

COMPLIANCE OF EC CONDITIONS OF 5.0 MTPA MADHUBAND

NLW COAL WASHERY

EC order No. J-11015/234/2009-IA-II (M), dated: 25.01.2012

Oct 2024 to March 2025

A.	Specific Conditions:	Compliance Status
(i)	The capacity of the Washery shall not exceed 6.5 MTPA without prior environmental clearance from this Ministry.	Being Complied. Madhuband NLW Coal Washery will not exceed 6.5 MTPA capacity without prior NOC from MoEF&CC.
(ii)	Transport of washed coal from the Washery to the steel plants in Durgapur, Bhilai and Bokaro shall be by rail from the railway siding located within the premises.	Being Complied. Railway Siding located within the premises of the Madhuband NLW Coal Washery, is being used for transportation of Washed Coal products to identified steel plant.
(iii)	The entire coal rejects from the Washery shall be fully utilised in an FBC based TPP for which open tender for operation of the FBC based TPP has been called by the proponent. The FBC based TPPs shall be preferably located in or near Jharia coalfields. The Company shall enter into a long-term MOU for utilisation of the coal rejects from the Washery within 3 months and also for utilisation of fly-ash generated from the FBC based TPP with M/s ACC Ltd or any suitable company.	Being Complied. Government of India has changed policy of reject disposal and handling which is being complied. The rejects produced are being stacked separately and its disposal is carried out as per the <i>Policy for Handling & Disposal of Washery Rejects, 2021</i> prescribed by the Ministry of Coal.
(iv)	The entire coal rejects to be sent to the FBC based TPP shall be by rail mode.	Being Complied. Railway Siding, located within the premises of the Madhuband NLW Coal Washery, is being used for transportation of Rejects.
(v)	As the Washery is located in Jharia Coalfields, which forms a part of the Critically Polluted Area of Dhanbad, the company shall implement the mitigative measures outlined in the Environmental Action Plan for CPA-Dhanbad applicable to the project, which would be in conformity with the Environmental Action Plan prepared for Dhanbad Area to keep the levels of air quality parameters well within limits. The proponent shall implement mitigative measures such as providing water sprinkling arrangements at various transfer points and loading/unloading points, regular maintenance of vehicles used for coal transportation, periodic and regular checking of vehicles for source emission, main approach roads used for transportation of raw coal to be black	Being Complied. This unit is operating as per the guidelines of Environmental Action Plan for CPA-Dhanbad & takes all the mitigative measures to keep air quality parameters well within limit. The unit has installed sufficient sprinkling arrangements on roads and all coal transfer points (Photographs of mobile water sprinkler are enclosed in <i>ANNEXURE-I</i>). Regular maintenance of vehicles is being done to keep minimum source emissions. (Annexure2) Three tier green belt with native species is being developed, and plantation drives are also carried out at regular intervals. Pictures of plantation are enclosed in <i>ANNEXURE-3</i> .

	topped, monitoring for particulate matter (PM10 and PM2.5) and maintenance of records thereof, bag filter at suitable locations of the Washery, wind shelters/wind breaks in coal stockyards (raw coal, clean coal and coal rejects), providing 3-tier green belt with native species.	Pressure filter has been installed and in operation at the Washery.
(vi)	The proponent shall implement a plan to regularly dredge River Damodar 0.5 km upstream and 1km length downstream of the Washery free of sludge, coal fines and silt which has accumulated in the river over a period of time and dispose the wastes in an environmentally friendly manner, in consultation with the Jharkhand State Pollution Control Board.	Not Applicable. 5.0 Mtpa Madhuband NLW Coal Washery is operating on Zero- Discharge Basis and no waste water is being discharged from this unit. Further, the Washery Unit is nearly 10 KM away from Damodar River and no effluent/ drainage from this unit will meet to Damodar River. Therefore, no sludge or coal fines deposit and siltation will be caused by the Washery.
(vii)	The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site(s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored raw coal, washed coal and coal wastes do not catch fire.	Being Complied. Washed Coal and Washed Coal Power is being stored in silos. Raw Coal and Coal Rejects are being stacked within stockyards fitted with wind breakers/shields and sprinkling arrangements has been made to prevent heating of stored Raw Coal.
(viii)	Hoppers of the coal crushing unit and Washery unit shall be fitted with high efficiency bag filters and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.	Being Complied. The unit has installed Water Sprinkling system at all crushing & coal transfer points to control fugitive emissions. The pressure filter has also been installed at washery.

(ix)	All approach roads shall be black topped and all internal roads shall be black topped or concreted. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using local species shall be developed along the main roads, and approach roads to the Washery.	Being Complied. Approach roads have been concreted (Annexure 4) and internal roads is being concreted. Presently, cleaning of roads is being done manually in regular manner. Gabion plantation along the main/approach road is being done. Further, plantation activities have been carried out at different locations in the project.
(x)	High capacity/tonnage trucks shall be engaged for transportation of raw coal to the Washery and which shall be optimally loaded and covered with tarpaulin with no spillage en route. The trucks shall be properly maintained and emissions shall be below notified limits.	Being Complied. Trucks having valid PUC certificates (Annexure 2) are being used for transportation of raw coal to the Washery, and are loaded optimally within the limits and covered with tarpaulin to ensure no spillage en route.
(xi)	The proponent shall maintain proper records of the ash content of raw (ROM) coal, clean coal and coal rejects of every consignment received and washed and the same shall be uploaded along with quantum of raw coal obtained and washed and dispatched every month on the Company's website every month.	Being Complied. Proper records of Ash content of Raw Coal, Clean Coal and Coal By-products is being maintained and being uploaded with this report.(Annexure 5)
(xii)	Water for the coal Washery shall be met from mine water from BCCL mines. No groundwater shall be used for the Washery plant operations. Any additional water requirement envisaged shall be obtained by recycle/reuse to the maximum extent and from rainwater harvesting measures. Pressure Filter and Thickener shall be installed in the Washery for water recovery and reuse.	Complied. Water is being recycled in Washery. Make up water for Washery is being met from the Block II mine of BCCL along with waste water from nearby BCCL colonies. Construction of infrastructure for Rain Water Harvesting has been completed. No groundwater is being used for the Washery plant operations. The Pressure Filter and Thickener are installed and in operation. (Annexure6)
(xiii)	The Washery unit shall be a zero-discharge facility and no waste water shall be discharged from the Washery into the drains/natural watercourses. The Washery shall be provided with a garland drain to carry/recycle the effluents generated from the Washery operations and coal fines collected shall be recovered from the slurry and concentrated and also sold for users. The wastewater from the Washery shall be free of coal dust and particles and recycled for development and maintenance of green belt and in the plant operations.	Complied. Washery is operating on Zero-Liquid Discharge Basis and no waste water is being discharged from this unit. The Washery has been provided with a garland drain. (Annexure 7)
(xiv)	A separate storm water drain to carry storm water from the Washery for discharge	Complied.

