

From: Kamlesh Kr Jha
Sent: 09 December 2024 16:00
To: 'ro.ranchi-mef@gov.in'; 'ranchijspcb@gmail.com'
Cc: 'JSPCB, Jamshedpur'
Subject: Submission of Half yearly compliance status report (Unit II) of M/s Adhunik Power & Natural Resources Ltd for the period – April 2024 to September 2024,-Reg.
Attachments: Annexure X- List of Local employees.pdf; Annexure XI-ETP Outlet- Sep 24.pdf; Annexure XII- Sewage Treatment Plant -60KLD.pdf; Annexure XIII(a)-Coal Test report.pdf; Annexure XIII-LDO Certificate 2023-26.pdf; Annexure XIV-Noise Monitoring -Sep 24.pdf; Annexure XV-Ambient Air -Sep 24.pdf; Annexure XVI-EMC CELL-31.12.2022.pdf; Annexure XVII-Environment Statement -Unit II- Submission Letter.pdf; Annexure XVIII-EC compliance Half Yearly -Unit II (Oct 23 -March 24).pdf; Covering Letter with Compliance report of EC -Unit II(APNRL).pdf; Annexure I-(Dalma Wildlife sanctuary).pdf; Annexure II-Gound Water Baseline-Sep 24.pdf; Annexure III-Piezometer.pdf; Annexure IV-Surface Water-Sep 24.pdf; Annexure IX-CSR report April 24- Sept 24.pdf; Annexure VI-Fly Ash Generation & Utilization (2024-25).pdf; Annexure VII-Bottom Ash- Sep 24 (1).pdf; Annexure VIII-Ash Pond Outlet- Sep 24.pdf; Annexure V-Stack Monitoring Unit II-Sep 24.pdf

Ref:- MoEF & CC issued Environment Clearance File No. J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report with Annexures **(Unit II)** for the period of **April 2024 to September 2024**.

Following Documents are attached :

1. Covering Letter with compliance report of Environment Clearance –Unit II
2. Annexure I- (Notification of Dalma Wildlife sanctuary)
3. Annexure II-Baseline Calibration water quality report
4. Annexure III-Piezometer
5. Annexure IV-Surface Water Quality Report
6. Annexure V-Stack Monitoring Report- U II
7. Annexure VI-Fly Ash Disposal report (April 2024- Sep 24)
8. Annexure VII-Bottom Ash Report (1)
9. Annexure VIII-Ash Pond Outlet Water Quality
10. Annexure IX-CSR-Report (April 24- September 24)
11. Annexure X-List of Local employees
12. Annexure XI-ETP Treated Water Quality Report
13. Annexure XII- Sewage Treatment Plant -60KLD
14. Annexure XIII-LDO Certificate 2023-26
15. Annexure XIII(a)-Coal Test report
16. Annexure XIV-Noise Monitoring Report
17. Annexure XV-Ambient Air Quality Report
18. Annexure XVI-EMC CELL-31.12.2022
19. Annexure XVII-Environment Statement -Unit II (2023-24)
20. Annexure XVIII-HYC-Unit II (**Oct 2023- March 2024**)-Acknowledgement Copy

This is for your reference and record, please.

Thanks & Regards,

Kamlesh Kumar

Adhunik Power & Natural Resources Ltd.

Vill.-Padampur,,Behind P.G.C.I.L Substation,Tata-Kandra Road

Saraikela-Kharsawan,Pincode:-832402,Jharkhand

Cell No: - 07763818994

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ADHUNIK POWER & NATURAL RESOURCES LIMITED

WORKS : Village - Padampur, Behind P.G.C.I.L. Substation,
Adityapur - Kandra Road, Saraikela - Kharsawan, PIN - 832402 Jharkhand
Phone : +91 - 657 - 6628400, Fax : +91 - 657 - 6628440
CIN - U40101WB2005PLC102935

Ref: MOE&F, RNC/HYC/KKJ/11224/02

Dated: 01.12.2024

To,

The Regional Office (Eastern-Central Zone)
Ministry of Environment, Forest & Climate Change
2nd Floor, Jharkhand State Housing Board (HQ)
Harmu Chowk, Ranchi, Jharkhand-834002

Sub: - Submission of Half-yearly compliance status report (Unit II) for the period – April 2024 to September 2024 -Reg.

Ref:- MoEF EC letter No.J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Sir,

With reference to the above-referred Environmental Clearance, we are pleased to submit herewith the half-yearly compliance status report (Unit II) for the period of April 2024 to September 2024.

This is for your reference and record, please.

Thanking you,

For Adhunik Power & Natural resources Limited

(Authorized Signatory)

Encl: As Above

Copy to:

1. Central Pollution Control Board, Kolkata
2. Member Secretary, Jharkhand State Pollution Control Board, Jharkhand
3. Regional Officer, JSPCB, Jamshedpur

CORPORATE OFFICE : "LANDSDOWNE TOWER", 2/1A, Sarat Bose Road, Kolkata - 700 020

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Website

: www.adhunikpower.com

REPORT

**ENVIRONMENTAL COMPLIANCE STATUS REPORT
FOR
EXPANSION OF 1X270 MW COAL BASED POWER
PLANT
(Unit II)**



APRIL 2024 – SEPTEMBER 2024

**Adhunik Power & Natural Resources Limited
Village: Padampur, Behind PGCIL Substation
Kandra Chouka Road, Saraikela-Kharsawan
Jharkhand**

Adhunik Power & Natural Resources Limited Vill: Padampur, Behind PGCIL Substation, Kandra Chouka Road, Saraikela-Kharsawan, Jharkhand		
Environmental Clearance Letter No: J13012/8/2009-IA .II (T) dtd 9th May 2011.		
Period Of Compliances: April 2024 to September 2024		
Sl No	EC Conditions	Status as on 30th September 2024
A. Specific Conditions:		
i.	Environmental clearance for the proposed expansion shall be applicable only for addition of 1x270 MW out of proposed addition of 3x270. However at a later stage when firm coal linkage for second and third units of 270 MW are also available, the project proponent may request the Ministry for inclusion of second and third units i.e. 2x270 MW, which the Ministry shall consider appropriately.	Noted
ii.	The Ministry had issued a draft Notification on 30 th September, 2011 vide S.O. 691(E) under the Environment (Protection) Act, 1986 notifying the areas upto 5 km from the boundary of the protected area of Dalma Wildlife Sanctuary in the State of Jharkhand as the Eco-sensitive Zone. The necessity of obtaining environmental clearance from the National Board for Wild life would arise only if the proposed project area falls within the boundary of the finally notified eco-sensitive zone.	As per notification date 29 th September 2012 project boundary are beyond the stipulated distance from the boundary of the protected area of Dalma Wildlife Sanctuary in the State of Jharkhand as the Eco-sensitive Zone. Notification regarding nearest distance from Dalma wildlife sanctuary enclosed as Annexure I. Complied
iii.	Wildlife conservation plan shall be implemented during the development of project itself and the status of implementation shall be submitted to the Ministry from time to time.	The Wild Life Management Plan (WLMP) has prepared already been approved by PCCF, Ranchi on May'10.2010. Complied
iv.	Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months.	Vision document report has submitted at MoEF on 30 th Dec 2011. Complied
v.	Possibility for harnessing solar power within the premises of the plant (particularly at available roof tops) shall be examined and status of implementation shall be submitted.	Installation of solar light system in all vulnerable area are completed.
vi.	Transport of coal shall be by rail only. The project proponent shall accordingly take up the matter with the Railways. Status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	As per the Environment (Protection) Amendment Rules, 2020 dated 21 May 2020, Transport of coal by covered trucks, has been permitted.
vii.	A study shall be undertaken by an organization of repute such as RIT, Jamshedpur on source sustainability of water, based on the data of the source of water (Subarnarekha River) for the last 50 years and a report submitted within six months.	Water sustainability report has been prepared by IIT Kharagpur. Report was already submitted to MoEF BBS dated 11.11.11. Complied

viii.	Water usage shall be restricted to 30 MCM.	Complied.
ix.	The project proponent shall seriously undertake rain water harvesting measures and shall develop water storage capacity for a larger period not less than 30 days storage before commissioning of the plant. Central Groundwater Authority/ Board shall be consulted for finalization of appropriate rainwater harvesting technology/design within a period of three months from the date of this clearance and details shall be furnished. The design of rain water harvesting shall comprise of rain water collection from the built up and open area in the plant premises. Action plan and road map for implementation shall be submitted to the Ministry within six months.	The Rain water harvesting report has already been submitted and approved from CGWA, Ranchi. 13 no Rain water harvesting structures has been constructed in accordance with the approved rain water harvesting plan. Complied
x.	Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponents expenses in consultation with the state govt.	Degenerated pond has been renovated as per request from local people/Gram Panchayat .
xi.	Hydrogeology of the area shall be reviewed annually from an institute/ organization of repute to assess impact of surface water and ground regime (especially around ash dyke). In case and deterioration is observed specific mitigation measures shall be undertaken and reports/ data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	Hydrogeology study are conducted by renowned expert organization to access impact of Surface water & ground regime. Regular monitoring of ground water quality in and around ash pond area including heavy metals is being carried out periodically. Ground water analysis report of upstream & Downstream of Ash pond in compared with baseline data for the month of September 2024 are enclosed as Annexure II.
xii.	Source of water for meeting the requirement during lean season shall be specified and submitted to the Regional Office of the Ministry within three months.	Lean season data has already submitted To MoEF BBS on 19th aug 2011. Complied
xiii.	No ground water shall be extracted for use in operation of the power plant even in lean season.	Ground water has not extracted for operation of the Power Plant.
xiv.	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up / operation of the power plant.	Natural drainage system has not been disturbed.
xv.	Minimum required environmental flow suggested by the Competent Authority of the State Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.	We are regular in touch with State Government ,if any suggestion will received from State Government , we shall adhere as per guidelines and same shall be inform to your good office.
xvi.	COC of 5.0 shall be adopted.	COC 5.0 has been considered for cooling tower design.
xvii.	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr,As,Pb) and records maintained and submitted to the Regional Office of this Ministry. The data	Regular monitoring of ground water in and around ash pond area including heavy metals is being carried out & report submitted to MoEF. Ground water analysis report of upstream & Downstream of Ash pond compared with baseline data for the month of September 2024 are enclosed as Annexure II. Regular monitoring of ground water level are

	so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.	done through Piezometer installed at following locations: 1. 22°50'20.9"N 86°03'27.4"E 2. 22°50'09.5"N 86°03'48.1"E 3. 22°49'50.1"N 86°03'37.9"E Photographs of installed Piezometers are enclosed as Annexure III .
xviii.	Monitoring surface water quality in the area shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Ground water analysis report of upstream & Downstream of Ash pond and Surface Water Analysis report for the month of September 2024 are enclosed as Annexure II & Annexure IV respectively.
xix.	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved. The leveling in plant area should be minimum with no or minimal disturbance to the natural drainage of the area.	Complied.
xx.	Provision for installation of FGD shall be provided for future use	FGD space is available on site for future use and installation of FGD are initiated.
xxi.	The project proponent shall undertake measures and ensure that no fugitive fly ash emissions take place at any point of time.	Effective provision for dust suppression system has been strictly implemented at all dust prone areas such as road, coal stock yard, Truck tippler, Ash pond & others areas. Fugitive emission could not be occurred due to nature of wet condition of bottom ash. However additional arrangement of water sprinkling has been implemented in case of emission occurs. In addition, 03 No Water tankers are deployed for dust suppression.
xxii.	Stacks of 275 m height shall be installed and provided with continuous online monitoring equipments for SO _x , NO _x and PM _{2.5} & PM ₁₀ . Exit velocity of flue gases shall not be less than 22 m/sec. Mercury emissions from stack may also monitored on periodic basis.	Twin flue chimney of 275m height has constructed for proper dispersion of flue gases. Online monitoring equipment has installed at chimney. Hg concentration is well within prescribed limits. Complied
xxiii.	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³ .	High efficient ESPs of 32 fields have installed to ensure control PM emission in flue gas. Stack Monitoring report from For the month of September 2024 are enclosed as Annexure V.
xxiv.	Adequate dust extraction system such as cyclones/ bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Necessary mitigation measures in accordance with EMP and EC conditions has taken to control fugitive emissions from ash storage/transfer and coal handling plant such as installation and operation of bag filters collectors, use of water spray systems and enclosed conveyors with well designed, extraction and filtration equipment on transfer points. Complied
xxv.	Utilization of 100% Fly Ash generated shall be made from 4 th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Fly Ash utilization are adhered in compliance with MoEF&CC notification dated 31.12.2021. Fly Ash generation & Utilization report (April 2024 to September 2024) are enclosed as Annexure VI .

xxvi.	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form. Mercury and other heavy metals (As,Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.	02 No Silos has Constructed to storage of fly ash. Monitoring of mercury and other heavy metals (As, Hg, Cr, Pd etc.) in the bottom ash and also in the effluents emanating from the ash pond is being done periodically. Bottom ash analysis report & effluent analysis report of ash pond For the month of September 2024 are enclosed as Annexure VII & Annexure VIII respectively.
xxvii.	Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.	Complied.
xxviii.	For disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) shall be done after obtaining due permission from DGMS and after ensuring that the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the State Pollution Control Board well in advance before undertaking the activity	Not Applicable.
xxix.	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.6 % and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to MOEF for suitable amendments to environmental clearance condition wherever necessary.	The Sulphur content in used coal conforms the limits. As per the Environment (Protection) Amendment Rules, 2020 dated 21 May 2020, Use of coal by Thermal Power Plants, without stipulations as regards ash content or distance shall be permitted.
xxx.	Green Belt consisting of 3 tiers of plantations of native species around plant and at least 75 m width shall be raised. The density of tree shall not less than 2500 per ha and survival rate not less than 80 %.	A thick green belt of adequate width is being developed.68123 nos. (Area covered-30.9 Hac) of plantation has been completed in and outside along the periphery of the power plant to arrest any dust emissions and help in attenuation of noise. Total Survival rate of Plant are 85.6 %. Name of Plant Species- Neem, Seesam, Mango, Jamun etc.
xxxi.	Over and above the green belt, as carbon sink, social forestry shall be carried out in close consultation with the Forests Department. The project proponent shall accordingly identify blocks of land / degraded forests and shall undertake regeneration of degraded forests at a large scale. In pursuance to this the project proponent shall formulate time bound action plan along with financial allocation and shall submit status of implementation to the Ministry within six months.	Letter has been submitted to Forest Department for guidance on implementation of social forestry.

xxxii.	At least three nearest village shall be adopted and basic amenities like development of roads, drinking water supply, primary health centre, primary school etc shall be developed in co-ordination with the district administration.	APNRL has adopted villages - Barahariharpur - Padampur - Srirampur CSR is also providing the facilities in following villages - Pindrabera - Chotahariharpur - Ramjivanpur - Bikanipur etc. Details of CSR activity enclosed as Annexure IX.
xxxiii.	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	Details of CSR activity enclosed as Annexure IX.
xxxiv.	A time bound implementation of the CSR shall be formulated within six months and submitted to the Ministry. CSR schemes shall be undertaken based on need assessment in and around the villages within 5 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR, prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken.	List of local employed youth enclosed as Annexure X. Complied
xxxv.	For the tribal families (if any) living in the area within 5.0 Km of site, affected directly or indirectly by the proposed project, specific schemes for upliftment of their sustainable livelihood shall be prepared with time bound implementation and in-built monitoring programme. The status of implementation shall be submitted to the Regional Office of the Ministry from time to time.	CSR activities are being carried out in the surrounding villages keeping in mind the upliftment of tribal families. Details of CSR activity enclosed as IX .
xxxvi.	An amount of Rs 23.70 Crores shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure of Rs 4.74 Crores per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six month along with road map for implementation.	We have submitted copy of capital cost & year wise recurring expenditure on CSR activities to MoEF &CC, Ranchi Office on 05.12.2018. Complied.
xxxvii.	It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time	All CSR activities are monitored on weekly and monthly basis. We have conducted social audit through renowned organization who are well aware about Social Audit in Jharkhand region. Copy of Social audit shall be submitted shortly.

