26	4.8	43	52	-	
13-Sep-25	Mine Sump Water	7.27	<4.0	26	24	-	
27-Sep-25	Clear Water Reservoir of ETP Near Dumper Parking	7.86	<4.0	35	32	-	
27-Sep-25	Filter Outlet of Workshop ETP	7.72	<4.0	33	36	-	
27-Sep-25	Inlet of ETP Near Dumper Parking	7.54	4.8	52	60	-	
27-Sep-25	Inlet of Workshop ETP	7.45	5.2	49	68	-	

Jaswant
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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
---------	----	-----	-----	----

Jaswant

TABLE--



ಕರ್ನಾಟಕ ಸರ್ಕಾರ
 ಕೆ.ಎಂ.ಪಿ.ಡಿ.ಎಸ್.
 K.M.P.D.S.

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
13-Sep-25	STP Inlet at Lingaraj Township	7.24	-	37	-	2.6	220
13-Sep-25	STP Outlet at Lingaraj Township	4.79	-	26	-	<2.0	120
27-Sep-25	STP Inlet at Lingaraj Township	7.33	-	37	-	2.9	280
27-Sep-25	STP Outlet at Lingaraj Township	7.58	-	28	-	<2.0	140

Janak
 Authorized Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Janak

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
--	---------	---	------	---	----	-------



सीएमपीडीआई
लिमी ल
cmpdi
Mini Ratna

Effluent Quality (all Parameter): Lingaraj Area

Project (OCP / UG)	Lingaraj			MoEF-Sch-VI Standards
	Inlet of MDTP near Stock No. 17	Clear Water Reservoir of MDTP near Stock No. 17	Mine Sump Water	
NAME OF THE STATION				
Date of Sampling	30-Aug-25	30-Aug-25	30-Aug-25	
Odour	Unobjectionable	Unobjectionable	Unobjectionable	
Colour(Hazen)	1.0	2	4	
Temperature(oC)	28.9	29.4	28.6	Shall not exceed 5 °C above the receiving temperature
pH	6.65	7.93	8.18	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	51.65	119.20	846.36	-
Total Dissolved Solids, mg/L	108	269	1065	-
Nitrate Nitrogen(mg/L)(As N)	<0.11	0.76	0.24	10
Ammonical Nitrogen , mg/l (As N)	0.55	0.75	0.71	50
Total Kjeldhal Nitrogen, mg/l (As N)	4.52	4.52	3.01	100
Sulphide (mg/L)	<0.1	<0.1	<0.1	2
BOD [3 days at 27°C] (mg/L)	2.1	3.3	3.6	30
Fluoride(mg/L)	0.50	0.71	<0.30	2
Copper(mg/L)	<0.03	<0.03	<0.03	3
Manganese(mg/L)	<0.04	<0.04	<0.04	2
Iron(mg/L)	<0.1	<0.1	<0.1	3
Zinc(mg/L)	<0.04	<0.04	0.04	5
Lead, mg/l	<0.005	<0.005	<0.005	0.1
Cadmium, mg/l	<0.001	<0.001	<0.001	2.0
Total Chromium(mg/L)	<0.01	<0.01	<0.01	2.0
Hexavalent Chromium(mg/L)	<0.05	<0.05	<0.05	0.1
Nickel(mg/L)	<0.02	<0.02	<0.02	3
Arsenic, mg/l	<0.005	<0.005	<0.005	0.2
Selenium (mg/L)	<0.0005	<0.005	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	<4.0	<4.0	5
Phenolics (mg/L)	<0.001	<0.001	<0.001	1


Authorised Signatory
CMPDI, RI-VII, LAB
BHUPANESWAR





सीएमपीडीआई
मिनी रात्रा
cmpdi
Mini Ratna

Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	GM Office, Lingraj Area	Acceptable	Permissible
Date of Sampling	13-Sep-2025	5	15
Colour(Hazen)	2	5	15
Odour	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	1	5
pH	7.10	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	37.81	200	600
Chloride(mg/L)	9.71	250	1000
Sulphate(mg/L)	20.76	200	400
Nitrate(mg/L)	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	50.98	200	600
Calcium(mg/L)	12.57	75	200
Fluoride(mg/L)	0.44	1	1.5
Total Dissolve Solid(mg/L)	96	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)	0.16	5	15
Lead(mg/L)	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	0.5	2.4

Janat
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Janat



सीएमपीडीआई
मिनि एल
cmpdi
Mini Ratna

Drinking Water Quality Data Lingraj Area

Project / OCP	Lingraj OCP	Indian Drinking Standards (IS-10500):2012	
Monitoring Station	GM Office, Lingraj Area	Acceptable	Permissible
Date of Sampling	13-Sep-2025	0.01	No relaxation
Selenium(mg/L)	<0.005	0.01	No relaxation
Sodium(mg/L)	5.92	-	-
Potassium(mg/L)	2.94	-	-
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	-	-

[Handwritten Signature]

[Handwritten Signature]
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
मेनी लल
cmpdi
MINI RABDA

Surface Water Quality Data Lingraj Area

Project/OCP	Lingraj	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Village Pond near Deulbera Siding	
Date of sampling	30-Aug-25	
pH	7.46	6.5-8.5
Color (Hazen unit)	4	300
Dissolved Oxygen(mg/L)	6.7	4
BOD (3 days 27°C)(mg/L)	2.2	3
Chlorides(mg/L)	33.27	600
Sulphate(mg/L)	167.76	400
Nitrate(mg/L)	0.62	50
Fluoride(mg/L)	0.62	1.5
Total Hardness(mg/L)	568.96	-
Total dissolved solids (mg/L)	762	1500
TSS(mg/L)	42	-
Copper(mg/L)	<0.03	1.5
Iron(mg/L)	0.410	50
Zinc(mg/L)	<0.04	15
Lead(mg/L)	<0.005	0.1
Cadmium(mg/L)	<0.001	0.01
Arsenic(mg/L)	<0.005	0.2
Selenium(mg/L)	<0.005	0.05
Hexavalent Chromium(as Cr ⁶⁺)(mg/L)	<0.05	0.05
Phenolics(mg/L)	<0.001	0.005
Oil & Grease (mg/L)	<4.0	0.1
MPN (Index/100 ml)	94	-

Jasmati

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Seema



Legend
Air Monitoring Locations

Kandhal Village

Balunga village

GM Office, Lingraj

Near Conveyor belt

Lingraj Township

Lingraj OCP

Google Earth



Map © 2014 Google

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

Talcher Coalfield



Mahanadi Coalfields Limited



cmpdi

A Mini Ratan Company

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



सीएनपीडी लैब
cmpdi
 1995-2020

Test Report

AMBIENT AIR QUALITY DATA

Area :

Kaniha

(Compliance Station)

Project :

Kaniha OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
12-Sep-25	Near External OB Dump, Jamania	205	96	41	17.64	28.30	Mining Activities	About 500m
12-Sep-25	New Time Office (Near Z-Patch)	203	90	39	14.16	31.07	Mining Activities	About 500m
12-Sep-25	Near Project Office	226	108	44	11.78	20.80	Mining Activities	About 500m
26-Sep-25	Near External OB Dump, Jamania	194	92	40	21.04	32.19	Mining Activities	About 500m
26-Sep-25	New Time Office (Near Z-Patch)	188	88	37	15.23	34.67	Mining Activities	About 500m
26-Sep-25	Near Project Office	205	104	44	9.57	20.94	Mining Activities	About 500m

Signature

Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Signature

MoEF Standards Notification dated 25th September, 2009	600	300		120	120
--	-----	-----	--	-----	-----



Test Report

AMBIENT AIR QUALITY DATA

Area :

Kaniha

(Reference Station)

Project :

Kaniha OCP

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Sep-25	Kansamunda Village (West of the mine)	129	49	21	13.56	33.84		
01-Sep-25	Gandaberna	188	74	35	16.84	21.90		
01-Sep-25	South Of Proposed Quarry Limit of KOCP	112	37	17	13.05	32.69	Mining Activities	About 500m
01-Sep-25	Guliland, South West of Mine	146	61	28	13.05	11.14		
01-Sep-25	Near Harichandanpur	113	35	16	13.56	18.16		
01-Sep-25	Kaniha (North of the Mine)	112	43	19	11.52	21.11	Mining Activities	About 500m
02-Sep-25	South Of Proposed Quarry Limit of KOCP	132	47	24	13.77	29.72	Mining Activities	About 500m
02-Sep-25	Near Harichandanpur	137	53	24	18.71	16.51		
02-Sep-25	Kansamunda Village (West of the mine)	174	69	32	11.22	23.11		
02-Sep-25	Kaniha (North of the Mine)	135	55	24	15.51	27.37	Mining Activities	About 500m
02-Sep-25	Guliland, South West of Mine	133	48	25	11.78	20.80		
02-Sep-25	Gandaberna	158	67	30	17.26	35.66		
08-Sep-25	Kaniha (North of the Mine)	138	61	27	9.22	22.64	Mining Activities	About 500m
08-Sep-25	South Of Proposed Quarry Limit of KOCP	123	42	19	10.33	29.72	Mining Activities	About 500m
08-Sep-25	Kansamunda Village (West of the mine)	150	64	29	13.39	11.48		
08-Sep-25	Guliland, South West of Mine	154	65	29	10.82	33.25		
08-Sep-25	Near Harichandanpur	117	43	19	9.62	30.42		
08-Sep-25	Gandaberna	109	34	16	13.05	15.60		
09-Sep-25	Guliland, South West of Mine	120	36	17	16.07	33.77		
09-Sep-25	South Of Proposed Quarry Limit of KOCP	148	43	22	9.15	28.42	Mining Activities	About 500m
09-Sep-25	Kansamunda Village (West of the mine)	142	60	25	15.23	24.76		
09-Sep-25	Near Harichandanpur	153	60	25	14.16	20.94		
09-Sep-25	Gandaberna	137	58	25	17.64	24.76		
09-Sep-25	Kaniha (North of the Mine)	126	51	22	15.99	34.92	Mining Activities	About 500m
15-Sep-25	Kansamunda Village (West of the mine)	132	51	22	14.43	19.10		