	outside the premises to nallahs/streams shall be established. The storm water drains shall be regularly desilted.	Separate drain to carry out the storm water from the Washery has been constructed and is cleaned regularly.
(xv)	Industrial wastewater (workshop and wastewater from the Washery) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed for treatment of workshop effluents.	Oil and grease trap is being installed for treatment of workshop effluents along with workshop.
(xvi)	Green belt shall be developed using local species all along the periphery of the site, along the areas such as the crushing unit and stockyard, transfer and loading points.	Being Complied. 12.4 Ha of 3-tier plantation has already been done. Further, plantation of 500 saplings of local species has been done recently in and around the Washery. Also, regular plantation drives to further boost the green cover are being carried out during World Environment Day, Van Mahotsav, Vriksharopan Abhiyaan, etc.
(xvii)	Socio-economic and welfare measures for the local communities shall be implemented under CSR with an outlay of Rs 2 crores/year. The village-wise activities undertaken and proposed and the expenditure thereon shall be displayed on the company website every year. A Monitoring Cell shall be established for monitoring activities undertaken under CSR.	Being Complied. As per Company's policy, a monitoring Cell of the Company already exists for monitoring activities under taken under CSR.
(xviii)	Levels of heavy metals such as mercury in raw coal, washed coal and rejects shall be analysed twice in a year and records maintained thereof and furnished as part of the Compliance Report to the MOEF RO, Bhubaneshwar.	The level of heavy metal for raw coal receiving from Block-II Mines is enclosed as Annexure 8.
(xix)	Corporate Environment Responsibility: a) The company shall have a well laid down Environment Policy approved by the Board of Directors. b) The Environment Policy shall prescribe for standard operating process/ procedures to bring into focus any infringements/deviation/ violation of the environmental or forest norms/conditions. c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the	Being Complied. A well-defined Corporate Environment Policy has already been laid down and approved by the Board of Directors. This is also posted on BCCL website. (https://www.bcclweb.in/environment/CEP_280220.pdf). An Environment department at BCCL H.Q. looks after the infringements/ deviation/ violation of Environment & Forest norms, environmental issues, and compliances, etc., for all the units running in BCCL.

	environmental clearance conditions shall be furnished. d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	To implement the Corporate Environment Policy, a manual for Environment Personnel is prescribed by CIL : https://www.coalindia.in/media/documents/Guidelines for Environmental Personnel in Mines 20092016 hAukCHt.pdf) which has the proper operating procedures. In addition, status of Environment Management is reported to the BCCL Board every quarter. Monitoring is being done by CMPDIL which has NABL accredited laboratory.
B.	General Conditions:	
i.	No change in technology and scope of working of the Washery shall be made without prior approval of the Ministry of Environment and Forests.	Being Complied.
ii.	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM ₁₀ , PM _{2.5} , SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board .Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, PM ₁₀ and PM _{2.5} etc. shall be carried out at least once in six months.	Being Complied. Four ambient air monitoring stations for monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x have been established in the core zone and buffer zone (Monitoring Reports enclosed as Annexure 9). Monitoring is being done by CMPDIL, which has NABL accredited laboratory. Data of six-monthly monitoring (done by CMPDIL) of heavy metals is also enclosed. Monitoring is being done by CMPDIL, which has NABL accredited laboratory.
iii.	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.	Being Complied. Four ambient air monitoring stations for monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x have been established in the core zone and buffer zone (Monitoring Reports enclosed as Annexure 9). Presently, CMPDIL Dhanbad is carrying out regular monitoring of environmental quality work.
iv.	Data on ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) and heavy metals such as Hg, As, Ni, Cd, Cr, and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the state Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA	Being Complied. Four ambient air monitoring stations for monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x have been established in the core zone and buffer zone (Monitoring Reports enclosed as Annexure 9). Monitoring is being done by CMPDIL, which has NABL accredited laboratory. Data of six-monthly monitoring (done by CMPDIL) of heavy metals is also enclosed. (Annexure 10)

	rules, 1986 shall be furnished as part of compliance report.	Monitoring for the same is done by CMPDIL having own laboratory recognized under EPA Rules, 1986.
v.	Adequate measures shall be taken for control of noise levels below 85 dBL in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM etc. shall be provided with ear plugs/muffs.	Being Complied. Preventive measure i.e. maintenance is being taken to keep the noise levels below 85 dBL in the work environment. Monitoring is being done by CMPDIL, which has NABL accredited laboratory. Monitoring Reports enclosed as Annexure 9.
v.	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.	Complied. All workers are provided with training on safety and health aspect with effective sprinkling and proper enclosure, dust suppression is ensured in the Washery. In addition, protective respiratory devices are being provided to the workmen. As per Company's Policy, periodic PME of all the workmen is being done.
vi.	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	Being Complied. A full- fledged Environment Department, headed by a HoD (Environment) along with a suitable qualified multidisciplinary team of executives which includes Environment, Mining, Excavation, Civil, Survey, Electrical & Mechanical, Forestry discipline executives and technicians (4 nos.) has been established in BCCL Headquarters. They are also trained in ecological restoration, sustainable development, rainwater harvesting methods, etc. At the project level, one Executive in each Area has also been nominated as Project Nodal Officer (Environment) and is also entrusted with the responsibility of compliance and observance of the Environmental Acts/ Laws including Environment Protection measures. The activities are monitored on regular basis at Area and at Head quarter levels. HoD (Environment) at Headquarter level coordinates with all the Areas and reports to the Director (Technical) and in turn he reports to the CMD of the company. The team is multidisciplinary and very much motivated under the guidance of company's Director (Technical) and CMD for further capacity building.
vii.	The funds earmarked for environmental protection measures shall be kept in	Complied.

	separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office Bhubaneshwar.	Earmarked Funds for Environment Protection and Environment Compliance related activities are allotted in the Budget every financial year, which are kept separately under Environment Head of the Budget. The expenditure for FY2024-25 is approx.35 lakhs.
viii.	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in	Complied. The Washery has already advertised the Environment Clearance letter in local newspapers for wide circulation. A copy of the Environmental Clearance has also been displayed on the Company's website and MoEFCC.
ix.	A copy of the environmental clearance letter shall be marked to concerned Panchayat / Zila Parishad/Municipal Corporation or Urban Local Body/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.	Complied. The copy of Environmental Clearance has already been made available to District Collector, local Zila Parishad, Ward Councillor, Municipal Corporation. A copy of the Environmental Clearance has also been displayed on the Company's website.
x.	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.	Complied. The Environmental Clearance letter has already been forwarded to Jharkhand State Pollution Control Board, Regional Office, District Industry Centre and Collector's Office for doing the needful.
xi.	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.	Being Complied. The Environment Clearance letter has been uploaded on the Company's website. Compliance Status Report is also regularly uploaded on the Company's website every six months. Environment Monitoring Report along with six monthly compliance report are displayed on the Company's website. Monitoring data of environmental quality parameters has been displayed at the project office and being updated regularly.

xii.	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.	Complied.
xiii.	The Regional Office of this Ministry located Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Being Complied.
xiv.	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.	Complied.