B. General Conditions:		
i.	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not do not get mixed.	Complied. Treated effluent analysis report of ETP from For the month of September 2024 are enclosed as Annexure XI.
		Adequate and separate drainage structures has provided to channel storm water generated onsite into rain water harvesting structures constructed in accordance with the approved rain water harvesting plan.
ii.	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation	STP 60 KI capacity (03 No) has installed within plant premises to treat sewage waste. Photographs enclosed as Annexure XII.
iii.	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	The design of coal yard along with provision of fire safety measures viz. fire hydrants, water sprinklers has installed. Complied
iv.	Storage facilities for auxiliary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area in consultation with Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	Approval received on dated 24/02/2022. License No. P/HQ/JH/15/1065 (P257355), valid upto 31.12.2026 for LDO storage installation (under Petroleum Class "C") for operations. Copy of Approval are enclosed as Annexure XIII.
		APNRL is using liquid fuel with sulfur content variation between 0.80 -1.5% which is provided by HPCL. Copy of Test report are enclosed as Annexure XIII(a)
		Emergency Response Plan (ERP) has prepared as part of the project ESMS to cater to potential emergencies/risks identified.
v.	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Plant is in operational condition however A first aid center comprising with necessary medical facilities is made available onsite to provide emergency medical aid to both contract workers and company staff. Complied.
vi.	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85 dBA from source. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas	Adequate measures has implemented in consistent with the EMP to control turbine noise levels within stipulated limits. This include installing of sufficient engineering control in turbines as per design specifications, provision of ear plugs/ear muffs for workers exposed to high noise, rotation of workers and carrying out periodic audiometric testing of workers and records is being maintained. Noise level monitoring report For the month of September 2024 are enclosed As Annexure XIV.

vii.	Regular monitoring of ambient air ground level concentration of SO ₂ , NO _x , PM _{2.5} & PM ₁₀ and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry. The data shall also be put on the website of the company.	Ambient Air monitoring reports carried out by NABL accredited Laboratory for the month of September 2024 are enclosed As Annexure XV. Review of air quality monitoring results revealed compliance to NAAQS. Realtime data of CAAQMS has been uploaded at CPCB & JSPCB website.
viii.	Provision shall be made for the housing of construction labor (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Plant is in operational condition and local labors are coming from nearby villages. Complied
ix.	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in .	Complied
x.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	A copy of EC has been submitted in Gram Panchayat & DC office and copy of Environment Clearance has been uploaded on company website.
xi.	An Environmental Cell comprising of at least one expert in environmental science / engineering, occupational health and social scientist, shall be created at the project site itself and shall be headed by an officer of appropriate superiority and qualification. It shall be ensured that the Head of the Cell shall directly report to the head of the organization and he shall be held responsible for implementation of environmental regulations and social impact improvement/mitigation measures.	A Environmental Management Cell consist high qualified environmental professionals are being operational onsite to ensure effective implementation of specific EMPs. Organization chart of Environmental Management Cell enclosed as Annexure XVI.

xii.	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM (PM _{2.5} & PM ₁₀), SO ₂ , NO _x (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	The updated compliance status of the stipulated EC conditions along with monitored data has been uploaded on the company website. The monitoring data (SPM, RSPM, SO ₂ , NO _x) for both ambient air quality and chimney emissions is being displayed at the main gate of the company. Compliance status of the stipulated EC conditions has been uploaded on company website and hard copy of same has been submitted for the period of April 2022 to September 2022 in office of MoEF, Ranchi & CPCB office, Kolkata along with monitored data.
xiii.	The environment statement for each financial year ending 31 st September in Form-V as 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 put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	The last environmental statement for financial year (2023-24) in Form V has submitted to JSPCB/CPCB/MoEF dated 24 th Sep 2024 through E mail. Acknowledgement copy of same attached as Annexure XVII. Environment Statement (2023-24) has been uploaded on company website.
xiv.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests	Last six monthly reports for the project along with environmental monitoring data submitted to MoEF RO at Ranchi office vide letter No MOE&F,RNC/HYC/KKJ/23524/02 ,dated 23 rd may 2024 through E mail . Acknowledgement copy of same attached as Annexure XVIII.
xv.	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NO _x (from stack & ambient air) shall be displayed at the main gate of the power plant.	A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information already submitted to the Board. The updated compliance status of the stipulated EC conditions along with monitored data has been uploaded on the company website. The monitoring data (SPM, RSPM, SO ₂ , NO _x) for both ambient air quality and chimney emissions is being displayed at the main gate of the company.

xvi.	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported to the Ministry.	Adequate budgetary provision has been made by the APNRL for execution of environmental management plan.
xvii.	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant	Complied
xviii.	Full cooperation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB/ SPCB who would be monitoring the compliance of environmental status	We ensure.

कार्यालय :- प्रधान मुख्य वन संरक्षक झारखण्ड, राँची।

पत्रांक:-19एम01(5)29/2008 2574 दिनांक:-23.7.09

सचिव,

वन एवं पर्यावरण विभाग,

झारखण्ड सरकार, राँची।

मैसर्स आधुनिक थर्मल एनर्जी लिमिटेड के कान्झा पदमपुर, श्री रामपुर, रामचन्द्रपुर मौजा, जिला-सरायकेला-खरसावा में स्थापित किये जाने वाले थर्मल पावर प्रोजेक्ट के लिए पर्यावरणीय स्वीकृति के संबंध में।

विभागीय पत्रांक-308, दिनांक-04.02.09

उपर्युक्त विषयक संदर्भ में सूचित करना है कि प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, राँची ने अपने पत्रांक 463, दिनांक-02.07.2009 (छायाप्रति संलग्न) द्वारा संबंधित विषय पर प्रतिवेदन/मंतव्य समर्पित किया है। उक्त प्रतिवेदन एवं उपलब्ध अभिलेखों के आधार पर प्रस्तावित परियोजना स्थल के संबंध में स्थिति निम्नवत् है :-

1. विषयक थर्मल पावर प्रोजेक्ट काण्डा पदमपुर, श्रीरामपुर, रामचन्द्रपुर मौजा की गैर-वन भूमि पर स्थापित किये जाने का प्रस्ताव है।
2. उपरोक्त पावर प्रोजेक्ट दलमा वन्यप्राणी आश्रयणी की निकटतम सीमा से लगभग 7.5 कि०मी० दूर स्थापित होगा। प्रस्तावित क्षेत्र की 10 कि०मी० त्रिज्या के अंदर अवस्थित वन भूमि सिंहभूम गज आरक्ष्य का भाग है।
3. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, राँची के द्वारा पावर प्रोजेक्ट के लिए प्रस्तावित स्थल को प्रस्तावित इको-सेंसिटिव जोन से सटा हुआ बताया गया है, जबकि दलमा वन्यप्राणी आश्रयणी के लिए प्रस्तावित इको-सेंसिटिव जोन से संबंधित जो प्रस्ताव राज्य सरकार को भेजा गया है उसके अनुसार प्रस्तावित स्थल प्रस्तावित इको-सेंसिटिव जोन की निकटतम सीमा से लगभग 2.5 कि०मी० दूर अवस्थित है। इस क्रम में अनुलग्नक- 1 पर दो प्रतियों में नक्शा संलग्न है।
4. पावर प्रोजेक्ट के लिए प्रस्तावित स्थल से 8 से 10 कि०मी० की दूरी पर दलमा-रूगाई गज-कोरीडोर एवं दलमा-चंडिल गज-कोरीडोर अवस्थित है। इस क्षेत्र के पास एक अन्य गज-कोरीडोर चांडिल-माथा कोरीडोर भी है, जो प्रस्तावित स्थल से 10 कि०मी० से अधिक दूरी पर अवस्थित है। इसके अतिरिक्त कोई अन्य हाथी कोरीडोर प्रस्तावित

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क्षेत्र के पास पूर्व चिन्हित नहीं है। उपरोक्त गज-कोरीडोर को दिखाते हुए नक्शा (अनुलग्नक-2) दो प्रतियों में संलग्न है।

5. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, रांची के द्वारा अपने प्रतिवेदन में यह उल्लेख किया गया है कि दलमा वन्यप्राणी आश्रयणी की दक्षिणी सीमा पर स्वर्णरेखा नहर की गहरी खोदाई के कारण इस क्षेत्र में हाथियों का आवागमन अनियामित है। उन्होंने यह भी वर्णित किया है कि आश्रयणी से हाथियों का आवागमन रामगढ़, एन0एच0-33, डोभी, कपालन, तमोलिया होते हुए पुनः आश्रयणी की ओर हो रहा है। पूर्व में यह पलना जलाशय तक होता था, जो वर्तमान में नहर की खोदाई के कारण बाधित है। इस संबंध में नक्शे की समीक्षापरान्त यह पाया गया है कि यदि हाथियों का आवागमन पूर्ववतः आश्रयणी से पलना जलाशय तक होता भी है तब भी प्रस्तावित स्थल ऐसे किसी आवागमन मार्ग के बीच में नहीं आयेगा। पलना जलाशय की लोकेशन को दर्शाते हुए एक नक्शा भी इस पत्र के साथ संलग्न किया जा रहा है जिससे स्पष्ट होगा कि यह जलाशय प्रस्तावित स्थल से लगभग 17 कि0मी0(उत्तर पूर्व) की दूरी पर अवस्थित है। प्रस्तावित स्थल होकर हाथियों का आवागमन होने की या कोई पूर्व-स्थापित गज-कोरीडोर होने की कोई ठोस सूचना/प्रमाण उपलब्ध नहीं है।
6. झारखंड राज्य में गज-कोरीडोर को चिन्हित करने का कार्य एक स्वयंसेवी संस्था "वाइल्ड लाइफ ट्रस्ट ऑफ इण्डिया, नई दिल्ली" के द्वारा किया गया है। इस कार्य में झारखंड वन विभाग के द्वारा भी सहयोग किया गया था। उपरोक्त स्वयंसेवी संस्था द्वारा प्रकाशित 'Right of Passage- Elephant Corridors of India' नामक पुस्तक में झारखंड राज्य के लिए कुल 14 गज-कोरीडोर वर्णित है तथा इसी सूचना के आधार पर कंडिका चार में वर्णित तीन गज कोरीडोर को नक्शे पर दर्शाया गया है।
7. प्रस्तावित स्थल के आसपास कई अन्य उद्योग, यथा पावर ग्रिड कॉरपोरेशन ऑफ इण्डिया लि0, बी0के0 स्टील आई0ओ0सी0एल0, टी0सी0एस0, उषा मार्टिन, नीलांचल स्टील, आदि स्थापित हैं। यह अनुलग्नक-3 पर दो प्रतियों में उपलब्ध नक्शे से स्पष्ट है। इस क्षेत्र में कई उद्योग होने के कारण भी इसे दलमा वन्यप्राणी आश्रयणी के प्रस्तावित इको-सेंसिटिव जोन से बाहर रखा गया था।
8. वन प्रमण्डल पदाधिकारी, वन्यप्राणी प्रमण्डल, रांची ने प्रस्तावित स्थल दलमा आश्रयणी एवं elephant bearing area के समीप होने के कारण हाथियों के आवागमन पर पड़ने वाले प्रतिकूल प्रभाव की संभावना बताते हुए प्रस्तावित परियोजना हेतु अनापत्ति प्रमाण-पत्र निर्गत नहीं करने की अनुशंसा की है। परंतु वन संरक्षक, वन्य प्राणी अंचल, रांची ने वन प्रमण्डल पदाधिकारी द्वारा अपने प्रतिवेदन में उठाए गये विभिन्न विन्दुओं पर

समीक्षात्मक टिप्पणी अंकित करते हुए उनकी अनुशंसा से सहमति व्यक्त नहीं की है, जो उपरोक्त कंडिकाओं में उलेखित तथ्यों एवं संलग्नक मानचित्रों पर आधारित है। प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, रांची, वन संरक्षक के उपर्युक्त मंतव्य से सहमत हैं।

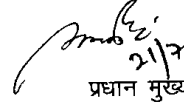
9. प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, रांची द्वारा अग्रलिखित शर्त पर संबंधित परियोजना हेतु एनओसी निर्गत करने की अनुशंसा की गई है कि EIA के ToR की शर्त V के आलोक में प्रयोक्ता अभिकरण को इस आशय की वचनबद्धता देनी होगी कि प्रयोक्ता अभिकरण वन्य प्राणी विशेषज्ञ की मदद से Wildlife Mitigation and Conservation Plan उक्त क्षेत्र विशेष हेतु तैयार करा कर EIA में शामिल करेंगे और उक्त योजना का कार्यान्वयन वन विभाग के माध्यम से प्रयोक्ता अभिकरण की लागत पर किया जायेगा।

प्रधान मुख्य वन संरक्षक, जैव विविधता संरक्षण एवं मुख्य वन्यप्राणी प्रतिपालक, झारखण्ड, रांची के उपर्युक्त मंतव्य से अद्योहस्ताक्षरी सहमत हैं।

अनुरोध है कि विषयगत पर्यावरणीय स्वीकृति पर अग्रतर कार्यवाई करने की कृपा की जाय।

अनु०—यथोक्त।

विश्वासभाजन,



प्रधान मुख्य वन संरक्षक,
झारखण्ड, रांची।

21/7
1919

**Test Report****Baseline Ground Water Quality Report**

Discipline	Chemical	Group	Water	Sample Description	Ground Water
Report Release Date	30 th September, 2024			Type of Industry (if any)	Thermal Power Plant
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	20/09/2024			Mode of sample collection	By YBAEEL Team
Sampling Plan	YBAEEL/SP/149-2024			Sample Code	240921-GW-01
Sampling Location	Srirampur Village, Borewell			Sampling Source	Ground Water
Sample pkg. Condition	Sealed Pack in PP Bottle			Sample Quantity	3000 ml
Meteorological Cond. of Field	W.C.– Partly Cloudy			RH % - 61	Temp. – 33°C
Sample receipt Date	21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.06 at 25.7°C	6.9-7.4	6.5-8.5
2.	Taste	IS 3025 (P-07 & 08):2017&2023	--	Agree.	Agreeable	Agreeable
3.	Odour	IS 3025 (P-05):2018	--	Agree.	Unobjectionable	Agreeable
4.	Colour	IS 3025 (P-04):2021 (Visual Comparison Method)	Hazen	<5	<5	5-15
5.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	682.0 at 25.6°C	--	--
6.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	158.0	147-269	200-600
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	212.0	128-308	200-600
8.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	540.0	251-538	500-2000
9.	Chlorine Residual	IS 3025 (P-26):2021 (Iodometric Method)	mg/l	BDL (MDL 0.07)	<0.05	0.2-1
10.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	58.14	42-74	250-1000
11.	Fluoride (as F ⁻)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.16	0.31-0.50	1.0-1.5
12.	Nitrate (as NO ₃ ⁻ N)	APHA 4500 NO ₃ ⁻ (B) 24 th edition 2023 (UV Screening Method)	mg/l	1.54	03-24	45-No relaxation
13.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	35.13	06-28	200-400
14.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	mg/l	71.34	41-99	75-200
15.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	8.17	--	30-100
16.	Sodium (as Na ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	44.0	--	--
17.	Potassium (as K ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	1.0	--	--

Prepared By – Pinkiy Kumari (Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

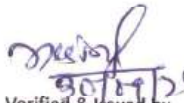
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Sampling Plan		YBAEEL/SP/149-2024		Sample Code	240921-GW-01
Sampling Location		Srirampur Village, Borewell		Sampling Source	Ground Water
Sample pkg. Condition		Sealed Pack in PP Bottle		Sample Quantity	3000 ml
Meteorological Cond. of Field		W.C.- Partly Cloudy		RH % - 61	Temp. - 33°C
Sample receipt Date		21/09/2024	Analysis Started on	21/09/2024	Analysis completed on 30/09/2024

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
18.	Cyanide(as CN ⁻)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	mg/l	BDL (MDL 1.0)	--	0.05-No relaxation
19.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	<0.01	0.01-No relaxation
20.	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	<0.01	0.05-1.5
21.	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.89	0.13-0.90	1.0-No relaxation
22.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	<0.01	0.01-No relaxation
23.	Selenium (as Se)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--	0.01-No relaxation
24.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.43	0.31-0.47	5-15
25.	Cadmium (as Cd)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	<0.01	0.003-No relaxation
26.	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	<0.001	0.001-No relaxation
27.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	<0.01	0.05-No relaxation
28.	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--	0.02-No relaxation
29.	Cobalt (Co)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.03)	--	--
30.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochrome Cyanine R Method)	mg/l	BDL (MDL 0.02)	--	0.03-0.2

Limit is specified as	IS 10500:2012, RA 2018.
Abbreviation	MDL - Minimum detection limit, BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 85 ± 5% in all testing areas as per IS 196-1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limits.

