

भारत कोकिंग कोल लिमिटेड
(कोल इण्डिया लिमिटेड की एक अनुषंगी कंपनी)
Bharat Coking Coal Limited
(A Subsidiary of Coal India Limited)
(एक विनीत कंपनी / A Miniratna Company)
(भारत सरकार का उपक्रम / A Government of India Undertaking)

Ref: BCCL/ NLW PCW/2023-24/3057

Date: 30.11.2023

To,
The Director,
IRO, Ranchi, MoEF&CC
Harmu, Jharkhand – 834002

Subject – Six monthly report on Compliance of Environmental Clearance of 5.0 MTPA Patherdih NLW Coal Washery for the period April'23 – September'23.

Ref. – Environmental Clearance Letter no. - J-11015/240/2010-IA.II(M), Dated: 25.01.2012.

Dear Sir,

Please find enclosed herewith the six- monthly report on Compliance of Environmental Clearance for the period April'23 – September'23 in respect of 5.0 MTPA Patherdih NLW Coal Washery. We hope you will find in order.

Thanking You,

Encl: - As above.

Yours faithfully

Project Officer

5.0 MTPA Patherdih NLW Coal Washery

Copy To: -

1. The Director, IA Monitoring Cell, Paryavaran Bhawan, CGO Complex, New Delhi- 110003. (via e-mail)
2. The Member Secretary, Jharkhand State Pollution Control Board, TA- Divison Building, Dhurwa, Ranchi – 834004. (via e-mail)
3. Scientist & Incharge, Zonal Office, CPCB, 5th Floor 502, House & Conclave, 1582, Rajdanga Main Road, Kolkata- 700107. (via e-mail)
4. General Manager (Ws), Washery Division.
5. General Manager (CP), Washery Division.
6. General Manager (Mining/Environment), BCCL – KoylaBhawan, Dhanbad.

ENVIRONMENTAL CLEARANCE COMPLIANCE OF 5.0 MTPA
PATHERDIH NLW COAL WASHERY

GRANTED VIDE EC No. J-11015/240/2010-IA.II(M), DATED: 25.01.2012

(APRIL '23 – SEPTEMBER '23)

<u>Sl. No.</u>	<u>Compliance Conditions</u>	<u>Compliance Status</u>
(A)	Specific Conditions:	
(i)	The capacity of the washery shall not exceed 6.5 MTPA without prior environment clearance from this Ministry.	Being Complied. Patherdih NLW coal washery will not exceed 6.5 MTPA capacity without prior EC from MoEF&CC. <i>(Production data of the washery since the beginning of its operation, i.e., April '2020 is enclosed in ANNEXURE-I).</i>
(ii)	Transport of raw coal from the identified mines of the company, washed coal from the washery to the steel plants in Durgapur, Bhilai and Bokaro and middling to TPPS and coal rejects to FBC based TPP shall be by rail mode only from the railway siding located within the premises.	Being Complied. Patherdih Railway Siding, located within the premises of the Patherdih NLW Coal Washery, is being used for transportation of Washed Coal products.
(iii)	The entire rejects from the washery shall be fully utilized 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 TPP shall be preferably located in or near Jharia Coalfields. The company shall enter into a long term MOU for utilization of the coal rejects from the washery within 3 months and also for utilization of fly ash generated from the FBC based TPP with a suitable company.	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</i> prescribed by the Ministry of Coal, Govt. of India.
(iv)	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	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 also arranges for sufficient sprinkling arrangements (fixed and mobile) on roads and all coal transfer points. <i>(Photographs of fixed water sprinklers and mobile water sprinkler are enclosed in ANNEXURE-II).</i> Regular maintenance of vehicles is being done to keep minimum source emissions.

	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 topped, monitoring for particulate matter (PM₁₀ and PM_{2.5}) 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.	Wind breakers have been installed along the boundary of the stockyard. <i>(Photographs of wind barrier installed at Rejects Stockyard are enclosed in ANNEXURE-II)</i> Green-belt with native species is being developed, 1500 saplings have been planted already and plantation drives are also carried out at regular intervals. <i>(Photographs of plantation are enclosed in ANNEXURE-III).</i>
(v)	The proponent shall implement a plan to regularly dredge River Damodar 0.5 km upstream and 1 km 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. As the Patherdih NLW Coal Washery is a Zero-Liquid Discharge Unit and is nearly 3.5 KM away from Damodar River. Therefore, no sludge or coal fines deposit and siltation is being caused by the Washery in the Damodar River.
(vi)	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 don not catch fire.	Being Complied. Raw Coal, Washed Coal and Coal Rejects are being stacked within stockyards fitted with wind breakers/ shields and adequate measures have been taken to ensure that stored Raw Coal, Washed Coal and Coal Rejects don't catch fire. <i>(Photographs of wind barrier installed at Rejects Stockyard are enclosed in ANNEXURE-II).</i>
(vii)	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 high efficiency Bag Filters & Water Sprinkling system at all crushing & coal transfer points to control fugitive emissions. <i>(Photographs of bag filter and water sprinkling are enclosed in ANNEXURE-IV).</i>
(viii)	All approach roads should 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. Black topped roads have been constructed. Presently cleaning of roads is being done manually. Avenue plantation using local species is being developed along the roads and other adequate locations within the washery premises. <i>(Photographs of plantation are enclosed in ANNEXURE-III).</i>

(ix)	The proponent shall maintain proper records of the ash 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 Rejects are being maintained every month and hereby enclosed in ANNEXURE-V.
(x)	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 rain water harvesting measures. Pressure Filter and Thickener shall be installed in the washery for water recovery and reuse.	Being Complied. Water requirement for washery is being met from the nearest mines of BCCL. Additional water requirement has been obtained by recycle/ reuse and from Rain Water Harvesting measures. Construction of infrastructure for Rain Water Harvesting is being undertaken. Also, Thickeners have been installed at the washery for water recovery and reuse in washing operations.
(xi)	The Washery unit shall be a zero- discharge facility and no wastewater shall be discharged from the washery into the drains/ natural water courses. The Washery shall be provided with a garland drain to carry/ recycle the effluent 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 from development and maintenance of green belt and in the plant operations.	Being Complied. As per plan, Washery is operating on Zero-Liquid Discharge concept and no waste water is being discharged from this unit. The washery has been provided with drains (installed with baffles) along the boundary and also, a kutchha catch drain has been constructed along the unloading section of the siding and proposal for the construction of RCC drain with settling tank at same place is under process. <i>(Photographs of drain along the unloading siding and along the boundary are enclosed in ANNEXURE-VI).</i>
(xii)	A separate storm water drain to carry water from the washery for discharge outside the premises to nallas/ streams shall be established. The storm water drains shall be regularly desilted.	Complied. A separate storm water drain installed with baffles has been constructed for discharge of storm water outside the washery premises. Also, a RCC drain with settling tank is being constructed along the unloading section of the siding in the washery. <i>(Photographs of drain along the unloading siding and along the boundary are enclosed in ANNEXURE-VI).</i>
(xiii)	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 31 st December, 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed for treatment of workshop effluents.	Being Complied. No effluents are discharged outside from the washery, as the washery operates on Zero-Liquid Discharge principle. Storage tank of Oil and Grease Trap has been constructed; and soon commissioning will be done after completion of ramp construction. <i>(Photographs of Storage tank of Oil and Grease Trap are enclosed in ANNEXURE-</i>

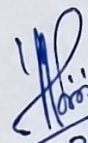
		VII).
(xiv)	Green belt shall be developed using local species all along the periphery of the site, along the areas such as the crushing unit and stockyard, transfer and loading points.	Being Complied. Development of Green-belt using local species in the periphery of site along the area of crushing unit, transfer and loading point, Stockyard, etc is being taken up. <i>(Photographs of plantation are enclosed in ANNEXURE-III).</i>
(xv)	Socio-economic and welfare measures for the local communities shall be implemented under CSR with an outlay of Rs. 2 crores and Rs. 5/T of coal as recurring expenditure. 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. The Action Plan of CSR activities by the company for FY 2023-24 is being enclosed as ANNEXURE-XIII.
(xvi)	Levels of heavy metals such as mercury in raw coal, washed coal and rejects shall be analyzed twice in a year and records maintained thereof and furnished as part of the Compliance Report to the MoEF RO, Bhubaneswar.	Being Complied. Levels of heavy metals in Coal are analyzed periodically at regular intervals. <i>(Latest report is being enclosed as ANNEXURE-VIII).</i>
(xvii)	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 onto 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 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.	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. http://www.bcclweb.in/environment/CEP_04.11.2019.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. To implement the Corporate Environment Policy, a manual for Environment Personnel is prescribed by CIL having the proper operating procedures is as follows: https://www.coalindia.in/media/documents/Guidelines_for_Environmental_Personnel_in_Mines_20092016_hAukCHt.pdf In addition, status of Environment Management is reported to the BCCL Board every quarter. Monitoring is being done by CMPDIL. CMPDIL has a laboratory accredited by NABL.

(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 the buffer zone for monitoring PM ₁₀ , PM _{2.5} , SO ₂ and NO _x . Locations 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 PM ₁₀ , PM _{2.5} , SO ₂ and NO _x have been established in the core zone and buffer zone. Also, Routine Environment Monitoring is being carried out fortnightly and monitoring of heavy metals is being carried out every six months by CMPDIL, which has NABL accredited laboratory. <i>(Monitoring Reports are enclosed in ANNEXURE-IX).</i>
(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 analyzed through a laboratory recognized under EP Rules, 1986.	Being Complied. Four ambient air monitoring stations for monitoring of PM ₁₀ , PM _{2.5} , SO ₂ and NO _x have been established in the core zone and buffer zone. Presently, CMPDIL Dhanbad is carrying out regular monitoring of environmental quality work. <i>(Monitoring Reports are enclosed in ANNEXURE-IX).</i>
(iv)	Data on ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x and heavy metals such as Hg, As, Ni, Cr, etc.) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar 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 recognized under the EP Rules, 1986 shall be furnished as part of the compliance report.	Being Complied. Four ambient air monitoring stations for monitoring of PM ₁₀ , PM _{2.5} , SO ₂ and NO _x have been established in the core zone and buffer zone. Also, Routine Environment Monitoring is being carried out fortnightly and monitoring of heavy metals is being carried out every six months by CMPDIL having own laboratory recognized under EPA Rules, 1986. The monitoring reports are sent to the Ministry, its Regional Office, CPCB & JSPCB every six months along with the six-monthly EC Compliance report.
(v)	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc. shall be provided with ear plugs/ muffs.	Being Complied. Monitoring is being done by CMPDIL, which has NABL accredited laboratory. <i>(Monitoring Reports are enclosed in ANNEXURE-IX).</i>
(vi)	Personnel working in dusty area shall wear protective respiratory devices and they shall also be provided with adequate training and	Being Complied. As per Safety Policy of the Company, necessary protective respiratory devices are

	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.	provided to the workmen working in dusty conditions. As per Company's Policy, periodic PME of all the workmen is arranged by the company and corrective measures are taken accordingly.
(vii)	A separate environmental management cell with suitable qualified personnel shall be set up under 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. Further capacity building. Environment Management Cell, which looks after all the matters related to the statutory compliances, has been constituted at the washery.
(viii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be delivered for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office, Bhubaneswar.	Being Complied. 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.

(ix)	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 & Forest at http://envfor.nic.in .	Complied. The Washery has already advertised the EC in local newspapers for wide circulation dated: 01.03.2012 in local daily newspapers Prabhat Khabar and Dainik Jagran.
(x)	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 Councilor, Municipal Corporation. A copy of the Environmental Clearance has also been displayed on the Company's website. A copy of the Environmental Clearance duly received by the local Ward Councilor is enclosed as ANNEXURE-X.
(xi)	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.
(xii)	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 PM ₁₀ , PM _{2.5} , SO ₂ and NO _x (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 Environmental Clearance letter has been uploaded on the Company's website. Compliance status is also regularly uploaded on the Company's website every six months. Environment Monitoring Report (Air, Water, Noise and Soil) are also displayed on the Company's website. Monitoring data of environmental quality parameters has been displayed at the project office and being updated regularly. (<i>Photograph of the display board is enclosed as ANNEXURE-XI.</i>)
(xiii)	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	Being Complied.

	CPCB and the SPCB.	
(xiv)	The Regional Office of this Ministry located at 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.
(xv)	The environmental statement for each financial year ending 31 st 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&CC by e-mail.	Being Complied. A copy of the Environment Statement is enclosed as ANNEXURE-XII.


30.11.23

Project Officer
5.0 MTPA Patherdih NLW Coal Washery

5.0 MTPA Patherdih NLW Coal Washery					
Year Wise Production Report					
Year	Raw Coal Feed (in MT)	Washed Coal Produced (in MT)	Washed Power Coal Produced (in MT)	Slurry Produced (in MT)	Reject Produced (in MT)
FY 2020-2021	488413.57	58720.97	293868.06	NIL	158978.46
FY 2021-2022	1073692	125237	643893.48	NIL	332694.37
FY 2022-2023	1420056	146490	948926.73	NIL	381974.94

P. Singh.
Project Officer

5.0 MTPA NLW PCW

30/05/2023
PROJECT OFFICER
5.0 MTPA PATHERDIH
NLW WASHERY, PATHERDIH (BCCL)

ANNEXURE-II

DUST SUPPRESSION THROUGH WATER SPRINKLING BY MOBILE WATER SPRINKLER AT 5.0 MTPA PATHERDIH NLW COAL WASHERY



**DUST SUPPRESSION THROUGH WATER SPRINKLING BY FIXED-TYPE
WATER SPRINKLERS AT 5.0 MTPA PATHERDIH NLW COAL WASHERY**



WIND BARRIER INSTALLED AROUND REJECTS STOCKYARD AT 5.0 MTPA
PATHERDIH NLW COAL WASHERY



ANNEXURE-III

AVENUE PLANTATION ALONG THE APPROACH ROAD



AVENUE PLANTATION ALONG THE INTERNAL ROAD



PLANTATION ALONG THE PERIPHERY OF THE WASHERY



SNEH- SMRITI UPVAN WITH FRUIT-BEARING PLANTS IN THE WASHERY



3- TIER PLANTATION WITHIN THE WASHERY



ANNEXURE-IV

BAG FILTER IN OPERATION AT 5.0 MTPA PATHERDIH NLW COAL WASHERY



**WATER SPRINKLING IN CONVEYOR BELT CARRYING RAW COAL AT
5.0 MTPA PATHERDIH NLW COAL WASHERY**



DUST SUPPRESSION ARRANGEMENT OVER THE HOPPER AREA



Geocool Engineering Pvt Ltd

Janki Complex, Bara Jamua, Barwadda

Dhanbad, Jharkhand Pin- 826004

Patherdih Coal Washery Date Wise Quantity & Quality Test Report of Raw Coal Received From Rake

Name of Client	Patherdih Washery BCCL
Cargo	COAL
MONTH	April'23

RAW COAL - (RAKE)