*NAAQ5,2009

100 80 80 80

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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
15-Sep-25	South Of Proposed Quarry Limit of KOCP	146	53	27	16.84	28.30	Mining Activities	About 500m
15-Sep-25	Near Harichandanpur	125	40	19	14.92	27.69		
15-Sep-25	Gandaberna	142	60	26	22.28	33.21		
15-Sep-25	Near Harichandanpur	153	62	27	16.84	21.11		
15-Sep-25	Guland, South West of Mine	138	57	24	12.44	28.42		
15-Sep-25	Kaniha (North of the Mine)	146	64	27	16.43	23.35	Mining Activities	About 500m
16-Sep-25	South Of Proposed Quarry Limit of KOCP	152	69	29	11.62	19.10	Mining Activities	About 500m
16-Sep-25	Kansamunda Village (West of the mine)	137	58	24	11.08	28.93		
16-Sep-25	Kaniha (North of the Mine)	158	68	30	16.45	30.39	Mining Activities	About 500m
16-Sep-25	Gandaberna	131	50	23	14.43	23.35		
16-Sep-25	Guland, South West of Mine	143	64	28	15.57	20.80		
19-Sep-25	Kaniha (North of the Mine)	121	42	18	11.08	29.72	Mining Activities	About 500m
19-Sep-25	Gandaberna	159	67	30	15.99	26.00		
19-Sep-25	Kansamunda Village (West of the mine)	122	43	18	13.47	20.06		
19-Sep-25	Near Harichandanpur	137	51	23	19.49	21.90		
19-Sep-25	Guland, South West of Mine	135	50	22	16.03	26.89		
19-Sep-25	South Of Proposed Quarry Limit of KOCP	164	75	30	11.22	31.84	Mining Activities	About 500m
20-Sep-25	South Of Proposed Quarry Limit of KOCP	151	60	27	16.84	27.49	Mining Activities	About 500m
20-Sep-25	Gandaberna	143	61	26	15.63	21.23		
20-Sep-25	Kansamunda Village (West of the mine)	149	67	28	17.72	24.24		
20-Sep-25	Guland, South West of Mine	110	34	16	15.06	32.84		
20-Sep-25	Near Harichandanpur	112	38	17	10.71	28.36		
20-Sep-25	Kaniha (North of the Mine)	126	46	21	13.47	35.66	Mining Activities	About 500m

Signature
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

*106425,2099

100 60 80 80

Signature



सीएमपीडीआई
विनोद मण
cmpdi
Mini Bhatra

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 (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-Sep-2025	<20.0	12.32	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	19.17	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	23.53	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	14.23	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	14.23	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	24.90	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	15.33	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(Ann ual)	02(8hou rs)	01(annua l)	05(annu al)

format:
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
रिपो रल
cmpdi
Mini Ratna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	South of Proposed Quarry Limit of KOCP							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	(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-Sep-2025	<20.0	26.82	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	20.25	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	14.23	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	15.87	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	17.52	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	19.70	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	12.87	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

Janaki
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Janaki



सीएमपीडीआई
रिसेच लैब
cmpdi
Mining Lab

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project		Kaniha OCP						
Monitoring Station		Guiland, South West of the Mine						
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	(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-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	18.88	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	15.05	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	15.87	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	21.62	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	19.70	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(Ann ual)	02(8hou rs)	01(annua l)	05(annu al)

Amal

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Amal



सीएमपीडीआई
मिनि रॉयल
cmpdi
Mini Royal

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Kaniha

Project	Kaniha OCP							
Monitoring Station	Near Harichandanpur							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	17.78	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	23.27	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	15.05	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	14.78	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	19.70	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	24.37	<0.1	<1.0	<1.0	1.7	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)

Jasmati

Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR



सीएमपीडीआई
बिने गल
cmpdi
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 (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-Sep-2025	<20.0	13.68	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	23.27	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	26.28	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	24.08	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	22.45	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	13.13	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	14.78	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(hour)	1.0(24h ours)	6.0(Annual)	20(Annual)	02(8hours)	01(annual)	05(annual)


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
मिनी एल
cmpdi
Mini Lab


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 (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-Sep-2025	<20.0	12.58	<0.1	<1.0	<1.0	1.6	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	13.97	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	15.05	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	19.17	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	21.90	<0.1	<1.0	<1.0	1.7	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.4	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	26.28	<0.1	<1.0	<1.0	1.5	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	14.78	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
Standard	400(24h ours)	180(ho ur)	1.0(24h ours)	6.0(An nual)	20(Ann ual)	02(8hou rs)	01(annua l)	05(annu al)

Jasmati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

S. Das

 सीएमपीडीआई मिनी क्लब cmpdi MINI CLUB	AMBIENT AIR QUALITY DATA Area: Kaniha

Project	KanihaOCP
Monitoring Station	Near Project Office
Date of sampling	Carbon Monoxide (CO)
	mg/m³
12-Sep-2025	1.2
26-Sep-2025	1.3
Standard	02(8 Hours)

Project	KanihaOCP
Monitoring Station	New Time Office (Near Z-Patch)
Date of sampling	Carbon Monoxide (CO)
	mg/m³
12-Sep-2025	1.1
26-Sep-2025	1.3
Standard	02(8 Hours)

Project	KanihaOCP
Monitoring Station	Near External OB Dump, Jamania
Date of sampling	Carbon Monoxide (CO)
	mg/m³
12-Sep-2025	1.4
26-Sep-2025	1.5
Standard	02(8 Hours)


Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
CMPDI
भुवनेश्वर

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Kaniha

PROJECT :

Kaniha OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
06-Sep-25	Kansamunda Village (West of the Mine)	48.3	39.1
06-Sep-25	Near External OB Dump, Jamania	61.9	55.2
06-Sep-25	Near Time Office (Near Z-Patch)	67.2	54.7
06-Sep-25	Near Project Office	64.3	55.9
26-Sep-25	Kansamunda Village (West of the Mine)	46.9	39.1
26-Sep-25	Near External OB Dump, Jamania	63.1	50.2
26-Sep-25	Near Time Office (Near Z-Patch)	61.9	53.4
26-Sep-25	Near Project Office	62.4	52.3

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)

Janaki
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Janaki



सीएमपीडीआई
 CMPDI
 Bhubaneswar

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
13-Sep-25	Clear Water Pond	7.47	<4.0	37	32	-	
13-Sep-25	Kansamura Sump	7.54	<4.0	28	24	-	
13-Sep-25	Pre Sedimentation Pond	7.36	<4.0	34	28	-	
13-Sep-25	Z-Patch Sump	7.66	<4.0	24	20	-	
27-Sep-25	Clear Water Pond	7.62	<4.0	43	32	-	
27-Sep-25	Pre Sedimentation Pond	7.49	<4.0	40	36	-	

Jasmati

Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

[Signature]

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
--	---------	----	-----	-----	----



सीएमपीडीआई
मिनि रल
cmpdi
Mini Ratna

Effluent Quality (all Parameter): Kaniha Area

Project (OCP / UG)	Kaniha		MoEF-Sch-VI Standards
	Clear Water Pond (Inflow)	Z-Patch Sump	
NAME OF THE STATION			
Date of Sampling	30-Aug-25	30-Aug-25	
Odour	Unobjectionable	Unobjectionable	-
Colour(Hazen)	3	3	-
Temperature(oC)	29.4	29.8	Shall not exceed 5 ^{oC} above the receiving temperature
pH	7.69	7.34	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	301.98	357.61	-
Total Dissolved Solids, mg/L	474	533	-
Nitrate Nitrogen(mg/L)(As N)	0.26	0.22	10
Ammonical Nitrogen , mg/l (As N)	0.80	0.66	50
Total Kjeldhal Nitrogen, mg/l (As N)	4.52	3.01	100
Sulphide (mg/L)	<0.1	<0.1	2
BOD [3 days at 27°C] (mg/L)	3.1	3.3	30
Fluoride(mg/L)	0.64	0.23	2
Copper(mg/L)	<0.03	<0.03	3
Manganese(mg/L)	<0.04	0.13	2
Iron(mg/L)	<0.1	<0.1	3
Zinc(mg/L)	<0.04	0.05	5
Lead, mg/l	<0.005	<0.005	0.1
Cadmium, mg/l	<0.001	<0.001	2.0
Total Chromium(mg/L)	<0.01	<0.01	2.0
Hexavelent Chromium(mg/L)	<0.05	<0.05	0.1
Nickel(mg/L)	<0.02	<0.02	3
Arsenic, mg/l	<0.005	<0.005	0.2
Selenium (mg/L)	<0.0005	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	<4.0	5
Phenolics (mg/L)	<0.001	<0.001	1

Sanjay

Authorised Signatory
CMPDI, NI-VII, LAB
BHUBANESWAR

Sanjay



सीएमपीडीआई
मिनी रॉल
cmpdi
मिनी रॉल

Surface Water Quality Data Kaniha Area

Project/OCP	Kaniha				IS:2296-1982 Tolerance for inland Surface water (Class C)
	Singada jhor stream nearer to Village Khairnali as u/s Water for Kaniha OCP	Before Junction Point of Singadajhor & Brahmani River at Balangi Village as d/s for Kaniha OCP	Tikra Nadi Near Kaniha Village as u/s Water for Kaniha OCP	Tikra Nadi Near Shagarhi Pala Village as d/s Water for Kaniha OCP	
Date of sampling	30-Aug-25	30-Aug-25	30-Aug-25	30-Aug-25	6.5-8.5
pH	6.63	6.85	7.62	7.74	300
Color (Hazen unit)	2	1	1	1	4
Dissolved Oxygen(mg/L)	6.3	6.3	6.4	6.1	3
BOD (3 days 27°C(mg/L)	2.3	<2.0	<2.0	2.1	600
Chlorides(mg/L)	17.61	9.78	13.70	15.65	400
Sulphate(mg/L)	99.87	20.92	23.29	50.79	50
Nitrate(mg/L)	0.51	1.56	<0.5	0.68	1.5
Fluoride(mg/L)	0.66	0.60	<0.30	<0.30	-
Total Hardness(mg/L)	175.06	39.78	71.61	79.57	1500
Total dissolved solids (mg/L)	279	69	127	164	-
TSS(mg/L)	37	33	37	44	1.5
Copper(mg/L)	<0.03	<0.03	<0.03	<0.03	50
Iron(mg/L)	0.18	1.05	0.59	0.59	15
Zinc(mg/L)	<0.04	<0.04	<0.04	<0.04	0.1
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.01
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.2
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.05
Selenium(mg/L)	<0.005	<0.005	<0.005	<0.005	0.05
Hexavalent Chromium(as Cr ⁶⁺)(mg/L)	<0.05	<0.05	<0.05	<0.05	0.005
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.1
Oil & Grease (mg/L)	<4.0	<4.0	<4.0	<4.0	-
MPN (Index/100 ml)	280	350	220	210	-