Project Officer
5.0 MTPA Madhuband NLW Coal Washery

Code of practice for Madhuband NLW Coal Washery is as below:

Sl.No.	Particulars	Compliance
1	Water or Water mixed chemical shall be sprayed at all strategic coal transfer points such as conveyors, loading/unloading points etc. As far as practically possible conveyors, transfer points etc. shall be provided with enclosures.	Water sprinklers installed along conveyor, transfer points and crushing points. The conveyor, transfer points are properly enclosed.
2	The crushers/pulverizes of the coal washeries shall be provided with enclosures, fitted with suitable air pollution control measures and finally emitted through a stack of a minimum height of 30m. conforming particulate matter emission standard of 150 mg/Nm ³ or provided with adequate water sprinkling arrangement	The crushers of the coal washeries are properly enclosed and water sprinkling arrangement is present as air pollution control measures.
3	Water sprinkling by using fine atomizer nozzles arrangement shall be provided on the coal heaps and on around the crushers/pulverizers.	Fixed sprinklers and mobile tankers are being used for water sprinkling on coal heap and around crushers
4	Area, in and around the coal Washery shall be pucca either asphalted or concreted.	Concrete roads have been constructed in and around Washery.
5	Water consumption in the coal Washery shall not exceed 1.5 cubic meter per tonne of raw coal.	The Water consumption in the coal Washery is not exceeding 1.5 cubic meter per tonne of coal.
6	The efficiency of the settling ponds of the wastewater treatment system of the coal Washery shall not be less than 90%.	Being complied.
7	Green belt shall be developed along the road side, coal handling plants, residential complex, office building and all around the boundary line of the coal Washery.	12.4 Ha of 3-tier plantation has already been done.(Annexure...) Further, plantation of 500 saplings of local species has been done recently in and around the Washery. Also, regular plantation drives to further boost the green cover are being carried out during World Environment Day, Van Mahotsav, Vriksharopan Abhiyaan, etc.
8	Storage bunkers, hoppers, rubber decks in chutes and centrifugal chutes shall be provided with proper rubber linings.	The Storage bunkers, hoppers, rubber decks in chutes and centrifugal chutes is provided with proper rubber lining.
9	Vehicles movement in the coal Washery area shall be regulated effectively to avoid traffic congestion. High pressure horn shall be prohibited. Smoke emission from heavy duty vehicle operating in the coal washeries should conform the standards prescribed under Motor Vehicle Rules, 1989.	Security guards are being posted to monitor the Vehicles movement to avoid traffic congestion in the coal Washery. Trucks having valid PUC certificates (Annexure..) are being used for transportation No High pressure horn is being used in vehicles.

**MOBILE SPRINKLING AT 5.0 MTPA MADHUBAND NLW COAL
WASHERY**



< Vehicle search

Vehicle Number JH10CV3394
 Owner Name O*****C C*****R
 W**S P*****E L****E
 Registering Authority DHANBAD, Jharkhand
 Vehicle Class Goods Carrier(HGV)
 Fuel Type DIESEL
 Emission Norm BHARAT STAGE VI
 Vehicle Age 1 Years & 3 months
 Hypothecated Yes
 Vehicle Status **ACTIVE**

Tap to Check the impound/seizure document status

Registration Date	30-Jan-2024
Fitness Valid UpTo	29-Jan-2026
Tax Valid UpTo	26-Jul-2025
Insurance Valid UpTo	26-Jan-2026
PUCV Valid Upto	19-Jan-2026
Permit Valid UpTo	30-Jan-2029

Create Virtual RC

< Vehicle search

Vehicle Number JH10CV9376
 Owner Name O*****C C*****R
 W**S P*****E L*D
 Registering Authority DHANBAD, Jharkhand
 Vehicle Class Goods Carrier(HGV)
 Fuel Type DIESEL
 Emission Norm BHARAT STAGE VI
 Vehicle Age 1 Years & 3 months
 Hypothecated Yes
 Vehicle Status **ACTIVE**

Tap to Check the impound/seizure document status

Registration Date	30-Jan-2024
Fitness Valid UpTo	29-Jan-2026
Tax Valid UpTo	29-Jun-2025
Insurance Valid UpTo	26-Jan-2026
PUCV Valid Upto	19-Jan-2026
Permit Valid UpTo	30-Jan-2029

Create Virtual RC

< Vehicle search

Vehicle Number JH10CV8422
 Owner Name O*****C C*****R
 W**S P*T L*D
 Registering Authority DHANBAD, Jharkhand
 Vehicle Class Goods Carrier(HGV)
 Fuel Type DIESEL
 Emission Norm BHARAT STAGE VI
 Vehicle Age 1 Years & 1 months
 Hypothecated Yes
 Vehicle Status **ACTIVE**

Tap to Check the impound/seizure document status

Registration Date	28-Mar-2024
Fitness Valid UpTo	27-Mar-2026
Tax Valid UpTo	26-Jun-2025
Insurance Valid UpTo	21-Mar-2026
PUCV Valid Upto	23-Mar-2026
Permit Valid UpTo	27-Mar-2029

Create Virtual RC





Annexure 5

Madhuban

RAW COAL						
Date Of Sample	TM	ADB				
		ASH %	M %	VM %	FC %	GCV Kcal/Kg
31-Oct-22	3.51	49.04	1.25	13.25	36.46	
31-Oct-2022 (Stock Tube)	3.62	49.64	1.20	14.44	34.72	
1-Nov-22	3.49	51.02	1.17	12.73	35.08	
2-Nov-22	3.37	52.16	1.10	12.86	33.88	

WASH POWER COAL					
Date Of Sample	TM	ADB			
		ASH %	M %	VM %	FC %
31-Oct-22	7.52	21.5	0.83	15.26	62.41
1-Nov-22	7.48	34.02	1.19	14.97	49.82
2-Nov-22	7.61	36.77	1.23	14.77	47.23

WASH COAL					
Date Of Sample	TM	ADB			
		ASH %	M %	VM %	FC %
31-Oct-22	7.12	14.55	1.05	16.64	67.76
1-Nov-22	7.31	14.41	1.26	17.86	66.47
2-Nov-22	7.29	10.10	1.17	19.12	69.61