Prepared By - Pinkiy Kumari (Lab Analyst)


Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
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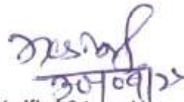
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Discipline	Chemical	Group	Water	Sample Description		Ground Water
Report Release Date		30 th September, 2024		Type of Industry (if any)		Thermal Power Plant
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date		20/09/2024		Mode of sample collection		By YBAEEL Team
Sampling Plan		YBAEEL/SP/149-2024		Sample Code		240921-GW-02
Sampling Location		Hariharpur Village, Borewell		Sampling Source		Ground Water
Sample pkg. Condition		Sealed Pack in PP Bottle		Sample Quantity		3000 ml
Meteorological Cond. of Field		W.C.– Partly Cloudy		RH % - 61		Temp. – 33°C
Sample receipt Date		21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.02 at 25.5°C	6.9-7.4	6.5-8.5
2.	Taste	IS 3025 (P-07 & 08):2017&2023	--	Agree.	Agreeable	Agreeable
3.	Odour	IS 3025 (P-05):2018	--	Agree.	Unobjectionable	Agreeable
4.	Colour	IS 3025 (P-04):2021 (Visual Comparison Method)	Hazen	<5	<5	5-15
5.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	549.0 at 25.6°C	--	--
6.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	130.0	147-269	200-600
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	198.0	128-308	200-600
8.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	450.0	251-538	500-2000
9.	Chlorine Residual	IS 3025 (P-26):2021 (Iodometric Method)	mg/l	BDL (MDL 0.07)	<0.05	0.2-1
10.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	66.02	42-74	250-1000
11.	Fluoride (as F ⁻)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.24	0.31-0.50	1.0-1.5
12.	Nitrate (as NO ₃ - N)	APHA 4500 NO ₃ - (B) 24 th edition 2023 (UV Screening Method)	mg/l	4.96	03-24	45-No relaxation
13.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	38.42	06-28	200-400
14.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	mg/l	63.32	41-99	75-200
15.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	9.64	--	30-100
16.	Sodium (as Na ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	31.0	--	--
17.	Potassium (as K ⁺)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	2.0	--	--

Prepared By - Pinkiy Kumari (Lab Analyst)


Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018

**Test Report****Baseline Ground Water Quality Report**

Discipline	Chemical	Group	Water	Sample Description	Ground Water
Report Release Date		30 th September, 2024		Type of Industry (If any)	Thermal Power Plant
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.			
Sampling Date		20/09/2024		Mode of sample collection	By YBAEEL Team
Sampling Plan		YBAEEL/SP/149-2024		Sample Code	240921-GW-02
Sampling Location		Hariharpur Village, Borewell		Sampling Source	Ground Water
Sample pkg. Condition		Sealed Pack in PP Bottle		Sample Quantity	3000 ml
Meteorological Cond. of Field		W.C.- Partly Cloudy		RH % - 61	Temp. - 33°C
Sample receipt Date		21/09/2024	Analysis Started on	21/09/2024	Analysis completed on 30/09/2024

Sl	Parameter	Test Method	Units	Results	Baseline Ground Water Quality	Permissible Limit (as per IS 10500 Specification)
18.	Cyanide(as CN ⁻)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	mg/l	BDL (MDL 1.0)	--	0.05-No relaxation
19.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	<0.01	0.01-No relaxation
20.	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	<0.01	0.05-1.5
21.	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.48	0.13-0.90	1.0-No relaxation
22.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	<0.01	0.01-No relaxation
23.	Selenium (as Se)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--	0.01-No relaxation
24.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.10	0.31-0.47	5-15
25.	Cadmium (as Cd)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	<0.01	0.003-No relaxation
26.	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	<0.001	0.001-No relaxation
27.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	<0.01	0.05-No relaxation
28.	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--	0.02-No relaxation
29.	Cobalt (Co)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.03)	--	--
30.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochrome Cyanine R Method)	mg/l	BDL (MDL 0.02)	--	0.03-0.2

Limit is specified as	IS 10500:2012, RA 2018.
Abbreviation	MDL - Minimum detection limit. BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C)
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limits.

Prepared By – Pinkiy Kumari (Lab Analyst)

Sanjeev Kumar Singh
30/09/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



Piezometer At Plant premises





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :-
Registered by :-
Certified by :-

NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	7	3	F
Discipline	Chemical	Group	Water			Sample Description			Surface Water											
Report Release Date		30 th September, 2024						Report ID		YBAEEL-2409-19										
W. Order / JSPCB App. No.		3030006964						Work Order Date		03.02.2024										
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.		YBAEEL/C/W/Sept. – 24/08										
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		20/09/2024						Mode of sample collection			By YBAEEL Team									
Sampling Plan		YBAEEL/SP/149-2024						Sample Code			240921-SW-01									
Sampling Location		Srirampur Village, Pond						Sampling Source			Surface Water									
Sample pkg. Condition		Sealed Pack in PP Bottle						Sample Quantity			3000 ml									
Meteorological Cond. of Field		W.C.– Partly Cloudy						RH % - 63			Temp.–32°C									
Sample receipt Date		21/09/2024		Analysis Started on				21/09/2024			Analysis completed on				30/09/2024					

*****Test Results *****

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	6.73 at 25.6°C	6.5-8.5
2.	Odour	IS 3025 (P-05):2018	--	Agree.	--
3.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	800.0 at 25.7°C	--
4.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	112.0	--
5.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	156.0	--
6.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	480.0	--
7.	Total suspended solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	22.0	--
8.	Oxygen (dissolved)	IS 3025 (P-38):1989, RA 2019 (Titrimetric Method)	mg/l	4.2	4
9.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	78.84	--
10.	Fluoride (as F ⁻)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.21	--
11.	Nitrate (as NO ₃ ⁻ N)	APHA 4500 NO ₃ ⁻ (B) 24 th edition 2023 (UV Screening Method)	mg/l	0.19	--
12.	BOD	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/l	2.6	3
13.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	10.0	--
14.	Oil and grease	IS 3025 (P-39):2021 (Partition Gravimetric Method)	mg/l	3.1	--
15.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	73.56	--
16.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	mg/l	28.05	--
17.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	10.17	--
18.	Sodium (as Na ⁺)	IS 3025 (P-45), Flame Emission Photometric Method.	mg/l	22.0	--
19.	Potassium (as K ⁺)	IS 3025 (P-45), Flame Emission Photometric Method.	mg/l	3.0	--
20.	Ammoniacal Nitrogen	IS 3025 (P-34):1998, RA 2019 (Titrimetric Method)	mg/l	0.11	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL - Minimum detection limit. BDL - Below detection limit
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1986 (G)
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limits.

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)

Verified & Issued By
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Registered by :-
Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

Discipline	Chemical	Group	Water	Sample Description	Surface Water
Report Release Date	30 th September, 2024			Report ID	YBAEEL-2409-19
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry (If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/W/Sept. - 24/08
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	20/09/2024		Mode of sample collection	By YBAEEL Team	
Sampling Plan	YBAEEL/SP/149-2024		Sample Code	240921-SW-01	
Sampling Location	Srirampur Village, Pond		Sampling Source	Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	3000 ml	
Meteorological Cond. of Field	W.C.- Partly Cloudy		RH % - 63	Temp.-32°C	
Sample receipt Date	21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Cyanide(as CN ⁻)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	mg/l	BDL (MDL 1.0)	--
2.	Phenols (C ₆ H ₅ OH)	IS 3025 (P-43/Sec1):2022 (4-Aminoantipyrine Method)	mg/l	BDL (MDL 0.001)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL - Minimum detection limit BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1986 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	*****

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)


20/09/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :- NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Registered by :- Jharkhand State Pollution Control Board (JSPCB)
Certified by :- ISO 9001:2015 & ISO 45001:2018



Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	7	4	F
Discipline	Chemical	Group	Residue & Contaminants in Water							Sample Description					Surface Water					
Report Release Date		30 th September, 2024							Report ID					YBAEEL-2409-19						
W. Order / JSPCB App. No.		3030006964							Work Order Date					03.02.2024						
Type of Industry(If any)		Thermal Power Plant							Job code/ Ref. no.					YBAEEL/C/R/Sept. – 24/04						
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		20/09/2024							Mode of sample collection					By YBAEEL Team						
Sampling Plan		YBAEEL/SP/149-2024							Sample Code					240921-SW-01						
Sampling Location		Srirampur Village, Pond							Sampling Source					Surface Water						
Sample pkg. Condition		Sealed Pack in PP Bottle							Sample Quantity					1000 ml						
Meteorological Cond. of Field		W.C.– Partly Cloudy							RH % - 63					Temp.–32°C						
Sample receipt Date		21/09/2024		Analysis Started on			21/09/2024			Analysis completed on					30/09/2024					

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	--
2.	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	--
3.	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	1.33	--
4.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.21	--
5.	Selenium (as Se)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--
6.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.10	--
7.	Cadmium (as Cd)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
8.	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	--
9.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
10.	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
11.	Cobalt (Co)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.03)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL : Minimum detection limit. BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	*****

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)

*****End of Report*****

Verified & issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Registered by :-
Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

Discipline	Chemical	Group	Residue & Contaminants in Water	Sample Description	Surface Water
Report Release Date	30 th September, 2024			Report ID	YBAEEL-2409-19
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry (If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/R/Sept. - 24/04
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	20/09/2024	Mode of sample collection		By YBAEEL Team	
Sampling Plan	YBAEEL/SP/149-2024	Sample Code		240921-SW-01	
Sampling Location	Srirampur Village, Pond	Sampling Source		Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity		1000 ml	
Meteorological Cond. of Field	W.C.- Partly Cloudy	RH % - 63		Temp.-32°C	
Sample receipt Date	21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

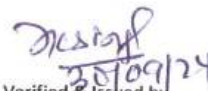
*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochrome Cyanine R Method)	mg/l	BDL (MDL 0.02)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	*****

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)

*****End of Report*****


20/09/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

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Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand

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ISO 9001:2015
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TC-12989

Test Report

ULR (Unique Lab Report) No.				TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	7	5	F
Discipline	Chemical	Group		Water		Sample Description				Surface Water											
Report Release Date		30 th September, 2024				Report ID				YBAEEL-2409-19											
W. Order / JSPCB App. No.		3030006964				Work Order Date				03.02.2024											
Type of Industry(If any)		Thermal Power Plant				Job code/ Ref. no.				YBAEEL/C/W/Sept. – 24/08											
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																			
Sampling Date		20/09/2024				Mode of sample collection				By YBAEEL Team											
Sampling Plan		YBAEEL/SP/149-2024				Sample Code				240921-SW-02											
Sampling Location		Padampur Village, Pond				Sampling Source				Surface Water											
Sample pkg. Condition		Sealed Pack in PP Bottle				Sample Quantity				3000 ml											
Meteorological Cond. of Field		W.C.– Partly Cloudy				RH % - 63				Temp.–33°C											
Sample receipt Date		21/09/2024		Analysis Started on		21/09/2024				Analysis completed on				30/09/2024							

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.39 at 25.7°C	6.5-8.5
2.	Odour	IS 3025 (P-05):2018	--	Agree.	--
3.	Conductivity	IS 3025 (P-14):2013, RA 2019	µs/cm	712.0 at 25.6°C	--
4.	Total Alkalinity (as CaCO ₃)	IS 3025 (P-23):1986, RA 2019 (Indicator Method)	mg/l	110.0	--
5.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009, RA 2019 (EDTA Method)	mg/l	184.0	--
6.	Total dissolved solids	IS 3025 (P-16):2023 (Gravimetric Method)	mg/l	420.0	--
7.	Total suspended solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	8.0	--
8.	Oxygen (dissolved)	IS 3025 (P-38):1989, RA 2019 (Titrimetric Method)	mg/l	4.4	4
9.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	56.17	--
10.	Fluoride (as F ⁻)	APHA 4500 F-C 24 th edition 2023 (Ion Selective Electrode Method)	mg/l	0.13	--
11.	Nitrate (as NO ₃ - N)	APHA 4500 NO ₃ - (B) 24 th edition 2023 (UV Screening Method)	mg/l	4.72	--
12.	BOD	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/l	2.6	3
13.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	20.0	--
14.	Oil and grease	IS 3025 (P-39):2021 (Partition Gravimetric Method)	mg/l	2.8	--
15.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	49.42	--
16.	Calcium (as Ca)	IS 3025 (P-40): 1991, RA 2019 (EDTA Titrimetric Method)	mg/l	47.29	--
17.	Magnesium (as Mg)	APHA 3500 Mg B 24 th edition 2023	mg/l	15.98	--
18.	Sodium (as Na ⁺)	IS 3025 (P-45), Flame Emission Photometric Method.	mg/l	31.0	--
19.	Potassium (as K ⁺)	IS 3025 (P-45), Flame Emission Photometric Method.	mg/l	4.0	--
20.	Ammoniacal Nitrogen	IS 3025 (P-34):1998, RA 2019 (Titrimetric Method)	mg/l	BDL (MDL 0.1)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL - Minimum detection limit. BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C)
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The facility of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limits.

Sample Drawn By - Mukesh Singh
 Tested By - Pinky Kumari (Lab Analyst)

Sanjeev Kumar Singh
 30/09/24
 Verified & Issued by
 Sanjeev Kumar Singh
 (Technical Manager)

*****End of Report*****

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
 Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Registered by :-
Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

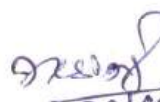
Discipline	Chemical	Group	Water	Sample Description	Surface Water
Report Release Date	30 th September, 2024			Report ID	YBAEEL-2409-19
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry (if any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/W/Sept. - 24/08
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	20/09/2024		Mode of sample collection	By YBAEEL Team	
Sampling Plan	YBAEEL/SP/149-2024		Sample Code	240921-SW-02	
Sampling Location	Padampur Village, Pond		Sampling Source	Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle		Sample Quantity	3000 ml	
Meteorological Cond. of Field	W.C.- Partly Cloudy		RH % - 63	Temp.-33°C	
Sample receipt Date	21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Cyanide(as CN ⁻)	IS 3025 (P-27/Sec1):2021 (Titrimetric Method)	mg/l	BDL (MDL 1.0)	--
2.	Phenols (C ₆ H ₅ OH)	IS 3025 (P-43/Sec1):2022 (4-Aminoantipyrine Method)	mg/l	BDL (MDL 0.001)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL : Minimum detection limit. BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO.. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	*****

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)


30/09/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :-
Registered by :-
Certified by :-

NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	7	6	F
Discipline	Chemical	Group	Residue & Contaminants in Water							Sample Description					Surface Water					
Report Release Date		30 th September, 2024							Report ID					YBAEEL-2409-19						
W. Order / JSPCB App. No.		3030006964							Work Order Date					03.02.2024						
Type of Industry(if any)		Thermal Power Plant							Job code/ Ref. no.					YBAEEL/C/R/Sept. – 24/04						
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Date		20/09/2024							Mode of sample collection					By YBAEEL Team						
Sampling Plan		YBAEEL/SP/149-2024							Sample Code					240921-SW-02						
Sampling Location		Padampur Village, Pond							Sampling Source					Surface Water						
Sample pkg. Condition		Sealed Pack in PP Bottle							Sample Quantity					1000 ml						
Meteorological Cond. of Field		W.C.– Partly Cloudy							RH % - 63					Temp.–33°C						
Sample receipt Date		21/09/2024		Analysis Started on			21/09/2024			Analysis completed on					30/09/2024					

*****Test Results *****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	--
2.	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	--
3.	Iron (as Fe)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	1.04	--
4.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.16	--
5.	Selenium (as Se)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.01)	--
6.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.1)	--
7.	Cadmium (as Cd)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
8.	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	--
9.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
10.	Nickel (as Ni)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--
11.	Cobalt (Co)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.03)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL - Minimum detection limit, BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced except when in full without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	*****

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)

Sanjeev Kumar Singh
30/09/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

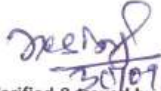
Discipline	Chemical	Group	Residue & Contaminants in Water	Sample Description	Surface Water
Report Release Date	30 th September, 2024			Report ID	YBAEEL-2409-19
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry (If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/R/Sept. - 24/04
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Date	20/09/2024	Mode of sample collection		By YBAEEL Team	
Sampling Plan	YBAEEL/SP/149-2024	Sample Code		240921-SW-02	
Sampling Location	Padampur Village, Pond	Sampling Source		Surface Water	
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity		1000 ml	
Meteorological Cond. of Field	W.C.- Partly Cloudy	RH % - 63		Temp.-33°C	
Sample receipt Date	21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	Aluminium (as Al)	IS 3025 (P-55):2003, RA 2019 (Eriochrome Cyanine R Method)	mg/l	BDL (MDL 0.02)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL - Minimum detection limit, BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	*****

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)


25/09/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :- NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Registered by :- Jharkhand State Pollution Control Board (JSPCB)
Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

URL(Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	9	7	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Stationary Source Emission							
Report Release Date		30 th September, 2024					Report ID					YBAEEL-2409-19								
W. Order / JSPCB App. No.		3030006964					Work Order Date					03.02.2024								
Type of Industry(If any)		Thermal Power Plant					Job code/ Ref. no.					YBAEEL/C/A/Sept.-24/09								
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		20/09/2024					Mode of sample collection					By YBAEEL Team								
Sampling Plan		YBAEEL/SP/149-2024																		
Meteorological Cond. of Field		W.C.– Partly Cloudy					RH % - 64					Temp. - 32°C								
Sample receipt Date		21/09/2024		Analysis Started on			21/09/2024			Analysis completed on			30/09/2024							

General Information

As observed while sampling		As reported by customer	
Location	Sampling port hole	Type of fuel Used	Coal
Platform	Permanent	Quantity of Fuel Used (During Sampling)	180 Ton/Hr.
Stack Description (Shape & Material)	Circular / RCC	Total production Capacity	270 MW (265 MW During Sampling)
Sampling port	Available	Height of Stack from ground level	275 mtr.
Stack Identification	Unit - II	Inner Diameter of Stack	4.2 mtr.
Height of port hole from Ground level	90 mtr.	Pollution Controlling Device (if any)	ESP
Running Oven during sampling (if any)	N/A	Total No. of Oven (if any)	N/A
Stack gas Temperature (k)	398.0		
Stack gas Velocity (m/s)	26.0		
Volumetric Flow Rate (Nm ³ /hr)	909490.9		

Emission Rate based on Calculation of Volumetric Flow rate

1.	Particulate Matter (PM)	Kg/hr	39.9
2.	Sulphure Dioxide (SO ₂)	Kg/hr	1006.1
3.	Oxide of Nitrogen (as NO _x)	Kg/hr	377.8

*****Test Results *****

Sl	Parameters	Test Method	Units	Results	Limits
1.	Particulate Matter (PM)	IS 11255 (Part 1)2009, RA 2019	mg/Nm ³	43.9	50
2.	Sulphure Dioxide (SO ₂)	IS 11255 (Part 2)2009, RA 2019	mg/Nm ³	1106.2	600
3.	Oxide of Nitrogen (as NO _x)	IS 11255 (Part 7)2005, RA 2022	mg/Nm ³	415.4	450
4.	Carbon Monoxide (CO)	IS 13270:1992:2009, RA 2019	%	BDL (MDL 0.2)	--

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL : Minimum detection limit. BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the report unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limit, except SO ₂ .