Janaki
Authorised Signatory
CMPDI, RI-VII, LAB
ANESWAR

[Signature]

Kaniha OCP

Legend
Monitoring Station

Kaniha (North of the mine)

New Time Office (Near Z Patch)

Kansamunda (West of the mine)

Near Project Office

Guiland

Near External OB dump

Gandaberna

South of Proposed Quarry Limit of KOCP

Near Harichandampur

Google Earth



2 km



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

Talcher Coalfield



MCL

Mahanadi Coalfields Limited



cmpdi

A Mini Ratna Company

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



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
12-Sep-25	Time Office	232	115	47	12.63	29.72	Mining Operations and Haul Road	About 200m
12-Sep-25	South West Side of the Mine	224	105	43	12.21	32.69	Mining Operations	About 300m
26-Sep-25	Time Office	210	106	45	10.02	26.18	Mining Operations and Haul Road	About 200m
26-Sep-25	South West Side of the Mine	131	116	49	10.71	21.61	Mining Operations	About 300m

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

MoEF Standards Notification dated 25th
September, 2000

500	250		120	120
-----	-----	--	-----	-----



सर्वमपीडीआई
 सर्वमपीडीआई
 सर्वमपीडीआई

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	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
12-Sep-25	Pump House near Outsourcing Working Patch	217	107	46	11.08	34.41	Mining Operation And Coal Transportation Road	About 200m
12-Sep-25	Near Project Office	200	85	38	12.85	34.41	Mining Activities	About 500m
26-Sep-25	Pump House near Outsourcing Working Patch	207	105	46	12.40	35.97	Mining Operation And Coal Transportation Road	About 200m
26-Sep-25	Near Project Office	196	95	41	18.94	26.74	Mining Activities	About 500m

Januati

Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

[Signature]

MoEF Standards Notification dated 25th September, 2009

800	300		120	120
-----	-----	--	-----	-----



Test Report

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-Sep-25	Balichandrapur Village	192	71	35	12.63	22.96		
01-Sep-25	Banabaspur Village	138	61	25	16.84	17.56		
01-Sep-25	Solda Village	107	44	19	18.52	32.69	Coal Transportation Road	About 2km
01-Sep-25	Kankarei Village	136	57	24	17.24	26.18		
01-Sep-25	Sanamahitala Village	172	64	29	16.43	31.13		
02-Sep-25	Kankarei Village	110	36	16	10.42	17.69		
02-Sep-25	Balichandrapur Village	180	66	33	11.08	19.55		
02-Sep-25	Solda Village	176	65	32	13.47	32.69	Coal Transportation Road	About 2km
02-Sep-25	Banabaspur Village	160	76	30	13.89	13.37		
02-Sep-25	Sanamahitala Village	147	47	23	16.84	34.41		
08-Sep-25	Sanamahitala Village	153	72	31	13.73	34.41		
08-Sep-25	Kankarei Village	128	50	22	15.57	28.23		
08-Sep-25	Solda Village	157	53	26	17.24	31.13	Coal Transportation Road	About 2km
08-Sep-25	Banabaspur Village	128	49	23	8.80	31.07		
08-Sep-25	Balichandrapur Village	136	57	28	11.69	12.38		
09-Sep-25	Solda Village	141	44	23	15.69	29.72	Coal Transportation Road	About 2km
09-Sep-25	Banabaspur Village	141	61	27	11.62	19.10		
09-Sep-25	Sanamahitala Village	135	54	23	11.48	29.72		
09-Sep-25	Balichandrapur Village	126	45	22	14.18	34.41		
09-Sep-25	Kankarei Village	141	64	26	13.63	21.23		
15-Sep-25	Banabaspur Village	147	67	29	10.02	33.25		
15-Sep-25	Solda Village	154	74	30	14.83	26.18	Coal Transportation Road	About 2km
15-Sep-25	Kankarei Village	137	52	23	14.27	18.73		
15-Sep-25	Sanamahitala Village	160	73	28	15.69	23.64		
15-Sep-25	Balichandrapur Village	125	45	21	12.24	18.23		

*NAAQS, 2009

100 60 80 80

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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
16-Sep-25	Kankarei Village	126	46	20	11.69	28.89		
16-Sep-25	Balichandrapur Village	146	64	29	10.02	22.64		
16-Sep-25	Solda Village	147	55	26	16.84	24.99	Coal Transportation Road	About 2km
16-Sep-25	Banabaspur Village	128	48	22	11.48	33.09		
16-Sep-25	Sanamahitala Village	121	46	18	18.94	23.77		
19-Sep-25	Solda Village	128	44	19	13.91	30.36	Coal Transportation Road	About 2km
19-Sep-25	Sanamahitala Village	142	60	24	10.94	20.80		
19-Sep-25	Kankarei Village	152	66	28	13.89	33.43		
19-Sep-25	Banabaspur Village	119	41	18	14.16	20.94		
19-Sep-25	Balichandrapur Village	157	71	30	10.82	31.84		
20-Sep-25	Solda Village	143	46	24	12.63	22.29	Coal Transportation Road	About 2km
20-Sep-25	Banabaspur Village	140	59	26	15.95	24.24		
20-Sep-25	Sanamahitala Village	156	78	31	15.15	24.52		
20-Sep-25	Balichandrapur Village	135	54	25	13.05	28.23		
20-Sep-25	Kankarei Village	163	74	31	20.11	22.29		

*N44QS.2009

100 60 80 80

Signature
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUDANESWAR

Signature



Test Report

AMBIENT AIR QUALITY DATA

Area : Hingula (Reference Station)

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
01-Sep-25	Purnasahi Village	149	55	27	18.16	34.41		
01-Sep-25	East of the Mine, Natedi Village	114	38	17	15.99	30.46	Coal Transportation Road	About 2km
01-Sep-25	Solda Village (Reported Only)	107	44	19	18.52	32.69	Coal Transportation Road	About 2km
01-Sep-25	Kurihan Village (Reported Only)	137	53	23	10.94	29.72		
01-Sep-25	Natada Village	160	66	27	13.29	16.42	Anthropogenic Activities, Local	About 2km
02-Sep-25	Solda Village (Reported Only)	176	65	32	13.47	32.69	Coal Transportation Road	About 2km
02-Sep-25	Purnasahi Village	116	37	15	10.33	29.72		
02-Sep-25	Natada Village	161	56	24	17.28	12.51	Anthropogenic Activities, Local	About 2km
02-Sep-25	East of the Mine, Natedi Village	178	69	32	12.63	26.00	Coal Transportation Road	About 2km
02-Sep-25	Kurihan Village (Reported Only)	148	59	27	10.76	28.06		
03-Sep-25	Khajuria Village (Reported Only)	148	65	27	9.22	12.74		
04-Sep-25	Khajuria Village (Reported Only)	145	53	25	14.73	18.57		
08-Sep-25	East of the Mine, Natedi Village	143	63	27	10.94	25.26	Coal Transportation Road	About 2km
08-Sep-25	Kurihan Village (Reported Only)	129	46	20	15.15	15.60		
08-Sep-25	Natada Village	142	51	22	10.94	15.60	Anthropogenic Activities, Local	About 2km
08-Sep-25	Purnasahi Village	140	46	22	14.03	36.32		
08-Sep-25	Solda Village (Reported Only)	157	53	26	17.24	31.13	Coal Transportation Road	About 2km
09-Sep-25	Solda Village (Reported Only)	141	44	23	15.69	29.72	Coal Transportation Road	About 2km
09-Sep-25	Natada Village	133	47	20	15.63	16.98	Anthropogenic Activities, Local	About 2km
09-Sep-25	Purnasahi Village	148	53	25	15.57	32.69		
09-Sep-25	Kurihan Village (Reported Only)	143	56	25	15.01	16.15		
09-Sep-25	East of the Mine, Natedi Village	132	57	23	13.63	33.96	Coal Transportation Road	About 2km
10-Sep-25	Khajuria Village (Reported Only)	136	45	23	13.91	28.42		
11-Sep-25	Khajuria Village (Reported Only)	166	72	31	16.84	37.54		
15-Sep-25	Natada Village	133	47	22	15.74	30.36	Anthropogenic Activities, Local	About 2km