REJECTS					
Date Of Sample	TM	ADB			
		ASH %	M %	VM %	FC %
31-Oct-22	8.73	37.52	1.14	14.42	
1-Nov-22	8.68	63.05	0.91	12.40	
2-Nov-22	8.59	67.06	0.98	11.90	
2-Nov-2022 Primery U/Flow	8.43	38.38	1.03	15.22	





2.4.1 Trace elements/ Heavy metals concentration in Coals of following mines (in ppm)

Sample collected from	Ash	As	Hg	Cd	Ni	Co	Cr	Cu	Zn	Mn	V	Pb
Muraidih Colliery	45.2	11.3	0.65	0.50	100.0	29.8	135.6	26.0	35.0	85.0	67.8	45.0
Nudkhurkee Colliery	47.6	19.0	0.59	0.70	48.0	35.2	119.0	35.0	36.0	75.0	75.0	31.0
Benedih Colliery	40.8	20.4	0.48	0.40	92.0	36.7	142.0	32.0	42.0	70.0	80.0	25.0

*Sulphur Concentration : 0.2-0.7%



CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

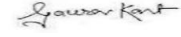
CMPDI, RI-II
 KOYLA BHAWAN COMPLEX
 DHANBAD. -826005
 Phone:0326-223-850
 email: rdri2cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		02/2025	Cluster	Cluster II			ULR No.	TC1432125000001532F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	04.03.25	
Project		Madhuband Washery		Sample Ref. No.	REM/BCCL/2025/02	Sampling Method	CMPDI/RI-II/LPM 11 , (IS 5182)		
Date of Sampling		04.02.25		18.02.25	Period of Analysis	04.02.25 to 03.03.25		Zone of Station:	Buffer Zone
Sl. No.	Parameter	Method Analysis	of	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009
				1st FN A3389	2nd FN A3466				
1	PM ₁₀	IS -5182(Part 23):2006, R-2017		97	119	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100
2	PM _{2.5}	IS -5182(Part 24):2019		47	62	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001 , R-2017		10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017		29	31	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,


ANALYSED BY


 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env) , CMPDI, RI-II.

---- End of Report ----

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

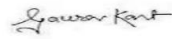
CMPDIL, RI-II
 KOYLA BHAWAN COMPLEX
 DHANBAD. -826005
 Phone:0326-223-850
 email: rdri2cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		02/2025	Cluster	Cluster II			ULR No.	TC1432125000001532F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	04.03.25	
Project		Madhuband UGP		Sample Ref. No.	REM/BCCL/2025/02	Sampling Method	CMPDI/RI-II/LPM 11 , (IS 5182)		
Date of Sampling		05.02.25		19.02.25	Period of Analysis	05.02.25 to 03.03.25		Zone of Station:	Buffer Zone
Sl. No .	Parameter	Method of Analysis	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009	
			1st FN A3397	2nd FN A3397					
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	90	80	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100	
2	PM _{2.5}	IS -5182(Part 24):2019	45	38	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60	
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80	
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	27	27	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80	

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,


ANALYSED BY


 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

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---- End of Report ----

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

CMPDI, RI-II
 KOYLA BHAWAN COMPLEX
 DHANBAD - 826005
 Phone: 0326-223-850
 email: rdri2cmpdi@coalindia.in

Month & Year	02/2025	Cluster	Cluster II					ULR No.	TC1432125000001566F
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue	04.03.2025
Project	Madhuband Washery		Sample Ref. No.		REM/BCCL/2025/02		Sampling Method		CMPDI/RI-II/LPM 22
				Date of Sampling		04.02.25	18.02.25	Zone Category of Station: Buffer Zone	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A))	Observed Values (in Leq dB(A))	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
			First Fortnight	Second Fortnight				Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	60.1	60.2	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	48.6	45.7					
3		08:00 - 09:00	47.4	43.2					
4		09:00 – 10:00	61.9	64.4					
5		10:00 - 11:00	54.7	51.6					
6		11:00 - 12:00	49.2	49.2					
7		12:00 - 13:00	56.1	58					
8		13:00 - 14:00	55.6	54.6					
9		14:00 - 15:00	55.4	56.1					
10		15:00 - 16:00	52.3	52.9					
11		16:00 - 17:00	58.7	60.1					
12		17:00 - 18:00	46.1	45.2					
13		18:00 - 19:00	54.3	55.1					
14		19:00 - 20:00	58.7	59.7					
15		20:00 - 21:00	55.6	55.9					
16		21:00 - 22:00	54.3	55.4					
		Leq DAY	56.3	57.3					
1	Noise Level dB(A)Leq -Night	22:00-23:00	55.8	56.7	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	55.7	55.8					
3		00:00- 01:00	55.2	55.5					
4		01:00-02:00	54.8	55.1					
5		02:00-03:00	54.6	53.9					
6		03:00-04:00	53.6	53.7					
7		04:00-05:00	53.7	53.7					
8		05:00-06:00	53.9	54.8					
		Leq NIGHT	54.7	55.0					

*LDL indicates Lower Detection Limit

**All noise measurements are integrated for a 01 hour period, All units in dB(A)

Sampling Assistants
ANALYSED BY

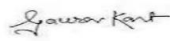
(Gaurav Kant)
REVIEWED BY

(Amit Raj Mishra)
Authorised Signatory

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 TC-14321  cmpdi A Mini Ratna Company CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD. -826005 Phone:0326-223-850 email: rdri2cmpdi@coalindia.in									
Month & Year	02/2025	Cluster	Cluster II					ULR No.	TC1432125000001566F
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcccl@coalindia.in)							Date of Issue	04.03.2025
Project	Madhuband UGP	Sample Ref. No.	REM/BCCL/2025/02			Sampling Method		CMPDI/RI-II/LPM 22	
s			Date of Sampling	05.02.25	19.02.25	Zone Category of Station:		Buffer Zone	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
								Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	37.8	38.3	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	40.4	39.7					
3		08:00 - 09:00	43.5	43.8					
4		09:00 - 10:00	44.6	44.4					
5		10:00 - 11:00	44.4	44.5					
6		11:00 - 12:00	44.1	43.8					
7		12:00 - 13:00	45	44.7					
8		13:00 - 14:00	48.1	51.4					
9		14:00 - 15:00	49.2	49.2					
10		15:00 - 16:00	49.7	46.6					
11		16:00 - 17:00	43.1	43.2					
12		17:00 - 18:00	42.1	42					
13		18:00 - 19:00	41.6	41.5					
14		19:00 - 20:00	41.4	41					
15		20:00 - 21:00	41.2	40.7					
16		21:00 - 22:00	40.1	40.3					
		Leq DAY	44.8	45.0					
1	Noise Level dB(A)Leq -Night	22:00-23:00	41.1	41.6	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	41	41.7					
3		00:00- 01:00	40.9	41					
4		01:00-02:00	40.2	40.6					
5		02:00-03:00	39.9	40.4					
6		03:00-04:00	41.3	41.6					
7		04:00-05:00	41.6	41.8					
8		05:00-06:00	41.9	41.7					
		Leq NIGHT	41.0	41.3					
*LDL indicates Lower Detection Limit **All noise measurements are integrated for a 01 hour period, All units in dB(A)									
Sampling Assistants ANALYSED BY  (Gaurav Kant) REVIEWED BY  (Amit Raj Mishra) Authorised Signatory Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env) , CMPDI, RI-II. ---- End of Report ----									