DATE OF SAMPLING	QTY (MT)	RAKE NO.	Source	TM %	ADB				
					ASH %	M %	VM %	FC %	GCV Kcal/Kg
1-Apr-23	3569.70	01	JGB-06	3.64	51.41	1.11	14.14	33.34	3521
	4182.10	02	Sujua	3.41	50.01	1.07	13.70	35.22	3648
2-Apr-23	4003.00	03	Sijua	3.45	50.06	1.12	14.05	34.77	3653
3-Apr-23	0.00	...	...	...	...	...	...	...	...
4-Apr-23	4021.00	04	JGB-06	3.04	48.80	1.15	12.95	37.10	3810
	4055.00	05	JGB-06	3.09	50.19	1.09	12.99	35.73	3652
5-Apr-23	3852.90	06	Sijua	3.11	45.11	1.12	14.14	39.63	4224
	4060.00	07	JGB-06	3.07	44.32	1.09	14.02	40.57	4438
6-Apr-23	4060.00	08	JGB-06	3.05	49.33	1.15	14.08	35.44	3734
7-Apr-23	4016.00	09	JGB-06	3.01	50.12	0.93	11.60	37.35	3757
8-Apr-23	3735.00	10	JGB-06	3.08	45.98	1.08	13.90	39.04	4167
9-Apr-23	3601.00	11	Sijua	3.02	48.48	0.94	12.11	38.47	3843
	3942.60	12	Sijua	3.09	47.05	1.07	12.54	39.34	4047
10-Apr-23	4060.00	13	JGB-06	3.15	46.32	1.16	12.46	40.06	4086
11-Apr-23	3640.00	14	JGB-06	3.1	46.42	0.92	13.1	39.56	4046
12-Apr-23	4189.00	15	Sijua	3.05	48.98	0.89	11.63	38.50	3890
12-Apr-23	3806.00	16	Sijua	3.03	48.93	1.16	10.74	39.17	3697
13-Apr-23	4092.90	17	Sijua	3.02	50.67	1.07	12.13	36.13	3659
14-Apr-23	3593.40	18	Sijua	3.05	50.81	0.82	11.47	36.90	3708
	4025.70	19	KGCK	3.06	44.24	1.17	13.1	41.49	4347
15-Apr-23	4046.30	20	Sijua	3.04	50.78	0.95	11.63	36.64	3717
16-Apr-23	4128.50	21	Sijua	3.07	46.46	0.76	9.35	43.43	3965
17-Apr-23	0.00	...	...	...	...	...	...	...	...
18-Apr-23	3944.00	22	Sijua	3.01	45.81	1.06	11.72	41.41	4106
19-Apr-23	0.00	...	...	...	...	...	...	...	...
20-Apr-23	3744.50	23	Sijua	3.03	45.23	1.09	12.87	40.81	4058
	3982.40	24	Bansjora	3.1	46.38	1.01	13.61	39.00	4007
21-Apr-23	3613.40	25	Sijua	3.06	39.72	1.14	14.26	44.88	4642
22-Apr-23	3876.00	26	KGCK	3.02	49.04	1.08	12.67	37.21	3778
23-Apr-23	0.00	...	...	...	...	...	...	...	...
24-Apr-23	3839.40	27	Sijua	3.09	49.88	1.09	11.71	37.32	3690
25-Apr-23	3829.20	28	Sijua	3.05	47.50	1.16	13.28	38.06	3911
25-Apr-23	4033.10	29	KDSK	3.03	44.85	1.03	13.32	40.80	4177



Geocoal Engineering Pvt Ltd

Janki Complex, Bara Jamua, Barwadda

Dhanbad, Jharkhand Pin- 826004

Patherdih Coal Washery Date Wise Quantity & Quality Test Report of Raw Coal Received From Rake

Name of Client					Patherdih Washery BCCL				
Cargo					COAL				
MONTH					May'23				
RAW COAL - (RAKE)									
DATE OF SAMPLING	QTY (MT)	RAKE NO.	Source	TM %	ADB				
					ASH %	M %	VM %	FC %	GCV Kcal/Kg
1-May-23	3983.80	01	KGCK	3.05	49.12	1.04	13.08	36.76	3748
2-May-23	3833.10	02	Sijua	3.08	43.90	1.02	11.25	43.83	4241
3-May-23	4187.00	03	KGCK	3.06	47.32	1.07	13.21	38.40	3946
4-May-23	3865.60	04	KGCK	3.10	49.06	0.87	12.17	37.90	3782
5-May-23	4118.00	05	KGCK	3.11	48.24	0.87	11.84	39.05	3798
6-May-23	3971.70	06	Sijua	3.14	48.10	0.97	10.68	40.25	3856
7-May-23	4010.70	07	Basnjora	3.05	42.85	1.13	12.24	43.78	4298
	3911.30	08	Sijua	3.09	48.77	1.16	10.18	39.89	3717
8-May-23	3987.00	09	KGCK	3.13	45.27	1.14	13.06	40.53	4054
9-May-23	3924.50	10	KGCK	3.07	50.38	0.93	11.80	36.89	3679
10-May-23	3841.70	11	KDSK	3.03	45.59	0.83	12.08	41.50	4122
11-May-23	3945.50	12	KGCK	3.08	45.54	1.09	13.70	39.67	4095
12-May-23	3954.20	13	Sijua	3.01	50.72	0.71	11.90	36.67	3649
	3949.40	14	KGCK	3.03	50.68	0.76	12.19	36.37	3658
13-May-23	3897.50	15	Bansjora	3.05	48.19	0.89	12.85	38.07	3857
	4023.60	16	Sijua	3.11	43.74	0.82	11.36	44.08	4287
14-May-23	2815.90	17	KGCK	3.15	47.93	1.07	13.11	37.89	3883
15-May-23	3969.50	18	KDS-02	3.09	49.01	1.10	12.15	37.74	3805
16-May-23	4068.20	19	KDSK	3.03	44.28	0.80	12.02	42.90	4225
17-May-23	0.00	...	...	...	...	...	...	...	...
18-May-23	4057.00	20	KGCK	3.05	46.90	1.03	13.07	39.00	3937
	3964.40	21	KDSK	3.03	45.45	1.11	12.33	41.11	4104
19-May-23	0.00	...	...	...	...	...	...	...	...
20-May-23	0.00	...	...	...	...	...	...	...	...
21-May-23	0.00	...	...	...	...	...	...	...	...
22-May-23	0.00	...	...	...	...	...	...	...	...



Geocoal Engineering Pvt Ltd
Janki Complex, Bara Jamua, Barwadda
Dhanbad, Jharkhand Pin- 826004

**Patherdih Coal Washery Date Wise Quantity & Quality Test Report of
Raw Coal Received From Rake**

Name of Client					Patherdih Washery BCCL				
Cargo					COAL				
MONTH					June'23				
RAW COAL - (RAKE)									
DATE OF SAMPLING	QTY (MT)	RAKE NO.	Source	TM %	ADB				
					ASH %	M %	VM %	FC %	GCV Kcal/Kg
1-Jun-23	0.00	...	...	...	...	...	...	...	...
2-Jun-23	0.00	...	...	...	...	...	...	...	...
3-Jun-23	0.00	...	...	...	...	...	...	...	...
4-Jun-23	0.00	...	...	...	...	...	...	...	...
5-Jun-23	0.00	...	...	...	...	...	...	...	...
6-Jun-23	0.00	...	...	...	...	...	...	...	...
7-Jun-23	0.00	...	...	...	...	...	...	...	...
8-Jun-23	0.00	...	...	...	...	...	...	...	...
9-Jun-23	0.00	...	...	...	...	...	...	...	...
10-Jun-23	0.00	...	...	...	...	...	...	...	...
11-Jun-23	0.00	...	...	...	...	...	...	...	...
12-Jun-23	0.00	...	...	...	...	...	...	...	...
13-Jun-23	0.00	...	...	...	...	...	...	...	...
14-Jun-23	3754.90	01	Sijua	3.08	45.07	1.14	10.83	42.96	4147
15-Jun-23	0.00	...	...	...	...	...	...	...	...
16-Jun-23	4020.00	02	JGB-06	3.03	49.41	1.11	12.44	37.04	3746
17-Jun-23	4047.00	03	Bansjora	3.05	49.73	1.07	12.39	36.81	3689
18-Jun-23	0.00	...	...	...	...	...	...	...	...
19-Jun-23	3799.00	04	Sijua	3.11	50.47	1.12	12.56	35.85	3645
20-Jun-23	0.00	...	...	...	...	...	...	...	...
21-Jun-23	3409.00	05	Sijua	3.09	51.24	1.05	11.14	36.57	3570
22-Jun-23	3662.00	06	KGCK	3.03	47.71	1.13	12.37	38.79	3952
23-Jun-23	4028.90	07	Sijua	3.12	41.67	1.13	13.21	43.99	4463
24-Jun-23	4026.00	08	JGB-06	3.08	42.77	1.15	12.84	43.24	4354
	3553.20	09	Sijua	3.05	48.26	1.10	12.37	38.27	3860
25-Jun-23	0.00	...	...	...	...	...	...	...	...

Himanshu Dubey

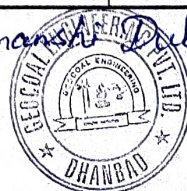


Geocoal Engineering Pvt Ltd
Janki Complex, Bara Jamua, Barwadda
Dhanbad, Jharkhand Pin- 826004

**Patherdih Coal Washery Date Wise Quantity & Quality Test Report of
Raw Coal Received From Rake**

Name of Client					Patherdih Washery BCCL				
Cargo					COAL				
MONTH					July'23				
RAW COAL - (RAKE)									
DATE OF SAMPLING	QTY (MT)	RAKE NO.	Source	TM %	ADB				
					ASH %	M %	VM %	FC %	GCV Kcal/Kg
1-Jul-23	3819.20	01	Sijua	3.07	41.94	1.03	13.14	43.89	4429
2-Jul-23	0.00	...	...	...	...	...	...	...	...
3-Jul-23	4069.00	02	KGCK	3.06	49.97	1.13	12.88	36.02	3687
	3846.50	03	KGCK	3.10	45.18	1.08	13.06	40.68	4133
4-Jul-23	3933.90	04 (A) 42 Box	JGB-09	3.08	48.81	1.12	13.71	36.36	3787
5-Jul-23	0.00	...	...	...	...	...	...	...	...
6-Jul-23	0.00	...	...	...	...	...	...	...	...
7-Jul-23	0.00	...	...	...	...	...	...	...	...
8-Jul-23	0.00	...	...	...	...	...	...	...	...
9-Jul-23	0.00	...	...	...	...	...	...	...	...
10-Jul-23	0.00	...	...	...	...	...	...	...	...
11-Jul-23	0.00	...	...	...	...	...	...	...	...
12-Jul-23	0.00	04 (B) 15 Box	JGB-09	3.11	49.83	1.16	14.31	34.70	3690
13-Jul-23	3836.90	05	JGB-06	3.06	48.72	1.05	13.64	36.59	3876
14-Jul-23	3813.10	06	JGB-09	3.08	45.08	1.13	14.56	39.23	4130
15-Jul-23	3728.40	07	JGB-09	3.10	43.21	1.17	14.39	41.23	4307
16-Jul-23	3990.00	08	JGB-09	3.07	44.74	1.09	13.72	40.45	4162
16-Jul-23	3713.70	09	JGB-06	3.05	46.99	1.13	13.37	38.51	3951
17-Jul-23	3918.70	10	JGB-09	3.11	45.50	1.03	12.57	40.90	4092
18-Jul-23	3918.40	11	JGB-09	3.09	49.30	1.15	13.90	35.65	3743
19-Jul-23	4031.00	12	JGB-09	3.12	50.05	1.11	12.81	36.03	3664
20-Jul-23	3861.20	13	JGB-09	3.10	50.21	1.10	11.68	37.01	3658
21-Jul-23	3324.60	15	JGB-09	3.13	51.12	1.16	13.23	34.49	3581
	3917.30	14	JGB-06	3.11	46.15	1.11	13.91	38.83	4038
22-Jul-23	0.00	...	...	...	...	...	...	...	...
23-Jul-23	0.00	...	...	...	...	...	...	...	...

Himanshu Dubey



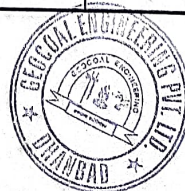
Geocoal Engineering Pvt Ltd

Janki Complex, Bara Jamua, Barwadda

Dhanbad, Jharkhand Pin- 826004

Patherdih Coal Washery Date Wise Quantity & Quality Test Report of Raw Coal Received From Rake

Name of Client					Patherdih Washery BCCL				
Cargo					COAL				
MONTH					August'23				
RAW COAL - (RAKE)									
DATE OF SAMPLING	QTY (MT)	RAKE NO.	Source	TM %	ADB				
					ASH %	M %	VM %	FC %	GCV Kcal/Kg
1-Aug-23	3805.00	01	Sijua	3.09	44.20	1.01	14.22	40.57	4229
2-Aug-23	3974.60	02	JGB-09	3.11	47.96	0.89	12.38	38.77	3884
2-Aug-23	3921.40	03	Sijua	3.10	47.31	0.73	13.66	38.30	3988
3-Aug-23	3823.80	04	JGB-09	3.13	46.91	0.76	13.17	39.16	3991
4-Aug-23	3751.20	05	JGB-09	3.08	48.94	0.92	13.07	37.07	3825
	3964.80	06	JGB-09	3.12	48.55	0.72	14.27	36.46	3879
5-Aug-23	3898.00	07	JGB-06	3.06	48.93	0.84	13.31	36.92	3787
6-Aug-23	0.00	...	...	...	...	...	...	...	...
7-Aug-23	0.00	...	...	...	...	...	...	...	...
8-Aug-23	0.00	...	...	...	...	...	...	...	...
9-Aug-23	3849.50	08	JGB-06	3.09	47.60	0.86	13.56	37.98	3912
10-Aug-23	4038.00	09	JGB-06	3.12	46.83	0.95	13.94	38.28	3982
11-Aug-23	3992.80	10	JGB-06	3.08	46.09	0.87	12.47	40.57	4056
12-Aug-23	3852.00	11	Sijua	3.15	49.38	0.82	11.82	37.98	3731
13-Aug-23	4055.00	12	JGB-06	3.13	43.36	0.95	13.47	42.22	4284
	4064.00	13	JGB-09	3.16	43.17	0.86	14.68	41.29	4337
14-Aug-23	3978.30	14	Bansjora	3.18	50.18	0.92	12.51	36.39	3662
15-Aug-23	3934.80	16	KGCK	3.13	46.97	0.78	14.46	37.79	3976
15-Aug-23	4008.70	15	JGB-06	3.28	47.59	0.74	13.42	38.25	3920
16-Aug-23	3737.20	17	JGB-09	3.25	40.60	1.11	15.66	42.63	4557
17-Aug-23	4141.00	18	JGB-06	3.26	42.61	0.85	14.38	42.16	4384
	3793.40	19	JGB-09	3.23	47.24	0.97	14.62	37.17	3980
18-Aug-23	4071.60	20	JGB-06	3.37	47.15	0.87	13.82	38.16	3958
19-Aug-23	3455.10	21	JGB-09	3.40	45.43	0.91	15.05	38.61	4102
20-Aug-23	3800.00	22	JGB-09	3.35	41.85	1.09	14.60	42.46	4449
	3954.80	23	JGB-09	3.38	43.14	0.97	15.41	40.48	4335



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Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Coal

of Client	Patherdih Coal Washery BCCL
MONTH	Apr-23

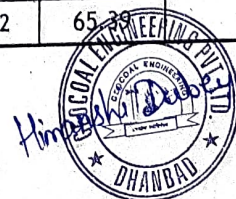
Wash Coal (BC-15D)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Apr-23	2-Apr-23	...	A	...	...	...	...	...	380.00
		PCW/WC/0372	B	8.78	18.81	1.17	18.79	61.23	
		PCW/WC/0373	C	8.91	19.06	1.10	18.31	61.53	
2-Apr-23	3-Apr-23	PCW/WC/0374	A	8.94	18.86	1.15	18.13	61.86	500.00
		PCW/WC/0375	B	8.99	20.31	1.13	17.34	61.22	
		PCW/WC/0376	C	8.86	20.09	1.17	17.26	61.48	
3-Apr-23	4-Apr-23	...	A	...	...	...	...	...	500.00
		PCW/WC/0377	B	8.71	18.61	1.14	17.77	62.48	
		PCW/WC/0378	C	8.87	18.89	1.18	16.59	63.34	
4-Apr-23	5-Apr-23	PCW/WC/0379	A	8.91	18.52	1.14	17.70	62.64	420.00
		...	B	...	...	...	...	...	
		PCW/WC/0380	C	8.95	19.33	1.66	17.46	61.55	
5-Apr-23	6-Apr-23	PCW/WC/0381	A	8.99	19.91	1.16	16.39	62.54	800.00
		PCW/WC/0382	B	8.86	18.32	1.14	17.20	63.34	
		PCW/WC/0383	C	8.91	20.95	1.12	16.82	61.11	
6-Apr-23	7-Apr-23	PCW/WC/0384	A	8.81	19.87	1.16	17.55	61.42	320.00
		PCW/WC/0385	B	8.73	18.49	1.09	17.30	63.12	
		PCW/WC/0386	C	8.86	18.99	1.18	17.27	62.56	
7-Apr-23	8-Apr-23	...	A	...	...	...	...	...	350.00
		PCW/WC/0387	B	8.92	18.10	1.17	16.62	64.11	
		PCW/WC/0388	C	8.87	18.77	1.16	16.60	63.47	
8-Apr-23	9-Apr-23	...	A	...	...	...	...	...	320.00
		PCW/WC/0389	B	8.74	18.17	1.19	17.48	63.16	
		PCW/WC/0390	C	8.95	19.94	1.15	16.68	62.23	
9-Apr-23	10-Apr-23	...	A	...	...	...	...	...	400.00
		PCW/WC/0391	B	8.81	20.85	1.17	16.15	61.83	
		PCW/WC/0392	C	8.95	19.73	0.84	13.09	66.34	
10-Apr-23	11-Apr-23	...	A	...	...	...	...	...	445.00
		PCW/WC/0393	B	8.79	18.69	1.19	15.97	64.15	
		PCW/WC/0394	C	8.88	19.24	1.21	15.37	64.18	
11-Apr-23	12-Apr-23	...	A	...	...	...	...	...	300.00
		PCW/WC/0395	B	8.72	18.26	1.12	16.91	63.71	
		PCW/WC/0396	C	8.85	19.63	1.09	16.24	64.08	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Coal