IS 4285:2009		100	60	60	50
--------------	--	-----	----	----	----

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BUDA NEOWAD

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
15-Sep-25	Solda Village (Reported Only)	154	74	30	14.83	26.18	Coal Transportation Road	About 2km
15-Sep-25	Purnasahi Village	145	63	25	15.90	25.59		
15-Sep-25	East of the Mine, Natedi Village	124	44	20	15.23	33.25	Coal Transportation Road	About 2km
15-Sep-25	Kurihan Village (Reported Only)	155	72	31	11.86	20.26		
16-Sep-25	Solda Village (Reported Only)	147	55	26	16.84	24.99	Coal Transportation Road	About 2km
16-Sep-25	Purnasahi Village	155	72	28	12.16	32.19		
16-Sep-25	Natada Village	152	69	30	17.22	22.29	Anthropogenic Activities, Local	About 2km
16-Sep-25	Kurihan Village (Reported Only)	148	66	27	14.83	29.72		
16-Sep-25	East of the Mine, Natedi Village	137	56	24	15.23	33.96	Coal Transportation Road	About 2km
17-Sep-25	Khajuria Village (Reported Only)	141	53	24	14.03	34.67		
18-Sep-25	Khajuria Village (Reported Only)	145	60	26	18.52	29.72		
19-Sep-25	Kurihan Village (Reported Only)	112	38	17	16.84	36.32		
19-Sep-25	Natada Village	136	55	23	18.16	29.72	Anthropogenic Activities, Local	About 2km
19-Sep-25	Purnasahi Village	131	50	20	15.30	31.07		
19-Sep-25	East of the Mine, Natedi Village	123	43	19	18.16	37.54	Coal Transportation Road	About 2km
19-Sep-25	Solda Village (Reported Only)	128	44	19	13.91	30.36	Coal Transportation Road	About 2km
20-Sep-25	Solda Village (Reported Only)	143	46	24	12.63	22.29	Coal Transportation Road	About 2km
20-Sep-25	Natada Village	157	69	28	13.89	33.43	Anthropogenic Activities, Local	About 2km
20-Sep-25	East of the Mine, Natedi Village	118	34	15	17.30	27.24	Coal Transportation Road	About 2km
20-Sep-25	Purnasahi Village	138	57	23	16.41	28.23		
20-Sep-25	Kurihan Village (Reported Only)	141	59	25	16.84	33.96		
22-Sep-25	Khajuria Village (Reported Only)	149	67	29	16.03	26.89		
23-Sep-25	Khajuria Village (Reported Only)	134	53	23	14.62	31.28		

Ananta
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

*N-14QS.2009

100 50 10 50

Ananta



सीएमपीडीआई
विशेषी एम
cmpdi
Viro Rating

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area:Hingula

Project	Hingula OCP							
Monitoring Station	Kankarei Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	21.07	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	25.45	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	20.53	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	21.62	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	17.25	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	21.90	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	13.97	<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)

Sanat
Authorized Stationary
CMPDI, RI-VII, LAB
GHUBANESWAR

Sanat



सीएमपीडीआई
रिपोरिंग
cmpdi
भुवनेश्वर

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
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	26.55	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	26.55	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	21.35	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	21.62	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	14.78	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	19.98	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	20.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	25.18	<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)


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESHWAR





सीएमपीडीआई
विश्वे त्म
cmpdi
Mini Ratna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Banabaspur Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	19.17	<0.1	<1.0	<1.0	1.2	BQL(QL =0.7)	BQL
02-Sep-2025	<20.0	24.08	<0.1	<1.0	<1.0	0.9	BQL(QL =0.7)	BQL
08-Sep-2025	<20.0	13.42	<0.1	<1.0	<1.0	1.1	BQL(QL =0.7)	BQL
09-Sep-2025	<20.0	26.55	<0.1	<1.0	<1.0	0.7	BQL(QL =0.7)	BQL
15-Sep-2025	<20.0	15.05	<0.1	<1.0	<1.0	1.2	BQL(QL =0.7)	BQL
16-Sep-2025	<20.0	23.82	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
19-Sep-2025	<20.0	23.53	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
20-Sep-2025	<20.0	26.00	<0.1	<1.0	<1.0	1.2	BQL(QL =0.7)	BQL
Standard	400(24 hours)	180 (hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

Jasmati

Authorised Signatory
CMPDI, RLVT, LAG
BHUBANESWAR

Jasmati



सीएमपीडीआई
रि-वी एल
cmpdi
Mini-Rating

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 (a) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	13.42	<0.1	<1.0	<1.0	0.7	BQL(QL =0.7)	BQL
02-Sep-2025	<20.0	21.90	<0.1	<1.0	<1.0	1.0	BQL(QL =0.7)	BQL
08-Sep-2025	<20.0	24.37	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
09-Sep-2025	<20.0	18.07	<0.1	<1.0	<1.0	1.0	BQL(QL =0.7)	BQL
15-Sep-2025	<20.0	21.35	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
16-Sep-2025	<20.0	23.53	<0.1	<1.0	<1.0	1.1	BQL(QL =0.7)	BQL
19-Sep-2025	<20.0	24.90	<0.1	<1.0	<1.0	0.9	BQL(QL =0.7)	BQL
20-Sep-2025	<20.0	26.00	<0.1	<1.0	<1.0	0.7	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)


Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
रिसेच लैब
cmpdi
Mini Bhubra

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Hingula OCP							
Monitoring Station	Balichandrapur Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzen e
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	25.73	<0.1	<1.0	<1.0	1.0	BQL(QL =0.7)	BQL
02-Sep-2025	<20.0	23.27	<0.1	<1.0	<1.0	0.9	BQL(QL =0.7)	BQL
08-Sep-2025	<20.0	20.53	<0.1	<1.0	<1.0	1.1	BQL(QL =0.7)	BQL
09-Sep-2025	<20.0	26.00	<0.1	<1.0	<1.0	0.7	BQL(QL =0.7)	BQL
15-Sep-2025	<20.0	22.98	<0.1	<1.0	<1.0	1.2	BQL(QL =0.7)	BQL
16-Sep-2025	<20.0	22.72	<0.1	<1.0	<1.0	1.1	BQL(QL =0.7)	BQL
19-Sep-2025	<20.0	18.88	<0.1	<1.0	<1.0	0.8	BQL(QL =0.7)	BQL
20-Sep-2025	<20.0	14.23	<0.1	<1.0	<1.0	1.2	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)

Jasrat
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Pran



सीएमपीडीआई
निर्देशक
cmpdi
Mini Data

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-Sep-2025	<20.0	26.55	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	26.55	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	21.35	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	21.62	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	14.78	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	19.98	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
19-Sep-2025/	<20.0	20.25	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	0.8	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)

Januat
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Januat



सीएमपीडीआई
Mini Ratna
cmpdi

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 (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-Sep-2025	<20.0	16.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
02-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
08-Sep-2025	<20.0	21.07	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
09-Sep-2025	<20.0	12.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
15-Sep-2025	<20.0	13.68	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
16-Sep-2025	<20.0	26.28	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
19-Sep-2025	<20.0	18.33	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
20-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24 hours)	180(hour)	1.0(24 hours)	6.0(Annual)	20(Annual)	02(8 hours)	01(annual)	05(annual)

Jasmati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Jasmati



सीएनपीडीआई
रिसेच लैब
cmpdi
Mini Ratna

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-Sep-2025	<20.0	19.17	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
02-Sep-2025	<20.0	17.25	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
08-Sep-2025	<20.0	15.87	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
09-Sep-2025	<20.0	19.70	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
15-Sep-2025	<20.0	26.28	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
16-Sep-2025	<20.0	19.17	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
19-Sep-2025	<20.0	24.63	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
20-Sep-2025	<20.0	24.90	<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(Shou rs)	01(annu al)	05(annu al)

Samat
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Asso.



सीएनपीडीआई
के.पी.सी.
cmpdi
Mini Rotna

AMBIENT AIR QUALITY DATA (NAAQS PARAMETER)

Area: Hingula

Project	Balram OCP							
Monitoring Station	Purunasahi Village							
Date of sampling	Ammonia (NH ₃)	Ozone (O ₃)	Lead (Pb)	Arsenic (As)	Nickel (Ni)	CO	Benzo (a) Pyrene	Benzene
	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	($\mu\text{g}/\text{m}^3$)	(ng/m^3)	(ng/m^3)	(mg/m^3)	(ng/m^3)	($\mu\text{g}/\text{m}^3$)
01-Sep-2025	<20.0	21.35	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	15.05	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	25.73	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	15.33	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	23.27	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	16.15	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	19.98	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	21.90	<0.1	<1.0	<1.0	0.8	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)

Signature

Authorised Signatory
CMPDI, RI-VII, LAG
BHUBANESWAR

Signature



सीएमपीडीआई
रिपी एम
cmpdi
Mini Labs

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 (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-Sep-2025	<20.0	18.33	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
02-Sep-2025	<20.0	25.73	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
08-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL
09-Sep-2025	<20.0	19.70	<0.1	<1.0	<1.0	0.6	BQL(QL=0.7)	BQL
15-Sep-2025	<20.0	12.32	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
16-Sep-2025	<20.0	15.05	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
19-Sep-2025	<20.0	23.27	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
20-Sep-2025	<20.0	18.88	<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)

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature

 सीएमपीडीआई विवेक एवम् cmpdi मनी कर्मना	AMBIENT AIR QUALITY DATA Area: Hingula
---	---

Project	Hingula OCP
Monitoring Station	Time Office
Date of sampling	Carbon Monoxide (CO)
	mg/m³
-Sep-2025/	1.1
-Sep-2025/	1.0
Standard	02(8 Hours)

Project	Hingula OCP
Monitoring Station	South West side of Mine
Date of sampling	Carbon Monoxide (CO)
	mg/m³
-Sep-2025/	0.9
-Sep-2025/	1.0
Standard	02(8 Hours)


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





ଶିଳ୍ପମୁଖ୍ୟତା
cmpdi
 ମୁଖ୍ୟତା

TABLE--

NOISE LEVEL MONITORING DATA

AREA : **Hingula**

PROJECT : **Hingula OCP**

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
06-Sep-25	South West Side of the Mine	62.7	53.9
06-Sep-25	Solda Village	46.9	38.9
06-Sep-25	Kankarei Village	47.3	39.0
06-Sep-25	Time Office	69.2	58.1
25-Sep-25	South West Side of the Mine	61.3	52.1
25-Sep-25	Solda Village	45.9	46.1
25-Sep-25	Kankarei Village	47.3	38.7
25-Sep-25	Time Office	65.1	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)

Signature

Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Signature



सीएमपीडी आई
 NEW IAS
cmpdi
 CONSULTING

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Hingula

PROJECT :