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

Sanjeev Kumar Singh
30/09/24

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Stationary Source Emission
Report Release Date	30 th September, 2024			Report ID	YBAEEL-2409-19
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry(If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/A/Sept.-24/09
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Period	20/09/2024		Mode of sample collection		By YBAEEL Team
Sampling Plan	YBAEEL/SP/149-2024				
Meteorological Cond. of Field	W.C.– Partly Cloudy		RH % - 64		Temp. - 32°C
Sample receipt Date	21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

General Information

As observed while sampling		As reported by customer	
Location	Sampling port hole	Type of fuel Used	Coal
Platform	Permanent	Quantity of Fuel Used (During Sampling)	180 Ton/Hr.
Stack Description (Shape & Material)	Circular / RCC	Total production Capacity	270 MW (265 MW During Sampling)
Sampling port	Available	Height of Stack from ground level	275 mtr.
Stack Identification	Unit - II	Inner Diameter of Stack	4.2 mtr.
Height of port hole from Ground level	90 mtr.	Pollution Controlling Device (if any)	ESP
Running Oven during sampling (if any)	N/A	Total No. of Oven (if any)	N/A
Stack gas Temperature (k)	398.0		
Stack gas Velocity (m/s)	26.0		
Volumetric Flow Rate (Nm ³ /hr)	909490.9		

*****Test Results*****

Sl	Parameters	Test Method	Units	Results	Limits
1.	Mercury (as Hg)	Lat's/80/2013-14	mg/Nm ³	BDL (MDL 0.003)	0.03

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL - Minimum detection limit, BDL - Below detection limit
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1986 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility This report in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the report unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Sample complies with prescribed limit.

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018

ADHUNIK POWER & NATURAL RESOURCES LTD.

FLY ASH Generation & Utilization Report (2024-25)

Month	Current Year Ash Utilization (2024-25)					Fly Ash Utilization Mode						
	Month Coal Consumption	TA Generation	Ash %	Total Ash Utilization	Utilization %	Fly ash based Products	Cement Manufacturing	Ready mix concrete	Construction of road and fly over embankment	export of ash to other countries	Filling in Low Lying Area	Total Ash Utilization
Apr-24	2,13,965.85	90,384.26	42.24%	85,571.65	94.68%	18,751.00	57,665.00	9,155.00	-	-	-	85,571.00
May-24	2,61,646.75	1,11,198.92	42.50%	1,10,965.64	99.79%	15,851.00	84,457.00	10,658.00	-	-	-	1,10,966.00
Jun-24	2,34,845.68	99,293.91	42.28%	94,726.50	95.40%	16,525.00	58,956.00	15,833.00	-	3,017.00	395.00	94,726.00
Jul-24	2,65,689.92	1,10,514.12	41.60%	88,411.29	80.00%	6,329.00	67,886.00	9,755.00	-	4,442.00	-	88,412.00
Aug-24	1,87,969.48	76,024.26	40.45%	60,819.40	80.00%	1,873.00	48,864.00	6,851.00	-	3,232.00	-	60,820.00
Sep-24	1,75,141.47	70,412.12	40.20%	56,329.70	80.00%	10,871.00	38,482.00	5,083.00	-	1,893.00	-	56,329.00
Total	13,39,259.14	5,57,827.58	41.65%	4,96,824.19	89.06%	70,200.00	3,56,310.00	57,335.00	-	12,584.0	395.00	4,96,824.00



YUGANTAR BHARATI

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Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

Discipline	Chemical	Group	Pollution & Environment	Sample Description	ASH
Report Release Date	30 th September, 2024			Report ID	YBAEEL-2409-19
W. Order / JSPCB App. No.	3030006964			Work Order Date	03.02.2024
Type of Industry (If any)	Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/S/Sept. 24/03
Report Issue to	M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand				
Sampling Date	20/09/2024			Mode of sample collection	By YBAEEL Team
Sampling Plan	YBAEEL/SP/149-2024			Sample Code	240921-AS-01
Sampling Location	Hopper			Sampling Source	Bottom Ash
Sample pkg. Condition	Sealed Pack in Zipper Bag			Sample Quantity	2.5 Kg Approx.
Meteorological Cond. of Field	W.C.- Partly Cloudy		RH % - 63		Temp. - 33°C
Sample receipt Date	21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

*****Test Results*****

Sl	Parameter	Test Method	Units	Results
1.	Iron (as Fe)	USEPA 3050 B :1996/APHA 3111 B	ppm	36.1
2.	Zinc (as Zn)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.13
3.	Copper (as Cu)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.01
4.	Lead (as Pb)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL (MDL 0.02)
5.	Nickel (as Ni)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.06
6.	Cadmium (as Cd)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.1
7.	Chromium (as Cr)	USEPA 3050 B :1996/APHA 3111 B	ppm	0.46
8.	Arsenic (as As)	USEPA 3050 B :1996/APHA 3112 B	ppm	0.05
9.	Mercury (Hg)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL (MDL 0.003)
10.	Selenium (as Se)	USEPA 3050 B :1996/APHA 3111 B	ppm	BDL (MDL 0.01)
11.	Unburn Carbon	IS 1727:1967	%	2.6

Limit is specified as	-----
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	-----

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

*****End of Report*****

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by : NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Registered by : Jharkhand State Pollution Control Board (JSPCB)
Certified by : ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.				TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	8	3	F
Discipline	Chemical	Group	Pollution & Environment					Sample Description					Waste Water / Effluent Water								
Report Release Date		30 th September, 2024					Report ID					YBAEEL-2409-19									
W. Order / JSPCB App. No.		3030006964					Work Order Date					03.02.2024									
Type of Industry(If any)		Thermal Power Plant					Job code/ Ref. no.					YBAEEL/C/PE/Sept.-24/09									
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																			
Sampling Date		20/09/2024					Mode of sample collection					By YBAEEL Team									
Sampling Plan		YBAEEL/SP/149-2024					Sample Code					240921-WW-01									
Sampling Location		Ash Pond					Sampling Source					Effluent Water									
Sample pkg. Condition		Sealed Pack in PP Bottle					Sample Quantity					3000 ml									
Meteorological Cond. of Field		W.C.– Partly Cloudy					RH % - 63					Temp.–33°C									
Sample receipt Date		21/09/2024		Analysis Started on			21/09/2024			Analysis completed on					30/09/2024						

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.20 at 25.6°C	6.5 – 8.5
2.	Temperature	IS 3025 (P-09):2023	°C	30.6	--
3.	Total Suspended Solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	49.0	100
4.	Oil & Grease	IS 3025 (P-39):2021 (Partition Gravimetric Method)	mg/l	2.1	20
5.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	--
6.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.18	--
7.	Mercury (as Hg)	APHA 3112 B 24 th edition 2023 (Cold Vapour AAS Method)	mg/l	BDL (MDL 0.003)	--
8.	Chloride (as Cl)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	38.4	--
9.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO.
	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Sample complies with prescribed limit.

Sample Drawn By – Mukesh Singh
Tested By – Pinky Kumari (Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

*****End of Report*****

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
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BI-ANNUAL

CSR ACTIVITIES REPORT

(April'2024-September'2024)



ADHUNIK POWER AND NATURAL RESOURCES LIMITED
Padampur, Kandra, Saraikela-Kharsawan

CSR BI-ANNUAL ACTIVITIES REPORT

(April 2024-Sept. 2024)

Introduction

As a premier organisation, it is the responsibility of Adhunik Power & Natural Resources Limited (APNRL) to carry on its business activities in a socially, economically and environmentally sustainable manner at all times. The CSR activities undertaken so far by APNRL are a testimony of our concern towards the need of inclusive development of the people and the locality in the area of influence of our activities. The CSR activities undertaken by us are aimed at a holistic development of the Villagers of near plant area and other people of the locality by focusing on Capacity Building, Skill Development and Infrastructural Development.

The provisions of the Companies Act, 2013 have made it imperative to institutionalize the CSR activities of the company. The Company undertook various activities during the period under review in line with its CSR Policy and as prescribed in Schedule VII to the Companies Act, 2013. Apart from long term ongoing projects, the Company has supported and implemented projects under its CSR Policy in the field of Healthcare (including Preventive, Promotive & Curative), Promoting Education, Skill development training, Social Welfare, Environment & Rural development amongst others.

Our CSR Vision

"To improve the wellbeing of the people, living in the periphery of Business Facilities of Adhunik Power through implementation of its CSR Policy and creation of harmony between Industry, people around it and the environment."

Our CSR Mission

"Enabling communities we work with accessing safe drinking water, education, health care and improved livelihood opportunities."

Our Focus Area

- Health & Medical Services
- Water & Sanitation
- Education
- Women Empowerment & Livelihood
- Sports & Culture
- Environment
- Infrastructure

Adhunik Power & Natural Resource Limited (APNRL)'s APNRL's Corporate Social Responsibility initiated multiple dimensions of social issues in the realm of

education, healthcare, skill development, Infrastructure and environmental upgrade.

A report on social performance made by Adhunik Power & Natural Resources Limited (APNRL), Padampur, as a part of corporate social responsibility, during the mentioned period is here under. It is worth mentioning that APNRL had executed the community development. The focus area wise developmental activities report is as follows:

HEALTH & MEDICAL SERVICES

Adhunik Power & Natural Resources Limited, Padampur has always focused on community health issues and health management measures, and facilitated healthy living of individuals through its corporate social responsibility team. Following activities undertaken for community health-

- 1. Health & Medical Services:** Villagers of peripheral villages were provided 24X7 ambulance facility for better treatment. The villagers availed the ambulance facility which is as follows month wise.

Status of Referral Patients						
Month	M	F	Children		Total No.	Village Covered
			M	F		
April'24	2	11	2	3	28	Badahariharpur, Srirampur, Dumra, Padampur , Kandra, Bikanipur, Virdhwajpur,Balidih etc.
May'24	9	8	4	5	26	
June'24	7	9	3	2	21	
July'24	20	14	2	3	39	
Aug'24	14	13	5	4	36	
Sept.'24	11	17	5	8	41	
Total	63	72	21	25	191	

- 2. Medical Facilities:** Free medical treatment was provided to the villagers by APNRL, Padampur. The villagers availed the medical facilities which are as follows.

Status of Patients-

Month	M	F	Children		Total No.	Village Covered
			M	F		
April'24	91	63	26	22	202	Balidih, Badahariharpur, Dhatkidih, Pindrabera, Srirampur, Padampur
May'24	81	77	28	22	208	
June'24	111	77	29	14	241	
July'24	144	112	31	27	314	

Aug'24	139	101	25	32	297	Kandra, Gamharia, Rapcha, Virdhwajpur, Bikanipur etc.
Sept.'24	155	115	35	21	326	
Total						
	721	545	174	138	1588	

3. Health Awareness Program (Health talk): A health awareness camp on diseases like



hypertension and diabetes was organized at Sankalp Bhawan APNRL in collaboration with Meditrina Hospital, Jamshedpur on 14.5.2024. About 50 employees participated. Dr. Shritam Acharya- MD, Meditrina Hospital took a session on high blood pressure and diabetic patients. He said that the High blood pressure (hypertension) can lead to many complications of diabetes, including diabetic eye disease and kidney disease, or

make them worse. Most people with diabetes will eventually have high blood pressure, along with other heart and circulation problems. Diabetes damages arteries and makes them targets for hardening, called atherosclerosis. That can cause high blood pressure, which if not treated, can lead to trouble including blood vessel damage, heart attack, and kidney failure. Compared to those with normal blood pressure readings, people with hypertension more often have:

1. Coronary artery disease or heart disease Strokes,
2. Peripheral vascular disease, hardening of the arteries in the legs and feet Heart failure.

Even blood pressure that's at the higher end of normal (120/80 to 129/80), called elevated, impacts your health. Studies show that you have a two to three times greater chance of getting heart disease over 10 years. Usually, high blood pressure has no symptoms. That's why you need to check your blood pressure regularly.

He gave the following suggestions for prevention -

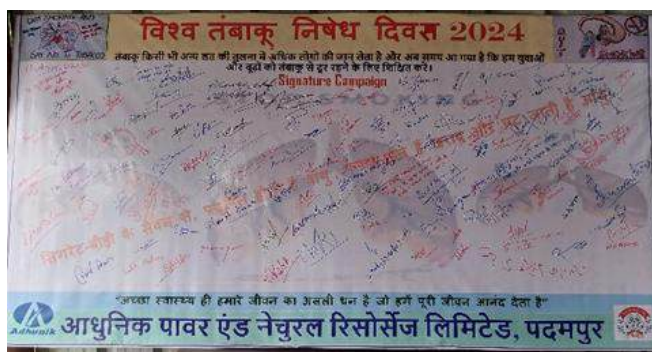
1. Control your blood sugar.
2. stop smoking.
3. eat healthy.
4. Exercise most days.
5. Keep your weight within a healthy range.
6. Don't drink too much alcohol.



7. Limit how much salt you eat.
8. Visit your doctor regularly.

At the end of the session participants received information about the causes and prevention of high blood pressure & diabetes. Vote of thank given by Dr. G. P. Murmu-OHC.

4. **World Anti-Tobacco Day 2024:** World Anti-Tobacco Day was started because



millions of people die every year around the world due to tobacco consumption and abuse. The World Health Organization (WHO) decided in 1987 that World No Tobacco Day (WNTD) would be observed on 31 May 1988. From that very day onwards we are making people aware about the

consumption and misuse of tobacco. In continuation of the same, APNRL organized **signature campaign** at plant level as well as **speech and essay** competition at village level was organized on 31st May, 2024.

The theme of the world No Tobacco day 2024 is **Protecting children from tobacco industry interference** to protect future generations and ensure that tobacco use continues to



decline. More than 200 Workers/employees/Senior Officers participated in the signature campaign with great enthusiasm at Plant level. Dr. G P Murmu informed that according to the World Health Organization (WHO) report, 40 per cent of cancer cases registered were due to use of tobacco, while the percentage was much higher in case of mouth cancer as 90 percent cases of mouth cancer was due to chewing tobacco.

