JPL/EMD/F-33 (3)/4x600MW/2021/ 179
26/11/2021

The Regional Director (S),
Ministry of Environment and Forests,
Regional office (WCZ)
Ground Floor, East Wing
New Secretariat Building
Civil Line, Nagpur - 440001 (Maharashtra)

Sub.:-**Submission of Half Yearly Environmental Clearance Compliance Reports for expansion of 4x250 MW TPP by addition of 2x600MW (Units-1&2) and 2×600MW (Units-3&4) Coal based TPP of M/s Jindal Power Limited, Tamnar, Distt.- Raigarh (C.G.) for the period of April, 2021 to September, 2021.**

Ref.: -1. **Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 18/03/2011.**
2. **Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 04/11/2011.**
3. **MoEF Office Memorandum No. J-11013/41/2006-IA.II (I) dated 06/04/2011.**
4. **Amendment in Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 10/01/2014.**
5. **Amendment in Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 27/03/2015.**
6. **Amendment in Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 26/04/2017.**
7. **Amendment in Environmental Clearance issued vide letter No.J.13012/117/2008-IA.II (T) dated 28/08/2020.**

Dear Sir,
This has reference to the above cited subject. Enclosed please find herewith Half Yearly Environmental Clearance Compliance Reports along with compliance of additional conditions for expansion of 4×250 MW TPP by addition of 2x600MW (Units-1&2) and 2x600MW (Units-3&4) Coal based TPP of M/s Jindal Power Limited, Tamnar, Distt.- Raigarh (C.G.) for the period of **April, 2021 to September, 2021** in soft copy (through e-mail).

Trust that you will find the above information in order.

Thanking you,

Yours faithfully,
For **JINDAL POWER LIMITED**

Shiv Kumar Singh
General Manager -EMD
Encl. : As above.
Cc:

The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110 032.	The Zonal Officer, Central Pollution Control Board, 3rd Floor, Sahkar Bhawan, North T.T.Nagar, Bhopal-462 003 (M.P)
The Director, Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhavan Jorbagh Road, New Delhi - 110 003	The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sec.19 Atal Nagar, Raipur (CG) -490099

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Jindal Power Limited, Tamnar

Compliance Report of Environmental Clearance and additional conditions for Expansion of 4x250MW by addition of 2x600 MW (Units-1 & 2) Coal Based Thermal Power Plant, Tamnar vide letters No.J.13012/117/2008-IA.II (T) dated 18/03/2011 & amendment vide letter No.J.13012/117/2008-IA.II (T) dated 04/11/2011, 10/01/2014 , 27.03.2015, 22.12.2016, 26.04.2017and 28.8.2020.

Sl. No	Conditions	Compliance Status
(i)	Environmental clearance shall be applicable for 2x600 MW. However at a later stage when firm coal linkage for third and fourth unit of 600 MW are also available, the project proponent may request the Ministry for inclusion of these units of 600 MW each, for which the Ministry shall consider appropriately.	Ministry has granted Environmental Clearance for 2x600 MW (Units-3&4) vide Letter No.J-13012/117/2008-IA.II (T) dated 04/11/2011.
(ii)	**(As amended vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 4/11/2011)** Prior permission/clearance from the Ministry of Coal shall be obtained before undertaking construction activity for the expansion project.	Permission has been obtained from Ministry of Coal vide letter dated 01/11/2011.
(iii)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Ministry within six months.	Vision document has been submitted to the Ministry & its Regional Office-Bhopal vide letter No. JPL/EMD/2x600MW/2011/194 dated 10/09/2011.
(iv)	Provision for installation of FGD shall be provided for future use.	Space provision has been provided for installation of FGD in future use.
(v)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm^3. 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.	The ESP's are designed to achieve particulate emission below 50 mg/Nm3. Adequate dust extraction system and dust suppression system in coal handling and ash handling points, transfer areas and other vulnerable dusty areas have been provided.
(vi)	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5 % 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 condition has been updated by MoEF&CC vide its notification no. S.O. 1561 (E) dated 21.05.2020. As per the said notification, MoEF&CC has permitted use of coal by TPPs without stipulations as regards to ash content or distance. The MoEF&CC vide this notification has stipulated that the existing ECs stand modified so as to make the above condition operative.
(vii)	Stack of 275 m height shall be installed and provided with continuous online monitoring equipments for SO_x, NO_x and Particulate Matter. 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 stacks of 275 meters height with continuous online monitoring instrument for SOx, NOx and Particulate Matter have been provided at Unit-1 , Unit-2 & Unit-3 & Unit-4. COD for Unit-1 is on 14.03.2014, COD for Unit-2 is on 31.03.2014, COD for Unit-3 is on 15.01.2015 & COD for Unit-4 is on 12.12.2016 and flue gas exit velocity of 22 m/sec is being