Balaram OCP

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
06-Sep-25	Natada Village	43.7	38.1
06-Sep-25	Solada Village (Reported only)	46.9	38.9
06-Sep-25	Near Natedi Village	45.9	37.3
06-Sep-25	Pump House Near Outsourcing Working Patch	65.7	55.3
06-Sep-25	Near Project Office Balaram OCP	64.3	52.7
25-Sep-25	Natada Village	43.7	34.2
25-Sep-25	Solada Village (Reported only)	45.9	40.1
25-Sep-25	Near Natedi Village	44.5	36.1
25-Sep-25	Pump House Near Outsourcing Working Patch	67.4	56.7
25-Sep-25	Near Project Office Balaram OCP	61.4	52.4

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

Signature

Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Signature



राष्ट्रीय पर्यावरण
अनुसंधान संस्थान
CMPDI
भारत सरकार

TABLE--

EFFLUENT QUALITY DATA

Area :

Hingula

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

Project :

Hingula OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
13-Sep-25	Inlet of O & G Trap	7.21	<4.0	38	40	-	
13-Sep-25	Mine Sump Water	7.33	<4.0	19	16	-	
13-Sep-25	Outlet of O & G Trap	7.43	<4.0	27	26	-	
27-Sep-25	Inlet of O & G Trap	7.36	4.6	46	56	-	
27-Sep-25	Outlet of O & G Trap	7.73	<4.0	31	32	-	

Sanati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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
---------	----	-----	-----	----

Sanati



सीएनपीडीआई
2001-02
cmpdi
नवी दिल्ली

TABLE--

EFFLUENT QUALITY DATA

Area :

Hingula

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

Project :

Balram OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	Remarks
13-Sep-25	Gandhisagar (Mine Sump)	7.61	<4.0	26	20	-	
13-Sep-25	Inlet of O & G Trap	7.54	4.4	37	68	-	
13-Sep-25	Outlet of O & G Trap	7.77	<4.0	31	36	-	
27-Sep-25	Inlet of O & G Trap	7.63	4.8	45	60	-	
27-Sep-25	Outlet of O & G Trap	7.90	<4.0	29	32	-	

Jaswanti

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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
---------	----	-----	-----	----

h.r.



राष्ट्रीय प्रदूषण नियंत्रण बोर्ड
CMPDI
CENTRAL POLLUTION CONTROL BOARD OF INDIA

TABLE--

EFFLUENT QUALITY DATA

Area :

Hingula

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

Project :

Balram OCP

Date of Sampling	Sampling Station	pH	Oil & Grease	TSS	COD	BOD	MPN/100mL
13-Sep-25	STP Inlet of Balram Colony	7.56	-	46	-	3.2	156
13-Sep-25	STP Outlet of Balram Colony	7.87	-	30	-	<2.0	79
27-Sep-25	STP Inlet of Balram Colony	7.67	-	43	-	3.4	170
27-Sep-25	STP Outlet of Balram Colony	8.01	-	31	-	2.2	94

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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
--	---------	---	------	---	----	-------

Signature



सीएमपीडीआई
RI-VII
cmpdi
LAB Bhubaneswar

Effluent Quality (all Parameter): Hingula Area

Project (OCP / UG)	Hingula	MoEF-Sch-VI Standards
NAME OF THE STATION	Mine Sump Water	
Date of Sampling	30-Aug-25	
Odour	Unobjectionable	-
Colour(Hazen)	5	-
Temperature(oC)	28.9	Shall not exceed 5 °C above the receiving temperature
pH	8.10	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	508.61	-
Total Dissolved Solids, mg/L	951	-
Nitrate Nitrogen(mg/L)(As N)	<0.11	10
Ammonical Nitrogen , mg/l (As N)	0.70	50
Total Kjeldhal Nitrogen, mg/l (As N)	4.52	100
Sulphide (mg/L)	<0.1	2
BOD [3 days at 27°C] (mg/L)	3.4	30
Fluoride(mg/L)	0.55	2
Copper(mg/L)	<0.03	3
Manganese(mg/L)	<0.04	2
Iron(mg/L)	<0.1	3
Zinc(mg/L)	<0.04	5
Lead, mg/l	<0.005	0.1
Cadmium, mg/l	<0.001	2.0
Total Chromium(mg/L)	<0.01	2.0
Hexavalent Chromium(mg/L)	<0.05	0.1
Nickel(mg/L)	<0.02	3
Arsenic, mg/l	<0.005	0.2
Selenium (mg/L)	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	5
Phenolics (mg/L)	<0.001	1

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
cmpdi
सर्वोत्तम

Effluent Quality (all Parameter): Hingula Area

Project (OCP / UG)	Balaram	MoEF-Sch-VI Standards
NAME OF THE STATION	Gandhisagar Mine Sump Water	
Date of Sampling	30-Aug-25	
Odour	Unobjectionable	-
Colour(Hazen)	3	-
Temperature(oC)	30.1	Shall not exceed 5 °C above the receiving temperature
pH	7.90	5.5-9.0
Total Hardness (asCaCO ₃),mg/L	596.02	-
Total Dissolved Solids, mg/L	747	-
Nitrate Nitrogen(mg/L)(As N)	<0.11	10
Ammonical Nitrogen , mg/l (As N)	0.67	50
Total Kjeldhal Nitrogen, mg/l (As N)	4.52	100
Sulphide (mg/L)	<0.1	2
BOD [3 days at 27°C] (mg/L)	2.9	30
Fluoride(mg/L)	0.35	2
Copper(mg/L)	<0.03	3
Manganese(mg/L)	<0.04	2
Iron(mg/L)	<0.1	3
Zinc(mg/L)	<0.04	5
Lead, mg/l	<0.005	0.1
Cadmium, mg/l	<0.001	2.0
Total Chromium(mg/L)	<0.01	2.0
Hexavalent Chromium(mg/L)	<0.05	0.1
Nickel(mg/L)	<0.02	3
Arsenic, mg/l	<0.005	0.2
Selenium (mg/L)	<0.005	0.05
Dissolved Phosphate(mg/L)	<4.0	5
Phenolics (mg/L)	<0.001	1

Janvati
Authorised Signatory
CMPDI, RI-VII, LAB
BHILANEWAR

Janvati



सीएमपीडीआई
मिनि रॉटर
cmpdi
Mini Rotna

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	13-Sep-2025	13-Sep-2025	13-Sep-2025		
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025		
Colour(Hazen)	3	3	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	2	3	3	1	5
pH	6.77	7.86	7.45	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	117.65	252.12	369.77	200	600
Chloride(mg/L)	31.37	40.80	40.80	250	1000
Sulphate(mg/L)	95.84	14.87	96.24	200	400
Nitrate(mg/L)	<0.5	<0.5	0.68	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	203.94	188.25	376.51	200	600
Calcium(mg/L)	69.16	36.15	105.32	75	200
Fluoride(mg/L)	0.64	0.60	0.68	1	1.5
Total Dissolve Solid(mg/L)	316	330	580	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.08	0.1	0.3
Iron(mg/L)	<0.1	<0.1	0.14	1.0	No relaxation
Zinc(mg/L)	<0.04	0.1	1.46	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

Signature
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
मिनी रत्न
cmpdi
Mini Ratna

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	13-Sep-2025	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	11.64	15.86	14.68		
Potassium(mg/L)	2.68	7.46	6.74		
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	-	-


Authorised Signatory
CMPDI, RI-VII, LAB
BHUGANESWAR





सीएमपीडीआई
मिनी रत्न
cmpdi
Mini Ratna

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	13-Sep-2025	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Colour (Hazen)	2	4	4	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	3	2	3	1	5
pH	6.71	7.69	7.11	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	100.84	79.83	264.72	200	600
Chloride(mg/L)	19.43	21.37	64.11	250	1000
Sulphate(mg/L)	62.28	124.28	35.42	200	400
Nitrate(mg/L)	18.80	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃) (mg/L)	149.03	219.63	184.33	200	600
Calcium(mg/L)	40.87	58.16	45.58	75	200
Fluoride(mg/L)	0.52	0.76	0.74	1	1.5
Total Dissolve Solid(mg/L)	270	318	406	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)	0.05	<0.04	1.67	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

Jaswant

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
मिनी रत्ना
cmpdi
Mini Ratna

Drinking Water Quality Data Hingula Area

Project / OCP	Balaram OCP			Indian Drinking Standards (IS-10500):2012	
	Monitoring Station	Danara Village Borewell Water	Balaram Colony		
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	14.76	9.84	5.26		
Potassium(mg/L)	8.28	2.88	1.88		
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	-	-

Jasmat

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
विशेष रूप
cmpdi
Mini Ratna

Surface Water Quality Data Hingula Area

Project/OCP	Hingula				IS:2296-1982 Tolerance for inland Surface water (Class C)
	Singadhajhor stream near Kumunda Village	Singadhajhor stream near Baghabaspur Village	Sinia Jhor near meeting Singhada Jhor	Pond water of Kankarei village	
NAME OF STATIONS					
Date of sampling	30-Aug-25	30-Aug-25	30-Aug-25	30-Aug-25	
pH	8.03	7.97	7.34	7.03	6.5-8.5
Color (Hazen unit)	2	2	1	1	300
Dissolved Oxygen(mg/L)	6.5	6.7	6.6	6.4	4
BOD (3 days 27°C(mg/L)	2.2	2.3	2.2	2.3	3
Chlorides(mg/L)	23.48	23.48	15.65	15.44	600
Sulphate(mg/L)	43.68	39.08	26.58	30.66	400
Nitrate(mg/L)	1.20	1.16	1.76	0.76	50
Fluoride(mg/L)	<0.30	<0.30	0.35	0.63	1.5
Total Hardness(mg/L)	187.00	194.96	143.23	51.72	-
Total dissolved solids (mg/L)	290	287	208	166	1500
TSS(mg/L)	39	28	27	42	-
Copper(mg/L)	0.03	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	<0.1	0.13	<0.1	0.19	50
Zinc(mg/L)	0.04	<0.04	<0.04	<0.04	15
Lead(mg/L)	<0.005	<0.005	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	<0.005	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺) (mg/L)	<0.05	<0.05	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	<4.0	<4.0	0.1
MPN (Index/100 ml)	220	210	350	150	-


Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
रिजिस्टर
cmpdi
Mini Ratna

Surface Water Quality Data Hingula Area

Project/OCP	Balram			IS:2296-1982 Tolerance for inland Surface water (Class C)
	Upstream of Bangaru Jhor	Downstream Bangaru Jhor near Nakeipasi village	Pond water of Ambapal village	
NAME OF STATIONS				
Date of sampling	30-Aug-25	30-Aug-25	30-Aug-25	
pH	7.27	7.71	7.17	6.5-8.5
Color (Hazen unit)	3	3	2	300
Dissolved Oxygen(mg/L)	6.3	6.0	6.5	4
BOD (3 days 27°C)(mg/L)	2.1	2.3	2.2	3
Chlorides(mg/L)	15.65	29.35	37.18	600
Sulphate(mg/L)	27.89	60.26	31.45	400
Nitrate(mg/L)	1.32	2.76	0.88	50
Fluoride(mg/L)	<0.30	0.46	<0.30	1.5
Total Hardness(mg/L)	358.09	385.94	83.55	-
Total dissolved solids (mg/L)	365	425	199	1500
TSS(mg/L)	39	46	35	-
Copper(mg/L)	<0.03	<0.03	<0.03	1.5
Iron(mg/L)	0.13	0.30	0.14	50
Zinc(mg/L)	<0.04	0.19	<0.04	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	<0.005	0.05
Hexavalent Chromium(as Cr ⁶⁺)(mg/L)	<0.05	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	<4.0	0.1
MPN (Index/100 ml)	210	220	110	-

Signature

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature

Hingula OCP



Legend

Monitoring Station

Banabaspur Village

Solada Village

Kankarai Village

Time Office

Balchandrapur Village

South West Side of the Mine

Sanamantala Village

Google Earth

www.google.com

Balram OCP



Legend
Monitoring Station

Khajuria Village

Solada Village

Purunasahi Village

Nataca Village

Natedi Village

Pump House near Outsourcing Working Patch

Near Project Office

Google Earth

**Environmental Monitoring Report
Of
Talcher Area
For
September-2025
Talcher Coalfield**



MCL

Mahanadi Coalfields Limited



cmpdi

A Mini Ratna Company

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



सीएनपीडीआई
 AND THE
cmpdi
 LABORATORY

Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Nandira Colliery

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
06-Sep-25	Project Office	204	97	42	15.63	31.13	Mining Activities, Transportation, CHP	About 500m
06-Sep-25	Sub-station	196	86	38	12.03	31.13	Transportation & Railway Sidings of BOCP	About 500m
24-Sep-25	Project Office	197	96	41	12.83	26.89	Mining Activities, Transportation, CHP	About 500m
24-Sep-25	Sub-station	198	96	42	13.05	23.77	Transportation & Railway Sidings of BOCP	About 500m

Sanjay
 Authorised Signatory
 CMPDI, RE-VII, LAB
 BHUBANESWAR

Sanjay

MoEF Standards Notification dated 25th September, 2009

800	300		120	120
-----	-----	--	-----	-----



सीएनपीडी
भारत सरकार
cmpdi
एन.ए.सी.ए.डी.

Test Report

AMBIENT AIR QUALITY DATA

Area :

Talcher

(Compliance Station)

Project :

Handhidhua Colliery

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

Date of Sampling	Monitoring Station	SPM	PM10	PM2.5	SO2	NOx	Dust Generating Source(DGS)	Distance from DGS
06-Sep-25	Manager's Office	218	113	46	16.84	34.92	Local Transportation, CHP	About 500m
24-Sep-25	Manager's Office	225	118	48	17.26	29.72	Local Transportation, CHP	About 500m

Janaki

Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Janaki

MoEF Standards Notification dated 25th September, 2008	800	300		120	120
--	-----	-----	--	-----	-----

Test Report



राष्ट्रीय पर्यावरण
अनुसंधान संस्थान
CMPDI
भारत सरकार

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
06-Sep-25	GM Office Lingraj (Reported Only)	205	95	42	13.39	18.91		
24-Sep-25	GM Office Lingraj (Reported Only)	202	101	44	11.10	23.64		

Jasmati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Sree

As per Standards Notification dated 25th
September, 2000

600 300 120 120

Test Report



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-Sep-25	East of the Mine, Natedi Village (Reported Only)	114	38	17	15.99	30.46	Coal Transportation Road	About 2km
02-Sep-25	East of the Mine, Natedi Village (Reported Only)	178	69	32	12.63	26.00	Coal Transportation Road	About 2km
03-Sep-25	Nandira Colony	128	45	20	15.23	18.40	Local Transportation,	About 500m
04-Sep-25	Nandira Colony	135	52	22	10.52	20.80	Local Transportation,	About 500m
08-Sep-25	East of the Mine, Natedi Village (Reported Only)	143	63	27	10.94	25.26	Coal Transportation Road	About 2km
09-Sep-25	East of the Mine, Natedi Village (Reported Only)	132	57	23	13.63	33.96	Coal Transportation Road	About 2km
10-Sep-25	Nandira Colony	112	38	17	14.62	24.24	Local Transportation,	About 500m
11-Sep-25	Nandira Colony	105	34	16	14.31	16.34	Local Transportation,	About 500m
15-Sep-25	East of the Mine, Natedi Village (Reported Only)	124	44	20	15.23	33.25	Coal Transportation Road	About 2km
16-Sep-25	East of the Mine, Natedi Village (Reported Only)	137	56	24	15.23	33.96	Coal Transportation Road	About 2km
17-Sep-25	Nandira Colony	135	54	23	12.63	31.94	Local Transportation,	About 500m
18-Sep-25	Nandira Colony	142	60	25	11.22	27.59	Local Transportation,	About 500m
19-Sep-25	East of the Mine, Natedi Village (Reported Only)	123	43	19	18.16	37.54	Coal Transportation Road	About 2km
20-Sep-25	East of the Mine, Natedi Village (Reported Only)	118	34	15	17.30	27.24	Coal Transportation Road	About 2km
22-Sep-25	Nandira Colony	129	49	20	16.03	28.30	Local Transportation,	About 500m
23-Sep-25	Nandira Colony	155	66	29	12.21	33.43	Local Transportation,	About 500m

Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

*N-44 QS, 2009

	100	80	80	80
--	-----	----	----	----

Test Report



सीएनपीडीआई
 CMPDI
 AIR LAB

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-Sep-25	Near Pachismeshwar Temple	142	53	22	15.99	18.57	Mining Activity	Less than 500m
03-Sep-25	Near Mandapal Chowk	144	53	25	13.63	12.74	Mining Activity	Less than 500m
04-Sep-25	Near Mandapal Chowk	141	55	23	16.39	34.41	Mining Activity	Less than 500m
04-Sep-25	Near Pachismeshwar Temple	152	59	25	13.09	23.11	Mining Activity	Less than 500m
10-Sep-25	Near Pachismeshwar Temple	166	63	27	12.21	23.77	Mining Activity	Less than 500m
10-Sep-25	Near Mandapal Chowk	158	58	27	17.72	37.54	Mining Activity	Less than 500m
11-Sep-25	Near Mandapal Chowk	141	49	25	13.29	20.33	Mining Activity	Less than 500m
11-Sep-25	Near Pachismeshwar Temple	187	69	30	15.23	12.03	Mining Activity	Less than 500m
17-Sep-25	Near Pachismeshwar Temple	151	68	29	11.78	22.29	Mining Activity	Less than 500m
17-Sep-25	Near Mandapal Chowk	166	70	30	10.02	19.10	Mining Activity	Less than 500m
18-Sep-25	Near Mandapal Chowk	122	42	19	13.05	36.40	Mining Activity	Less than 500m
18-Sep-25	Near Pachismeshwar Temple	128	48	21	19.17	29.72	Mining Activity	Less than 500m
22-Sep-25	Near Mandapal Chowk	144	54	25	11.96	21.90	Mining Activity	Less than 500m
22-Sep-25	Near Pachismeshwar Temple	146	64	26	15.15	31.94	Mining Activity	Less than 500m
23-Sep-25	Near Pachismeshwar Temple	154	71	28	11.36	28.23	Mining Activity	Less than 500m
23-Sep-25	Near Mandapal Chowk	125	40	18	17.30	29.72	Mining Activity	Less than 500m

Prasanna
 Authorised Signatory
 CMPDI, RI-VII, LAB
 BHUBANESWAR

Prasanna

*K44(Q),2009

100 80 80 80



सीएमपीडीआई
नियंत्रण
cmpdi
भारत

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-Sep-2025	<20.0	16.42	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
02-Sep-2025	<20.0	25.18	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
08-Sep-2025	<20.0	21.07	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL(QL=2.5)
09-Sep-2025	<20.0	12.32	<0.1	<1.0	<1.0	1.2	BQL(QL=0.7)	BQL(QL=2.5)
15-Sep-2025	<20.0	13.68	<0.1	<1.0	<1.0	1.3	BQL(QL=0.7)	BQL(QL=2.5)
16-Sep-2025	<20.0	26.28	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL(QL=2.5)
19-Sep-2025	<20.0	18.33	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL(QL=2.5)
20-Sep-2025	<20.0	14.50	<0.1	<1.0	<1.0	1.1	BQL(QL=0.7)	BQL(QL=2.5)
Standard	400(24h ours)	180(hour)	1.0(24h ours)	6.0(Annual)	20(Annual)	04(1hours)	01(annual)	05(annual)


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
मेरे सपने
cmpdi
मेरी सोच

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-Sep-2025	<20.0	19.43	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
04-Sep-2025	<20.0	18.88	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
10-Sep-2025	<20.0	21.90	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
11-Sep-2025	<20.0	15.60	<0.1	<1.0	<1.0	0.9	BQL(QL=0.7)	BQL
17-Sep-2025	<20.0	26.82	<0.1	<1.0	<1.0	1.0	BQL(QL=0.7)	BQL
18-Sep-2025	<20.0	16.42	<0.1	<1.0	<1.0	0.7	BQL(QL=0.7)	BQL
22-Sep-2025	<20.0	18.62	<0.1	<1.0	<1.0	0.8	BQL(QL=0.7)	BQL
23-Sep-2025	<20.0	25.73	<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)	04(1 hours)	01(annual)	05(annual)

Jasmati

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
CMPDI
एन.ए.ए.ए.