5. **International Yoga Day 2024:** International Yoga Day is observed every year



on June 21 to celebrate the physical and spiritual prowess that yoga has brought to the world. Yoga is a practice that relaxes the mind and body and plays an important role in boosting the immune system of people thereby bringing ease and peace in our lives. The theme of this year (2024) is "Yoga for Self & Society". The 10th edition of International Yoga Day was celebrated on 21st June

2024 at Sankalp Bhawan, APNRL. The Yoga Class inaugurated by Mr. Arun Kumar Mishra-CEO with lighting of candles who emphasized the importance of Yoga and physical exercises in daily life. About 70 employees including contract employees participated in Yoga Class. Mr. Rajesh Sharma-VP, Mr. Shirish Waghmare-DGM, Mr. Arjun Singh, Mr. D. K. Ghoshal and others senior officers also participated with great enthusiasm. The sessions started at 7.30 am and carried out under the guidance of the yoga instructor Mr. Ashish Ranjan. Employees got the chance to know how yoga embodies unity of mind and body. This event had a very positive impact on creating awareness about the benefits of yoga in human life. The function ended with a vote of thanks by Sanjeet Kumar Sinha- CSR. The function was organised by Ranjit Singh, B.P. Giri, Vikas Kumar, Ravi Singh, Anil Sardar, Diwaker Upadhyay along with all the office staff who put in a lot of effort to make the function a success.

6. Food distribution program: On 20.9.2024 Adhunik Power and Natural Resources



Limited has distributed food baskets among 50-TB patients of Gamharia block under the National TB Eradication Program through Nikshay Mitra at Community Health Center (CHC), Gamharia, through which patients were given

Moong, Jaggery, Chana, Arhar Dal, Soybean, Oatmeal, Groundnut, Oil, Chura . In this program Dr. C.B. Chaudhary- Dist. Tb Officer, Dr. Laxmi Kumari, MOIC, Nirmal Das Dist. Program Manager (Health), Mr. Potel Hansda, STS (TB Program), Sri Rajesh Sharma-VP-Finance Head-APNRL, Shri Ravi Shankar Singh-APNRL, Vikash Kumar-APNRL and Anil Sardar-APNRL were present. Dr. C. B. Chaudhary has said that in rural areas, TB patients often leave their treatment midway due to negligence. Due to which, if the treatment is not completed, the TB virus inside the patient does not get destroyed, in such a situation other people can also get affected by coming in contact.



He also said that a TB patient has to keep taking medicines on time and it is



also important for the person to pay special attention to his eating habits, which develops the ability to get rid of the infection.

Sri Rajesh Sharma said that prevention from this disease is

possible. Its treatment is effective and accessible and the government provides free facilities for the prevention and treatment of this disease. It is our endeavor that all of you get well soon. Our company is providing nutritious food to all of you every month, which will help in your eating habits.



Vote of thanks given by Mr. Sanjeet Kumar Sinha-CSR, APNRL

7. Health Awareness Program: Seminar, Godhbharai, Health Baby Show and Annaprasan:



CSR Department of APNRL has always been empowering the village women through various training events to lead their life with sustainable social recognition. On the occasion of World Breastfeeding Week, we organized Seminar, Godhbharai, Health Baby Show and Annaprasan at Srirampur village on 6-8-2024 where

awareness was given on exclusive breastfeeding, complementary feeding, among pregnant women and lactating mothers so that they can give proper nutrition to their children. Approx. 60 women participated in the seminar along with their children.

The 4 best children who had completed 6 months of age were selected for Annapras and their mothers were honored for promoting complementary feeding and breastfeeding, the remaining children were also given gifts as inspiration, those who had completed 7 months of pregnancy a Godhbharai was organized for pregnant women. Through this event pregnant women were



given information on the subject of diet, hygiene, vaccination, health check-up etc. Women were blessed the pregnant woman for the good health of the mother and child during pregnancy and safe delivery. The program ended with a vote of thanks by Anganwadi Sevika - Ms. Munni Nayak.

6. Seminar, Godbharai and Baby show: Malnutrition is a global problem & our area is also suffering from this problem due to unbalanced diet and lack of knowledge. Under the social responsibilities, CSR Department, APNRL, Padampur observed National Nutritional Mah 2024 (28th September 2024) at AWC, Padampur. The main objective was to raise awareness among the villagers about the importance of health and nutrition, which has an impact on



development, productivity, economic growth, and ultimately national development. ANM, Anganwadi Sevikas, Sanjeet Kumar Sinha (CSR), and approximately 50 women with their children participated in this program. During the program, the ANM emphasized that women should be extra careful to avoid iron deficiency and anemia by consuming iron-rich food, deworming every six months, and sleeping under an insecticide-treated mosquito net in areas where malaria is prevalent.

After the speech of the ANM, a group of village women gathered to organize a Godh bharai (baby shower) ceremony, which was blessed by the women. 3- pregnant women were selected for godhbharai, who completed 7 months of pregnancy and got all the vaccinations on time. APNRL provided items such as a thali, apple, coconut, banana, bangle, and bindi to the pregnant woman. During the function, Mr. Sanjeet Kumar Sinha, APNRL explained the



importance of safe delivery, preparation for birth, supplementary feeding, and complementary feeding, as well as the importance of vaccination. The ceremony also included prayers for the good health and safe delivery of the mother and child

during pregnancy. At the end of the seminar Balhi Kisku – AWW thanked all the participants.

Water & Sanitation

- 1. Drinking Water Supply:** The drinking water provided to villagers through water tanker towards meeting the need of drinking water and other related water use during their social functions. In this financial year, drinking water was provided through tankers in villages like Balidih, Barahariharpur, Srirampur, Dhatkidih, Padampur, Pindrabera, Kandra, Gamharia, Rapcha, Viradhwajpur, Ramjivanpur, Bikinipur, Marthabera, Nishchapur, Gopinathpur etc. of Dugdha Gram Panchayat, Rapcha Gram Panchayat, Dumra Gram Panchayat & Kandra Gram Panchayat, Gramharia block, Saraikela-Kharsawan

The **objectives** of supply of drinking water to the villagers were as follows:

- To meet the drinking need of villagers
- To meet the needs of water related other use(s) during water scarcity situation in villages.

The detailed status of drinking water supply is as below:

S. No.	Months	No. of Villages Covered	No. of Gram Panchayat/ Block	No. of Drinking Water Supply Services (trip) Provided through Tanker	Quantity of Supplied Water (in Liter)	Average Population Covered	Purpose
1	April'24	5	3	9	45000	2250	To meet the drinking water needs of villagers during functions and festivals.
2	May'24	10	5	22	110000	5500	
3	June'24	8	4	19	95000	4750	
4	July'24	3	3	4	20000	1000	
5	Aug'24	1	1	2	1000	500	
6	Sept.'24	2	2	2	10000	500	
Total		29	18	58	281000	14500	

* The same people may have benefited again and again at different times.

- 2. Spraying and distribution of bleaching powder:** During rainy session the health of the people in the villages around the plant is a major concern as most of the diarrhea



cases were found in the previous year only during the rainy season. The main reason for diarrhea is polluted water and unhygienic conditions around the village as well as lack of information among the people about prevention of diarrhoea.

Keeping this in mind, the CSR department of APNRL showed its solidarity by running a health awareness campaign in Bikanipur from 24.08.2023, which continued in the villages of Padampur, Srirampur, Chhotahariharpur and Bikanipur. In continuation, bleaching powder was sprayed in drains, wells and waterlogged areas with the help of village volunteers as well as bleaching powder was also provided to the villagers to avoid various diseases caused by dirt and mosquitoes etc. This program is being run with the aim of controlling diarrhoea, malaria and water borne diseases.

EDUCATION

These can be cited as major challenges in achieving the development goals related to education in our country. In view of such facts and challenges, APNRL, Padampur launched Education Promotion Initiative as a part of Corporate Social Responsibility.

- 1. Project CYBER VILLAGE:** In order to make the village youths/students of Barahariharpur and nearby areas computer literate under the Project CYBER VILLAGE.

The **objectives** of the **Project CYBER VILLAGE** were as under:

- i. To make village youths/students computer literate for their pursuit of better career in future.
- ii. To make villagers aware of the importance of information revolution through internet.



The detailed status of the **Computer Literacy Centre:**

S. No.	Center	Center Wise Enrollment Status of Village Youths			Subjects Taught
		Male	Female	Total	
1	Badaharihar pur	9	9	18	MS Office/ Tally/ Internet
	Total	9	9	18	

Internet facility has been provided to the youth in this center under the guidance of instructor so that the youth can develop.

2. **World Earth Day-Drawing and Essay completion**: Every year on April 22, Earth Day is celebrated across the



world, on the occasion the CSR team of Adhunik Power, Padampur and UM-School Barahariharpur jointly organized a drawing and essay competition to raise awareness about environment protection. All teachers were actively involved in the program and students participated in drawing and essay competitions. The day started with an engaging assembly where teachers taught about the importance of protecting our planet. Then, students participated in various activities like drawing, speech, essay etc. The main objective of organizing such activities is to motivate, encourage and engage the youth for sustainable development. A small action today can definitely lead to big results tomorrow. The members of the jury selected the first, second and third places and awarded them. At the end of the program, packets of biscuits were given to all the students.



3. Achievement Award/ Appreciation Certificate Program: Achievement Award/

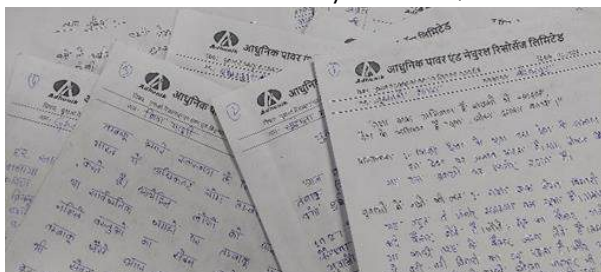


Appreciation Certificate Distribution Program was organized by CSR Dept -APNRL on 17.5.2024 at Sankalp Bhawan- APNRL for the rural students who have passed JAC/CBSE Board Examination 2024 in First Division. 14 students from different villages like Shrirampur, Padampur, Bikinipur, Balidih, Chhotahariharpur along with their parents participated in this program and were also rewarded with appreciation certificates. Ms. Jova Mandal-Principal UM School, Padampur, Mr. Harendra Pathak-Principal UM School, Hariharpur and Ms. Lakshmi Murmu-Panchayat Committee Member were also present. During the program, Sri Harendra Pathak gave a motivational speech so that the children can perform well in future and contribute to the progress of the country.



Ms. Jova mandal also bless for better future. On behalf of the company, Sri Mukti Nath Singh-Head O&M, Sanjeet Kumar Sinha-CSR, Anil Sardar-Civil were present. Sri M N Singh appreciated students and motivate them for better future. Appreciation certificates were given to the passing students of the village by the honourable guests. Vote of thank given by Sanjeet Kumar Sinha.

4. Essay & Speech Competition: Essay & Speech Competition also organized on 31.5.2024 at Community Center, Badahariharpur on the occasion of Anti-Tobacco



Day where about 35 village youths from different villages participated in this program with full enthusiasm. The topics for all the competition were “युवाओं में तम्बाकू का सेवन एक विश्वव्यापी महामारी है”. Winner of Essay competition – 1st prize to Ms. Sukhamati Hansda , Srirampur, 2nd prize to Sishmita Mahato Badahariharpur, 3rd to Mr. Shiva Majhi, Chotahariharpur and 4th Prize given to Mr. Ghanshyam Mahato ,Badahariharpur.

Speech Competition- 1st prize to Mr. Ghanshyam Mahato, 2nd to Mr. Pradeep Baskey and 3rd to Ms. Sona mani Hansda. Mr. Ambika Mahato addressed all the youth to spread awareness about this sensitive issue also. The program was conducted by CSR-Team.

5. **Bus facilities:** Bus facility has been providing to girl students of peripheral village for higher education at Jamshedpur. About 40 villages girl students are availing the bus facilities.

6. **Drawing Competition:** Skill development among the local children is the prime objective of our CSR programme. To implement this objective, we had organized drawing competition in Srirampur, Padampur, Badahariharpur and Bikanipur on the occasion of World Environment day 2024. More than 85 children participated from the respective village and were awarded. The children were very happy.



WOMEN EMPOWERMENT & LIVELIHOOD

Adhunik Power & Natural Resources Limited, Padampur as a part of its corporate social responsibility with local Gram Panchayats and peer groups to sensitize the village elders and women to come forward for women development and pave the way for their participation in the development process that gives a decent income, gives some status in society and some dignity and meaning in life. It also conserves and, if possible, regenerates the environment and the purchasing power to lead the better life.

1. **Women empowerment & Livelihood:** Every month meetings of SHG members are organized in Padampur, Pindrabera, Barahariharpur, Chhotahariharpur; In which members discuss issues like income, expenditure and loan repayment, self-employment and personal hygiene etc. As a result, some women group have started their own employment.

- 2. Training on sessional crops and income generating activities:** To promote sustainable livelihoods for poor and vulnerable groups, CSR department organized an orientation training program on kitchen garden and cultivation of moringa/ drumstick was held on 26.6.2024 at Conference Hall, Community Center, Pindrabera in collaboration of Semina Agro Pvt Ltd., Ranchi



Mr. Sanjeet Kumar Sinha-CSR APNRL welcomed all the participants and thanked them for attending the training session. He said that

develop your own kitchen garden for your family so that they can get rich nutrition throughout the year, He also said that Moringa can be cultivated with less effort and can be taken as a commercial option. Today, this training has been organized for this purpose.

Altogether 30 farmers participated in the program. All the participants were actively involved in training program under the guidance of trainers.

Training was given by Trainers Mr. Mohit Kumar-MD, Semina Agro-Ranchi. Mr. Mohit elaborately explained the concept and process of kitchen garden. He also said that if farmer groups cultivate Moringa in their land, their families will get ample nutrients throughout the year. He said that Moringa tree is used for nutritional benefits, medicinal properties, environmental protection and consumption and inspired the group members that it can also be adopted as a livelihood. He said that if you people produce Moringa leaves on a large scale then we can buy it. He explained the Characteristics of the Drumstick/ Moringa as follows-

Characteristics of the Drumstick/ Moringa

1. Production twice in a year.
2. Early fruit production: around 8 to 9 months after transplanting
3. The raw stick of this variety is greenish in Colour and tastes good.
4. The length of each stick is 45 to 75 cm.
5. High Productivity: Each plant can yield 300 to 400 sticks.
6. Each plant can yield production for more than 5 years.



Income -Calculation

High Density moringa leaves cultivation

Moringa/drumstick leaves cultivation up to 5 years

Total Number of plant per acre:	8000 to 10000
First Harvest Start:	After 90 to 100 days from
germination Second Harvest:	40 to 50 days after 1 st cutting
Harvesting:	6 to 7 times in a year.

Production dry leaves: per year	More than 1.2 to 1.5 tons per acre
Cost of cultivation per acre:	1 st year- 30000/- & 2 nd year 10000/-
Revenue:	72 to 90 thousand per acre per year
Net profit:	50 to 80 thousand per acre per year

After completion of the training, all the farmers looked satisfied and confident. Vote of thanks given by Anil Sardar.

- 3. Training on Kitchen Garden:** A training program on Kitchen Garden was organized on 18.7.2024 at the Conference Hall of Community Centre, Barahariharpur. Its



objective is to train villagers to develop kitchen gardens so that villagers can grow vegetables and use green vegetables throughout the year through kitchen gardens to help their families & stay healthy.

Training was given by Trainers Dr. Anjali Mishra-Sr. Scientist KVK, Seraikela - Kharsawan. She explained the concept and process of kitchen garden. All the participants were actively involved in training program. Altogether 60 women from different villages like Badahariharpur, Chhotahariharpur, Bikanipur and Padampur participated in the program. Seasonal vegetable seeds were also distributed among the participants at the end of the session. After the completion of the training all women were satisfied and confidence.



Sports & Culture

When we look at the overall dimensions of development, sports and culture hold an important place as a key component in harnessing human resources through physical fitness, sports and culture for rural communities, especially village youth. Based on the local need, a well-mapped program was organized in partnership with various stakeholders like Gram Panchayats, Sports Clubs, Local group etc. The status of organized sports and culture events were as follows:

- 1. Plant & Football distributed:** Sports play a great role in health, mental development and improving concentration levels also. In view of this, football was given to the rural youth in Barahariharpur on 25.7.24 and environment related issues were also



discussed with the rural youth in Barahariharpur. After this, saplings (lemon, amla and jamun) were distributed to the youth and they were promised to plant saplings and stay safe, which made all the youth happy.

- 2. Sports and Culture program, Badahariharpur 2024:** A Sports and culture program organized by Diba Kishun Memorial Club, Balidi (Padampur) on the occasion of Independence Day at Padampur Ground of Rapcha Gram Panchayat, Saraikela-Kharsawan from 14 to 15 August 2024. A large number of villagers from different parts of the area were participate in sports and cultural programs. The program motivates the local youths to gather at a place with team spirit and it promotes the rural sports activity in the area.



Adhunik Power & Natural Resources Limited, Padampur facilitated with financial support and other required resources like medical team, ambulance service, drinking water facilities, preparations for making playground ready, cleaning of sites etc.