		maintained and report for the period of April, 2021 to September,2021 is enclosed as ***Annexure-I***. Mercury emissions from stack is being monitored periodically.
(viii)	Existing de-generated water bodies (if any) in the study area shall be regenerated at the project proponent's expenses in consultation with the state Govt.	Revival/regeneration of 60 nos. of water bodies by de-silting /deepening in the study area has already been done under CSR activities in consultation with District administration.
(ix)	Detailed hydro-geological study shall be conducted (including sustainability of water source study) shall be carried out by an institute of repute and report submitted to the Regional Office (RO) of the ministry. Further hydro-geological study 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 RO of the Ministry.	National Institute of Hydrology (NIH),Roorkee has carried out detailed Hydro-geological study .The report was submitted to MoEF & its Regional Office vide letter No. JPL/EMD/4x600MW/2011/228 dated 14/12/2011. IIT(ISM) Dhanbad through annual Environmental audit reviews ground water and surface water monitoring reports to assess if any deterioration has occurred. Water quality monitoring reports are regularly submitted to RO. Water quality monitoring reports for the period April, 2021 to September,2021 are attached as Annexure -7(a) & (b)
(x)	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.	Source of water for meeting the requirement during lean season was already specified and submitted to the Regional Office of the Ministry vide letter No. JPL/EMD/2x600MW/JULY-11/15 dated 04/07/2011.
(xi)	No ground water shall be extracted for use in operation of the power plant even in lean season.	No ground water was extracted for use in power plant operation.
(xii)	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.	There are no water bodies within the project site.
(xiii)	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.	Will be complied, whenever stipulated.
(xiv)	COC of 5.0 shall be adopted. The treated effluents conforming to the prescribed standards only shall be re -circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed. A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.	Cooling water system with COC of 5.0 is being adopted. Separate storm water drains are provided, hence there is no chance of mixing of effluents with storm water . The project has been designed with zero discharge concept. As stipulated, treated sewage is being used completely for raising greenbelt/plantation purpose.
(xv)	Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the	Topography of the site is more or less flat. Therefore leveling works are not required.

	area is protected and improved.	
(xvi)	Utilisation of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Noted, Implementation status report is being submitted time to time.
(xvii)	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.	We have incorporated total ash utilization as integral part of the project. We have installed dry fly ash extraction system with 4 nos of silos of adequate capacity 2300 Tonnes each so that ash generated during the power generation is collected in dry form. Unutilized fly ash is being disposed off in the ash dyke in the form of slurry. Mercury & other heavy metals (As, Hg, Cr, Pb etc.) is being monitored in the bottom ash and in the effluents emanating from the existing ash pond.
(xviii)	Ash pond shall be lined with HDP/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.	Noted, HDP/LDPE lining will be carried out in the proposed Ash dyke.
(xix)	Disposal of Bottom Ash in abandoned mines (if proposed to be undertaken) shall be carried out only after obtaining permission from DGMS and it shall be ensured 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.	Noted, Permission from DGMS will be obtained for disposal of Bottom Ash in abundant mines.
(xx)	Green Belt consisting of 3 tiers of plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible adequate Green Belt shall be raised and detail justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with survival rate not less than 85 %.	Action plan for green belt development and details regarding the feasibility of green belt development was submitted to Ministry & its Regional office vide letter Nos.JPL/EMD/2x600MW/JULY-11/156 & No.JPL/EMD/4x600MW/2012/359 dated 04/07/2011 & 01/12/2012. Wide Green belt consisting of three tiers of plantation of broad leaf local species of 100 meter width all along the periphery of the plant is being developed/ strengthened on continuous basis. Plantation details for the year 2020-21 is enclosed as **Annexure -II.**
(xxi)	The project proponent shall also adequately contribute in the development of the neighbouring villages. Special package with implementation schedule for providing fluoride free potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	JPL under its CSR activities has undertaken several community development programmes for fulfillment of the basic needs of the neighboring villagers. Further as per Govt. PHE department survey, all the neighboring villages of project area are free from fluoride contaminated water, hence there is no need to supply fluoride free potable drinking water in