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Talcher Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Officers Club, Talcher Area	55.9	47.2
05-Sep-25	Near Canteen, Talcher Colliery	59.3	49.9
24-Sep-25	Officers Club, Talcher Area	55.2	47.1
24-Sep-25	Near Canteen, Talcher Colliery	57.9	49.3

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)

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
एन सी
cmpdi
एन सी

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Nandira Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Project Office	60.9	51.3
05-Sep-25	Sub Station, Nandira Colliery	61.3	51.7
24-Sep-25	Project Office	58.7	47.3
24-Sep-25	Sub Station, Nandira Colliery	62.1	52.6

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


Ananta
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
CMPDI
भारत सरकार

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Deulbera Colliery

DATE OF SAMPLING	STATION	Noise Level Measurement in Log dB(A)	
		DAY	NIGHT
05-Sep-25	Manager's Office	57.2	49.9
24-Sep-25	Manager's Office	57.1	49.0

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)

Jaswanti
Authorized Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडी
RI-VII
CMPDI
भुवनेश्वर

TABLE--

NOISE LEVEL MONITORING DATA

AREA :

Talcher

PROJECT :

Mandapal Sand Mine

DATE OF SAMPLING	STATION	Noise Level Measurement in Leq dB(A)	
		DAY	NIGHT
05-Sep-25	Near Gopinathpur Village	45.3	36.1
24-Sep-25	Near Gopinathpur Village	43.7	36.1

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

Janak
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESHWAR

Sharma



सीएनपीडीआई
भारत सरकार
cmpdi
1986-1987

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
13-Sep-25	Talcher Colliery Sedimentation Tank Discharge	7.15	<4.0	35	24	-	
27-Sep-25	Talcher Colliery Sedimentation Tank Discharge	7.43	<4.0	38	32	-	

Janab
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

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
---------	----	-----	-----	----

J. Janab



सीएमपीडीआई
रिपी एल
cmpdi
Mini Ratna

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	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Colour (Hazen)	1	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity (NTU)	1	2	1	5
pH	7.21	6.89	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	37.81	71.43	200	600
Chloride(mg/L)	9.71	25.25	250	1000
Sulphate(mg/L)	26.62	80.12	200	400
Nitrate(mg/L)	<0.5	1.46	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	58.83	149.03	200	600
Calcium(mg/L)	15.72	42.44	75	200
Fluoride(mg/L)	0.58	0.74	1	1.5
Total Dissolve Solid(mg/L)	104	256	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	<0.04	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.11	0.06	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

Jasmat
Authorised Signatory
CMPDI, RI-VII, LAG
BHUBANESWAR

Agree



सीएमपीडीआई
रिपी लैब
cmpdi
Mini Ratna

Drinking Water Quality Data Talcher Area

Project / OCP	Talcher U/G		Indian Drinking Standards (IS-10500):2012	
	Cnteen Water, GM Office	Canteen , Talcher Colliery		
Monitoring Station				
Date of Sampling	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	6.24	15.76	-	-
Potassium(mg/L)	2.16	6.48	-	-
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	-	-

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
रिची एरन
cmpdi
Mini Ratna

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	13-Sep-2025	13-Sep-2025	5	15
Colour(Hazen)	2	3	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	3	2	1	5
pH	7.08	6.90	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	63.03	58.82	200	600
Chloride(mg/L)	17.48	19.43	250	1000
Sulphate(mg/L)	76.12	86.34	200	400
Nitrate(mg/L)	<0.5	<0.5	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	145.11	156.88	200	600
Calcium(mg/L)	36.15	40.87	75	200
Fluoride(mg/L)	0.72	0.54	1	1.5
Total Dissolve Solid(mg/L)	222	240	500	2000
Copper(mg/L)	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.09	<0.04	0.1	0.3
Iron(mg/L)	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.16	0.19	5	15
Lead(mg/L)	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	0.5	2.4

S. Prasad
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

S. Prasad



सीएमपीडीआई
रिजी लैब
cmpdi
Mini Lab

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	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	7.20	7.48		
Potassium(mg/L)	4.86	5.44		
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	-	-

Sanat

Authorised Signatory
CMPDI, RI-VII, LAB
BHUSANESWAR

Sanat



सीएमपीडीआई
रिपी वल
cmpdi
Mini Ratna

Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water		
Monitoring Station				Acceptable	Permissible
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025	5	15
Colour (Hazen)	3	2	2	Agreeable	Agreeable
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	1	5
Turbidity (NTU)	4	1	1	6.5-8.5	No relaxation
pH	7.26	5.92	7.64	200	600
Total Alkalinity(mg/L)	155.47	21.01	46.22	250	1000
Chloride(mg/L)	29.14	34.97	13.60	200	400
Sulphate(mg/L)	146.2	23.44	26.48	45	No relaxation
Nitrate(mg/L)	7.86	12.48	1.34	200	600
Total Hardness (Ca CO ₃)(mg/L)	321.60	90.20	62.75	75	200
Calcium(mg/L)	99.03	23.58	15.72	1	1.5
Fluoride(mg/L)	0.46	0.62	0.48	500	2000
Total Dissolve Solid(mg/L)	452	148	124	0.05	1.5
Copper(mg/L)	<0.03	<0.03	<0.03	0.1	0.3
Manganese(mg/L)	<0.04	<0.04	<0.04	1.0	No relaxation
Iron(mg/L)	<0.1	<0.1	<0.1	5	15
Zinc(mg/L)	<0.04	0.08	0.22	0.01	No relaxation
Lead(mg/L)	<0.005	<0.005	<0.005	0.003	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.05	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.01	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.5	2.4
Boron(mg/L)	<0.2	<0.2	<0.2		


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
मिनी रत्न
cmpdi
Mini Ratna

Drinking Water Quality Data Talcher Area

Project / OCP	Deulbera U/G			Indian Drinking Standards (IS-10500):2012	
	Deulbera Colliery Mine Discharge at Pit Top	Rani Park Submersible Pump	Deulbera Manager Office Tap Water		
Monitoring Station					
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025	Acceptable	Permissible
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	6.86	6.78	8.84		
Potassium(mg/L)	2.54	5.48	3.78		
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	-	-

Sanuati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Sanuati



सीएमपीडीआई
रिसेच लैब
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)	Acceptable
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025	5	15
Colour(Hazen)	3	2	2	5	15
Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
Turbidity(NTU)	1	3	2	1	5
pH	6.30	6.19	6.41	6.5-8.5	No relaxation
Total Alkalinity(mg/L)	79.83	105.05	68.88	200	600
Chloride(mg/L)	31.08	27.20	29.14	250	1000
Sulphate(mg/L)	88.24	59.74	68.88	200	400
Nitrate(mg/L)	3.12	3.24	3.30	45	No relaxation
Total Hardness (Ca CO ₃)(mg/L)	192.17	160.80	168.64	200	600
Calcium(mg/L)	47.16	42.44	44.01	75	200
Fluoride(mg/L)	0.76	0.68	0.58	1	1.5
Total Dissolve Solid(mg/L)	286	258	244	500	2000
Copper(mg/L)	<0.03	<0.03	<0.03	0.05	1.5
Manganese(mg/L)	0.32	0.23	0.23	0.1	0.3
Iron(mg/L)	<0.1	<0.1	<0.1	1.0	No relaxation
Zinc(mg/L)	0.08	0.04	0.08	5	15
Lead(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Cadmium(mg/L)	<0.001	<0.001	<0.001	0.003	No relaxation
Total Chromium (mg/L)	<0.01	<0.01	<0.01	0.05	No relaxation
Arsenic(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Boron(mg/L)	<0.2	<0.2	<0.2	0.5	2.4

Janab
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
रिजी व्हा
cmpdi
Mini Ratna

Drinking Water Quality Data Talcher Area

(IS-10500):2012

Monitoring Station	19X Cut Road Bore Hole Point	Pit Top Water	RWSS (Pit Top Water)	(IS-10500):2012	
				Acceptable	Permissible
Date of Sampling	13-Sep-2025	13-Sep-2025	13-Sep-2025	0.01	No relaxation
Selenium(mg/L)	<0.005	<0.005	<0.005	0.01	No relaxation
Sodium(mg/L)	9.20	9.48	6.22	-	-
Potassium(mg/L)	5.54	5.84	3.14	-	-
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	-	-


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
मिनी लैब
cmpdi
Mini Lab

Surface Water Quality Data Talcher Area

Project/OCP	Talcher	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pond Water of Dera Village	
Date of sampling	30-Aug-25	
pH	7.31	6.5-8.5
Color (Hazen unit)	1	300
Dissolved Oxygen(mg/L)	6.9	4
BOD (3 days 27°C)(mg/L)	2.1	3
Chlorides(mg/L)	15.65	600
Sulphate(mg/L)	27.11	400
Nitrate(mg/L)	1.23	50
Fluoride(mg/L)	0.65	1.5
Total Hardness(mg/L)	55.70	-
Total dissolved solids (mg/L)	125	1500
TSS(mg/L)	27	-
Copper(mg/L)	<0.03	1.5
Iron(mg/L)	<0.1	50
Zinc(mg/L)	<0.04	15
Lead(mg/L)	<0.005	0.1
Cadmium(mg/L)	<0.001	0.01
Arsenic(mg/L)	<0.005	0.2
Selenium(mg/L)	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺) (mg/L)	<0.05	0.05
Phenolics(mg/L)	<0.001	0.005
Oil & Grease (mg/L)	<4.0	0.1
MPN (Index/100 ml)	140	-