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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

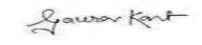
CMPDI, RI-II
 KOYLA BHAWAN COMPLEX
 DHANBAD. -826005
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 email: rdri2cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		01/2025	Cluster	Cluster II			ULR No.	TC1012224000001416F
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	18.02.2025
Project		Madhuband Washery	Sample Ref. No.	REM/BCCL/2025/01	Sampling Method		CMPDI/RI-II/LPM 11 , (IS 5182)	
Date of Sampling		06.01.2025	20.01.2025	Period of Analysis	06.01.2025 to 15.02.2025		Zone of Station:	Buffer Zone
Sl. No.	Parameter	Method Analysis of	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009
			1st FN A3250	2nd FN A3323				
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	91	88	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100
2	PM _{2.5}	IS -5182(Part 24):2019	53	50	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	32	29	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,


ANALYSED BY


 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

CMPDI, RI-II
 KOYLA BHAWAN COMPLEX
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Test Report for Ambient Air Samples

Month & Year		01/2025	Cluster	Cluster II			ULR No.	TC1012224000001416F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	18.02.2025	
Project		Madhuband UGP		Sample Ref. No.	REM/BCCL/2025/01	Sampling Method	CMPDI/RI-II/LPM 11 , (IS 5182)		
Date of Sampling		04.01.2025		18.01.2025	Period of Analysis	04.01.2025 to 15.02.2025		Zone of Station:	Buffer Zone
Sl. No	Parameter	Method of Analysis	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009	
			1st FN A3245	2nd FN A3316					
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	76	83	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100	
2	PM _{2.5}	IS -5182(Part 24):2019	42	47	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60	
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80	
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	26	28	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80	

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,

[Signature]

ANALYSED BY

[Signature]

(Gaurav Kant)
REVIEWED BY

[Signature]

(Amit Raj Mishra)
Authorised Signatory

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 		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report					CMPDIL, RI-II KOYLA BHAWAN COMPLEX DHANBAD - 826005 Phone:0326-223-850 email: rdri2cmpdi@coalindia.in		
Month & Year	01/2025	Cluster	Cluster II				ULR No.	TC1012224000001450F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue	18.02.2025	
Project	Madhuband Washery		Sample Ref. No.	REM/BCCL/2025/01		Sampling Method	CMPDI/RI-II/LPM 22		
			Date of Sampling	06.01.2025	20.01.2025	Zone Category of Station:	Buffer Zone		
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
								Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	62.6	62.8	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	50.7	47.7					
3		08:00 - 09:00	49.4	45.1					
4		09:00 - 10:00	64.6	67.2					
5		10:00 - 11:00	57	53.8					
6		11:00 - 12:00	51.3	51.3					
7		12:00 - 13:00	58.5	60.4					
8		13:00 - 14:00	58	56.9					
9		14:00 - 15:00	57.8	58.5					
10		15:00 - 16:00	54.5	55.2					
11		16:00 - 17:00	61.3	62.6					
12		17:00 - 18:00	48.1	47.1					
13		18:00 - 19:00	56.6	57.5					
14		19:00 - 20:00	61.3	62.2					
15		20:00 - 21:00	57.9	58.3					
16		21:00 - 22:00	56.6	57.8					
		Leq DAY	58.8	59.9					
1	Noise Level dB(A)Leq -Night	22:00-23:00	53.5	54.3	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	53.3	53.4					
3		00:00- 01:00	52.8	53.1					
4		01:00-02:00	52.4	55					
5		02:00-03:00	52.2	51.6					
6		03:00-04:00	51.3	51.4					
7		04:00-05:00	51.4	51.4					
8		05:00-06:00	51.6	52.4					
		Leq NIGHT	52.4	53.0					

*LDL indicates Lower Detection Limit
**All noise measurements are integrated for a 01 hour period, All units in dB(A)

Sampling Assistants ANALYSED BY	 (Gaurav Kant) REVIEWED BY	 (Amit Raj Mishra) Authorised Signatory
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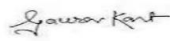
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  CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD. -826005 Phone:0326-223-850 email: rdri2cmpdi@coalindia.in									
Month & Year	01/2025	Cluster	Cluster II					ULR No.	TC1012224000001450F
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue	18.02.2025
Project	Madhuband UGP		Sample Ref. No.	REM/BCCL/2025/01		Sampling Method	CMPDI/RI-II/LPM 22		
s			Date of Sampling	04.01.2025	18.01.2025	Zone Category of Station:	Buffer Zone		
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
								Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	39.4	40	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	42.1	41.5					
3		08:00 - 09:00	45.4	45.7					
4		09:00 - 10:00	46.5	46.3					
5		10:00 - 11:00	46.3	46.4					
6		11:00 - 12:00	46	45.7					
7		12:00 - 13:00	46.9	46.6					
8		13:00 - 14:00	50.1	53.6					
9		14:00 - 15:00	51.3	51.3					
10		15:00 - 16:00	51.8	48.6					
11		16:00 - 17:00	45	45.1					
12		17:00 - 18:00	43.8	43.7					
13		18:00 - 19:00	43.4	43.3					
14		19:00 - 20:00	43.2	42.8					
15		20:00 - 21:00	43	42.4					
16		21:00 - 22:00	41.9	42					
		Leq DAY	46.8	47.0					
1	Noise Level dB(A)Leq -Night	22:00-23:00	39.3	39.8	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	39.2	39.9					
3		00:00- 01:00	39.1	39.2					
4		01:00-02:00	38.5	38.9					
5		02:00-03:00	38.3	38.7					
6		03:00-04:00	39.5	39.8					
7		04:00-05:00	39.8	40					
8		05:00-06:00	40.1	39.9					
		Leq NIGHT	39.3	39.6					

*LDL indicates Lower Detection Limit

**All noise measurements are integrated for a 01 hour period, All units in dB(A)

Sampling Assistants
ANALYSED BY


 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

CMPDIL, RI-II
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Test Report for Ambient Air Samples