Name of Client		Patherdih Coal Washery BCCL							
MONTH		May-23							
Wash Coal (BC-15D)									
Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-May-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-May-23	3-May-23	GCEPL/LAB/D/0430	A	8.77	18.21	1.15	15.93	64.71	700.00
		GCEPL/LAB/D/0431	B	8.84	18.93	1.17	14.48	65.42	
		GCEPL/LAB/D/0432	C	8.73	19.29	1.18	15.52	64.01	
3-May-23	4-May-23	GCEPL/LAB/D/0433	A	8.85	19.35	1.14	15.32	64.19	430.00
		GCEPL/LAB/D/0434	B	8.89	18.43	1.12	15.48	64.97	
		GCEPL/LAB/D/0435	C	8.71	18.50	1.09	15.92	64.49	
4-May-23	5-May-23	...	A	...	...	...	...	...	380.00
		GCEPL/LAB/D/0436	B	8.67	19.62	1.10	15.42	63.86	
		GCEPL/LAB/D/0437	C	8.74	18.86	1.02	15.56	64.56	
5-May-23	6-May-23	...	A	...	...	...	...	...	320.00
		...	B	...	...	...	...	...	
		GCEPL/LAB/D/0438	C	8.88	18.33	1.08	15.30	65.29	
6-May-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-May-23	8-May-23	GCEPL/LAB/D/0439	A	8.76	18.83	1.05	15.24	64.88	660.00
		GCEPL/LAB/D/0440	B	8.85	21.29	0.98	14.94	62.79	
		GCEPL/LAB/D/0441	C	8.69	19.33	1.07	14.41	65.19	
8-May-23	9-May-23	GCEPL/LAB/D/0442	A	8.83	19.27	1.11	14.03	65.59	430.00
		GCEPL/LAB/D/0443	B	8.77	19.65	1.03	14.98	64.34	
		GCEPL/LAB/D/0444	C	8.81	21.77	1.14	15.17	61.92	
9-May-23	10-May-23	...	A	...	...	...	...	...	690.00
		GCEPL/LAB/D/0445	B	8.79	18.26	1.08	15.40	65.26	
		GCEPL/LAB/D/0446	C	8.86	20.09	1.18	14.80	63.93	
10-May-23	11-May-23	GCEPL/LAB/D/0447	A	8.84	20.33	1.03	14.30	64.34	115.00
		...	B	...	...	...	...	...	
		GCEPL/LAB/D/0448	C	8.89	21.74	1.10	14.08	63.08	
11-May-23	12-May-23	...	A	...	...	...	...	...	625.00
		GCEPL/LAB/D/0449	B	8.74	20.13	1.02	15.15	63.70	
		GCEPL/LAB/D/0450	C	8.81	19.42	1.07	14.12	65.29	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Coal

of Client

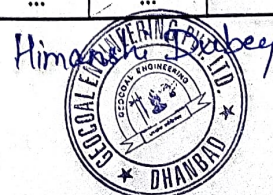
Patherdih Coal Washery BCCL

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Jun-23

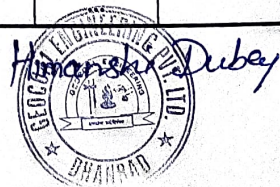
Wash Coal (BC-15D)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
4-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
5-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
8-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
9-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
10-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
11-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Coal

Name of Client		Patherdih Coal Washery BCCL							
MONTH		Jul-23							
Wash Coal (BC-15D)									
Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Jul-23	2-Jul-23	GCEPL/LAB/D/0497	A	8.81	22.17	1.18	14.37	62.28	590.00
		GCEPL/LAB/D/0498	B	8.76	20.10	1.12	15.20	63.58	
		GCEPL/LAB/D/0499	C	8.90	19.78	1.17	14.59	64.46	
2-Jul-23	3-Jul-23	GCEPL/LAB/D/0500	A	8.87	19.61	1.15	16.19	63.05	170.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Jul-23	4-Jul-23	...	A	...	...	...	...	...	360.00
		...	B	...	...	...	...	...	
		GCEPL/LAB/D/0501	C	8.73	19.35	1.17	15.91	63.57	
4-Jul-23	5-Jul-23	GCEPL/LAB/D/0502	A	8.71	19.43	1.15	15.58	63.84	710.00
		GCEPL/LAB/D/0503	B	8.83	19.24	1.13	16.49	63.14	
		GCEPL/LAB/D/0504	C	8.89	20.08	1.19	16.54	62.19	
5-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
8-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
9-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
10-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Coal

Name of Client		Patherdih Coal Washery BCCL							
MONTH		Aug-23							
Wash Coal (BC-15D)									
Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Aug-23	2-Aug-23	GCEPL/LAB/D/0542	A	9.82	21.09	1.14	17.37	60.40	70.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
4-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
5-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Aug-23	8-Aug-23	...	A	...	...	...	...	...	310.00
		GCEPL/LAB/D/0543	B	9.88	20.27	1.13	17.06	61.54	
		GCEPL/LAB/D/0544	C	9.75	21.99	1.10	16.41	60.50	
8-Aug-23	9-Aug-23	GCEPL/LAB/D/0545	A	9.91	20.52	1.13	16.48	61.87	710.00
		GCEPL/LAB/D/0546	B	9.87	23.07	1.11	17.07	58.75	
		GCEPL/LAB/D/0547	C	9.81	23.15	1.19	15.49	60.17	
9-Aug-23	10-Aug-23	GCEPL/LAB/D/0548	A	9.99	22.08	1.10	17.84	58.98	670.00
		GCEPL/LAB/D/0549	B	9.76	23.12	1.17	16.82	58.89	
		GCEPL/LAB/D/0550	C	9.85	21.34	1.12	16.65	60.89	
10-Aug-23	11-Aug-23	...	A	...	...	...	...	...	610.00
		GCEPL/LAB/D/0551	B	9.87	22.40	1.13	17.15	59.32	
		GCEPL/LAB/D/0552	C	9.71	22.71	1.18	16.97	59.14	



Himanshi Dubey

Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Power Coal

Name of Client	Patherdih Coal Washery BCCL
MONTH	Apr-23

Wash Power Coal (BC-16C)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Apr-23	2-Apr-23	...	A	...	...	...	...	...	3220.00
		PCW/WPC/0372	B	9.73	46.76	1.14	14.05	38.05	
		PCW/WPC/0373	C	9.89	45.54	1.02	13.25	40.19	
2-Apr-23	3-Apr-23	PCW/WPC/0374	A	9.68	46.03	1.16	13.74	39.07	4060.00
		PCW/WPC/0375	B	9.71	45.87	1.12	12.46	40.55	
		PCW/WPC/0376	C	9.77	46.10	1.05	13.44	39.41	
3-Apr-23	4-Apr-23	...	A	...	...	...	...	...	3920.00
		PCW/WPC/0377	B	9.64	44.51	1.13	15.06	39.30	
		PCW/WPC/0378	C	9.78	45.18	1.17	12.31	41.34	
4-Apr-23	5-Apr-23	PCW/WPC/0379	A	9.67	46.69	1.07	13.59	38.65	3650.00
		...	B	...	...	...	...	...	
		PCW/WPC/0380	C	9.76	45.77	1.04	12.82	40.37	
5-Apr-23	6-Apr-23	PCW/WPC/0381	A	9.80	45.56	0.98	12.39	41.07	7050.00
		PCW/WPC/0382	B	9.73	46.47	1.10	11.89	40.54	
		PCW/WPC/0383	C	9.88	45.92	1.07	12.84	40.17	
6-Apr-23	7-Apr-23	PCW/WPC/0384	A	9.77	46.60	1.11	13.90	38.39	2700.00
		PCW/WPC/0385	B	9.82	45.35	1.17	13.79	39.69	
		PCW/WPC/0386	C	9.75	45.59	1.12	13.58	39.71	
7-Apr-23	8-Apr-23	...	A	...	...	...	...	...	4170.00
		PCW/WPC/0387	B	9.84	46.70	1.09	13.65	38.56	
		PCW/WPC/0388	C	9.72	45.53	1.10	13.72	39.65	
8-Apr-23	9-Apr-23	...	A	...	...	...	...	...	3730.00
		PCW/WPC/0389	B	9.91	46.22	1.02	13.31	39.45	
		PCW/WPC/0390	C	9.80	46.87	1.15	13.02	38.96	
9-Apr-23	10-Apr-23	...	A	...	...	...	...	...	3400.00
		PCW/WPC/0391	B	9.76	46.92	1.02	10.23	41.83	
		PCW/WPC/0392	C	9.84	47.51	1.05	12.64	38.80	
10-Apr-23	11-Apr-23	...	A	...	...	...	...	...	4135.00
		PCW/WPC/0393	B	9.88	45.20	1.19	12.01	41.60	
		PCW/WPC/0394	C	9.93	46.57	1.14	12.22	40.07	
11-Apr-23	12-Apr-23	...	A	...	...	...	...	...	3600.00
		PCW/WPC/0395	B	9.80	45.69	1.03	13.10	40.18	
		PCW/WPC/0396	C	9.71	46.28	0.91	13.35	39.46	

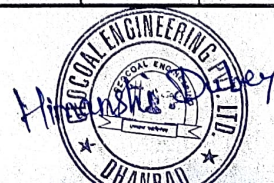


Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Power Coal

Name of Client	Patherdih Coal Washery BCCL
MONTH	May-23

Wash Power Coal (BC-16C)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-May-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-May-23	3-May-23	GCEPL/LAB/E/0430	A	9.57	47.35	1.13	12.10	39.42	6470.00
		GCEPL/LAB/E/0431	B	9.68	47.50	1.09	10.40	41.01	
		GCEPL/LAB/E/0432	C	9.61	48.83	1.15	12.16	37.86	
3-May-23	4-May-23	GCEPL/LAB/E/0433	A	9.78	48.39	0.76	12.76	38.09	3430.00
		GCEPL/LAB/E/0434	B	9.83	48.10	0.87	12.67	38.36	
		GCEPL/LAB/E/0435	C	9.76	47.24	0.93	13.80	38.03	
4-May-23	5-May-23	...	A	...	...	...	...	...	3070.00
		GCEPL/LAB/E/0436	B	9.68	47.35	0.82	12.59	39.24	
		GCEPL/LAB/E/0437	C	9.73	48.15	0.90	12.45	38.50	
5-May-23	6-May-23	...	A	...	...	...	...	...	2700.00
		...	B	...	...	...	...	...	
		GCEPL/LAB/E/0438	C	9.81	47.29	1.06	11.80	39.85	
6-May-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-May-23	8-May-23	GCEPL/LAB/E/0439	A	9.88	47.51	1.03	10.20	41.26	5570.00
		GCEPL/LAB/E/0440	B	9.71	48.08	0.94	10.66	40.32	
		GCEPL/LAB/E/0441	C	9.76	47.42	0.84	11.73	40.01	
8-May-23	9-May-23	GCEPL/LAB/E/0442	A	9.75	48.27	0.96	12.61	38.16	3220.00
		GCEPL/LAB/E/0443	B	9.89	48.50	1.02	11.07	39.41	
		GCEPL/LAB/E/0444	C	9.80	47.75	0.86	11.16	40.23	
9-May-23	10-May-23	...	A	...	...	...	...	...	4810.00
		GCEPL/LAB/E/0445	B	9.91	48.60	1.04	12.20	38.16	
		GCEPL/LAB/E/0446	C	9.82	47.13	0.80	10.54	41.53	
10-May-23	11-May-23	GCEPL/LAB/E/0447	A	9.77	46.02	0.86	11.6	41.52	770.00
		...	B	...	...	...	...	...	
		GCEPL/LAB/E/0448	C	9.86	47.21	0.91	11.65	40.23	
11-May-23	12-May-23	...	A	...	...	...	...	...	4160.00
		GCEPL/LAB/E/0449	B	9.90	47.27	0.92	12.21	39.60	
		GCEPL/LAB/E/0450	C	9.84	48.67	1.03	12.52	37.78	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Power Coal

Name of Client

Patherdih Coal Washery BCCL

NTH

Jun-23

Wash Power Coal (BC-16C)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
4-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
5-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
8-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
9-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
10-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
11-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Power Coal

Name of Client		Patherdih Coal Washery BCCL							
MONTH		Jul-23							
Wash Power Coal (BC-16C)									
Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Jul-23	2-Jul-23	GCEPL/LAB/E/0497	A	9.76	47.23	1.06	12.47	39.24	4810.00
		GCEPL/LAB/E/0498	B	9.81	48.91	1.11	11.25	38.73	
		GCEPL/LAB/E/0499	C	9.88	45.56	1.05	11.69	41.70	
2-Jul-23	3-Jul-23	GCEPL/LAB/E/0500	A	9.69	46.09	1.14	13.93	38.84	1155.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Jul-23	4-Jul-23	...	A	...	...	...	...	...	2345.00
		...	B	...	...	...	...	...	
		GCEPL/LAB/E/0501	C	9.84	45.08	1.06	13.62	40.24	
4-Jul-23	5-Jul-23	GCEPL/LAB/E/0502	A	9.77	45.59	1.11	12.84	40.46	5140.00
		GCEPL/LAB/E/0503	B	9.86	48.42	1.08	13.53	36.97	
		GCEPL/LAB/E/0504	C	9.79	49.14	1.13	12.95	36.78	
5-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
8-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
9-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
10-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	

Himanshu Dey



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Wash Power Coal

Name of Client

Patherdih Coal Washery BCCL

MONTH

Aug-23

Wash Power Coal (BC-16C)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Aug-23	2-Aug-23	GCEPL/LAB/E/0542	A	8.75	45.73	1.09	12.47	40.71	360.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
4-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
5-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Aug-23	8-Aug-23	...	A	...	...	...	...	...	1810.00
		GCEPL/LAB/E/0543	B	8.61	46.64	1.09	12.08	40.19	
		GCEPL/LAB/E/0544	C	8.77	47.09	1.05	12.30	39.56	
8-Aug-23	9-Aug-23	GCEPL/LAB/E/0545	A	8.89	46.93	1.07	12.37	39.63	4950.00
		GCEPL/LAB/E/0546	B	8.76	48.98	1.03	12.58	37.41	
		GCEPL/LAB/E/0547	C	8.84	47.22	1.11	12.97	38.70	
9-Aug-23	10-Aug-23	GCEPL/LAB/E/0548	A	8.79	47.02	1.09	13.30	38.59	4750.00
		GCEPL/LAB/E/0549	B	8.71	47.36	1.12	12.42	39.10	
		GCEPL/LAB/E/0550	C	8.94	48.28	1.06	13.73	36.93	
10-Aug-23	11-Aug-23	...	A	...	...	...	...	...	4760.00
		GCEPL/LAB/E/0551	B	8.98	46.19	1.05	13.40	39.36	
		GCEPL/LAB/E/0552	C	8.85	47.55	1.09	12.51	38.85	