Signature
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Signature



सीएमपीडीआई
मिनी रत्न
cmpdi
Mini Ratna

Surface Water Quality Data Talcher Area

Project/OCP	Nandira	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Jambubahali Village Pond	
Date of sampling	30-Aug-25	
pH	7.71	6.5-8.5
Color (Hazen unit)	2	300
Dissolved Oxygen(mg/L)	6.7	4
BOD (3 days 27°C)(mg/L)	2.5	3
Chlorides(mg/L)	13.70	600
Sulphate(mg/L)	45.00	400
Nitrate(mg/L)	12.51	50
Fluoride(mg/L)	<0.30	1.5
Total Hardness(mg/L)	111.40	-
Total dissolved solids (mg/L)	199	1500
TSS(mg/L)	26	-
Copper(mg/L)	<0.03	1.5
Iron(mg/L)	<0.1	50
Zinc(mg/L)	<0.04	15
Lead(mg/L)	<0.005	0.1
Cadmium(mg/L)	<0.001	0.01
Arsenic(mg/L)	<0.005	0.2
Selenium(mg/L)	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺)(mg/L)	<0.05	0.05
Phenolics(mg/L)	<0.001	0.005
Oil & Grease (mg/L)	<4.0	0.1
MPN (Index/100 ml)	130	-

Jasmati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
रिजिस्टर्ड
cmpdi
Mini Ratna

Surface Water Quality Data Talcher Area

Project/OCP	Deulbera	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pond Water of Gopinathpur Village	
Date of sampling	30-Aug-25	
pH	7.86	6.5-8.5
Color (Hazen unit)	1	300
Dissolved Oxygen(mg/L)	6.8	4
BOD (3 days 27°C)(mg/L)	2.5	3
Chlorides(mg/L)	9.78	600
Sulphate(mg/L)	28.68	400
Nitrate(mg/L)	<0.5	50
Fluoride(mg/L)	0.41	1.5
Total Hardness(mg/L)	91.51	-
Total dissolved solids (mg/L)	165	1500
TSS(mg/L)	39	-
Copper(mg/L)	<0.03	1.5
Iron(mg/L)	<0.1	50
Zinc(mg/L)	<0.04	15
Lead(mg/L)	<0.005	0.1
Cadmium(mg/L)	<0.001	0.01
Arsenic(mg/L)	<0.005	0.2
Selenium(mg/L)	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺) (mg/L)	<0.05	0.05
Phenolics(mg/L)	<0.001	0.005
Oil & Grease (mg/L)	<4.0	0.1
MPN (Index/100 ml)	120	-


Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR





सीएमपीडीआई
रिपी लैब
cmpdi
Mini Rohda

Surface Water Quality Data Talcher Area

Project/OCP	Handhidhua Colliery	IS:2296-1982 Tolerance for inland Surface water (Class C)
NAME OF STATIONS	Pond Near Handidhua	
Date of sampling	30-Aug-25	
pH	7.49	6.5-8.5
Color (Hazen unit)	2	300
Dissolved Oxygen(mg/L)	6.7	4
BOD (3 days 27°C)(mg/L)	<2.0	3
Chlorides(mg/L)	19.57	600
Sulphate(mg/L)	39.87	400
Nitrate(mg/L)	1.54	50
Fluoride(mg/L)	0.46	1.5
Total Hardness(mg/L)	139.25	-
Total dissolved solids (mg/L)	203	1500
TSS(mg/L)	43	-
Copper(mg/L)	<0.03	1.5
Iron(mg/L)	0.1	50
Zinc(mg/L)	<0.04	15
Lead(mg/L)	<0.005	0.1
Cadmium(mg/L)	<0.001	0.01
Arsenic(mg/L)	<0.005	0.2
Selenium(mg/L)	<0.005	0.05
Hexavalent Chromium (as Cr ⁶⁺) (mg/L)	<0.05	0.05
Phenolics(mg/L)	<0.001	0.005
Oil & Grease (mg/L)	<4.0	0.1
MPN (Index/100 ml)	94	-

Jasmati
Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

[Signature]



सीएमपीडीआई
मिनी प्लान
cmpdi
Mini Plan

Surface Water Quality Data Talcher Area

Project/OCP	Mandapal Sand Mine		IS:2296-1982 Tolerance for inland Surface water (Class C)
	Upstream - At 200 m before leasehold area	Downstream - At 200 m after leasehold area	
NAME OF STATIONS			
Date of sampling	30-Aug-25	30-Aug-25	
pH	7.65	7.60	6.5-8.5
Color (Hazen unit)	1	2	300
Dissolved Oxygen(mg/L)	6.2	6.0	4
BOD (3 days 27°c(mg/L)	<2.0	<2.0	3
Chlorides(mg/L)	13.70	15.65	600
Sulphate(mg/L)	27.37	66.18	400
Nitrate(mg/L)	2.93	3.60	50
Fluoride(mg/L)	0.53	0.64	1.5
Total Hardness(mg/L)	35.80	55.70	-
Total dissolved solids (mg/L)	84	195	1500
TSS(mg/L)	33	40	-
Copper(mg/L)	<0.03	<0.03	1.5
Iron(mg/L)	0.10	0.74	50
Zinc(mg/L)	<0.04	<0.04	15
Lead(mg/L)	<0.005	<0.005	0.1
Cadmium(mg/L)	<0.001	<0.001	0.01
Arsenic(mg/L)	<0.005	<0.005	0.2
Selenium(mg/L)	<0.005	<0.005	0.05
Hexavalent Chromium(as Cr ⁶⁺ (mg/L)	<0.05	<0.05	0.05
Phenolics(mg/L)	<0.001	<0.001	0.005
Oil & Grease (mg/L)	<4.0	<4.0	0.1
MPN (Index/100 ml)	220	170	-

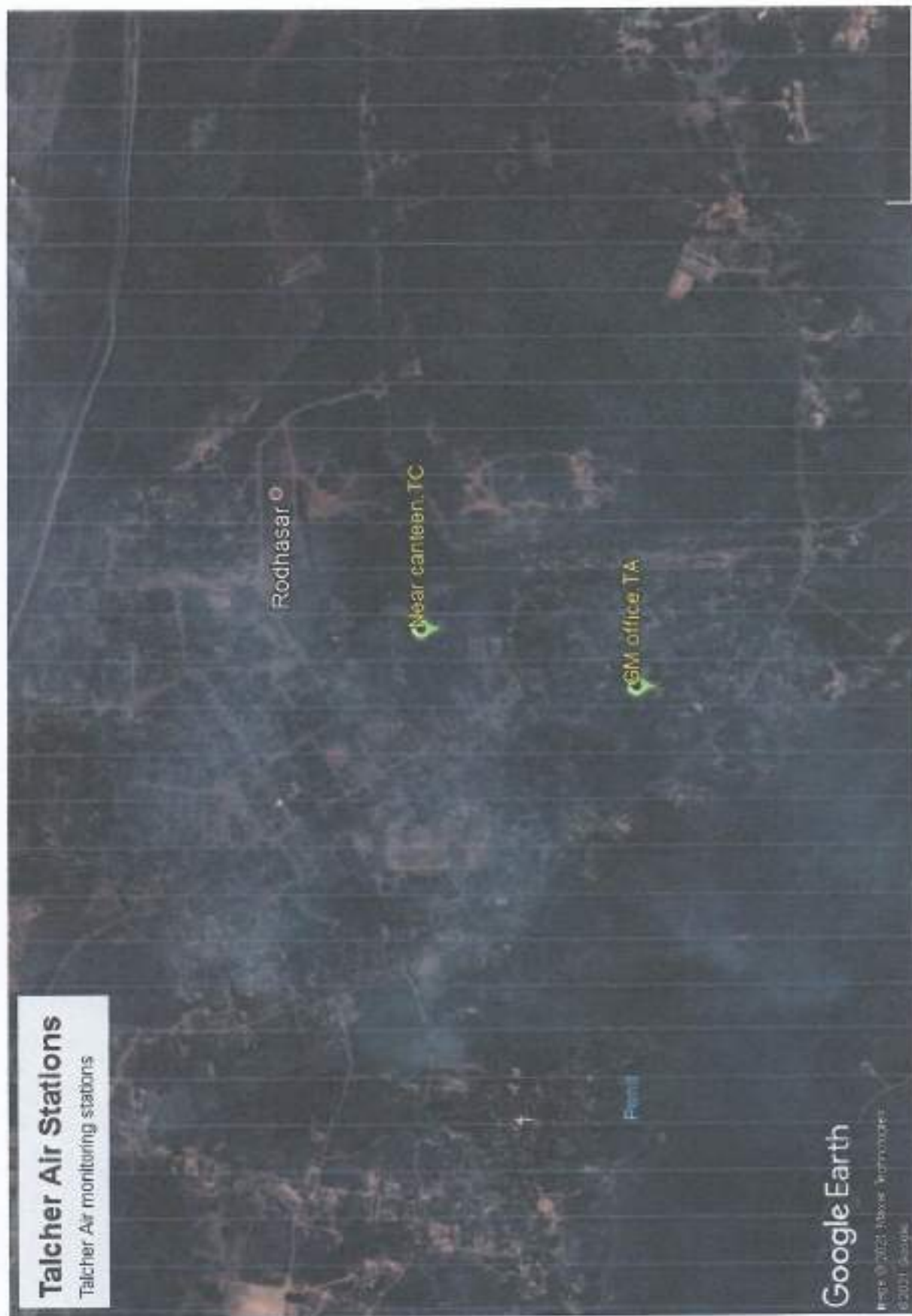
Sanat

Authorised Signatory
CMPDI, RI-VII, LAB
BHUBANESWAR

Sanat

Talcher Air Stations

Talcher Air monitoring stations



Google Earth

Maps © 2023, Imagery © 2023, Data © 2023, Google

Nandira Air Stations

Nandira Air monitoring stations



Google Earth

19.5110, 75.2124
16/06/2015

Deulbera Air Stations

Deulbera Air monitoring stations



Google Earth

© 2014 Google

Mandapal sand mine Air Stations

Mandapal sand mine Air monitoring stations



Google Earth

Image © 2022 Google
Map data © 2022 Google