On behalf of the company, Sri Arun Kumar Mishra-CEO, Sri Rajesh Kumar Sharma-VP-Finance, Sri S. K. Parvez-DGM-HR, Sri Rajesh Kumar Singh, DGM- IR, and Sri Vikas Kumar encouraged the members of the committee by being present during event. The organizing committee were very happy

and thanked to Mr. Arun Kumar Mishra to motivate them. They also thanked the company for its contribution.

ENVIRONMENT

1. World Environment Day 2024: World Environment Day was celebrated by the Plant



on 5th June, 2024. This year the theme of World Environment Day 2024 is "Land Restoration, Desertification and Drought Resilience" and the slogan is, "Our Land,

Our Future." Many programs like drawing competition, slogan competition poster competition etc. were organized at different levels.



First of all, the cycle rally was flagged off by Mr. Nirmal Aggarwal, Director of Adhunik Power in the presence of senior officials, in which about 200 employees including villagers participated. The rally went from the plant premises to Pindrabeda vs Kandra bus stand. After this Mr. Aggarwal and APNRL officers **planted saplings** inside the premises of the company. Company employees and village children also participated in the plantation. Then a **seminar** was organized by the Environment Department. During the seminar, Mr. Agarwal addressed the audience with an enlightening speech mentioning how small endeavors could make a big difference. He urged everyone to save the environment as well as spread awareness among the



people. He also said that we can ensure a sustainable and prosperous environment for future generations. Let us not forget that every small step counts in the journey towards a greener, healthier Earth. Senior Manager of

Environment Department - Mr. Kamlesh Kumar –explained about this year's theme, he requested everyone to plant trees on vacant land, only then we can save this earth and water. At the end of the program, the best 3 pictures/slogans/posters selected from each category were awarded. Vote of thanks was given by DGM Mr. S. K. Parvez HR-Department.

2. Saplings Distribution: Saplings were planted in govt. schools of Barahariharpur

to create awareness about saving trees among school students on the occasion of World Environment Day. Around 500 saplings of three types like Jamun, Lemon and Amla were distributed among the villagers in various villages (Bikanipur,



Padampur, Badahariharpur and Pindrabera) from 21.6.2024 to 28.6.2024 for environmental protection.

Infrastructure

As it is a well-known fact that infrastructure development accelerates the pace of human development and economic growth. Therefore, development of infrastructure is one of the major focus areas of development of Adhunik Power and Natural Resources Limited (APNRL), Padampur under which the following works have been undertaken this year.

- 1. Water Supply system at UM School, Badahariharpur:** The CSR team of Adhunik Power and Natural Resources Limited arranged for water supply from overhead tank through pipeline in the school building, so that children can get drinking water, water for toilet use, water for cooking use etc. The school committee members and teachers were very satisfied for the above work and wished for the bright future of the company.



- 2. Display board painting and installation of ramp handle:** Display board painting at Barahariharpur near CHP area for Cyber Village, it is being run by Gram Panchayat Dugdha in collaboration with Adhunik.
Ramp handle installed in school, Barahariharpur for disabled persons.



- 3. Road Repairing at Pindrabera:** Adhunik Power & Natural Resources Limited, Padampur is playing an important role in improving the socio-economics conditions of local communities around which the company is operative.

The villagers of Pindrabeda had called a meeting with the CSR team. The status of the developmental projects being implemented by the CSR of Adhunik Company was discussed during the meeting, where the villagers requested the company to repair the road from the village to Sarnasthal, which is in a pitiful condition. Which is in need of immediate repair, for which the villagers have submitted a request letter also to the CSR department. The CSR team visited the spot along with the villagers and found that the condition of the road was pathetic. CSR department APNRL provided slag/reject mill with JCB for filling potholes and repairing village road. Due to which repair work was done on the road and the villagers are very happy with this work.



Others

1. **Awards for noble achievement toward the society:** APNRL was honored by



Voluntary Blood Donors Association (VBDA), Jharkhand for its contribution in blood donation and awareness program. The award was presented by Ms. Ruchi Narendran (Chair Person) on behalf of VBDA during its 37th Annual Function held at Michael John

Auditorium, Bistupur, Jamshedpur on 1.4.2024.

2. **District Level CSR Meeting, Saraikela-Kharsawan:** A CSR meeting was held on 19.4.2024 at Conference hall, DC office chaired by Deputy Commissioner, Saraikela-Kharsawan where representatives of companies operating in the district participated along with Govt. officials. After the introduction the District Social Welfare Officer said that elections in the area are scheduled on 13.5.2024. The district will require approximately 653 wheel chairs for disable person and senior citizen in booth side, it was decided in the meeting that the following companies will provide wheel chairs to the district office by 30.4.2024.



On 29.4.2024, 10 wheel chairs were made available to the District Administration, Saraikela-Kharsawan for booth side for disabled persons and senior citizens for the upcoming elections.

- 3. Dustbin Distribution at UM school, Badahariharpur:** This dustbin will be of great help. Considering the use of dustbins in the school community, Adhunik Company provided two containers to the UM school, Badahariharpur under CSR to store the waste, thereby maintaining cleanliness in the school. The children and teachers were very happy with this work and thanked the company.



- 4. District Level Review Meeting:** A district level review meeting was organized on virtual mode under the chairmanship of DC-Seraikela on 23.7.2024 in which the following points were discussed-

1. Pulse Polio eradication drive –started from 25th of August to 27th August 2024
2. Deworming
3. Phalaria
4. National TB Elimination Program /nishchay mitra
- Panchayat module/food packets to TB patients



LIST OF LOCAL EMPLOYEES OF APNRL

Sl.No.	Employee_Co de	Employee_Name	Cadre
1	00302223	Arun Kumar Mahato	High Skilled
2	00302236	Rajen Kumar Tudu	High Skilled
3	00302386	Budhram Baskey	High Skilled
4	00302387	Ajit Mahato	High Skilled
5	00302393	Bijay Baskey	High Skilled
6	00302436	Rajaram Baskey	High Skilled
7	00302462	Rajesh Kumar Mahato	High Skilled
8	00302503	Raju Tudu	High Skilled
9	00302506	Ruhi Ram Majhi	High Skilled
10	00302510	Santosh Mardi	High Skilled
11	00302516	Rajesh Mahato	High Skilled
12	00302517	Mohan Lal Mahato	High Skilled
13	00302518	Sumit Kumar Mahato	High Skilled
14	00302519	Tapan Kumar Mahato	High Skilled
15	00302520	Bibhishan Mahato	High Skilled
16	00302521	Suku Murmu	High Skilled
17	00302522	Bimal Kumar Mandal	High Skilled
18	00302524	Vikram Baskey	High Skilled
19	00302525	Mangal Besra	High Skilled
20	00302526	Bir Singh Hembram	High Skilled
21	00302527	Gopal Hembrom	High Skilled
22	00302529	Durga Hembrom	High Skilled
23	00302530	Suren Baskey	High Skilled
24	00302532	Budheswar Baskey	High Skilled
25	00302533	Karan Hembrom	High Skilled
26	00302534	Umesh Tudu	High Skilled
27	00302550	Birdhan Baskey	High Skilled
28	00302574	Anil Sardar	High Skilled
29	00302604	Sohan Kisku	High Skilled
30	00302605	Dilip Kisku	High Skilled
31	00302606	Rabindra Nath Majhi	High Skilled
32	00302607	Mokra Murmu	High Skilled
33	00302608	Lakhiram Tudu	High Skilled
34	00302384	Lal Mohan Mahato	High Skilled
35	00302610	Jiten Hansda	High Skilled
36	00302611	Jiten Sardar	High Skilled
37	00302612	Ashok Kumar Mahato	High Skilled
38	00302613	Mangal Majhi	High Skilled
39	00302614	Sagram Tudu	High Skilled
40	00302615	Sunil Kumar Tudu	High Skilled
41	00302616	Ganesh Mahato	High Skilled
42	00302617	Sachin Kumar Tudu	High Skilled
43	00302618	Alok Mahato	High Skilled
44	00302619	Rakesh Kumar Mahato	High Skilled
45	00302620	Chhotray Majhi	High Skilled
46	00302622	Govind Majhi	High Skilled
47	00302495	Anita Mahato	High Skilled
48	00302602	Sarla Majhi	High Skilled
49	00302237	Bangal Majhi	Skilled
50	00302430	Laxman Baskey	Skilled
51	00302493	Surajmani Baskey	Skilled
52	00302507	Dilip Kumar Mahato	Skilled

Sl.No.	Employee_Co de	Employee_Name	Cadre
53	00302508	Dulal Mahato	Skilled
54	00302509	Raju Mahato	Skilled
55	00302528	Chhatamuni Baskey	Skilled
56	00302540	Birendranath Baskey	Skilled
57	00302541	Shailendra Tudu	Skilled
58	00302621	Devi Lal Majhi	Skilled
59	00302609	Durga Baskey	Skilled
60	00302645	Manik Singh Sardar	Skilled
61	00302659	Krishna Manjhi	Skilled
62	00302660	Sakla Hembrom	Skilled
63	00302661	Uttam Kumar Mahato	Skilled
64	00302662	Shikar Hembrom	Skilled
65	00302669	Som Murmu	Skilled
66	00302670	Khirod Chandra Mahato	Skilled
67	00302671	Sona Ram Hembrom	Skilled
68	00302673	Rajesh Mahato	Skilled
69	00302674	Nimay Mahato	Skilled
70	00302676	Peeton Baskey	Skilled
71	00302679	Bajinath Mardi	Skilled
72	00302680	Nitai Sardar	Skilled
73	00302681	Baliram Murmu	Skilled
74	00302682	Karu Tilka Majhi	Skilled
75	00302684	Jitu Hembrom	Skilled
76	00302687	Soken Tudu	Skilled
77	00302694	Akash Tudu	Skilled
78	00302696	Mahendra Tantubai	Skilled
79	00302698	Karu Besra	Skilled
80	00302700	Ravindra Nath Tudu	Skilled
81	00302708	Jeevan Manjhi	Skilled
82	00302709	Birsa Hansda	Skilled
83	00302711	Sanjay Mandal	Skilled
84	00302712	Budhadev Mahato	Skilled
85	00302713	Narayan Mahato	Skilled
86	00302714	Jai Chand Mahato	Skilled
87	00302715	Mithun Majhi	Skilled
88	00302716	Sumit Kumar Mahato	Skilled
89	00302717	Mantu Mahato	Skilled
90	00302719	Ranjit Singh Sardar	Skilled
91	00302523	Bablu Besra	Skilled
92	00302531	Dasmath Hembrom	Skilled
93	00302453	Paneshwari Kumari	Semi-Skilled
94	00302454	Sunil Baskey	Semi-Skilled
95	00302458	Nuna Baskey	Semi-Skilled
96	00302463	Sonia Baskey	Semi-Skilled
97	00302494	Saraswati Devi	Semi-Skilled
98	00302501	Bangi Baskey	Semi-Skilled
99	00302628	Kalipada Singh Sardar	Semi-Skilled
100	00302644	Vikram Singh Sardar	Semi-Skilled
101	00302646	Jagnath Singh Sardar	Semi-Skilled
102	00302647	Budheshwar Mahato	Semi-Skilled
103	00302663	Ranjit Besra	Semi-Skilled
104	00302664	Hopna Baskey	Semi-Skilled
105	00302665	Sona Ram Baskey	Semi-Skilled

Sl.No.	Employee_Code	Employee_Name	Cadre
106	00302666	Suku Majhi	Semi-Skilled
107	00302667	Gopal Majhi	Semi-Skilled
108	00302668	Ramdas Kisku	Semi-Skilled
109	00302672	Ram Hembrom	Semi-Skilled
110	00302677	Raju Baskey	Semi-Skilled
111	00302678	Bablu Baskey	Semi-Skilled
112	00302683	Rajendra Hembrom	Semi-Skilled
113	00302688	Umesh Baskey	Semi-Skilled
114	00302690	Anil Tudu	Semi-Skilled
115	00302695	Sushil Kumar Tudu	Semi-Skilled
116	00302697	Prakash Tudu	Semi-Skilled
117	00302701	Som Majhi	Semi-Skilled
118	00302702	Salku Tudu	Semi-Skilled
119	00302707	Sukram Tudu	Semi-Skilled
120	00302710	Surja Hansda	Semi-Skilled
121	00302718	Santosh Sardar	Semi-Skilled
122	00302720	Lal Mohan Mahato	Semi-Skilled
123	00302721	Sohan Sardar	Semi-Skilled
124	00302722	Paga Sardar	Semi-Skilled
125	00302773	Shibnath Singh Sardar	Semi-Skilled
126	00302774	Basanti Singh Sardar	Semi-Skilled
127	00302775	Kali Pado Sardar	Semi-Skilled
128	00302956	Ms. Pano Devi	Semi-Skilled



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by : NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Registered by : Jharkhand State Pollution Control Board (JSPCB)
Certified by : ISO 9001:2015 & ISO 45001:2018



Test Report

ULR (Unique Lab Report) No.			TC		1	2	9	8	9	2	4	0	0	0	0	0	0	8	8	9	F
Discipline	Chemical	Group	Pollution & Environment						Sample Description						Waste Water / Effluent Water						
Report Release Date		30 th September, 2024						Report ID						YBAEEL-2409-19							
W. Order / JSPCB App. No.		3030006964						Work Order Date						03.02.2024							
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.						YBAEEL/C/PE/Sept.-24/11							
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																			
Sampling Date		20/09/2024						Mode of sample collection						By YBAEEL Team							
Sampling Plan		YBAEEL/SP/149-2024						Sample Code						240921-WW-03							
Sampling Location		ETP Outlet						Sampling Source						Effluent Water							
Sample pkg. Condition		Sealed Pack in PP Bottle						Sample Quantity						3000 ml							
Meteorological Cond. of Field		W.C.– Partly Cloudy						RH % - 63						Temp.–33°C							
Sample receipt Date		21/09/2024		Analysis Started on				21/09/2024			Analysis completed on						30/09/2024				

*****Test Results*****

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2022 (Electrometric Method)	pH	7.15 at 25.6°C	5.5 – 9.0
2.	Temperature	IS 3025 (P-09):2023	°C	28.4	--
3.	Total Suspended Solids	IS 3025 (P-17):2022 (Gravimetric Method)	mg/l	9.0	100
4.	BOD (3 days at 27°C)	IS 3025 (P-44):1993, RA 2019 (Oxygen Depletion Method)	mg/l	14.0	30
5.	COD	IS 3025 (P-58):2006, RA 2022	mg/l	40.0	250
6.	Chloride (as Cl ⁻)	IS 3025 (P-32):1988, RA 2019 (Argentometric Method)	mg/l	47.98	--
7.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24-Sec 1):2022 (Turbidity Method)	mg/l	77.60	--
8.	Copper (as Cu)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.01)	3
9.	Lead (as Pb)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	0.1
10.	Zinc (as Zn)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	0.04	5
11.	Chromium (as Cr)	APHA 3111 B 24 th edition 2023 (Direct Air Acetylene Flame Method)	mg/l	BDL (MDL 0.02)	2
12.	Arsenic (as As)	APHA 3114 C 24 th edition 2023 (Continuous Hydride Generation Method)	mg/l	BDL (MDL 0.003)	0.2

Limit is specified as	Environmental (Protection) Rule - 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law.
	This report cannot be reproduced, except when in full, without the written permission of the CEO.
	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Sample complies with prescribed limit.

Sample Drawn By - Mukesh Singh
Tested By - Pinky Kumari (Lab Analyst)

*****End of Report*****

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur
Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



Sewage Treatment Plant





भारत सरकार
भारत सरकार

Government of India

वाणिज्य और उद्योग मंत्रालय

Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो)

Petroleum & Explosives Safety Organisation (PESO)

श्री मोहन, तीसरा माला, सीता कंपाउंड, मेन रोड, सुशीला ऑटोमोबाइल के पीछे

रांची- 834001

Sri Mohan, 3rd Floor, Sita Compound, 5 Main Road, Behind Sushila Automobiles,
Ranchi - 834001

E-mail : dycceranchi@explosives.gov.in

Phone/Fax No : 651 - 2332689, 2332690, 2332688

संख्या /No. : P/HQ/JH/15/1065 (P257355)

दिनांक /Dated : 24/02/2023

सेवा में /To,

M/s. Adhunik Power & Natural Resources Ltd.,
Village-Padampur, Behind PGIL Substation,,
Adityapur-Kandra Road,,
Taluka: Adityapur(Gamharia),
District: SARAIKELLA KHARSWAN,
State: Jharkhand
PIN: 832105

24 FEB 2023

विषय /Sub : Plot No, Plot No. 161,, Behind PGIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur (Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 में स्थित विद्यमान पेट्रोलियम वर्ग C अचिह्नित में अनुमति सं P/HQ/JH/15/1065 (P257355) के नवीकरण के संदर्भ में।
Existing Petroleum Class C Installation at Plot No, Plot No. 161,, Behind PGIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur(Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 - Licence No. P/HQ/JH/15/1065 (P257355) - Renewal regarding.