Himanshi Dubey

Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Reject

Name of Client

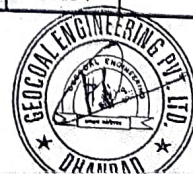
Patherdih Coal Washery BCCL

MONTH

Apr-23

Reject (BC-14)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Apr-23	2-Apr-23	...	A	...	...	...	...	...	788.23
		PCW/REJ/0372	B	9.93	70.70	0.72	9.95	18.63	
		PCW/REJ/0373	C	10.16	71.93	0.80	10.26	17.01	
2-Apr-23	3-Apr-23	PCW/REJ/0374	A	9.91	68.71	0.86	10.84	19.59	1715.35
		PCW/REJ/0375	B	10.03	69.36	0.75	10.54	19.35	
		PCW/REJ/0376	C	9.97	71.11	0.81	10.39	17.69	
3-Apr-23	4-Apr-23	...	A	...	...	...	...	...	1889.79
		PCW/REJ/0377	B	9.93	68.58	0.70	10.79	19.93	
		PCW/REJ/0378	C	9.99	70.67	0.87	12.41	16.05	
4-Apr-23	5-Apr-23	PCW/REJ/0379	A	9.94	68.61	0.87	9.76	20.76	1151.41
		...	B	...	...	...	...	...	
		PCW/REJ/0380	C	10.17	70.54	0.91	10.39	18.16	
5-Apr-23	6-Apr-23	PCW/REJ/0381	A	10.11	70.16	0.91	10.90	18.03	2683.59
		PCW/REJ/0382	B	9.97	68.15	0.80	10.82	20.23	
		PCW/REJ/0383	C	10.18	72.61	0.82	10.06	16.51	
6-Apr-23	7-Apr-23	PCW/REJ/0384	A	9.97	68.77	0.92	11.08	19.23	1374.33
		PCW/REJ/0385	B	9.83	70.35	0.78	10.2	18.67	
		PCW/REJ/0386	C	9.89	71.55	0.88	10.05	17.52	
7-Apr-23	8-Apr-23	...	A	...	...	...	...	...	1020.80
		PCW/REJ/0387	B	10.11	70.45	0.72	10.18	18.65	
		PCW/REJ/0388	C	10.05	69.53	0.76	10.14	19.57	
8-Apr-23	9-Apr-23	...	A	...	...	...	...	...	1509.71
		PCW/REJ/0389	B	9.98	69.65	0.72	10.53	19.10	
		PCW/REJ/0390	C	10.03	67.63	0.82	11.64	19.91	
9-Apr-23	10-Apr-23	...	A	...	...	...	...	...	1428.79
		PCW/REJ/0391	B	9.89	68.04	0.80	9.34	21.82	
		PCW/REJ/0392	C	9.97	70.94	0.71	10.51	17.84	
10-Apr-23	11-Apr-23	...	A	...	...	...	...	...	1284.85
		PCW/REJ/0393	B	10.11	70.89	0.81	9.29	19.01	
		PCW/REJ/0394	C	10.03	69.17	0.79	9.24	20.80	
11-Apr-23	12-Apr-23	...	A	...	...	...	...	...	810.91
		PCW/REJ/0395	B	9.97	70.29	0.75	10.12	18.84	
		PCW/REJ/0396	C	9.91	71.23	0.70	9.56	18.51	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Reject

Name of Client	Patherdih Coal Washery BCCL
MONTH	May-23

Reject (BC-14)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-May-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-May-23	3-May-23	GCEPL/LAB/F/0430	A	10.03	72.75	0.92	10.09	16.24	2144.85
		GCEPL/LAB/F/0431	B	10.15	71.69	0.79	9.22	18.30	
		GCEPL/LAB/F/0432	C	9.98	72.59	0.75	9.09	17.57	
3-May-23	4-May-23	GCEPL/LAB/F/0433	A	9.91	72.40	0.82	9.87	16.91	1478.27
		GCEPL/LAB/F/0434	B	10.08	71.32	0.72	10.56	17.40	
		GCEPL/LAB/F/0435	C	10.13	72.59	0.61	9.69	17.11	
4-May-23	5-May-23	...	A	...	...	...	...	...	950.39
		GCEPL/LAB/F/0436	B	10.06	71.32	0.75	9.84	18.09	
		GCEPL/LAB/F/0437	C	10.19	69.08	0.81	10.36	19.75	
5-May-23	6-May-23	...	A	...	...	...	...	...	647.34
		...	B	...	...	...	...	...	
		GCEPL/LAB/F/0438	C	10.11	72.28	0.81	9.86	17.05	
6-May-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-May-23	8-May-23	GCEPL/LAB/F/0439	A	10.07	68.17	0.80	9.26	21.77	1101.98
		GCEPL/LAB/F/0440	B	9.96	72.85	0.69	9.57	16.89	
		GCEPL/LAB/F/0441	C	10.13	69.38	0.71	10.26	19.65	
8-May-23	9-May-23	GCEPL/LAB/F/0442	A	10.11	66.98	0.75	10.41	21.86	1169.85
		GCEPL/LAB/F/0443	B	9.93	72.52	0.99	9.32	17.17	
		GCEPL/LAB/F/0444	C	10.08	68.97	1.01	9.80	20.22	
9-May-23	10-May-23	...	A	...	...	...	...	...	2130.91
		GCEPL/LAB/F/0445	B	10.03	72.04	0.68	9.47	17.81	
		GCEPL/LAB/F/0446	C	10.09	70.83	0.77	9.43	18.97	
10-May-23	11-May-23	GCEPL/LAB/F/0447	A	9.98	72.58	0.72	9.50	17.20	368.31
		...	B	...	...	...	...	...	
		GCEPL/LAB/F/0448	C	10.13	71.25	0.80	10.08	17.87	
11-May-23	12-May-23	...	A	...	...	...	...	...	2026.60
		GCEPL/LAB/F/0449	B	10.02	71.65	0.72	10.58	17.05	
		GCEPL/LAB/F/0450	C	9.97	70.18	0.80	10.90	18.12	



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Reject

Name of Client	Patherdih Coal Washery BCCL
MONTH	Jun-23

Reject (BC-14)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
4-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
5-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
8-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
9-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
10-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
11-Jun-23	...	...	A	...	...	...	...	...	
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	



Handwritten signature: K. K. Dubey

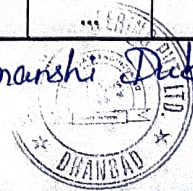
Herdih Coal Washery Date Wise & Shift Wise Quality Test Report of Reject

NAME of Client	Patherdih Coal Washery BCCL
MONTH	Jul-23

Reject (BC-14)

Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Jul-23	2-Jul-23	GCEPL/LAB/F/0497	A	10.14	69.87	0.98	10.69	18.46	1413.98
		GCEPL/LAB/F/0498	B	10.05	68.36	1.02	10.41	20.21	
		GCEPL/LAB/F/0499	C	10.11	71.24	0.93	9.37	18.46	
2-Jul-23	3-Jul-23	GCEPL/LAB/F/0500	A	9.98	69.43	1.04	10.66	18.87	719.88
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Jul-23	4-Jul-23	...	A	...	...	...	...	...	1074.66
		...	B	...	...	...	...	...	
		GCEPL/LAB/F/0501	C	10.06	68.29	1.01	10.88	19.82	
4-Jul-23	5-Jul-23	GCEPL/LAB/F/0502	A	10.15	68.43	0.97	10.65	19.95	1964.79
		GCEPL/LAB/F/0503	B	10.19	70.22	1.05	9.91	18.82	
		GCEPL/LAB/F/0504	C	10.10	69.75	1.02	9.73	19.50	
5-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
8-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
9-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
10-Jul-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	

Himanshi Dubey



Patherdih Coal Washery Date Wise & Shift Wise Quality Test Report of Reject

Name of Client		Patherdih Coal Washery BCCL							
MONTH		Aug-23							
Reject (BC-14)									
Date Of Sampling	Date of Preperation	Sample ID No.	Shift	TM %	ADB				Quantity
					ASH %	M %	VM %	FC %	
1-Aug-23	2-Aug-23	GCEPL/LAB/F/0542	A	10.45	69.61	1.01	10.28	19.10	221.33
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
2-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
3-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
4-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
5-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
6-Aug-23	...	...	A	...	...	...	...	...	0.00
		...	B	...	...	...	...	...	
		...	C	...	...	...	...	...	
7-Aug-23	8-Aug-23	...	A	...	...	...	...	...	1016.56
		GCEPL/LAB/F/0543	B	10.68	68.78	0.98	10.27	19.97	
		GCEPL/LAB/F/0544	C	10.76	69.80	1.01	9.66	19.53	
8-Aug-23	9-Aug-23	GCEPL/LAB/F/0545	A	10.61	69.28	1.06	10.30	19.36	1608.50
		GCEPL/LAB/F/0546	B	10.87	68.52	1.09	10.66	19.73	
		GCEPL/LAB/F/0547	C	10.73	71.12	1.04	9.06	18.78	
9-Aug-23	10-Aug-23	GCEPL/LAB/F/0548	A	10.85	71.73	1.07	9.08	18.12	1420.67
		GCEPL/LAB/F/0549	B	10.62	70.50	1.02	10.32	18.16	
		GCEPL/LAB/F/0550	C	10.97	68.66	1.09	10.99	19.26	
10-Aug-23	11-Aug-23	...	A	...	...	...	...	...	1010.04
		GCEPL/LAB/F/0551	B	10.76	68.86	1.01	11.92	18.21	
		GCEPL/LAB/F/0552	C	10.91	69.45	0.93	10.36	19.26	



Himanshi Dubey

ANNEXURE-VI

DRAIN ALONG THE UNLOADING-SECTION OF THE SIDING AT 5.0 **MTPA PATHERDIH NLW COAL WASHERY**



**DRAIN ALONG THE BOUNDARY WALL AT 5.0 MTPA PATHERDIH
NLW COAL WASHERY**



ANNEXURE-VII

OIL & GREASE TRAP AT 5.0 MTPA PATHERDIH NLW COAL WASHERY



सीएसआईआर-केन्द्रीय खनन एवं ईंधन अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)
बरवा रोड, धनबाद - 826 015, झारखण्ड, भारत
एक आई एस ओ 9001 प्रमाणित संस्थान



CSIR- Central Institute of Mining and Fuel Research
(Council of Scientific and Industrial Research)
Barwa Road, Dhanbad - 826 015, Jharkhand, India
An ISO 9001 Certified Institute

II/TR/22-23/UT/077

Central Institute of Mining and Fuel Research
Digwadih Campus, Dhanbad - 828 108

This is not a certificate and not valid for purpose of
contracts and can not be produced in a court of law.

परीक्षण रिपोर्ट
Test Report

Test Report

Issue To: Project Officer, 5.0 MTPA Patherdih NLW Washery, P.O. - Patherdih, Dist. - Dhanbad, Jharkhand.	Job Code Chemical	CIMFR/CA/EEC/FEB-01/2023
	Date of Issue	30-03-2023
Reference No.: BCCL/NLW PCW/2022-23/2002	Date: 01-02-2023	

Sample Name/Description	Coal
Sample Receiving Date	01.02.2023

Test Result

Sr. no.	Sample code	Arsenic ^a	Cadmium ^a	Chromium ^a	Mercury ^b	Lead ^a	Selenium ^a
1.	Coal sample	BDL	BDL	0.08 mg/L	56 µg/kg	0.02 mg/L	BDL

a = ASTM D6349 b = ASTM D6722

*Sampling not done by CIMFR.

*BDL= Below Detection Limit

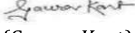
....End of report....

निष्ठा मरवा
30.03.2023

30.03.2023

प्रमुख, परियोजना प्रबंधन एवं उद्योग संपर्क
Head, Project Planning & Industry Interface
सी.एस.आई.आर.-सी.आई.एम.एफ.आर., डिगवाडीह परिसर
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Website : www.cimfr.nic.in

  		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	09/2023	Cluster	Misc.			ULR No.	TC1012223000000177F
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bcci@coalindia.in)					Date of Issue	18.11.2023
Project	Patherdih Washery :Industrial Area	Sample Ref. No.	REM/BCCL/2023 /09	Sampling Method		CMPDI/RI-II/LPM 11 , (IS 5182)	
Date of Sampling	05.09.23	29.09.23	Period of Analysis	05.09.2023	30.10.2023	Zone of Station:	CORE ZONE
Sl. No.	Parameter	Method of Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)
			1st FN	2nd FN			NAAQS, 2009
1	PM ₁₀	IS-5182(Part 23):2006, R-2017	93	96	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300
2	PM _{2.5}	IS-5182(Part 24):2019	51	53	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	11	10	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120sss
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	17	20	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	120
**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 ---- Page -1 of 1							

  cmpdi <i>A Min. Rehabilitation 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										
Month & Year	09/2023	Cluster	Misc.	ULR No.			TC1012223000000211F			
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue			18.11.2023
Project			Sample Ref. No.	REM/BCCL/2023/09		Sampling Method		CMPDI/RI-II/LPM 22		
Sampling Stations	i	Pathardih Washery		Date of Sampling		05.09.23	29.09.23	Zone Category of Station:		CORE 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	45.1	45.6	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	47.6	52						
3		08:00 - 09:00	48.7	53.1						
4		09:00 - 10:00	49.5	48						
5		10:00 - 11:00	50.3	53						
6		11:00 - 12:00	53.7	53.6						
7		12:00 - 13:00	53.7	53.7						
8		13:00 - 14:00	53.1	53.7						
9		14:00 - 15:00	53.2	53.1						
10		15:00 - 16:00	52.7	51.5						
11		16:00 - 17:00	51.7	50.1						
12		17:00 - 18:00	51.5	47.4						
13		18:00 - 19:00	51.1	49.9						
14		19:00 - 20:00	50.7	50.2						
15		20:00 - 21:00	49.5	51						
16		21:00 - 22:00	49.6	50.7						
		Leq Day	51.3	51.6						
1	Noise Level dB(A)Leq -Night	22:00-23:00	49.5	49.7	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	48.3	48.6						
3		00:00- 01:00	48	48.6						
4		01:00-02:00	47.7	48						
5		02:00-03:00	47.4	48.6						
6		03:00-04:00	47.1	47.3						
7		04:00-05:00	46.7	47.3						
8		05:00-06:00	47.6	48						
		Leq Night	47.9	48.3						

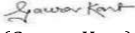
**All noise measurements are integrated for a 01 hour period, All units in dB(A) *LDL indicates Lower Detection Limit

Sampling Assistants ANALYSED BY <i>(Signature)</i> (Gaurav Kant) REVIEWED BY	<i>(Signature)</i> (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.