		the villages and schools.
(xxii)	Further an amount of atleast 0.4% of the cost of the project (for 2x600 MW) shall be earmarked as one time capital cost for CSR programme as committed by the project proponent. Subsequently a recurring expenditure 1/5th of the above per annum shall be earmarked till the operation of plant 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.	The CSR activities progress report for the financial year, 2021-22 (April-2021 to Sept-2021) is enclosed as ***Annexure-III***.
(xxiii)	While identifying CSR activities it shall be ensured that need based assessment for the nearby villages within study area shall be conducted to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people shall be undertaken. Development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. Vocational training programme for possible self employment and jobs shall be imparted to identified villagers free of cost.	The CSR plan for the year 2021-22 has been prepared and subsequently the work plans have been rolled out in the field. The activities are being implemented under the following thematic heads: 1. Health , Sanitation & Drinking water , fighting against COVID-19 2.Community Education 3. Rural Infrastructure Development 4.Livelihood (Entrepreneurship Development Program) 5. Natural Resource Management-Environment 6. Agriculture Development 7. Sports, Art and Culture The detail of the need based activities in nearby villages for the period of FY-2021-22 (April,2021 to Sept- 2021) is enclosed as **Annexure IV.**
(xxiv)	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.	To ensure the schemes operating well, the organization has its own in-built monitoring cell. The Impact study through Community Satisfaction Index is being carried out by NABCONS (NABARD Consultation Pvt. Ltd.). The final report has been received. The Compilation certificate of the study is enclosed as **Annexure-VII.**
(xxv)	For the tribal families affected directly or indirectly (if any) by the proposed project, specific schemes for up-liftment 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.	Schemes for the tribal families are being implemented. The status of activities is enclosed as **Annexure-V.**
(xxvi)	**(As amended vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 10/01/2014)** Information on all new activities like proposed settling up of a Coal Handling Plant, a Coal Gasification Plant, Coal stock yard etc. including the proposed pipe coal conveyer from Prasada to M/s JPL, at Tamnar shall be brought to the notice	Permission for the installation of coal crusher with in the plant and transportation of coal by road for period of three years was granted by MoEF on 10.01.2014. Subsequently, JPL was granted amendment in EC by MoEF&CC on 26.04.2017 permitting

	of the people both through EIA/EMP studies and at the time of the Public hearing for the proposed Steel Plant of M/s JSPL in an explicit, comprehensive and understandable fashion. However as an interim arrangement as the above may take some time, the coal handling plant may be setup at the thermal power site for crushing coal obtained from SECL and MCL mines located between 20-50 Kms distances. The coal crusher at the plant site is permitted as an interim measure and would be dismantled after the lapse of interim period of three years. The transportation of coal from these mines by road may be undertaken for a limited period of three years from the date of issue of this letter, by which time the pipe conveyer shall be put in place for coal transportation".	coal transportation by road & coal crushing facility within plant site for further 30 months. MoEF&CC vide letter dated 28.08.2020 permitted use of coal crusher facility already installed within the plant premises and also extended the permission for coal transportation by road till 20.05.2020. Coal transportation by road from 21.05.2020 onwards is governed Ministry's Gazette Notification vide S.O. 1561 (E) dated 21st May, 2020.
	Additional Specific Conditions **(As EC amended vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 10/01/2014)**	
(xxvii)	Power generated from Unit-1&2 (2x600 MW) domestic coal linkage, shall be sold / supplied on tariff based bidding or through competitive bidding route on long term Power Purchase Agreement with State distribution companies (DISCOMS).	Noted, Power is being supplied from unit-1 & 2 of 600 mw through long term PPA to KSEB, TNEB, CSEB.
xxviii)	Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines over distances varying from 20 to 50 kms shall be raised by the project proponent at its own cost. The status of implementation shall be submitted to the Regional Office of the Ministry.	Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines is being done on continuous basis.
xxix)	It shall be ensured that only mechanized covered trucks are used for coal transportation	Noted for compliance.
xxx)	A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	The radioactivity in coal was analysed by BARC for determination of Radioactivity in Coal and fly ash. Study of heavy metals contents in coal and fly ash from a reputed institute/organization is carried out regularly. Study report is already submitted to MoEF.
xxxi)	Recommendation made by CEA in its report for setting up of crusher and dumper hopper as given under shall be strictly implemented: • The dust extraction / collection and suppression facilities to be installed at the coal crushing site.	Water sprinkling systems have been installed at crushers area , transfer points etc to control fugitive dust emissions. Dust extraction system equipped with 02 bag filters have already been installed.
xxxii)	The existing water reservoir and water allocation for the existing 1000 MW plant shall be utilized for an interim period not exceeding three years by which time the system shall be put in place for self sustenance of the expansion units.	JPL has obtained amendment in EC from MoEF&CC on 26.04.2017 for use existing water reservoir of 1000 MW power plant.
xxxiii)	The existing ash dyke shall be utilized for the expansion for an interim period not exceeding	JPL has obtained amendment in EC from MoEF&CC on 28.10.2021 for using the