महोदय /Sir
(s),

कृपया आपके पत्र क्रमांक OIN1307334 दिनांक 23/02/2023 का आकलन करें।

Please refer to your letter No.: OIN1307334, dated 23/02/2023

अनुमति संख्या P/HQ/JH/15/1065 (P257355) दिनांक 23/12/2011 को दिनांक 31/12/2026 तक नवीनीकृत कर इस पत्र के साथ अग्रपत्र की जा रही है।

Licence No. P/HQ/JH/15/1065 (P257355) dated 23/12/2011 is forwarded herewith duly renewed upto 31/12/2026.

कृपया पेट्रोलियम नियम 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें। अनुमति के नवीकरण हेतु समस्त दस्तावेजों को अनुमति की वैधता समाप्त होने की तिथि से कम से कम 30 दिन पूर्व कार्यालय को प्रेषित करें।

Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence so as to reach this office on or before the date on which Licence expires.

कृपया पावली दें।

Please acknowledge the receipt.

भवदीय /Yours faithfully,

((आशेंद्र सिंह))
(Ashendra Singh)

उप मुख्य विस्फोटक नियंत्रक

Dy. Chief Controller of Explosives
रांची/Ranchi

Note:-This is system generated document does not require signature.

(अधिक जानकारी के लिए आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : <http://peso.gov.in> देखें)

(For more information regarding status, fees and other details please visit our website: <http://peso.gov.in>)

अनुज्ञप्ति संख्या-(Licence No.) P/HQ/JH/15/1065 (P257355)

नवीनीकरण के प्रस्तावक के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS

पेट्रोलियम अधिनियम, अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फ़िस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी। This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence.	नवीकरण की तारीख Date of Renewal	समाप्ति की तारीख Date of Expiry of license	अनुज्ञापन प्राधिकारी के हस्ताक्षर और स्टाम्प Signature and office stamp of the licencing authority.
1).		31/12/2013	Sd/- PESO ADMIN
2).	23/09/2013	31/12/2018	Sd/- R.P.Singh Jt. Chief Controller of Explosives For Dy. Chief Controller of Explosives Ranchi
3).	18/02/2019	31/12/2022	Sd/- K. Thiagarajan Jt. Chief Controller of Explosives For Dy. Chief Controller of Explosives Ranchi
4).	24/02/2023	31/12/2026	Ashendra Singh Dy. Chief Controller of Explosives Ranchi

यदि अनुज्ञप्ति परिसर इसमें उपाबद्ध विवरण और शर्तों के अनुरूप नहीं पाए जाते हैं और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है उनसे किसी का उल्लंघन होने की दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्तिगरी प्रथम अपराध के लिए साधारण कारावास से, जो एक मास तक हो सकता है, या जुर्माने से, जो एक हजार रुपये तक हो सकता है, या दोनों से, और प्रत्येक पश्चातवर्ती अपराध के लिए साधारण कारावास से जो तीन मास तक हो सकता है, या जुर्माने से, जो पांच हजार रुपये तक हो सकता है, या दोनों से, दण्डनीय होगा।

This licence is liable to be cancelled if the licensed premises are not found conforming to the description given on the approved plan attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable for the first offence with simple imprisonment which may be extend to one month, or with fine which may extend to one thousand rupees, or with both and for every subsequent offence with simple imprisonment which may extend to three months, or with fine which may extend to five thousand rupees or with both.

Note:-This is system generated document does not require signature.



भारत सरकार
भारत सरकार

Government of India

वाणिज्य और उद्योग मंत्रालय

Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पेसो)

Petroleum & Explosives Safety Organisation (PESO)

श्री मोहन, तीसरा माला, सीता कंपाउंड, मेन रोड, सुशीला ऑटोमोबाइल के पीछे

रांची- 834001

Sri Mohan, 3rd Floor, Sita Compound, 5 Main Road, Behind Sushila Automobiles,
Ranchi - 834001

E-mail : dycceranchi@explosives.gov.in

Phone/Fax No : 651 - 2332689, 2332690, 2332688

संख्या /No. : P/HQ/JH/15/1065 (P257355)

दिनांक /Dated : 24/02/2023

सेवा में /To,

M/s. Adhunik Power & Natural Resources Ltd.,
Village-Padampur, Behind PGCIL Substation,,
Adityapur-Kandra Road,,
Taluka: Adityapur(Gamharia),
District: SARAIKELLA KHARSWAN,
State: Jharkhand
PIN: 832105

24 FEB 2023

विषय /Sub : Plot No, Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur (Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 में स्थित विद्यमान पेट्रोलियम वर्ग C अचिह्नित में अनुमति सं P/HQ/JH/15/1065 (P257355) के नवीकरण के संदर्भ में।
Existing Petroleum Class C Installation at Plot No, Plot No. 161,, Behind PGCIL.Substation adityapur, Kandra Road, Village- Padampur, Adityapur(Gamharia), Taluka: Adityapur(Gamharia), District: SARAIKELLA KHARSWAN, State: Jharkhand, PIN: 832402 - Licence No. P/HQ/JH/15/1065 (P257355) - Renewal regarding.

महोदय /Sir
(s),

कृपया आपके पत्र क्रमांक OIN1307334 दिनांक 23/02/2023 का आकलन करें।

Please refer to your letter No.: OIN1307334, dated 23/02/2023

अनुमति संख्या P/HQ/JH/15/1065 (P257355) दिनांक 23/12/2011 को दिनांक 31/12/2026 तक नवीनीकृत कर इस पत्र के साथ अग्रपत्र की जा रही है।

Licence No. P/HQ/JH/15/1065 (P257355) dated 23/12/2011 is forwarded herewith duly renewed upto 31/12/2026.

कृपया पेट्रोलियम नियम 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें। अनुमति के नवीकरण हेतु समस्त दस्तावेजों को अनुमति की वैधता समाप्त होने की तिथि से कम से कम 30 दिन पूर्व कार्यालय को प्रेषित करें।

Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules, 2002 and submit complete documents for the Renewal of the licence so as to reach this office on or before the date on which Licence expires.

कृपया पावली दें।

Please acknowledge the receipt.

भवदीय /Yours faithfully,

((आशेंद्र सिंह))

(Ashendra Singh)

उप मुख्य विस्फोटक निबंधक

Dy. Chief Controller of Explosives
रांची/Ranchi

Note:-This is system generated document does not require signature.

(अधिक जानकारी के लिए आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट : <http://peso.gov.in> देखें)

(For more information regarding status, fees and other details please visit our website: <http://peso.gov.in>)

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A Government of India Enterprise)

QUALITY CONTROL LABORATORY

Visakha New Terminal

CONVENT JN.-SHEELANAGAR ROAD, BEHIND AIRPORT,

VISAKHAPATNAM- 530014

TEST REPORT

Product : HP INDUSTRIAL DIESEL OIL

Customer / Supplier / : NBOT-BONDED TANKS-PSD
Branch Plant
Source of Sample : TK105
Tank No : TK105
Qty of Sample/ : 1ltr uml / tk70/868.3 b.no.36/2019

Density/Type of Sample
Catg / Evnt / Actvty : Aft Receipt thru Dedicated P/L
Receipt/Despatch Mode :
Sample Drawn by : RAMAKRISHNA

Test Report No. : BFT/10835
Date of Sample Drawn : 20/07/19
Date of Sample Receipt : 21/07/19
Date of Sample Testing : 22/07/19
Date of Report : 22/07/19
Date of Printing : 22/07/19
JDE Sample Number : 865213
Batch No :

Test Line Number	Characteristics	Units	Test Method	Specifications		Result Value
				Min	Max	
5	DENSITY@ 15°C	Kg/m3	IS 1448 [P:16]	-	-	867.8
6	KINEMATIC VISCOSITY. @ 40° C	cSt	IS 1448 P:25	2.500	15.000	4.860
7	FLASH POINT - PMCC	°C	IS 1448 P:21	66	-	79
8	WATER CONTENT	% Vol	IS 1448 P:40	-	.250	.100
9	TOTAL SULPHUR	% Mass	ASTM D 4294	-	1.50	.47
10	POUR POINT SUMMER	°C	IS 1448 P:10	-	21	3

Remarks:

Sample S.No.BFT/271 meets specification as per IS-15770:2008(Reaffirmed2014) in the above parameters

Appearance : Light Brown

- Notes : 1) The sample is drawn by client and results relate to sample tested
2) The test report shall not be reproduced except in full without prior written approval of the Lab Incharge
3) This test report shall not be used in any advertising media or as evidence in the Court of Law without prior written consent of Laboratory
4) Test results reported are valid at the time of testing
5) This is a system generated test report and hence does not require signature

Tested By : 35323320
VELAMURI DATTATREYA

Reviewed and Approved By : 35323320
VELAMURI DATTATREYA

*** END OF TEST REPORT ***

Page No. : 1 of 1



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :- NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Registered by :- Jharkhand State Pollution Control Board (JSPCB)
Certified by :- ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	9	5	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Work Zone Noise							
Report Release Date		30 th September, 2024						Report ID					YBAEEL-2409-19							
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024							
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/C/A/Sept.- 24/09							
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		19/09/2024 – 21/09/2024					Mode of sample collection					By YBAEEL Team								
Sampling Plan		YBAEEL/SP/149-2024																		
Meteorological Cond. of Field		W.C.– Partly Cloudy					RH % - 64					Temp. - 32°C								
Sample receipt Date		21/09/2024		Analysis Started on			21/09/2024			Analysis completed on			30/09/2024							

*****Test Results*****

Sl.	Locations	Parameters	Units	Day Time (6.00 a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)	Limits
1.	Near CHP Area	Leq	dB (A)	70.2	61.8	85
2.	Near Cooling Tower	Leq	dB (A)	84.1	82.6	
3.	Near Turbine Floor	Leq	dB (A)	82.6	81.7	
4.	Pump House	Leq	dB (A)	60.8	57.2	
5.	Near Compressor House	Leq	dB (A)	84.3	81.3	

Limit is specified as	Factory Act, 1948 (8 hrs.)
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limit.

Sample Drawn By – Mukesh Singh
Tested By – Akash Khalkho (Lab Analyst)

*****End of Report*****

Sanjeev Kumar Singh
30/09/24
Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Registered by : Jharkhand State Pollution Control Board (JSPCB)
Certified by : ISO 9001:2015 & ISO 45001:2018



Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	9	4	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Noise							
Report Release Date		30 th September, 2024						Report ID					YBAEEL-2409-19							
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024							
Type of Industry (If any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/C/A/Sept.-24/09							
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		19/09/2024– 20/09/2024					Mode of sample collection					By YBAEEL Team								
Sampling Plan		YBAEEL/SP/149-2024																		
Meteorological Cond. of Field		W.C.– Partly Cloudy					RH % - 66					Temp. - 32°C								
Sample receipt Date		21/09/2024		Analysis Started on			21/09/2024			Analysis completed on			30/09/2024							

*****Test Results*****

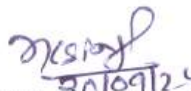
Sl.	Locations	Parameters	Units	Day Time (6.00 a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)	Limits
1.	Near Sati Steel	Leq	dB (A)	46.8	40.2	Day – 75 Night – 70
2.	Near Reservoir	Leq	dB (A)	55.2	52.6	
3.	Near Occupational Health Centre	Leq	dB (A)	48.2	45.4	
4.	Near Main Gate	Leq	dB (A)	62.4	52.6	

- Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority. - Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority. - dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale(A) which is relatable to human hearing.	Area		Unit	Day Time	Night time
	A	Industrial Area	dB (A)	75.0	70.0
	B	Commercial Area	dB (A)	65.0	55.0
	C	Residential Area	dB (A)	55.0	45.0
	D	Silence Zone	dB (A)	50.0	40.0

Limit is specified as	Noise pollution (Regulation & Control) Rules, 2000.
Abbreviation	MDL : Minimum detection limit. BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report in full or in part shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full without the written permission of the CEO. The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limit.

Sample Drawn By – Mukesh Singh
Tested By – Akash Khaikho (Lab Analyst)

*****End of Report*****


Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur
Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Registered by : Jharkhand State Pollution Control Board (JSPCB)
Certified by : ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	9	1	F	
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Air Quality (Core Zone)								
Report Release Date		30 th September, 2024						Report ID					YBAEEL-2409-19								
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024								
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/C/A/Sept.- 24/09								
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																			
Sampling Period		19/09/2024 – 20/09/2024						Mode of sample collection					By YBAEEL Team								
Sampling Plan		YBAEEL/SP/149-2024																			
Sampling Locations		A. Nea CHP Area										22°49'47"N, 86°03'39"E									
		B. Near TG Area										22°50'08"N, 86°03'46"E									
		C. Near Admin Building										22°50'22"N, 86°03'35"E									
Meteorological Cond. of Field		W.C.– Partly Cloudy					RH % - 62					Temp. - 33°C				W.D.– SW-NE					
Sample receipt Date		21/09/2024		Analysis Started on				21/09/2024			Analysis completed on					30/09/2024					

*****Test Results*****

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006, RA 2022	µg/m ³	92.7	78.2	71.6	100
Particulate matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	40.7	36.1	31.4	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2/Sec1) 2023	µg/m ³	13.2	15.6	11.8	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2022	µg/m ³	28.7	26.3	21.6	80
Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	36.4	15.7	13.4	400
Ozone (O ₃)	IS:5182 (P-09):1974, RA 2019	µg/m ³	5.6	7.5	3.3	180 (1 hr.)
Lead (Pb)	IS:5182 (P-22) 2004, RA 2019	µg/m ³	0.018	0.023	0.012	1
Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL- 4)	BDL (MDL- 4)	BDL (MDL- 4)	--
Arsenic (As)	USEPA – IO 3.2	ng/m ³	BDL (MDL -02)	BDL (MDL -02)	BDL (MDL -02)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196-1966 (C)
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
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	The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise.
	The liability of the laboratory is limited to the invoiced amount.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Samples comply with prescribed limits.

Sample Drawn By – Mukesh Singh
Tested By – Akash Khalkho (Lab Analyst)

*****End of Report*****

20/09/24

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
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ISO 9001:2015
ISO 45001:2018



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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Registered by :-
Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

Discipline	Chemical	Group	Atmospheric Pollution		Sample Description	Ambient Air Quality (Core Zone)	
Report Release Date		30 th September, 2024			Report ID	YBAEEL-2409-19	
W. Order / JSPCB App. No.		3030006964			Work Order Date	03.02.2024	
Type of Industry(If any)		Thermal Power Plant			Job code/ Ref. no.	YBAEEL/C/A/Sept.- 24/09	
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.					
Sampling Period		19/09/2024 – 20/09/2024		Mode of sample collection		By YBAEEL Team	
Sampling Plan		YBAEEL/SP/149-2024					
Sampling Locations		A. Nea CHP Area			22°49'47"N, 86°03'39"E		
		B. Near TG Area			22°50'08"N, 86°03'46"E		
		C. Near Admin Building			22°50'22"N, 86°03'35"E		
Meteorological Cond. of Field		W.C.– Partly Cloudy		RH % - 62		Temp. - 33°C	W.D.– SW-NE
Sample receipt Date		21/09/2024	Analysis Started on		21/09/2024	Analysis completed on	
						30/09/2024	

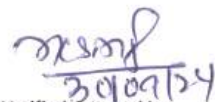
*****Test Results*****

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Carbon Monoxide (CO)	SOP No. YBAEEL/SOP/AIR/01	mg/m ³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	4
Benzene (C ₆ H ₆)	IS:5182 (P-11) 2006, RA 2022	µg/m ³	BDL (MDL 0.06)	BDL (MDL 0.06)	BDL (MDL 0.06)	--
Benzo (a)pyrene (BaP) (Particulate Phase Only)	IS:5182 (P-12) 2004, RA 2019	ng/m ³	BDL (MDL 0.2)	BDL (MDL 0.2)	BDL (MDL 0.2)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL - Minimum detection limit, BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196-1986 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. This report, in full or in part, shall not be used for advertising or as evidence in any court of law. This report cannot be reproduced, except when in full, without the written permission of the CEO. The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise. The liability of the laboratory is limited to the invoiced amount. All disputes are subjected to the Ranchi Jurisdiction.
Remarks	Samples comply with prescribed limits.