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Page -1 of 1

  		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	08/2023	Cluster	Misc.	ULR No.		TC1012223000000073F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)			Date of Issue		04.11.2023	
Project	Patherdih Washery :Industrial Area	Sample Ref. No.	REM/BCCL/2023/08	Sampling Method		CMPDI/RI-II/LPM 11 , (IS 5182)	
Date of Sampling	11.08.2023	19.08.2023	Period of Analysis	11.08.2023	30.08.2023	Zone of Station:	CORE ZONE
Sl. No.	Parameter	Method of Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)
			1st FN	2nd FN			NAAQS, 2009
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	120	138	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300
2	PM _{2.5}	IS -5182(Part 24):2019	62	65	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120sss
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	21	19	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	120
**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 ----							
Page -1 of 1							

  cmpdi <i>A Miniratna 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 <i>email: cmpdi@coalindia.in</i>									
Month & Year	08/2023	Cluster	Misc.				ULR No.	TC1012223000000107F	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)						Date of Issue	04.11.2023	
Project			Sample Ref. No.	REM/BCCL/2023/08		Sampling Method	CMPDI/RI-II/LPM 22		
Sampling Stations	i	Pathardih Washery		Date of Sampling		11.08.2023	19.08.2023	Zone Category of Station:	CORE 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	46.2	46.7	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	48.7	53.2					
3		08:00 - 09:00	49.8	54.4					
4		09:00 - 10:00	50.6	49.1					
5		10:00 - 11:00	51.4	54.3					
6		11:00 - 12:00	55	54.9					
7		12:00 - 13:00	55	55					
8		13:00 - 14:00	54.4	55					
9		14:00 - 15:00	54.5	54.4					
10		15:00 - 16:00	53.9	52.6					
11		16:00 - 17:00	52.8	51.2					
12		17:00 - 18:00	52.6	48.5					
13		18:00 - 19:00	52.2	51					
14		19:00 - 20:00	51.8	51.3					
15		20:00 - 21:00	50.6	52.1					
16		21:00 - 22:00	50.7	51.8					
		Leq Day	52.5	52.8					
1	Noise Level dB(A)Leq -Night	22:00-23:00	47.8	48	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	46.7	47					
3		00:00- 01:00	46.4	47					
4		01:00-02:00	46.1	46.4					
5		02:00-03:00	45.8	47					
6		03:00-04:00	45.5	45.7					
7		04:00-05:00	45.2	45.7					
8		05:00-06:00	46	46.4					
		Leq Night	46.3	46.7					

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

Sampling Assistants ANALYSED BY <i>(Signature)</i> (Gaurav Kant)	REVIEWED BY <i>(Signature)</i> (Amit Raj Mishra)	Authorised Signatory
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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		07/2023	Cluster	Misc.				ULR No.		TC1012223000000018F		
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue		07.10.23	
Project		Pathadih Washery :Industrial Area		Sample Ref. No.	REM/BCCL/2023/07		Sampling Method		CMPDI/RI-II/LPM 11 , (IS 5182)			
Date of Sampling		15.07.2023		30.07.23	Period of Analysis		15.07.23	21.08.23	Zone of Station:		CORE ZONE	
Sl. No.	Parameter	Method of Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009				
			1st FN	2nd FN								
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	89	93	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300	100				
2	PM _{2.5}	IS -5182(Part 24):2019	36	46	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified	60				
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	18	19	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120sss	80				
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	11	<10	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	120	80				

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

[Signature]

ANALYSED BY

[Signature]

REVIEWED BY

[Signature]

Authorised Signatory

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Month & Year	07/2023	Cluster						ULR No.	TC1012223000000052F
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue	07.10.23
Project		Sample Ref. No.	REM/BCCL/2023/07				Sampling Method	CMPDI/RI-II/LPM 22	
Sampling Stations	i	Pathardih Washery	Date of Sampling		15.07.23	30.07.23	Zone Category of Station:	CORE 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	45.5	46	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	52.4					
3		08:00 - 09:00	49.1	53.6					
4		09:00 - 10:00	49.9	48.4					
5		10:00 - 11:00	50.7	53.5					
6		11:00 - 12:00	54.2	54.1					
7		12:00 - 13:00	54.2	54.2					
8		13:00 - 14:00	53.6	54.2					
9		14:00 - 15:00	53.7	53.6					
10		15:00 - 16:00	53.1	51.9					
11		16:00 - 17:00	52.1	50.5					
12		17:00 - 18:00	51.9	47.8					
13		18:00 - 19:00	51.5	50.3					
14		19:00 - 20:00	51.1	50.6					
15		20:00 - 21:00	49.9	51.4					
16		21:00 - 22:00	50	51.1					
		Leq Day	51.7	52.0					
1	Noise Level dB(A)Leq -Night	22:00-23:00	50.3	50.5	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	49.1	49.4					
3		00:00- 01:00	48.8	49.4					
4		01:00-02:00	48.5	48.8					
5		02:00-03:00	48.2	49.4					
6		03:00-04:00	47.9	48.1					
7		04:00-05:00	47.5	48.1					
8		05:00-06:00	48.4	48.8					
		Leq Night	48.7	49.1					

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

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

Test Report for Ambient Air Samples

Month & Year		06/2023	Cluster	Misc.				Report No.		RI-II/AIR/2023-24/06			
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue		04.09.23		
Project		Pathadih Washery :Industrial Area		Sample Ref. No.	REM/BCCL/2023/03		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)				
Date of Sampling		14.06.2023		28.06.23	Period of Analysis	01.07.23		22.08.23		Zone of Station:		CORE ZONE	
Sl. No.	Parameter	Method of Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)		NAAQS, 2009				
			1st FN	2nd FN									
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	85	89	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300		100				
2	PM _{2.5}	IS -5182(Part 24):2019	47	46	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified		60				
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120sss		80				
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	21	13	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	120		80				

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

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REVIEWED BY

[Signature]

Authorised Signatory

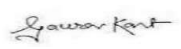
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Month & Year	06/2023	Cluster		Misc.		Report No.	RI-II/NOISE/2023-24/06		
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	04.09.23		
Project		Sample Ref. No.	REM/BCCL/2023/03			Sampling Method	CMPDI/RI-II/LPM 13		
Sampling Stations	i	Pathardih Washery		Date of Sampling	14.06.23	28.06.23	Zone Category of Station:	CORE 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	47.7	48.2	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	50.3	54.9					
3		08:00 - 09:00	51.5	56.2					
4		09:00 - 10:00	52.3	50.7					
5		10:00 - 11:00	53.1	56.1					
6		11:00 - 12:00	56.8	56.7					
7		12:00 - 13:00	56.8	56.8					
8		13:00 - 14:00	56.2	56.8					
9		14:00 - 15:00	56.3	56.2					
10		15:00 - 16:00	55.6	54.4					
11		16:00 - 17:00	54.6	52.9					
12		17:00 - 18:00	54.4	50.1					
13		18:00 - 19:00	54	52.7					
14		19:00 - 20:00	53.5	53					
15		20:00 - 21:00	52.3	53.9					
16		21:00 - 22:00	52.4	53.5					
		Leq Day	54.2	54.6					
1	Noise Level dB(A)Leq -Night	22:00-23:00	50.1	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	48.9	49.2					
3		00:00- 01:00	48.6	49.2					
4		01:00-02:00	48.3	48.6					
5		02:00-03:00	48	49.2					
6		03:00-04:00	47.7	47.9					
7		04:00-05:00	47.3	47.9					
8		05:00-06:00	48.2	48.6					
		Leq Night	48.5	48.9					

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

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 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		02/2023	Cluster	Misc.			Report No.		RI-II/AIR/2023-24/02	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue		20.07.2023	
Project		Pathadih Washery :Industrial Area		Sample Ref. No.	REM/BCCL/2023/02	Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)		
Date of Sampling		03.05.23		17.05.23	Period of Analysis	01.05.2023	10.07.2023	Zone of Station:		CORE ZONE
Sl. No.	Parameter	Method Analysis	of	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009	
				1st FN	2nd FN					
1	PM ₁₀	IS -5182(Part 23):2006, R-2017		128	92	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300	100	
2	PM _{2.5}	IS -5182(Part 24):2019		65	49	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified	60	
3	SO ₂	IS-5182(Part-2): 2001 , R-2017		<10	<10	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120sss	80	
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017		25	20	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	120	80	

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

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ANALYSED BY

[Signature]

(Gaurav Kant)
REVIEWED BY

[Signature]

(Amit Raj Mishra)
Authorised Signatory

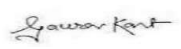
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Month & Year	02/2023	Cluster						Report No.	RI-II/NOISE/2023-24/02	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue	20.07.2023
Project		Sample Ref. No.	REM/BCCL/2023/02				Sampling Method	CMPDI/RI-II/LPM 13		
Sampling Stations	i	Pathardih Washery	Date of Sampling		03.05.23	17.05.23	Zone Category of Station:	CORE 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	44.6	45.1	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	47	51.3						
3		08:00 - 09:00	48.1	52.5						
4		09:00 - 10:00	48.9	47.4						
5		10:00 - 11:00	49.7	52.4						
6		11:00 - 12:00	53.1	53						
7		12:00 - 13:00	53.1	53.1						
8		13:00 - 14:00	52.5	53.1						
9		14:00 - 15:00	52.6	52.5						
10		15:00 - 16:00	52	50.8						
11		16:00 - 17:00	51	49.5						
12		17:00 - 18:00	50.8	46.8						
13		18:00 - 19:00	50.4	49.3						
14		19:00 - 20:00	50	49.6						
15		20:00 - 21:00	48.9	50.3						
16		21:00 - 22:00	49	50						
		Leq Day	50.6	51.0						
1	Noise Level dB(A)Leq -Night	22:00-23:00	48.4	48.6	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	47.3	47.6						
3		00:00- 01:00	47	47.6						
4		01:00-02:00	46.7	47						
5		02:00-03:00	46.4	47.6						
6		03:00-04:00	46.1	46.3						
7		04:00-05:00	45.7	46.3						
8		05:00-06:00	46.6	47						
		Leq Night	46.8	47.3						

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

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 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		April - 2023		Cluster		Misc.				Report No.		RI-II/AIR/2023-24/01	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue		17.06.2023	
Project		Pathadih Washery :Industrial Area			Sample Ref. No.	REM/BCCL/2023/01		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)			
Date of Sampling		06.04.23	19.04.23	Period of Analysis	17.04.2023 to 15.05.2023	01.05.2023 to 15.05.2023	Zone of Station:		CORE ZONE	AREA		Industrial area	
ssSl. 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	2nd FN								
1	PM ₁₀	IS -5182(Part 23):2006, R-2017		132	95	10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100			
2	PM _{2.5}	IS -5182(Part 24):2019		67	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	120sss		80			
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017		17	16	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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Month & Year	01ss/2023	Cluster	Misc.					Report No.	RI-II/NOISE/2023-24/01	
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue	17.06.2023
Project			Sample Ref. No.	REM/BCCL/2023/01			Sampling Method	CMPDI/RI-II/LPM 13		
Sampling Stations	i	Pathardih Washery		Date of Sampling		06.04.23	19.04.23	Zone Category of Station:	CORE 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	46.1	46.6	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	48.7	53.1						
3		08:00 - 09:00	49.8	54.3						
4		09:00 - 10:00	50.6	49.1						
5		10:00 - 11:00	51.4	54.2						
6		11:00 - 12:00	54.9	54.8						
7		12:00 - 13:00	54.9	54.9						
8		13:00 - 14:00	54.3	54.9						
9		14:00 - 15:00	54.4	54.3						
10		15:00 - 16:00	53.8	52.6						
11		16:00 - 17:00	52.8	51.2						
12		17:00 - 18:00	52.6	48.4						
13		18:00 - 19:00	52.2	51						
14		19:00 - 20:00	51.8	51.3						
15		20:00 - 21:00	50.6	52.1						
16		21:00 - 22:00	50.7	51.8						
		Leq Day	52.4	52.7						
1	Noise Level dB(A)Leq -Night	22:00-23:00	49.8	50	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	48.6	48.9						
3		00:00- 01:00	48.3	48.9						
4		01:00-02:00	48	48.3						
5		02:00-03:00	47.7	48.9						
6		03:00-04:00	47.4	47.6						
7		04:00-05:00	47	47.6						
8		05:00-06:00	47.9	48.3						
		Leq Night	48.2	48.6						

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

Sampling Assistants
ANALYSED BY


(Gaurav Kant)
REVIEWED BY


(Amit Raj Mishra)
Authorised Signatory

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-----End of Report -----
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AMBIENT AIR QUALITY DATA

Name of the Company: **Bharat Coking Coal Limited** Year : **2023-24**

Name of the Cluster : **Cluster –MISC.** PERIOD: **Q. E. JUNE- 2023**

Heavy Metal Analysis report of Ambient Air Quality

SAMPLE	Date	Hg ($\mu\text{g}/\text{m}^3$)	Cr($\mu\text{g}/\text{m}^3$)	As (ng/m^3)	Pb ($\mu\text{g}/\text{m}^3$)	Ni (ng/m^3)	Cd ($\mu\text{g}/\text{m}^3$)
Bhojudih Washery (A34):	26.06.2023	0.005	<0.01	<1	0.027	3	<0.001
Dugda Washery (A35):	21.06.2023	<0.001	<0.01	<1	0.023	4	<0.001
Mahuda Washery (A36):	28.06.2023	<0.001	0.01	<1	0.025	<2	<0.001
Sinidih Workshop (A38):	23.06.2023	<0.001	0.01	<1	0.024	<2	<0.001
Patherdih (A39):	28.06.2023	<0.001	<0.01	<1	0.015	<2	<0.001
Koyla Nagar(A40)	19.06.2023	<0.001	<0.01	<1	0.019	<2	<0.001
Santaldih Basti (Bhojudih wahery buffer)(A45	26.06.2023	<0.001	<0.01	<1	0.027	<2	<0.001
Central Hospital Dhanbad (A46):	25.06.2023	<0.001	0.01	<1	0.028	<2	<0.001


 Analysed By
 JSA/SA/SSA


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


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

AMBIENT AIR QUALITY DATA



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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: rdri2.cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		1/2023		Cluster		Cluster X			Report No.		RI-II/AIR/2023-24/01		
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue		17.06.2023	
Project		Bhowrah North			Sample Ref. No.		REM/BCCL/2023/01		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)		
Date of Sampling		07.04.23	20.04.23	Period of Analysis	17.04.2023 to15.05.2023	01.05.2023 to15.05.2023	Zone of Station:		Core Zone	AREA		Industrial Area	
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		
					1stFN 07.04.23	2ndFN 20.04.23							
1	PM ₁₀	IS -5182(Part 23):2006, R-2017			120	147	10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100		
2	PM _{2.5}	IS -5182(Part 24):2019			64	76	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	24	06 µg/m³ - 420 µg/m³	06 µg/m³	120		80		

* LDL indicates Lower Detection Limit

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

[Signature]

ANALYSED BY

[Signature]

(Gaurav Kant)
REVIEWED BY

[Signature]

(Amit Raj Mishra)
Authorised Signatory

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DHANBAD. -826005
Phone:0326-223-850
email: rdri2.cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		April 2023		Cluster		Cluster X				Report No.		RI-II/AIR/2023-24/01							
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)										Date of Issue		17.06.2023					
Project		SudamdihWashery				Sample Ref. No.		REM/BCCL/2023/01		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)							
Date of Sampling		06.04.23		19.04.23		Period of Analysis		17.04.2023 to15.05.2023		01.05.2023 to 15.05.2023		Zone of Station		Core Zone		AREA		Industrial Area	
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							
				1stFN 06.04.23		2ndFN 19.04.23													
1	PM ₁₀	IS -5182(Part 23):2006, R-2017		85		92		10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100							
2	PM _{2.5}	IS -5182(Part 24):2019		45		53		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		28		29		06 µg/m³ - 420 µg/m³	06 µg/m³	120		80							

* LDL indicates Lower Detection Limit,

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

[Signature]

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[Signature]

(Gaurav Kant)
REVIEWED BY

[Signature]

(Amit Raj Mishra)
Authorised Signatory

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DHANBAD. -826005
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Test Report for Ambient Air Samples