Month & Year		12/2024	Cluster	Cluster II			ULR No.	TC1012224000001362F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	27.01.2025	
Project		Madhuband Washery		Sample Ref. No.	REM/BCCL/2024/12	Sampling Method	CMPDI/RI-II/LPM 11 , (IS 5182)		
Date of Sampling		12.12.2024		26.12.2024	Period of Analysis	12.12.2024 to 25.01.2025		Zone of Station:	Buffer Zone
Sl. No.	Parameter	Method Analysis	of	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009
				1st FN A3136	2nd FN A3213				
1	PM ₁₀	IS -5182(Part 23):2006, R-2017		98	95	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100
2	PM _{2.5}	IS -5182(Part 24):2019		57	54	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001 , R-2017		13	10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017		30	32	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,

ANALYSED BY

(Gaurav Kant)
 REVIEWED BY

(Amit Raj Mishra)
 Authorised Signatory

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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

CMPDIL, RI-II
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 email: rdri2cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		12/2024	Cluster	Cluster II			ULR No.	TC1012224000001362F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	27.01.2025	
Project		Madhuband UGP		Sample Ref. No.	REM/BCCL/2024/12	Sampling Method		CMPDI/RI-II/LPM 11, (IS 5182)	
Date of Sampling		05.12.2024		19.12.2024	Period of Analysis	12.12.2024 to 25.01.2025		Zone of Station:	Buffer Zone
Sl. No .	Parameter	Method of Analysis	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009	
			1st FN A3091	2nd FN A3172					
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	83	90	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100	
2	PM _{2.5}	IS -5182(Part 24):2019	45	51	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60	
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80	
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	26	29	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80	

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,

(Signature)
ANALYSED BY

(Signature)
 (Gaurav Kant)
REVIEWED BY

(Signature)
 (Amit Raj Mishra)
Authorised Signatory

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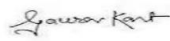
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Month & Year	12/2024	Cluster	Cluster II				ULR No.	TC1012224000001396F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue	27.01.2025	
Project	Madhuband Washery		Sample Ref. No.	REM/BCCL/2024/12		Sampling Method	CMPDI/RI-II/LPM 22		
			Date of Sampling	12.12.2024	26.12.2024	Zone Category of Station:	Buffer Zone		
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
								Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	64.2	61.2	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	52	47.4					
3		08:00 - 09:00	50.7	46.1					
4		09:00 - 10:00	65.2	67.2					
5		10:00 - 11:00	58.4	55.1					
6		11:00 - 12:00	52.6	52.6					
7		12:00 - 13:00	58.3	61.9					
8		13:00 - 14:00	59.5	58.3					
9		14:00 - 15:00	59.2	59.9					
10		15:00 - 16:00	55.9	56.5					
11		16:00 - 17:00	62.8	62.4					
12		17:00 - 18:00	49.3	48.2					
13		18:00 - 19:00	58	58.9					
14		19:00 - 20:00	62.8	63.7					
15		20:00 - 21:00	59.4	59.7					
16		21:00 - 22:00	58	59.2					
		Leq DAY	60.0	60.4					
1	Noise Level dB(A)Leq - Night	22:00-23:00	51.4	52.2	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	46.1	46.2					
3		00:00- 01:00	45.7	46					
4		01:00-02:00	45.4	45.6					
5		02:00-03:00	45.2	44.6					
6		03:00-04:00	44.9	44.8					
7		04:00-05:00	49.4	49.4					
8		05:00-06:00	49.6	50.5					
		Leq NIGHT	45.2	45.6					

*LDL indicates Lower Detection Limit

**All noise measurements are integrated for a 01 hour period, All units in dB(A)

Sampling Assistants
ANALYSED BY

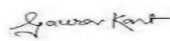

 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

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 		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report				CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD. -826005 Phone:0326-223-850 email: rdri2cmpdi@coalindia.in			
Month & Year	12/2024	Cluster	Cluster II			ULR No.	TC1012224000001396F		
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	27.01.2025		
Project	Madhuband UGP	Sample Ref. No.	REM/BCCL/2024/12		Sampling Method	CMPDI/RI-II/LPM 22			
s			Date of Sampling	05.12.2024	19.12.2024	Zone Category of Station:		Buffer Zone	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	40.4	41	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	43.1	42.5					
3		08:00 - 09:00	46.4	46.9					
4		09:00 - 10:00	47.7	47.5					
5		10:00 - 11:00	47.5	47.6					
6		11:00 - 12:00	47.2	46.9					
7		12:00 - 13:00	48	47.7					
8		13:00 - 14:00	51.3	54.9					
9		14:00 - 15:00	52.6	52.6					
10		15:00 - 16:00	53	49.7					
11		16:00 - 17:00	46.1	46.1					
12		17:00 - 18:00	44.9	44.8					
13		18:00 - 19:00	44.4	44.4					
14		19:00 - 20:00	44.3	43.9					
15		20:00 - 21:00	44.1	43.5					
16		21:00 - 22:00	42.8	43					
		Leq DAY	47.9	48.2					
1	Noise Level dB(A)Leq -Night	22:00-23:00	37.9	38.3	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	34	34.5					
3		00:00- 01:00	33.9	34					
4		01:00-02:00	33.3	33.7					
5		02:00-03:00	33	33.5					
6		03:00-04:00	38.1	38.3					
7		04:00-05:00	38.3	38.5					
8		05:00-06:00	38.6	38.4					
		Leq NIGHT	35.4	35.5					
*LDL indicates Lower Detection Limit **All noise measurements are integrated for a 01 hour period, All units in dB(A)									
Sampling Assistants ANALYSED BY		 (Gaurav Kant) REVIEWED BY		 (Amit Raj Mishra) Authorised Signatory					
Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env) , CMPDI, RI-II. ---- End of Report ----									



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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

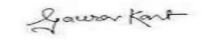
CMPDIL, RI-II
 KOYLA BHAWAN COMPLEX
 DHANBAD. -826005
 Phone:0326-223-850
 email: rdri2cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		11/2024	Cluster	Cluster II			ULR No.	TC1012224000001310F
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	16.01.2025
Project		Madhuband Washery	Sample Ref. No.	REM/BCCL/2024/11	Sampling Method		CMPDI/RI-II/LPM 11 , (IS 5182)	
Date of Sampling		09.11.2024	26.11.2024	Period of Analysis	09.11.2024 to 26.12.2024		Zone of Station:	Buffer Zone
Sl. No.	Parameter	Method Analysis of	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009
			1st FN A2956	2nd FN A3031				
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	0	0	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100
2	PM _{2.5}	IS -5182(Part 24):2019	51	0	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	31	29	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,


ANALYSED BY


 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

CMPDI, RI-II
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Test Report for Ambient Air Samples