Sample Drawn By – Mukesh Singh
Tested By – Akash Khalkho (Lab Analyst)

*****End of Report*****


30/09/24

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office -

Jamshedpur

Dhanbad

Hazaribag

Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by : NABL Accredited Testing Laboratory Vide Certificate No. TC -12989
Registered by : Jharkhand State Pollution Control Board (JSPCB)
Certified by : ISO 9001:2015 & ISO 45001:2018



TC-12989

Test Report

ULR (Unique Lab Report) No.			TC	1	2	9	8	9	2	4	0	0	0	0	0	0	8	9	2	F
Discipline	Chemical	Group	Atmospheric Pollution					Sample Description					Ambient Air Quality (Buffer Zone)							
Report Release Date		30 th September, 2024						Report ID					YBAEEL-2409-19							
W. Order / JSPCB App. No.		3030006964						Work Order Date					03.02.2024							
Type of Industry(If any)		Thermal Power Plant						Job code/ Ref. no.					YBAEEL/C/A/Sept.- 24/09							
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.																		
Sampling Period		20/09/2024 – 21/09/2024					Mode of sample collection					By YBAEEL Team								
Sampling Plan		YBAEEL/SP/149-2024																		
Sampling Locations		A. Padampur Village																		
		B. Srirampur Village																		
		C. Bada Hariharpur Village																		
Meteorological Cond. of Field		W.C.– Partly Cloudy					RH % - 63					Temp. - 31°C				W.D.– North-South				
Sample receipt Date		21/09/2024		Analysis Started on			21/09/2024			Analysis completed on					30/09/2024					

*****Test Results*****

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006, RA 2022	µg/m ³	89.2	84.6	67.2	100
Particulate matter (PM _{2.5})	IS:5182 (P-24) 2019	µg/m ³	43.2	34.8	25.4	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2/Sec1) 2023	µg/m ³	16.5	14.6	9.9	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2022	µg/m ³	32.6	27.9	16.9	80
Ammonia (NH ₃)	IS:5182 (P-25) 2018	µg/m ³	19.7	44.1	11.3	400
Ozone (O ₃)	IS:5182 (P-09):1974, RA 2019	µg/m ³	8.1	4.9	2.5	180 (1 hr.)
Lead (Pb)	IS:5182 (P-22) 2004, RA 2019	µg/m ³	0.021	0.018	BDL (MDL-0.004)	1
Nickel (Ni)	IS:5182 (P-26) 2020	ng/m ³	BDL (MDL-4)	BDL (MDL-4)	BDL (MDL-4)	--
Arsenic (As)	USEPA - IO 3.2	ng/m ³	BDL (MDL-02)	BDL (MDL-02)	BDL (MDL-02)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL - Minimum detection limit, BDL - Below detection limit
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C)
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
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	The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Samples comply with prescribed limits.

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

*****End of Report*****

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



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ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Registered by :-
Certified by :-

Jharkhand State Pollution Control Board (JSPCB)
ISO 9001:2015 & ISO 45001:2018



State Pollution
Control Board

Test Report

Discipline	Chemical	Group	Atmospheric Pollution	Sample Description	Ambient Air Quality (Buffer Zone)	
Report Release Date		30 th September, 2024		Report ID	YBAEEL-2409-19	
W. Order / JSPCB App. No.		3030006964		Work Order Date	03.02.2024	
Type of Industry(If any)		Thermal Power Plant		Job code/ Ref. no.	YBAEEL/C/A/Sept.- 24/09	
Report Issue to		M/s Adhunik Power & Natural Resources Ltd. Vill.-Padampur, PGCILS, Kandra-832402, Seraikela-Kharsawan, Jharkhand.				
Sampling Period		20/09/2024 – 21/09/2024	Mode of sample collection		By YBAEEL Team	
Sampling Plan		YBAEEL/SP/149-2024				
Sampling Locations		A. Padampur Village				
		B. Srirampur Village				
		C. Bada Hariharpur Village				
Meteorological Cond. of Field		W.C.– Partly Cloudy	RH % - 63		Temp. - 31°C	W.D.– North-South
Sample receipt Date		21/09/2024	Analysis Started on	21/09/2024	Analysis completed on	30/09/2024

*****Test Results*****

Parameters	Test Methods	Units	Sampling Location			Limits
			Site A	Site B	Site C	
Carbon Monoxide (CO)	SOP No. YBAEEL/SOP/AIR/01	mg/m ³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	4
Benzene (C ₆ H ₆)	IS:5182 (P-11) 2006, RA 2022	µg/m ³	BDL (MDL 0.06)	BDL (MDL 0.06)	BDL (MDL 0.06)	--
Benzo (a)pyrene (BaP) (Particulate Phase Only)	IS:5182 (P-12) 2004, RA 2019	ng/m ³	BDL (MDL 0.2)	BDL (MDL 0.2)	BDL (MDL 0.2)	--

Limit is specified as	Environmental (Protection) Rule – 1986.
Abbreviation	MDL - Minimum detection limit, BDL - Below detection limit.
Env. Condition of Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C).
Specific contractual notes	All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility.
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	The liability of the laboratory is limited to the invoiced amount.
Remarks	All disputes are subjected to the Ranchi Jurisdiction.
	Samples comply with prescribed limits.

Sample Drawn By - Mukesh Singh
Tested By - Akash Khalkho (Lab Analyst)

*****End of Report*****

Sanjeev Kumar Singh
20/09/24

Verified & Issued by
Sanjeev Kumar Singh
(Technical Manager)

Authorized Signatory
Atmospheric Pollution
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Enquiry Office - Jamshedpur Dhanbad Hazaribag Pakur

Main Office Cum Laboratory :- Plot No. 551, Khata No 62, Sidroul, P.O. Namkum, P.S. Namkum, Ranchi, Jharkhand
Ph : 09835197960, 9304955304, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
ISO 45001:2018



ADHUNIK POWER & NATURAL RESOURCES LIMITED

WORKS : Village - Padampur, Behind P.G.C.I.L. Substation,
Adityapur - Kandra Road, Saraikela - Kharsawan, PIN - 832402 Jharkhand
Phone : +91 - 657 - 6628400, Fax : +91 - 657 - 6628440
CIN - U40101WB2005PLC102935

01.12.2022

Office Order

As per the directions of the Ministry of Environment & Forest, Government of India while granting the Environment Clearances vide letter no J-13011/8/2009-IA.II(T), dated 29th Aug 2009 (Unit I) & Letter No :J13012/8/2009-IA .II (T) dtd 9th May 2011 to our 2x270 MW Power Plant, the Management considering the importance of Environmental concerns and set up the Environment Cell under the chair of Plant In charge who is directly reporting the Managing Director of Organization. The Cell is functional since 2009 and is equipped with qualified professionals of the fields.

Roles & Responsibility of Environment Cell

Following the broad scope of the Cell

- Understanding Environment issues in Adhunik power & Natural Resources Ltd during Construction & Operation and Maintenance Phase.
- Framing appropriate scope of work for requisite environment management, EIA & various other complex issues to address those with tailor made solutions,
- Awarding the consultancy tasks for environmental management & EIAs, Modeling, Monitoring etc & other complex studies to the appropriate agency and also sometimes In-house work of Monitoring,
- Dealing with JSPCB/CPCB/MoEF & CC for various aspects including obtaining clearances for Plant and Plant led development and policy makings at State and National level,
- The meeting of the management of M/s APNRL shall be conducted in which the budgetary allocation for the EMP shall be discussed and finalized and comprehensive EMP shall be prepared as per the guidelines of CPCB.
- Preparation of Environmental Management Plans- Basically Assisting Engineering Section for preparation Master Plan for existing plant to address policy regulations issued by MOEF& CC from time to time,
- Operating and upgrading the existing Hazardous Waste Management Facilities for Plant Area as per latest regulations.- (Development and Operation of TSDF at APNRL),
- Initiating dialogs, meeting & developing participatory approach with the key stakeholders for solving any typical pollution related problems.
- Review of EMP for various sections of plant and suggest modifications if any for better Env Management,
- Representing APNRL at the State and National level platform for Environment Management
- Comments & advice on draft amendment, notifications on Environmental Laws.
- Imparting knowledge and raising awareness for Environment Protections among APNRL key officers and other related stakeholders,
- The Plant Incharge will be responsible for environmental issues at plant.

The responsibilities of the various members of the environment management cell are enclosed as
Annexure I:

CORPORATE OFFICE : "LANSLOWNE TOWER", 2/1A, Sarat Bose Road, Kolkata - 700 020

Ph : +91 - 33 - 30517100 / 7200 / 7300 • Fax : +91 - 33 - 22890285

REGD. OFFICE

: 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone No. +91 - 33 - 22428551, 22428553

Website

: www.adhunikgroup.com



ADHUNIK POWER & NATURAL RESOURCES LIMITED

WORKS : Village - Padampur, Behind P.G.C.I.L. Substation,
Adityapur - Kandra Road, Saraikela - Kharsawan, PIN - 832402 Jharkhand
Phone : +91 - 657 - 6628400, Fax : +91 - 657 - 6628440
CIN - U40101WB2005PLC102935

01.12.2022

Annexure I

Responsibilities of the members of the environment management cell

S. No.	Designation	Responsibility	Reporting to
01	Managing Director	Environmental policy and directions	
02	Plant Head	Overall responsibility for environmental management and decision making for all environmental issues	Managing Director
03	Environment Manager Kamlesh Kumar (M.Sc.- Environmental Science)	Overall in-charge of operation of environmental management facilities of respective sections. Ensure environmental monitoring as per appropriate procedures, Ensure correct records of generation, handling, storage, transportation and disposal of solid hazardous wastes. Ensuring legal compliance by properly undertaking activities as laid down by various regulatory agencies from time to time and interacting with the same and arranging awareness programme among the workers.	Plant Head
04	CSR Manager Sanjeet Sinha (M.Sc – Maths)	Responsibility to implement social impact improvement /mitigation measures.	Plant Head
05	Safety Manager Bidesh Bid B.Sc in Chemistry(H) Diploma in Industrial Safety	Participating in workplace safety and health planning meetings. Ensuring managers and supervisors have the appropriate safety and health; Accident prevention; and investigation & training Ensure safety and health hazards are corrected, eliminated or guarded.	Plant Head
06	Medical Officer Dr. Ganesh Prasad Murmu, MBBS	Attend all types of OPD and Emergency Patients. First Aid Treatment to all Cases. Routine Medical Examination of Company Employees. Performing & Conducting various training & awareness programs in company.	Plant Head
06	Chemist Tapas Kumar Mahato B.Sc/ M.Sc	To initiate environmental monitoring as per approved schedule. Prepare & Submit the monitored results and corrective measures in case monitored results are above the specified limit.	Environment Manager
07	Horticulture officer Ravi Prakash Sharma Graduate	Responsible for development of Green belt & Land Scape on vacant land of Plant premises.	Environment Manager

[Signature]
DGM(HR)

CORPORATE OFFICE : "LANSDOWNE TOWER", 2/1A, Sarat Bose Road, Kolkata - 700 020

Ph : +91 - 33 - 30517100 / 7200 / 7300 • Fax : +91 - 33 - 22890285

REGD. OFFICE

: 14, N. S. Road, 2nd Floor, Kolkata - 700 001, Phone No. +91 - 33 - 22428551, 22428553

Website

: www.adhunikgroup.com

Kamlesh Kr Jha

From: Kamlesh Kr Jha
Sent: 24 September 2024 11:34
To: 'ranchijspcb@gmail.com'; 'ro.ranchi-mef@gov.in'; 'jspcb.jsr@gmail.com'
Subject: Submission of Environmental Statement (Form V) for Unit II (1 x 270 MW) of M/s Adhunik Power & Natural Resources Limited,Village-Padampur, Dist-Saraikela-Kharswan, Jharkhand for FY (2023-24).
Attachments: Environment Statement-Unit II (2023-24).pdf

To,
Member Secretary
Jharkhand State Pollution Control Board,
HEC Campus, Dhurva,
Ranchi , Jharkhand.
Sub- Submission of Environmental Statement (Form V) for Unit II (1 x 270 MW) of M/s Adhunik Power & Natural Resources Limited,Village-Padampur, Dist-Saraikela-Kharswan, Jharkhand.

Ref: Environmental Clearance letter No J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Dear Sir,

In line with compliance of above referred EC letter point No XIII of general condition, Please find attached herewith Environmental statement (Form V) for the financial year 2023-24.

This is for your kind information & record please.

Thanking You

Regards

Kamlesh Kumar

A.G.M-Environment

Adhunik Power & Natural Resources Ltd.

Vill.-Padampur,,Behind P.G.C.I.L Substation,Tata-Kandra Road

Saraikela-Kharsawan,Pincode:-832402,Jharkhand

Cell No: - 07763818994

Email Id:- kamleshkrjha@adhunikpower.co.in

Website:- www.adhunikpower.com

Attachment: As mentioned above

CC: 1. Integrated Regional Office -Ranchi,
Ministry of Environment, Forest and Climate Change,
2nd Floor, Jharkhand State Housing Board (HQ)
Harmu Chaouk, Ranchi, Jharkhand-834002
2. Regional Office. JSPCB, Adityapur

From: Kamlesh Kr Jha
Sent: 23 May 2024 15:25
To: 'JSPCB, Jamshedpur'; 'ro.ranchi-mef@gov.in'; 'ranchijspcb@gmail.com'; 'nazim.cpcb@nic.in'
Subject: Submission of Half yearly compliance status report (Unit II) of M/s Adhunik Power & Natural Resources Ltd for the period – October 2023 to March 2024, -Reg.
Attachments: Annexure XVI-EMC CELL-31.12.2022.pdf; Annexure XVII-Environment Statement - Unit II (2022-23).pdf; Annexure XVIII-HYC-Unit II (April 2023- Sept 2023)-Acknowledgement Copy.pdf; Covering Letter with Compliance report of EC -Unit II(APNRL).pdf; Annexure I-(Dalma Wildlife sanctuary).pdf; Annexure II-Baseline Calibration water quality report.pdf; Annexure III-Piezometer.pdf; Annexure IV-Surface Water Quality Report.pdf; Annexure IX-CSR-Report April 23- March 24.pdf; Annexure VI-Fly Ash Disposal report (2023-24).pdf; Annexure VII-Bottom Ash Report (1).pdf; Annexure VIII-Ash Pond Outlet Water Quality.pdf; Annexure V-Stack Monitoring Report- U II.pdf; Annexure XI-ETP Treated Water Quality Report.pdf; Annexure XII- Sewage Treatment Plant -60KLD.pdf; Annexure XIII(a)-Coal Test report.pdf; Annexure XIII-LDO Certificate 2023-26.pdf; Annexure XIV-Noise Monitoring Report.pdf; Annexure X-List of Local employees.pdf; Annexure XV-Ambient Air Quality Report.pdf

Ref:- MoEF & CC issued Environment Clearance File No. J-13012/8/2009-IA.II(T), Dated 09th May 2011.

Sir,

With reference to the above referred Environmental Clearance, we are pleased to submit herewith the half yearly compliance status report with Annexures **(Unit II)** for the period of **October 2023 to March 2024**.

Following Documents are attached :

1. Covering Letter with compliance report of Environment Clearance –Unit II
2. Annexure I- (Notification of Dalma Wildlife sanctuary)
3. Annexure II-Baseline Calibration water quality report
4. Annexure III-Piezometer
5. Annexure IV-Surface Water Quality Report
6. Annexure V-Stack Monitoring Report- U II
7. Annexure VI-Fly Ash Disposal report (2023-24)
8. Annexure VII-Bottom Ash Report (1)
9. Annexure VIII-Ash Pond Outlet Water Quality
10. Annexure IX-CSR-Report April 23- March 24
11. Annexure X-List of Local employees
12. Annexure XI-ETP Treated Water Quality Report
13. Annexure XII- Sewage Treatment Plant -60KLD
14. Annexure XIII-LDO Certificate 2023-26
15. Annexure XIII(a)-Coal Test report
16. Annexure XIV-Noise Monitoring Report
17. Annexure XV-Ambient Air Quality Report
18. Annexure XVI-EMC CELL-31.12.2022
19. Annexure XVII-Environment Statement -Unit II (2022-23)
20. Annexure XVIII-HYC-Unit II (April 2023- Sept 2023)-Acknowledgement Copy

This is for your reference and record, please.

Thanks & Regards,

Kamlesh Kumar

Adhunik Power & Natural Resources Ltd.

Vill.-Padampur,,Behind P.G.C.I.L Substation,Tata-Kandra Road

Saraikela-Kharsawan,Pincode:-832402,Jharkhand

Cell No: - 07763818994

Email Id:- kamleshkrjha@adhunikpower.co.in

Website:- www.adhunikpower.com