Month & Year		April 2023		Cluster		CLUSTER X				Report No.		RI-II/AIR/2023-24/01		
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue		17.06.2023		
Project		Sudamdih Mine Shaft				Sample Ref. No.		REM/BCCL/2023/01		Sampling Method	CMPDI/RI-II/LPM 13 , (IS 5182)			
Date of Sampling		05.04.23	18.04.23	Period of Analysis			17.04.2023 to15.05.2023	01.05.2023 to 15.05.2023	Zone of Station	Core Zone	AREA		Industrial Area	
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				
					1stFN 05.04.23	2ndFN 18.04.23								
1	PM ₁₀	IS -5182(Part 23):2006, R-2017			82		86	10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100		
2	PM _{2.5}	IS -5182(Part 24):2019			34		32	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			19		17	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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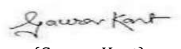
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Month & Year	April 2023	Cluster	Cluster X	Report No.	RI-II/NOISE/2023-24/01				
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)				Date of Issue	17.06.2023			
Project		Sample Ref. No.	REM/BCCL/2023/01	Sampling Method	CMPDI/RI-II/LPM 13				
Sampling Stations	i	Bhowrah North	Date of Sampling	07.04.23	20.04.23	Zone Category of Station:	Core 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	53.3	52.6	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	56.2	56					
3		08:00 - 09:00	58.9	58.9					
4		09:00 - 10:00	62.1	63.3					
5		10:00 - 11:00	63	62.5					
6		11:00 - 12:00	63.8	63.6					
7		12:00 - 13:00	66.5	65.6					
8		13:00 - 14:00	59.9	57.9					
9		14:00 - 15:00	56.6	55.7					
10		15:00 - 16:00	47.5	62					
11		16:00 - 17:00	47.6	61.5					
12		17:00 - 18:00	46.1	60.8					
13		18:00 - 19:00	44.7	52.9					
14		19:00 - 20:00	45	44					
15		20:00 - 21:00	45.1	45.6					
16		21:00 - 22:00	44.5	45.5					
		Leq DAY	59.3	60.2					
1	Noise Level dB(A)Leq -Night	22:00-23:00	43.6	43.9	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	43.5	43.3					
3		00:00- 01:00	43.3	43					
4		01:00-02:00	43	43.2					
5		02:00-03:00	42.9	43.3					
6		03:00-04:00	43.9	44					
7		04:00-05:00	44	44.4					
8		05:00-06:00	44.4	44.7					
		Leq NIGHT	43.6	43.8					

*LDL indicates Lower Detection Limit

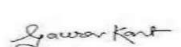
**All noise measurements are integrated for a 01 hour period, All units in dB(A)

			 (Gaurav Kant)			 Raj Mishra (Amit)
ANALYSED BY			REVIEWED BY			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: rdri2.cmpdi@coalindia.in			
Month & Year	April 2023	Cluster	Cluster X			Report No.	RI-II/NOISE/2023-24/01		
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	17.06.2023		
Project			Sample Ref. No.	REM/BCCL/2023/01		Sampling Method	CMPDI/RI-II/LPM 13		
Sampling Stations	i	Sudamdih Washery		Date of Sampling	06.04.23	19.04.23	Zone Category of Station:	Core 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	52.6	51.7	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	55.3	54.3					
3		08:00 - 09:00	54.5	53.6					
4		09:00 - 10:00	52.6	51.9					
5		10:00 - 11:00	51.9	50.6					
6		11:00 - 12:00	53.6	52.3					
7		12:00 - 13:00	52.2	51.5					
8		13:00 - 14:00	58.6	56.2					
9		14:00 - 15:00	60.2	62.1					
10		15:00 - 16:00	62.5	57.2					
11		16:00 - 17:00	57.7	58.8					
12		17:00 - 18:00	58.1	57.7					
13		18:00 - 19:00	58.5	58.1					
14		19:00 - 20:00	57.6	57.8					
15		20:00 - 21:00	56.2	55.5					
16		21:00 - 22:00	56.3	54.8					
		Leq DAY	57.2	56.4					
1	Noise Level dB(A) Leq - Night	22:00-23:00	54.9	52.4	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	51	50.7					
3		00:00- 01:00	50.7	49.6					
4		01:00-02:00	48.6	48.8					
5		02:00-03:00	47.3	47.9					
6		03:00-04:00	47	47.3					
7		04:00-05:00	46.3	45.7					
8		05:00-06:00	47	46.7					
		Leq NIGHT	50.1	49.1					
**All noise measurements are integrated for a 01 hour period. All units in dB(A) *LDL indicates Lower Detection Limit									
Sampling Assistants			 (Gaurav Kant)			 (Amit)			
ANALYSED BY			REVIEWED BY			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.									
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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									
Month & Year	April 2023	Cluster	Cluster X	Report No.	RI-II/NOISE/2023-24/01				
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)				Date of Issue	17.06.2023			
Project		Sample Ref. No.	REM/BCCL/2023/01	Sampling Method	CMPDI/RI-II/LPM 13				
Sampling Stations	i	Sudamdih Mine Shaft	Date of Sampling	05.04.23	18.04.23	Zone Category of Station:	Core 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	47	47.2	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	46.9	47.3					
3		08:00 - 09:00	49	49.5					
4		09:00 - 10:00	46.6	46.2					
5		10:00 - 11:00	49	49.5					
6		11:00 - 12:00	51.9	52.2					
7		12:00 - 13:00	52.9	52.9					
8		13:00 - 14:00	53.3	52.7					
9		14:00 - 15:00	52.5	53.7					
10		15:00 - 16:00	52.2	51.6					
11		16:00 - 17:00	49.4	51.2					
12		17:00 - 18:00	48.7	51					
13		18:00 - 19:00	46.9	49					
14		19:00 - 20:00	46.6	48					
15		20:00 - 21:00	46.5	47.7					
16		21:00 - 22:00	46.7	46.6					
		Leq DAY	49.9	50.4					
1	Noise Level dB(A)Leq -Night	22:00-23:00	46	45.8	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	45.9	45.8					
3		00:00- 01:00	45.6	45.7					
4		01:00-02:00	45.5	45.5					
5		02:00-03:00	45	45.4					
6		03:00-04:00	45.4	45.2					
7		04:00-05:00	44.9	45					
8		05:00-06:00	45.4	45.1					
		LeqNIGHT	45.5	45.4					

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

Sampling Assistants	 (Gaurav Kant)				 Raj Mishra)	(Amit
ANALYSED BY	REVIEWED BY				Authorised Signatory	

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AMBIENT AIR QUALITY DATA



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email: rdri2.cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		1/2023		Cluster		Cluster X			Report No.		RI-II/AIR/2023-24/01		
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue		17.06.2023	
Project		Bhowrah North			Sample Ref. No.		REM/BCCL/2023/01		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)		
Date of Sampling		07.04.23	20.04.23	Period of Analysis	17.04.2023 to15.05.2023	01.05.2023 to15.05.2023	Zone of Station:		Core Zone	AREA		Industrial Area	
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			
					1stFN 07.04.23	2ndFN 20.04.23							
1	PM ₁₀	IS -5182(Part 23):2006, R-2017			120	147	10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100		
2	PM _{2.5}	IS -5182(Part 24):2019			64	76	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	24	06 µg/m³ - 420 µg/m³	06 µg/m³	120		80		

* LDL indicates Lower Detection Limit

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

[Signature]

ANALYSED BY

[Signature]

(Gaurav Kant)
REVIEWED BY

[Signature]

(Amit Raj Mishra)
Authorised Signatory

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CMPDIL, RI-II
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Phone:0326-223-850
email: rdri2.cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		April 2023		Cluster		Cluster X				Report No.		RI-II/AIR/2023-24/01	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue		17.06.2023	
Project		SudamdihWashery			Sample Ref. No.		REM/BCCL/2023/01		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)		
Date of Sampling		06.04.23		19.04.23	Period of Analysis	17.04.2023 to15.05.2023	01.05.2023 to 15.05.2023	Zone of Station		Core Zone	AREA		Industrial Area
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		
					1stFN 06.04.23	2ndFN 19.04.23							
1	PM ₁₀	IS -5182(Part 23):2006, R-2017			85	92	10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100		
2	PM _{2.5}	IS -5182(Part 24):2019			45	53	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			28	29	06 µg/m³ - 420 µg/m³	06 µg/m³	120		80		

* LDL indicates Lower Detection Limit,

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

[Signature]

ANALYSED BY

[Signature]

(Gaurav Kant)
REVIEWED BY

[Signature]

(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 Air Quality Test Report

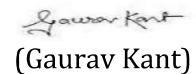
CMPDIL, RI-II
KOYLA BHAWAN COMPLEX
DHANBAD. -826005
Phone:0326-223-850
email: rdri2.cmpdi@coalindia.in

Test Report for Ambient Air Samples

Month & Year		April 2023		Cluster		CLUSTER X				Report No.		RI-II/AIR/2023-24/01		
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue		17.06.2023		
Project		Sudamdih Mine Shaft				Sample Ref. No.		REM/BCCL/2023/01		Sampling Method	CMPDI/RI-II/LPM 13 , (IS 5182)			
Date of Sampling		05.04.23	18.04.23	Period of Analysis			17.04.2023 to15.05.2023	01.05.2023 to 15.05.2023	Zone of Station	Core Zone	AREA		Industrial Area	
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				
					1stFN 05.04.23	2ndFN 18.04.23								
1	PM ₁₀	IS -5182(Part 23):2006, R-2017			82		86	10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100		
2	PM _{2.5}	IS -5182(Part 24):2019			34		32	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			19		17	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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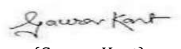
---- End of Report ----

Page -1 of 1

  cmpdi <i>A Mini Ratna Company</i> 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	April 2023	Cluster	Cluster X	Report No.	RI-II/NOISE/2023-24/01				
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)				Date of Issue	17.06.2023			
Project		Sample Ref. No.	REM/BCCL/2023/01	Sampling Method	CMPDI/RI-II/LPM 13				
Sampling Stations	i	Bhowrah North	Date of Sampling	07.04.23	20.04.23	Zone Category of Station:	Core 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	53.3	52.6	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	56.2	56					
3		08:00 - 09:00	58.9	58.9					
4		09:00 - 10:00	62.1	63.3					
5		10:00 - 11:00	63	62.5					
6		11:00 - 12:00	63.8	63.6					
7		12:00 - 13:00	66.5	65.6					
8		13:00 - 14:00	59.9	57.9					
9		14:00 - 15:00	56.6	55.7					
10		15:00 - 16:00	47.5	62					
11		16:00 - 17:00	47.6	61.5					
12		17:00 - 18:00	46.1	60.8					
13		18:00 - 19:00	44.7	52.9					
14		19:00 - 20:00	45	44					
15		20:00 - 21:00	45.1	45.6					
16		21:00 - 22:00	44.5	45.5					
		Leq DAY	59.3	60.2					
1	Noise Level dB(A)Leq -Night	22:00-23:00	43.6	43.9	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	43.5	43.3					
3		00:00- 01:00	43.3	43					
4		01:00-02:00	43	43.2					
5		02:00-03:00	42.9	43.3					
6		03:00-04:00	43.9	44					
7		04:00-05:00	44	44.4					
8		05:00-06:00	44.4	44.7					
		Leq NIGHT	43.6	43.8					

*LDL indicates Lower Detection Limit

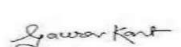
**All noise measurements are integrated for a 01 hour period, All units in dB(A)

			 (Gaurav Kant)			 Raj Mishra (Amit)
ANALYSED BY			REVIEWED BY			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: rdri2.cmpdi@coalindia.in			
Month & Year	April 2023	Cluster	Cluster X			Report No.	RI-II/NOISE/2023-24/01		
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	17.06.2023		
Project			Sample Ref. No.	REM/BCCL/2023/01		Sampling Method	CMPDI/RI-II/LPM 13		
Sampling Stations	i	Sudamdih Washery		Date of Sampling	06.04.23	19.04.23	Zone Category of Station:	Core 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	52.6	51.7	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	55.3	54.3					
3		08:00 - 09:00	54.5	53.6					
4		09:00 - 10:00	52.6	51.9					
5		10:00 - 11:00	51.9	50.6					
6		11:00 - 12:00	53.6	52.3					
7		12:00 - 13:00	52.2	51.5					
8		13:00 - 14:00	58.6	56.2					
9		14:00 - 15:00	60.2	62.1					
10		15:00 - 16:00	62.5	57.2					
11		16:00 - 17:00	57.7	58.8					
12		17:00 - 18:00	58.1	57.7					
13		18:00 - 19:00	58.5	58.1					
14		19:00 - 20:00	57.6	57.8					
15		20:00 - 21:00	56.2	55.5					
16		21:00 - 22:00	56.3	54.8					
		Leq DAY	57.2	56.4					
1	Noise Level dB(A) Leq - Night	22:00-23:00	54.9	52.4	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	51	50.7					
3		00:00- 01:00	50.7	49.6					
4		01:00-02:00	48.6	48.8					
5		02:00-03:00	47.3	47.9					
6		03:00-04:00	47	47.3					
7		04:00-05:00	46.3	45.7					
8		05:00-06:00	47	46.7					
		Leq NIGHT	50.1	49.1					
**All noise measurements are integrated for a 01 hour period. All units in dB(A) *LDL indicates Lower Detection Limit									
Sampling Assistants			 (Gaurav Kant)			 (Amit)			
ANALYSED BY			REVIEWED BY			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 ---- Page -1 of 1									

  cmpdi <i>A Mini Ratna Company</i> CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED Environment Laboratory, Regional Institute-II Ambient Noise Level Test Report									
Month & Year	April 2023	Cluster	Cluster X	Report No.	RI-II/NOISE/2023-24/01				
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), KoylaBhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)				Date of Issue	17.06.2023			
Project		Sample Ref. No.	REM/BCCL/2023/01	Sampling Method	CMPDI/RI-II/LPM 13				
Sampling Stations	i	Sudamdih Mine Shaft	Date of Sampling	05.04.23	18.04.23	Zone Category of Station:	Core 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	47	47.2	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	46.9	47.3					
3		08:00 - 09:00	49	49.5					
4		09:00 - 10:00	46.6	46.2					
5		10:00 - 11:00	49	49.5					
6		11:00 - 12:00	51.9	52.2					
7		12:00 - 13:00	52.9	52.9					
8		13:00 - 14:00	53.3	52.7					
9		14:00 - 15:00	52.5	53.7					
10		15:00 - 16:00	52.2	51.6					
11		16:00 - 17:00	49.4	51.2					
12		17:00 - 18:00	48.7	51					
13		18:00 - 19:00	46.9	49					
14		19:00 - 20:00	46.6	48					
15		20:00 - 21:00	46.5	47.7					
16		21:00 - 22:00	46.7	46.6					
		Leq DAY	49.9	50.4					
1	Noise Level dB(A)Leq -Night	22:00-23:00	46	45.8	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	45.9	45.8					
3		00:00- 01:00	45.6	45.7					
4		01:00-02:00	45.5	45.5					
5		02:00-03:00	45	45.4					
6		03:00-04:00	45.4	45.2					
7		04:00-05:00	44.9	45					
8		05:00-06:00	45.4	45.1					
		LeqNIGHT	45.5	45.4					

**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				 Raj Mishra Authorised Signatory
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---- End of Report ----

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BHARAT COKING COAL LTD.
A MINI RATNA COMPANY
(A Subsidiary of Coal India Limited)
Office of the Project Officer (5.0 MTPA Patherdih NLW)
P.O.Patherdih, Dist. Dhanbad
(Jharkhand)
Email:-nlwpatherdihbccl@gmail.com

Ref: No. BCCL/NLW PCW/2022/ 1054

Dated: 10/10/2022

To
Dhanbad Municipal Corporation,
Luby Circular Road, Dhanbad- 826001

Sub:- Copy Environmental Clearance to 5.0 MTPA NLW Patherdih Coal Washery.

Dear Sir/ Madam,

Please find enclosed copy of Environmental Clearance granted to 5.0 MTPA NLW Patherdih Coal Washery having Ref. no. J-11015/240/2010-IA.II (M), Dated with 25-01-2012. Issued by Director (MoEF & CC).

Thinking you

Yours Faithfully

(Dae Singh)
10.10.2022
Project Officer

5.0 MTPA Patherdih NLW Washery

Receipt

Babeta Gaurade
श्रीमति बाबेता गारादे 10.10.2022
पार्षद
गार्ड संख्या-49
धनबाद नगर निगम

Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O. Complex, Lodi Road
New Delhi -110003.

No. J-11015/240/2010-1A.II (M)

To

Dated: 25th January 2012

Director (P&P),
M/s Bharat Coking Coal Ltd,
Koyla Bhawan, Dhanbad.

Sub: Patherdih NLW Coal Washery (5 MTPA normative with a peak capacity of 6.5 MTPA in an area of 12 ha) of M/s Bharat Coking Coal Ltd. located in Jharia Coalfields, in district Dhanbad, Jharkhand - Environmental Clearance - reg.
Sir.