Month & Year		11/2024	Cluster	Cluster II			ULR No.	TC1012224000001310F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	16.01.2025	
Project		Madhuband UGP		Sample Ref. No.	REM/BCCL/2024/11	Sampling Method	CMPDI/RI-II/LPM 11 , (IS 5182)		
Date of Sampling		08.11.2024		30.11.2024	Period of Analysis	08.11.2024 to 26.12.2024		Zone of Station:	Buffer Zone
Sl. No .	Parameter	Method of Analysis	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009	
			1st FN A2948	2nd FN A3062					
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	94	88	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100	
2	PM _{2.5}	IS -5182(Part 24):2019	51	48	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60	
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80	
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	31	24	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80	

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,

(Signature)

ANALYSED BY

(Signature)

(Gaurav Kant)

REVIEWED BY

(Signature)

(Amit Raj Mishra)

Authorised Signatory

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 		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report					CMPDIL, RI-II KOYLA BHAWAN COMPLEX DHANBAD. - 826005 Phone:0326-223-850 email: rdri2cmpdi@coalindia.in		
Month & Year	11/2024	Cluster	Cluster II				ULR No.	TC1012224000001344F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue	16.01.2025	
Project	Madhuband Washery	Sample Ref. No.	REM/BCCL/2024/11		Sampling Method		CMPDI/RI-II/LPM 22		
			Date of Sampling	09.11.2024	26.11.2024	Zone Category of Station:		Buffer Zone	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A))	Observed Values (in Leq dB(A))	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
			First Fortnight	Second Fortnight				Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	44.7	45.2	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	45.2	45.3					
3		08:00 - 09:00	47.2	47.7					
4		09:00 - 10:00	55.7	57.2					
5		10:00 - 11:00	60.1	59.8					
6		11:00 - 12:00	58.8	57.8					
7		12:00 - 13:00	61.5	63.6					
8		13:00 - 14:00	61	60					
9		14:00 - 15:00	62	63.3					
10		15:00 - 16:00	62.1	60.7					
11		16:00 - 17:00	55.5	57.4					
12		17:00 - 18:00	50.7	49.5					
13		18:00 - 19:00	48.8	48.3					
14		19:00 - 20:00	47.8	47.6					
15		20:00 - 21:00	48	46.9					
16		21:00 - 22:00	46.6	46.1					
		Leq DAY	57.4	57.8					
1	Noise Level dB(A)Leq - Night	22:00-23:00	45.3	44.3	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	44.4	44.4					
3		00:00- 01:00	44.3	43.4					
4		01:00-02:00	43.8	43.3					
5		02:00-03:00	43.3	43.1					
6		03:00-04:00	42.9	42.5					
7		04:00-05:00	45.1	42.4					
8		05:00-06:00	43.6	43.3					
		Leq NIGHT	44.2	43.4					
*LDL indicates Lower Detection Limit **All noise measurements are integrated for a 01 hour period, All units in dB(A)									
Sampling Assistants ANALYSED BY		 (Gaurav Kant) REVIEWED BY		 (Amit Raj Mishra) Authorised Signatory					
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 		CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report					CMPDIL, RI-II KOYLA BHAWAN COMPLEX DHANBAD. -826005 Phone:0326-223-850 email: rdri2cmpdi@coalindia.in		
Month & Year	11/2024	Cluster	Cluster II				ULR No.	TC1012224000001344F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue	16.01.2025	
Project	Madhuband UGP		Sample Ref. No.	REM/BCCL/2024/11		Sampling Method	CMPDI/RI-II/LPM 22		
s				Date of Sampling	08.11.2024	30.11.2024	Zone Category of Station:	Buffer Zone	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
								Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	41.5	42.1	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	44.3	43.6					
3		08:00 - 09:00	47.7	48.1					
4		09:00 - 10:00	48.9	48.8					
5		10:00 - 11:00	48.8	48.8					
6		11:00 - 12:00	48.5	48.1					
7		12:00 - 13:00	49.3	49					
8		13:00 - 14:00	52.8	56.4					
9		14:00 - 15:00	54	54					
10		15:00 - 16:00	54.5	51.1					
11		16:00 - 17:00	47.3	47.4					
12		17:00 - 18:00	46.3	46.2					
13		18:00 - 19:00	45.6	45.5					
14		19:00 - 20:00	45.4	45					
15		20:00 - 21:00	45.2	44.6					
16		21:00 - 22:00	44.1	44.3					
		Leq DAY	49.3	49.5					
1	Noise Level dB(A)Leq -Night	22:00-23:00	40.6	41	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	40.5	41.1					
3		00:00- 01:00	40.4	40.5					
4		01:00-02:00	39.7	40.1					
5		02:00-03:00	39.4	39.9					
6		03:00-04:00	40.7	41					
7		04:00-05:00	41	41.2					
8		05:00-06:00	41.3	41.1					
		Leq NIGHT	40.5	40.8					

*LDL indicates Lower Detection Limit
**All noise measurements are integrated for a 01 hour period, All units in dB(A)

Sampling Assistants ANALYSED BY	 (Gaurav Kant) REVIEWED BY	 (Amit Raj Mishra) Authorised Signatory
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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

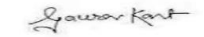
CMPDI, RI-II
 KOYLA BHAWAN COMPLEX
 DHANBAD. -826005
 Phone:0326-223-850
 email: rdri2cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		10/2024	Cluster	Cluster II			ULR No.	TC1012224000001258F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	31.12.2024	
Project		Madhuband Washery		Sample Ref. No.	REM/BCCL/2024/10	Sampling Method	CMPDI/RI-II/LPM 11 , (IS 5182)		
Date of Sampling		10.10.2024		25.10.2024	Period of Analysis	10.10.2024 TO 28.11.2024		Zone of Station:	Buffer Zone
Sl. No.	Parameter	Method Analysis	of	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009
				1st FN A2809	2nd FN A2891				
1	PM ₁₀	IS -5182(Part 23):2006, R-2017		95	137	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100
2	PM _{2.5}	IS -5182(Part 24):2019		54	68	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001 , R-2017		<10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017		31	27	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,


ANALYSED BY


 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

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Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

CMPDI, RI-II
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Test Report for Ambient Air Samples

Month & Year		10/2024	Cluster	Cluster II			ULR No.	TC1012224000001258F	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	31.12.2024	
Project		Madhuband UGP		Sample Ref. No.	REM/BCCL/2024/10	Sampling Method	CMPDI/RI-II/LPM 11 , (IS 5182)		
Date of Sampling		04.10.2024		18.10.2024	Period of Analysis	04.10.2024 TO 28.11.2024		Zone of Station:	Buffer Zone
Sl. No .	Parameter	Method of Analysis	Observed Values (in µg/m³)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009	
			1st FN A2767	2nd FN A2850					
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	93	81	10 µg/m³ - 1000 µg/m³	10 µg/m³	300	100	
2	PM _{2.5}	IS -5182(Part 24):2019	45	38	10 µg/m³ - 400 µg/m³	10 µg/m³	Not Specified	60	
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	10	<10	10 µg/m³ - 1050 µg/m³	10 µg/m³	120	80	
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	30	23	06 µg/m³ - 420 µg/m³	06 µg/m³	120	80	