	three years subject to ash dyke having necessary capacity to handle additional ash on account of the expansion units. A new ash dyke shall be constructed within three years to meet the requirement of substantial quantity of ash that would be generated by the expansion plant.	existing ash dyke of 4x250 MW for disposal of unutilised ash of 4x600 MW till December, 2022.
	Additional Specific Conditions **(As EC amended vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 27/03/2015)**	
(xxxiv)	The coal transportation by road shall be through mechanically covered trucks only.	Noted for compliance
(xxxv)	Avenue plantation of 2/3 rows all along the coal transportation route (both side of the road shall be carried out by the project proponent at its own expenses and in consultation with the state Government Authorities. The status of the implementation shall be submitted to the Regional Office of the Ministry.	Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines is being done on continuous basis.
(xxxvi)	Periodic maintenance of the road for coal transportation shall be done by the project proponent at its own expenses and shall also facilitate the traffic control on the road in consultation with the state Government Authorities.	Complied with
(xxxvii)	Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.	175 KW roof top solar systems has been installed for solar power generation & 50 nos solar street lights has been installed at residential colony. A solar steam cooking system has been installed for preparation of 500 meals per day. The details of solar system power generation from April, 2021 to September ,2021 is enclosed as **Annexure-VIII**
(xxv)	Fugitive emission shall be controlled to prevent impact on agricultural or non-agricultural land.	All the steps are being taken to avoid the fugitive dust generation and its suppression
xxvi)	Fly ash shall not be used for agriculture purpose. No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the State Pollution Control Board and implementation done in close co-ordination with the State Pollution Control Board.	IIT-Kharagpur has been engaged for monitoring of long-term impacts of dumping of fly ash and leaching of heavy metals on soil and water of study area. There is no sign of increasing level of heavy metals in the soil/ground water.
xxvii)	Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.	Noted, Green belt will be developed around the proposed new Ash dyke.
xxviii)	The project proponent shall formulate a well laid corporate environment policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy	Complied. Policy is already in place and is being complied with.

	and compliance with the condition stipulated in this clearance letter and other applicable environment laws and regulations.	
	General Conditions as EC vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 18/03/2011	
	General Conditions	**Compliance Status**
(i)	A well designed rainwater harvesting shall be put in place 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.	A detailed scheme for rainwater harvesting to recharge the ground water aquifer has been prepared in consultation with Central Ground Water Board-New Delhi & Central Ground Water Board-Raipur by engaging National Institute of Hydrology, Roorkee and copy of the same has already been submitted to the Ministry of Environment and Forests, Government of India, Head Office and Regional Office, Bhopal, Chhattisgarh Environment Conservation Board vide Letter No. JPL/EMD/4x600MW/2011/228 dated 26/12/2011. The scheme has been approved by Central Ground Water Board, Raipur vide Letter No. 30-11/Compliance/CGWA/NCCR/TS/075 dated 28/10/2013. The drawing of RWH system has been finalized and the same implementation. A rain water harvesting pond capacity of 35,000 m3 has been made for rainwater harvesting and to recharge the ground water table.
(ii)	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.	Drawing & documents has been finalized and the same was submitted to the Ministry as well as to the Regional Office of the Ministry vide letter No.JPL/EMD/4x600MW/2013/497 dated 24.10.2013. As per scheme, adequate safety measures like hydrant points and water monitor points,etc are installed in and around the coal yard and project area.
(iii)	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.	Petroleum & Explosives Safety Organisation (PESO), Nagpur has granted license for storage of 1200 KL LDO within the plant area vide letter dated 29/10/2012. Disaster Management Plan, risk assessment & emergency response plan has already incorporated in the Final EIA report.
(iv)	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 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	A network of existing wells is being established and piezometers are constructed for ground water level and quality monitoring. Piezometers will be installed around the ash dyke for monitoring the ground water as stipulated.