This has reference to letter No. 43011/25/2010-CPAM dated 01.07.2010 of Ministry of Coal along with application for Terms of Reference (TOR) and this Ministry's grant of TOR vide letter dated 23.09.2010 and application for environmental clearance vide letter No. CIL/DLI/EMP-TOR/2011/08 dated 13.09.2011 and letter dated 19.11.2011 on the above-mentioned subject. The Ministry of Environment & Forests has considered the application. The proposed is for **establishing a new Patherdih Coking Coal Washery**, which is a non-linked washery (NLW) of a capacity of 5 million tonnes per annum (MTPA) and 6.5 MTPA (peak) in an area of 12 ha in Jharia Coalfields, identified as a critically polluted area. The washery is a 3-product coal washery using Jig and HM Cyclone Technology. The washery is being sited in total area of 12 ha land which is a non-coal bearing area. No forestland is involved. The site has been chosen keeping in view the existing railway line available for transportation of raw coal from 3 collieries, namely N/S Tisra OCP, Goluckdih OCP (NC), Ganoodih OCP and Rajapur OCP located at a distance of 5-7 km from the washery and for despatch of washed coal and middling to be sent to powerhouses in Durgapur and Bokaro.

S.N.	Name of the Linked Mine	Capacity (MTPA)	Reserve Capacity (MT)	Life of mine (in Years)

1.	N/S Tisra OCP	2.1	13.9	6.6
2.	Goluckdih OCP	1.0	22.85	22.85
3.	Ghanoodih OCP	1.3	4.3	3.3
4.	Rajapur OCP	0.75	18.0	24
	TOTAL	5.15	59.05	

Raw coal (5 MTPA) has an ash content of 41.1% would yield 1.12 MTPA of clean (washed) coal of an ash content of 18.1% would be used in steel plants at Durgapur, Bokaro and Rourkela and power grade coal (2.58 MTPA) with an ash content of 39.93% for use in thermal coal for power generation in TPPs and coal rejects of 1.3 MTPA of > 60% ash content would be utilised in an FBC based Thermal Power Plant. The Company has called for an open tender for use of the coal rejects in an FBC based TPP. The water requirement of the plant (make-up water) is 0.5 MGD and would be obtained from old abandoned mines near the washery. The washery will be provided with a Filter Press and Thickener to extract the water from the slurry. Transportation of raw coal would be by road and washed coal from the washery would be by rail from railway siding located within the premises. The entire clean coal and coal rejects would be from the washery by closed conveyors to adjoining Railway Siding by Rapid Loading system consisting of hopper and surge bunker and thereafter transported by rail mode only. In addition, the entire flyash generated from the FBC based TPP would be utilised by cement units in clinker production/ flyash brick unit. A provision of Rs 2 cores and Rs 5/T of coal for recurring expenditure has been made for activities under CSR. CSR activities would cover education, water supply, health care, social empowerment, infrastructure development i.e. road, water supply, electricity and a community centre. A full time Monitoring Cell is proposed to be constituted. Life of the washery is about 18 years. Public Hearing was held on 02.06.2011. Capital cost of the project is Rs 157.50 crores.

2.0 The Ministry of Environment & Forests hereby accords environmental clearance for the establishment of the above-mentioned **Patherdih NLW Coking Coal Washery of 5million tonnes per annum (MTPA) capacity with a peak capacity of 6.5 MTPA in an area of 12ha of M/s Bharat Coking Coal Ltd.** under the provisions of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and under Circulars there under and subject to conditions specified below:

Specific Conditions

(i) The capacity of the washery shall not exceed 6.5 MTPA without prior environmental clearance from this Ministry.

(ii) Transport of raw coal from the identified mines of the company, washed coal from the washery to the steel plants in Durgapur, Bhilai and Bokaro and middling to TPPs and coal rejects to FBC based TPP shall be by rail mode only from the railway siding located within the premises.

(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 flyash generated from the FBC based TPP with a suitable company.

(iv) 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 topped, monitoring for particulate matter (PM₁₀ and PM_{2.5}) 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.

(v) 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.

(vi) 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.

(vii) 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.

(viii) 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.

(ix) 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.

(x) 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.

(xi) The Washery unit shall be a zero-discharge facility and no wastewater 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.

(xii) A separate storm water drain to carry storm water from the washery for discharge outside the premises to nallahs/streams shall be established. The storm water drains shall be regularly desilted.

(xiii) 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 19th 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.

(xiv) 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.

(xv) Socio-economic and welfare measures for the local communities shall be implemented under CSR with an outlay of Rs 2 crores and Rs 5/T of coal as recurring expenditure. 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.

(xvi) 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, Bhubaneswar.

(xvii) 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 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.

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.

(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, in PM_{10} and $PM_{2.5}$ etc. shall be carried out at least once in six months.

(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.

(iv) Data on ambient air quality (PM_{10} , $PM_{2.5}$, SO_2 and NO_x and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar 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 EP Rules, 1986 shall be furnished as part of the compliance report.

(v) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HFMM, etc shall be provided with ear plugs/muffs.

(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.

(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.

(vii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office Bhubaneswar.

(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>

(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.

(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.

(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, PM_{2.5}, SO₂ and NO_x (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.

(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.

(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.

(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.

3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.

5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.

(Dr.T.Chandini)
Director

Copy to:

1. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, A-31, Chandrashekarapur, Bhubaneswar – 751023.
4. Chairman, Jharkhand State Pollution Control Board, T.A. Division Building (Ground Floor), H.E.C., Dhurwa, Ranchi – 834004.
5. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
8. Dr.R.K.Garg, Advisor, M/s Coal India Ltd., SCOPE Minar, New Delhi.
9. District Collector, Dhanbad, Government of Jharkhand.
10. Monitoring File 11. Guard File 12. Record File.

(Dr.T.Chandini)
Director

0
EJ3234105711N IVR:6974323410571

CP PATHERDIH COAL WASHERY SO <828132>

Counter No:1,13/10/2022,15:21

To:D M C,LUBY CIRCULAR RD

PIN:826001, Dhanbad HO

From:PROJECT OFFICER,5.OMIPA PCW

Wt:30gms

Amt:41.30()Tax:6.30

<Track on www.indiapost.gov.in>

<Dial 18002666868> <Wear Masks, Stay Safe>

ANNEXURE-XI

ENVIRONMENTAL PARAMETERS DISPLAY BOARD AT 5.0 MTPA PATHERDIH NLW COAL WASHERY

तिथि-SEPTEMBER 23 डिस्प्ले बोर्ड

इकाई का नाम तथा पता-5.0 MTPA PATHERDIH NLW COAL WASHERY

उत्पादन क्षमता-5.0 MTPA (PEAK-6.5 MTPA) वर्तमान में उत्पादन 1.42 MTPA

संचालन सहमति आदेश की अवधि 31-12-2025 (2024-25)

उत्पादन अपशिष्ट की विवरणी				निपटान (disposal) की विवरणी		शेष अपशिष्ट की मात्रा		परिदृश्य वायु गुणवत्ता स्तर की विवरणी		
क्र.सं.	प्रकार / नाम	मात्रा	प्रदूषण की व्यवस्था	विधि	मात्रा	की मात्रा	PM ₁₀ /PM _{2.5}	SO ₂	NO _x	
							93/51/49/2025	13/49/2025	93/49/2025	

जल गुणवत्ता स्तर की विवरणी					
PH	TSS	DO	COD	BOD	oil & Grease



Serving coking coal to the nation



भारत कोकिंग कोल लिमिटेड
(कोल इण्डिया लिमिटेड की एक अनुषंगी कंपनी)
Bharat Coking Coal Limited
(A Subsidiary of Coal India Limited)
(एक मिनीरल कंपनी / A Miniratna Company)
(भारत सरकार का उपक्रम / A Government of India Undertaking)

Ref: BCCL/ NLW PCW/2023-24/ 2962

Date: 03/11/2023

To,
The Member Secretary,
Jharkhand State Pollution Control Board,
TA- Divison Building,
Dhurwa, Ranchi – 834004

Subject – Submission of the Corrigendum of Environmental Statement/ Form-V of 5.0 MTPA
Patherdih NLW Coal Washery for FY 2022-23.

Respected Sir/ Ma'am,

Please find enclosed herewith the copy of the Corrigendum of Environmental Statement/ Form-V in respect of 5.0 MTPA Patherdih NLW Coal Washery for FY 2022-23.

This is for your kind reference.

Thanking You,

Encl: - As above.

Yours faithfully

Project Officer

5.0 MTPA Patherdih NLW Coal Washery

Copy To: -

1. The Director, IRO, Ranchi, MoEF&CC Harmu, Jharkhand – 834002 – (via e-mail).
2. Scientist & Incharge, Zonal Office, CPCB, 5th Floor 502, House & Conclave, 1582, Rajdanga Main Road, Kolkata- 700107. (via e-mail)
3. General Manager (Ws), Washery Division.
4. General Manager (Mining/Environment), Koyla Bhawan.
5. Nodal Officer (Environment), Washery Division.

ENVIRONMENTAL STATEMENT (FORM-V)

Environmental Statement of 5.0 MTPA Patherdih NLW Coal Washery for the financial year 2022-23 ended on 31st March 2023.)

PART-A

i. Name and address of the owner/occupier of the industry Operation or process

Name: Sri Uday A kaole

Designation: Director (Technical) / Operations

Address: Koyla Bhawan, Koyla Nagar, BCCL Township, Dhanbad- 826005

Industry Category- Primary (ORANGE Category)

ii. Production Capacity – 5.0 MTPA (Peak – 6.5 MTPA)

iii. Year of Establishment – 2020 (Year of Commissioning)

iv. Date of the last Environmental Statement submitted- 13.09.2022

PART -B

Water and Raw Material Consumption

I (A) Water Consumption (In m³/d): 467 m³/day

Name of Products	Water Consumption (m ³ /day)	
	Washing Operation	Domestic Supply
Washed Coal	46.31	NIL
Washed Power Coal	300.00	
Rejects	120.74	

I (B) Process Water Consumption per unit of Product Output:

Name of Products	During the previous financial year (2021-22)	During the current financial year (2022-23)
Washed Coal	0.48 m ³ /Tonne	0.012 m ³ /Tonne
Washed Power Coal	0.09 m ³ /Tonne	0.077 m ³ /Tonne
Rejects	0.22 m ³ /Tonne	0.031 m ³ /Tonne

II Raw Material Consumption:

Name of Raw Materials	Name of Products	Consumption of raw material per unit of output (Tonnes)	
		During the previous financial year	During the current financial year
Raw Coal	Washed Coal	12 Tonnes/Te	9.69 Tonnes/Te
Raw Coal	Washed Power Coal	0.62 Tonnes/Te	1.50 Tonnes/Te
Raw Coal	Rejects	2.8 Tonnes/Te	3.72 Tonnes/Te

PART-C
Pollution Discharged to Environment/Unit of Output
(PParameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water	Washery operates under Zero Liquid Discharge.		
(b) Air	Monitoring Reports attached.		
(c) Noise	Monitoring Reports attached.		

Note: Routine Environmental Monitoring is being done by Central Mine Planning and Design Institute Limited.

PART-D
HAZARDOUS WASTES

As specified under Hazardous Wastes (Management & Handling Rules, 2016).

Hazardous Wastes	Total Quantity	
	During the previous financial year (2021-22)	During the current financial year (2022-23)
1. From Process:		
Burnt Oil (Used/Spent Oil)	900 ltr.	800 ltr.
2. From Pollution Control Facilities	NIL	NIL

PART-E
SOLID WASTES

Solid Wastes	Total Quantity (Kg)	
	During the previous financial year (2021-22)	During the current financial year (2022-23)
a. From process	NIL	NIL
b. From Pollution Control Facility	NIL	NIL
c. Quantity recycled or re-utilized within the unit.	NIL	NIL

PART – F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

As already mentioned in Part D of this statement, Burnt Oil (Spent Oil/Used Oil) is being generated from Operation and Maintenance of Washery. Burnt oil is disposed off to a Disposal Facility through E- auction on MSTC Portal, a Govt. Of India Undertaking.

PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.

In order to carry out washery operations in eco-friendly manner the following pollution control measures have been adopted:

- Water sprinkling is being done on coal transportation road by mobile water tanker.
- Fixed- type water sprinklers have been installed along the approach road and internal roads of the washery to control fugitive dust emission.
- Regular sprinkling of water through fixed-type water sprinklers at coal transfer points and loading points as well as other dusty areas are been done and sprinklers are regularly maintained to ensure higher efficiency in dust suppression.
- Regular maintenance of plant machinery engaged in coal washing and other machines at washery is done.
- Safety equipment such as safety helmets, ear muffs, etc. are ~~to be~~ provided to operators and others who are exposed to high level noise.
- In addition to that, plantation is being done in undisturbed area/ transportation roads etc.

PART – H

Additional measures/investment proposal for environmental protection including abatement of pollution.

- Ambient Environmental Monitoring will be continued as per the guidelines of MoEF&CC and Jharkhand State Pollution Control Board.
- Application for consent for emission/continuation of emission under section 21 of the Air (prevention and control of pollution) Act, 1981 and Application for consent for discharge Continuation of discharge under section 25/26 of Water (Prevention and Control of Pollution) Act, 1974 will be regularly done and Conditions laid down in Consent to Operate granted by JSPCB will be strictly followed.
- Continuous Monitoring online PM₁₀ analyzer has been installed in the washery and also linked to the JSPCB Servers.
- The Conveyor Belts carrying the Raw Coal are installed with fixed sprinkling arrangements.

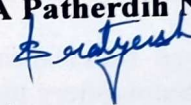
PART -I
MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution.

- Water sprinkling is being done on coal transportation road by mobile sprinkler or truck mounted fog cannon.
- Avenue plantation has been done along the approach roads and internal roads of the washery.
- Plantation has been done along the boundary of the Slurry Ponds of the washery.
- A Sneh Smriti Upvan has also been developed in the washery with native species.


03/11/23

Project Officer
5.0 MTPA Patherdih NLW Washery





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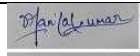
CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED
Environment Laboratory, Regional Institute-II
Ambient Air Quality Test Report

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

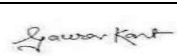
Test Report for Ambient Air Samples

Month & Year		02/2023	Cluster	Misc.			Report No.	RI-II/AIR/2023-24/02
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)					Date of Issue	20.07.2023
Project		Pathadih Washery :Industrial Area	Sample Ref. No.	REM/BCCL/2023/02	Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)	
Date of Sampling		03.05.23	17.05.23	Period of Analysis	01.05.2023	10.07.2023	Zone of Station:	CORE ZONE
Sl. No.	Parameter	Method Analysis of	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009
			1st FN	2nd FN				
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	128	92	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300	100
2	PM _{2.5}	IS -5182(Part 24):2019	65	49	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified	60
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120sss	80
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	25	20	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	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.