**All units are in $\mu\text{g}/\text{m}^3$, 24 hourly Average * LDL indicates Lower Detection Limit,

[Signature]

ANALYSED BY

[Signature]

(Gaurav Kant)

REVIEWED BY

[Signature]

(Amit Raj Mishra)

Authorised Signatory

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CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Noise Level Test Report

CMPDIL, RI-II
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 email: rdri2cmpdi@coalindia.in

Month & Year	10/2024	Cluster	Cluster II				ULR No.	TC1012224000001292F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue	31.12.2024
Project	Madhuband Washery	Sample Ref. No.	REM/BCCL/2024/10			Sampling Method		CMPDI/RI-II/LPM 22	
			Date of Sampling	10.10.2024	25.10.2024	Zone Category of Station:		Buffer Zone	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A))	Observed Values (in Leq dB(A))	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
			First Fortnight	Second Fortnight				Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	58.4	58.5	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	47.3	44.5					
3		08:00 - 09:00	46.1	42.1					
4		09:00 - 10:00	60.3	62.8					
5		10:00 - 11:00	53.3	50.2					
6		11:00 - 12:00	47.9	47.9					
7		12:00 - 13:00	54.5	56.4					
8		13:00 - 14:00	54.2	53.2					
9		14:00 - 15:00	53.9	54.5					
10		15:00 - 16:00	46.9	51.5					
11		16:00 - 17:00	57.2	58.4					
12		17:00 - 18:00	44.9	43.9					
13		18:00 - 19:00	52.9	53.6					
14		19:00 - 20:00	56.1	58					
15		20:00 - 21:00	54.1	54.4					
16		21:00 - 22:00	52.9	53.9					
		Leq DAY	54.6	55.7					
1	Noise Level dB(A)Leq - Night	22:00-23:00	51.1	50.3	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	50.3	49.8					
3		00:00- 01:00	49.8	49.7					
4		01:00-02:00	49.7	48.7					
5		02:00-03:00	47.8	47.9					
6		03:00-04:00	47.9	48.1					
7		04:00-05:00	50	49					
8		05:00-06:00	51.7	52.7					
		Leq NIGHT	50.0	49.8					

*LDL indicates Lower Detection Limit
 **All noise measurements are integrated for a 01 hour period, All units in dB(A)

Sampling Assistants
ANALYSED BY

(Gaurav Kant)
REVIEWED BY

(Amit Raj Mishra)
Authorised Signatory

Note: The results above relate to the samples tested as received. This report can not be reproduced in part or full without the written permission of the HOD(Env) , CMPDI, RI-II.

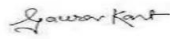
---- End of Report ----
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  cmpdi <i>A Mini Ratna Company</i> CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report CMPDI, RI-II KOYLA BHAWAN COMPLEX DHANBAD. -826005 Phone:0326-223-850 email: rdri2cmpdi@coalindia.in									
Month & Year	10/2024	Cluster	Cluster II				ULR No.	TC1012224000001292F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue	31.12.2024	
Project	Madhuband UGP		Sample Ref. No.	REM/BCCL/2024/10		Sampling Method	CMPDI/RI-II/LPM 22		
s				Date of Sampling	04.10.2024	18.10.2024	Zone Category of Station:	Buffer Zone	
Sl. No.	Parameter	Hour / Time of day	Observed Values (in Leq dB(A)) First Fortnight	Observed Values (in Leq dB(A)) Second Fortnight	Method of Analysis	Range Of Testing	LDL	NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000 Standards	
								Zones	Limits in dB
1	Noise Level dB(A)Leq - Day	06:00 - 07:00	36.8	37.3	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	75 65 55 50
2		07:00 - 08:00	39.4	38.6					
3		08:00 - 09:00	42.3	42.7					
4		09:00 - 10:00	43.4	43.2					
5		10:00 - 11:00	43.2	43.3					
6		11:00 - 12:00	42.9	42.7					
7		12:00 - 13:00	43.8	43.5					
8		13:00 - 14:00	46.8	50					
9		14:00 - 15:00	47.9	47.9					
10		15:00 - 16:00	48.3	45.4					
11		16:00 - 17:00	42	42.1					
12		17:00 - 18:00	41	40.9					
13		18:00 - 19:00	40.4	40.3					
14		19:00 - 20:00	40.3	39.9					
15		20:00 - 21:00	40.1	39.6					
16		21:00 - 22:00	39.1	39.3					
		Leq DAY	43.6	43.7					
1	Noise Level dB(A)Leq - Night	22:00-23:00	40.3	40.7	CPCB, Protocol for Ambient Level Noise Monitoring -2015	35 dB-135 dB	35 dB(A)	Industrial Commercial Residential Silence	70 55 45 50
2		23:00- 00:00	40.2	40.8					
3		00:00- 01:00	40.1	40.2					
4		01:00-02:00	39.4	39.8					
5		02:00-03:00	39.1	39.6					
6		03:00-04:00	40.4	40.7					
7		04:00-05:00	40.7	40.9					
8		05:00-06:00	41	40.8					
		Leq NIGHT	40.2	40.5					

**LDL indicates Lower Detection Limit*

***All noise measurements are integrated for a 01 hour period, All units in dB(A)*

Sampling Assistants
ANALYSED BY


 (Gaurav Kant)
REVIEWED BY


 (Amit Raj Mishra)
Authorised Signatory

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---- End of Report ----

Heavy Metal Analysis report of Ambient Air Quality

SAMPLE	Cadmium(Cd) (µg/m3)	Mercury(Hg) (µg/m3)	Arsenic(As) (ng/m3)	Chromium(Cr) (µg/m3)	Nickel (Ni) (ng/m3)	Lead (Pb) (µg/m3)
Karmatand village (A1)	<0.001	<0.001	<0.005	0.02	0.1	0.101
Damoda (A2):	<0.001	<0.001	<0.005	0.01	<0.1	0.05
Madhuband washery (A3)	<0.001	<0.001	<0.005	<0.01	<0.1	0.048
Block II OCP (A4):	<0.001	0.004	<0.005	<0.01	<0.1	0.092
Regional Hospital Baghmara (A42):	<0.001	<0.001	<0.005	0.03	<0.1	0.098

अनुमन उर्वर राखुन

Analysed By
JSA/SA/SSA

Checked By
Lab In Charge
RI-2, CMPDI, Dhanbad

अनुमन

Approved By
HOD(In-charge) Environment
RI-2, CMPDI, Dhanbad