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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 CMPDIL, RI-II KOYLA BHAWAN COMPLEX DHANBAD. -826005 Phone:0326-223-850									
Month & Year	02/2023	Cluster						Report No.	RI-II/NOISE/2023-24/02
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue	20.07.2023
Project		Sample Ref. No.	REM/BCCL/2023/02			Sampling Method	CMPDI/RI-II/LPM 13		
Sampling Stations	i	Pathardih Washery	Date of Sampling		03.05.23	17.05.23	Zone Category of Station:	CORE 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	44.6	45.1	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	47	51.3					
3		08:00 - 09:00	48.1	52.5					
4		09:00 - 10:00	48.9	47.4					
5		10:00 - 11:00	49.7	52.4					
6		11:00 - 12:00	53.1	53					
7		12:00 - 13:00	53.1	53.1					
8		13:00 - 14:00	52.5	53.1					
9		14:00 - 15:00	52.6	52.5					
10		15:00 - 16:00	52	50.8					
11		16:00 - 17:00	51	49.5					
12		17:00 - 18:00	50.8	46.8					
13		18:00 - 19:00	50.4	49.3					
14		19:00 - 20:00	50	49.6					
15		20:00 - 21:00	48.9	50.3					
16		21:00 - 22:00	49	50					
		Leq Day	50.6	51.0					
1	Noise Level dB(A)Leq -Night	22:00-23:00	48.4	48.6	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	47.3	47.6					
3		00:00- 01:00	47	47.6					
4		01:00-02:00	46.7	47					
5		02:00-03:00	46.4	47.6					
6		03:00-04:00	46.1	46.3					
7		04:00-05:00	45.7	46.3					
8		05:00-06:00	46.6	47					
		Leq Night	46.8	47.3					

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

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

Test Report for Ambient Air Samples

Month & Year		April - 2023	Cluster		Misc.					Report No.		RI-II/AIR/2023-24/01	
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)								Date of Issue		17.06.2023	
Project		Pathadih Washery :Industrial Area			Sample Ref. No.	REM/BCCL/2023/01		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)			
Date of Sampling		06.04.23	19.04.23	Period of Analysis	17.04.2023 to 15.05.2023	01.05.2023 to 15.05.2023	Zone of Station:		CORE ZONE	AREA		Industrial area	
ssSl. 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	2nd FN								
1	PM ₁₀	IS -5182(Part 23):2006, R-2017		132	95	10 µg/m³ - 1000 µg/m³	10 µg/m³	300		100			
2	PM _{2.5}	IS -5182(Part 24):2019		67	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	120sss		80			
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017		17	16	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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Month & Year	01ss/2023	Cluster						Report No.	RI-II/NOISE/2023-24/01
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue	17.06.2023
Project		Sample Ref. No.	REM/BCCL/2023/01				Sampling Method	CMPDI/RI-II/LPM 13	
Sampling Stations	i	Pathardih Washery	Date of Sampling		06.04.23	19.04.23	Zone Category of Station:	CORE 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	46.1	46.6	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	48.7	53.1					
3		08:00 - 09:00	49.8	54.3					
4		09:00 - 10:00	50.6	49.1					
5		10:00 - 11:00	51.4	54.2					
6		11:00 - 12:00	54.9	54.8					
7		12:00 - 13:00	54.9	54.9					
8		13:00 - 14:00	54.3	54.9					
9		14:00 - 15:00	54.4	54.3					
10		15:00 - 16:00	53.8	52.6					
11		16:00 - 17:00	52.8	51.2					
12		17:00 - 18:00	52.6	48.4					
13		18:00 - 19:00	52.2	51					
14		19:00 - 20:00	51.8	51.3					
15		20:00 - 21:00	50.6	52.1					
16		21:00 - 22:00	50.7	51.8					
		Leq Day	52.4	52.7					
1	Noise Level dB(A)Leq -Night	22:00-23:00	49.8	50	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	48.6	48.9					
3		00:00- 01:00	48.3	48.9					
4		01:00-02:00	48	48.3					
5		02:00-03:00	47.7	48.9					
6		03:00-04:00	47.4	47.6					
7		04:00-05:00	47	47.6					
8		05:00-06:00	47.9	48.3					
		Leq Night	48.2	48.6					

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


 (Gaurav Kant)
ANALYSED BY


 (Amit Raj Mishra)
REVIEWED BY
Authorised Signatory

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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		03/2023	Cluster	Misc.				Report No.		RI-II/AIR/2022-23/12		
Customer		Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue		29.04.2023	
Project		Pathadih Washery :Industrial Area		Sample Ref. No.	REM/BCCL/2023/12		Sampling Method		CMPDI/RI-II/LPM 13 , (IS 5182)			
Date of Sampling		03.03.23		29.03.23	Period of Analysis		01.03.2023	10.04.2023	Zone of Station:		CORE ZONE	
Sl. No.	Parameter	Method of Analysis	Observed Values (in $\mu\text{g}/\text{m}^3$)		Range Of Testing	LDL	MoEF Standards Notification dated 25th September,2000 (GSR 742 E)	NAAQS, 2009				
			1st FN	2nd FN								
1	PM ₁₀	IS -5182(Part 23):2006, R-2017	110	98	10 $\mu\text{g}/\text{m}^3$ - 1000 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	300	100				
2	PM _{2.5}	IS -5182(Part 24):2019	63	57	10 $\mu\text{g}/\text{m}^3$ - 400 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	Not Specified	60				
3	SO ₂	IS-5182(Part-2): 2001 , R-2017	<10	<10	10 $\mu\text{g}/\text{m}^3$ - 1050 $\mu\text{g}/\text{m}^3$	10 $\mu\text{g}/\text{m}^3$	120sss	80				
4	NO ₂	IS-5182 (Part-6): 2006 , R-2017	20	21	06 $\mu\text{g}/\text{m}^3$ - 420 $\mu\text{g}/\text{m}^3$	06 $\mu\text{g}/\text{m}^3$	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

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 ----

  cmpdi <i>A Mini Ratna Company</i> 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									
Month & Year	03/2023	Cluster						Report No.	RI-II/NOISE/2022-23/12
Customer	Environment Department, Bharat Coking Coal Limited (BCCL), Koyla Bhawan, Dhanbad (E-mail: gmenv.bccl@coalindia.in)							Date of Issue	29.04.2023
Project		Sample Ref. No.	REM/BCCL/2023/12				Sampling Method	CMPDI/RI-II/LPM 13	
Sampling Stations	i	Pathardih Washery		Date of Sampling		03.03.23	29.03.23	Zone Category of Station: CORE 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	48.3	48.8	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	50.9	55.6					
3		08:00 - 09:00	52.1	56.9					
4		09:00 - 10:00	52.9	51.3					
5		10:00 - 11:00	53.8	56.7					
6		11:00 - 12:00	57.5	57.4					
7		12:00 - 13:00	57.5	57.5					
8		13:00 - 14:00	56.9	57.5					
9		14:00 - 15:00	57	56.9					
10		15:00 - 16:00	56.3	55.1					
11		16:00 - 17:00	55.3	53.6					
12		17:00 - 18:00	55.1	50.7					
13		18:00 - 19:00	54.6	53.4					
14		19:00 - 20:00	54.2	53.7					
15		20:00 - 21:00	52.9	54.5					
16		21:00 - 22:00	53	54.2					
		Leq Day	54.9	55.3					
1	Noise Level dB(A)Leq -Night	22:00-23:00	47.9	48.1	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	46.8	47.1					
3		00:00- 01:00	46.5	47.1					
4		01:00-02:00	46.2	46.5					
5		02:00-03:00	45.9	47.1					
6		03:00-04:00	45.6	45.8					
7		04:00-05:00	45.3	45.8					
8		05:00-06:00	46.1	46.5					
		Leq Night	46.4	46.8					

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

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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Modified Annual CSR Action Plan for FY 2023-24							
Sl. No.	CSR Project/Programme	Item from the list of the activities in schedule VII to the act	Estimated Budget (₹ in Lakhs)	Manner of execution/Executing Agency	Implementation Schedule	Monitoring and reporting mechanism	Details of need and impact assessment **, if any; as evaluated by BCCL
CSR projects/activities under HQ							
1	Construction of auditorium in Law college, Dhanbad	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly, and the differently abled and livelihood enhancement projects	40.00	BCCL	Award of work: 15/01/2024 Initiation of work: 20/01/2024 50% progress: 15/02/2024 75% progress: 15/03/2024 Completion of 1st phase of work: 31/03/2024	BCCL	Established in 1976, the college caters to legal aspirants from in & around Dhanbad. The auditorium is expected to benefit 580 students of the college for their induction/ orientation programs, cultural programs, in-house activities etc.
2	Construction of a library at Shahid Shakti Nath Mahto Smarak Uch Vidyalay	Eradicating hunger, poverty and malnutrition, [promoting health care including preventive health] and sanitation [Including contribution to the Swatch Bharat Kosh set-up by the Central Government for the promotion of sanitation] and making available safe drinking water	38.40	BCCL	Award of work: 10/11/2023 Initiation of work: 15/11/2023 50% progress: 15/01/2024 75% progress: 15/02/2024 Completion of work: 15/03/2024	BCCL	The library is expected to benefit 400 students belonging to East Tundi block in Dhanbad who study in the School
3	Providing Solar Light to tribal School in Jharkhand	Eradicating hunger, poverty and malnutrition, [promoting health care including preventive health] and sanitation [Including contribution to the Swatch Bharat Kosh set-up by the Central Government for the promotion of sanitation] and making available safe drinking water	2.50	BCCL	Floating of tender: 17/11/2023 Award of work: 15/12/2023 Completion of work: 15/01/2024	BCCL	These tribal Schools (Ratri Pathshalas) provide free education to poor & underprivileged students of Ranchi, Gumla & Lohardaga. On School caters to 200 students one on an average. Providing solar lighting solution as a pilot in one School shall help out the students in their night education.

4	Construction of multipurpose hall & deep boring including installation of pump with construction of tank at Pragha village, Belgaria	Eradicating hunger, poverty and malnutrition, [promoting health care including preventive health] and sanitation [Including contribution to the Swatch Bharat Kosh set-up by the Central Government for the promotion of sanitation] and making available safe drinking water	55.80	BCCL	Award of work: 15/12/2023 Initiation of work: 20/12/2023 50% progress: 20/02/2024 75% progress: 15/03/2024 Completion of work: 31/03/2024	BCCL	This all weather multipurpose hall with water facility is expected to cater to approximately 1000 villagers in & around Pragha village in Lodna in their social functions.
5	Procurement and distribution of sanitary pads under Pradhan Mantri Bhartiya Jan Aushadhi Pariyojna through Jan Aushadhi Suidha	Eradicating hunger, poverty and malnutrition, [promoting health care including preventive health] and sanitation [Including contribution to the Swatch Bharat Kosh set-up by the Central Government for the promotion of sanitation] and making available safe drinking water	3.60	BCCL	Award of work: 13/11/2023 Initiation of work: 30/11/2023 Completion of work: 30/03/2024	BCCL	Free distribution of sanitary pads is expected to benefit 1500 girl students of Dhanbad district.
6	Skill Development training on Plastic Processing Trade at CIPET Ranchi for 80 candidates	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	56.00	CIPET	Initiation of training: 15/11/2023 Completion of 50% training: 15/02/2024 Completion of training: 17/05/2024	BCCL	Training at CIPET has provided more than 80% placement in the past. Training to 80 candidates is expected to provide employment opportunities to the successful candidates and thus elevate their financial condition.
7	Construction of common room/hall at Chetna Mahavidyalay Sahraj (tribal School)	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	16.50	BCCL	Award of work: 10/11/2023 Initiation of work: 15/11/2023 50% progress: 15/01/2024 75% progress: 15/02/2024 Completion of work: 15/03/2024	BCCL	A tribal School located in Sahraj in Govindpur Dist., caters to 725 students of vicinity, 80% of whom are tribals. A common room/hall shall cater to their educational/cultural needs as well as utilization as boarding during times of need.

8	Skill Development Training program on GDA for 120 candidates	Eradicating hunger, poverty and malnutrition, [promoting health care including preventive health] and sanitation [Including contribution to the Swachh Bharat Kosh set-up by the Central Government for the promotion of sanitation] and making available safe drinking water	31.20	BCCL	Expression of interest:11/11/2023 Award of work: 25/11/2023 Initiation of training: 16/12/2023 Completion of training:16/06/2024	BCCL	Proposed by agencies in Pre EOI Meeting on skill development CSR held in September, 2023
9	Skill Development Training program on BFSI for 150 candidates	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	43.63	BCCL	Expression of interest:11/11/2023 Award of work: 25/11/2023 Initiation of training: 16/12/2023 Completion of training:16/03/2024	BCCL	Proposed by agencies in Pre EOI Meeting on skill development CSR held in September, 2023
10	Skill Development Training program on various trades through Indo Danish Tool room for 50 candidates	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	29.00	BCCL	Award of work: 10/11/2023 Initiation of training: 30/11/2023 Completion of training:30/05/2024	BCCL	Proposed directly through MSME center
11	Skill Development Training on HEMM for 50 candidates	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	79.00	BCCL	2023-24 & 2024-25	BCCL	Proposed by agencies in Pre EOI Meeting on skill development CSR held in September, 2023
12	Covid-19 (Settlement of Bill)	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swachh Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	82.28	BCCL	Payment done on 13/06/2023	BCCL	BCCL & Dhanbad Dist. Admin. fought hand in hand to combat COVID 19 menace in Dhanbad. Supporting Dist. Admin. reconfirms the image of BCCL as a responsible Corporate.
13	Har Ghar Tiranga	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	25.00	BCCL	Payment done on 12/08/2023	BCCL	₹ 25 lakhs contributed under CSR for supporting Har Ghar Tiranga campaign 2023 in Jharkhand

14	Construction of separate toilets for male and female along with allied civil works at Bhuneshwar Yadav Sukhdeo Narayan Inter Mahavidyalaya	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	15.00	BCCL	Award of work: 25/12/2023 Initiation of work: 30/12/2023 50% progress: 15/02/2024 75% progress: 15/03/2024 Completion of work: 31/03/2024	BCCL	
15	Upgradation of Mission Madhaya Vidyalay, Pokhariya, Purbi Tundi	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	10.91	BCCL	Deposit of amount with Dhanbad distict administration: 13/11/2023	Dhanbad district administration	This is a heritage school, students are primarily tribal children. Project has been recommended by District CSR Committee.
16	Installation of mini-science labs at 15 Government Schools of Dhanbad	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	84.00	Through District Administration	50% completion of work: 15/12/2023 100% completion of work: 15/02/2024	District Administration	This project shall foster healthy mind & scientific curiosity amongst school children
17	Providing Nutritional Baskets to TB patients of Dhanbad	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	5.06	Through CINI	Amount to be depositd with CINI by 30/11/2023.	BCCL	This project shall benefit 650 patients
Sub total of HQ			617.88				
CSR projects/activities recommended by Areas							

18	Construction of kitchen rooms, water storage tank, laying of paver blocks and misc civil works at Rajkiya Madhya Vidyalaya, Dubrajdihi Panchayat (WJ)	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	15.00	BCCL	Award of work: 15/12/2023 Initiation of work: 21/12/2023 50% progress: 21/01/2024 75% progress: 25/02/2024 Completion of work: 05/03/2024	BCCL	This project is expected to benefit 57 students of the School.
19	Development of Public Toilets, Drainage, pathway & other infrastructure works at Bauan Kalan (Uttar Panchayat) Barki Bauan, GKKC (Kusunda)	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	18.00	BCCL	Award of work: 10/12/2023 Initiation of work: 15/12/2023 50% progress: 15/01/2024 75% progress: 15/02/2024 Completion of work: 05/03/2024	BCCL	Providing public toilets is expected to benefit 500 persons in Kusunda.
20	Providing and fixing water supply pipe line for Ghutway Village near Damoda Colliery (Barora)	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	21.00	BCCL	Award of work: 30/11/2023 Initiation of work: 02/12/2023 50% progress: 15/01/2024 75% progress: 30/01/2024 Completion of work: 15/02/2024	BCCL	Providing filtered water to the villagers is expected to cater to the needs of 300 plus villagers which is also expected to address IR issues at the Area.

21	Development of Amrit Sarovar pond at Baliapur (Lodna)	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	30.00	BCCL	Award of work: 25/12/2023 Initiation of work: 30/12/2023 50% progress: 30/01/2024 75% progress: 15/02/2024 Completion of work: 10/03/2024	BCCL	As per instructions of GoI, total 75 ponds are to be developed in Dhanbad district which are being explored by Env. Dept. One pond out of 75, is proposed to be taken up under CSR which is expected to cater to more than 500 villagers in the vicinity.
22	Construction of library at Rajendra Balika Uchh Vidyalay at Katras	Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects.	20.00	BCCL	Award of work: 15/01/2024 Initiation of work: 20/01/2024 50% progress: 20/02/2024 75% progress: 15/03/2024 Completion of work: 31/03/2024	BCCL	This library shall benefit 200 students of the School
23	Laying of 100 mm dia DI pipe from BCCL intake site Dharmabandh water treatment plant to Niche Deoghara village under Govindpur Area	Eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation including contribution to the Swach Bharat Kosh set-up by the Central Government for the promotion of sanitation and making available safe drinking water.	3.76	BCCL	Completion and closure of work: 30/11/2023	BCCL	The water supply project shall benefit the villagers of Niche Deoghara village under Govindpur Area.
Sub total of Areas			107.76				
	Grand total		725.64				
Note							