	project.	
(v)	Monitoring surface water quantity and quality 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.	Complied. The monitoring data are attached as **Annexure-VI (a) & VI (b).**
(vi)	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied.
(vii)	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dBA. 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.	Noise level is being maintained within the prescribed limit. Earplugs & Earmuffs have been provided to the employees working in the high noise areas.
(viii)	Regular monitoring of ambient air ground level concentration of SO_2, NOx, $PM_{2.5}$ & 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.	The location of the Ambient Air Quality Monitoring (AAQM) Stations and frequency of monitoring has already been decided in consultation with CECB-Raipur. SO_2, NOx, PM2.5 & PM10 in Ambient Air are being monitored in and around the power plant and records are being maintained. The reports for the period from April, 2021 to September ,2021 are enclosed as ***Annexure- VII(a) to VII(f).***
(ix)	Provision shall be made for the housing of construction labour (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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied.
(x)	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	Information regarding grant of Environmental Clearance has already been advertised in two local newspapers (Kelo Pravah in vernacular language and Nav Bharat in English) on 23/03/2011 & 24/03/11 respectively. The copies of advertisements were already submitted to Regional Office of Ministry vide letter No.JPL/EMD/2X600MW/MAY-11/137 dated 24/05/2011.

	Environment and Forests at http://envfor.nic.in.	
(xi)	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 the clearance letter has already been sent to concerned District panchayats and NGO vide letter dated 07/04/2011. The clearance letter has already been uploaded on website of JPL.
(xii)	An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the head of the organization.	Well equipped Environmental Cell at JPL, headed by Senior Executive directly reporting to the head of the project is already in place.
(xiii)	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.	Compliance of the stipulated environmental clearance conditions is being regularly uploaded on website of JPL. Compliance report is being submitted to the Regional Office of MoEF, Zonal Office of CPCB, Bhopal and the CECB, Raipur.
(xiv)	The environment statement for each financial year ending 31st March 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 environmental statement for the financial year 2020-21 has been submitted to State Pollution Control Board (CECB, Raipur) on 22nd September 2021. Status of compliance of environmental clearance conditions is being regularly uploaded on website of JPL.
(xv)	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.	Compliance report is being submitted to the Regional Office of MoEF, Zonal Office of CPCB, Bhopal and CECB, Raipur. The same was sent by e-mail to the Regional Office of MoEF. Status of compliance of environmental clearance condition is being regularly uploaded on website of JPL.
(xvi)	Regional Office of the Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact	A complete set of documents including EIA Report and EMP along with the additional information to the Regional Office will be provided for use Regional office of MoEF,

	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.	during monitoring. Compliance status is being regularly uploaded on website of JPL. The data including NOx is being displayed at the main gate of power plant.
(xvii)	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.	Separate fund has been allocated for implementation of environmental protection measures and cost is included as part of the project cost. The fund earmarked for the environment protection measures with item-wise break-up was submitted to Regional Office of Ministry vide letter No.JPL/EMD/2X600MW/MAY-11/137 dated 24/05/2011. The fund earmarked for the environment protection measures will not be diverted for other purposes.
(xviii)	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.	Grant of Permission to establish by CECB, Raipur and date of start of development work has already been informed to Regional Office as well as the Ministry vide letter No.JPL/EMD/4x600MW/2011/231 dated 27/12/2011. The COD (commercial operation declaration) of Unit-1, 2, 3 & 4 are 14.03.2014, 31.03.2014, 15.01.2015 & 12.12.2016 respectively.
(xix)	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.	Noted.
7	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.	Noted.
8	The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.	Noted.
9	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
10	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for	Noted.

	clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	
11	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	Noted.
	Additional Conditions **(As EC amended vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 26/04/2017)**	
i	Use of existing ash dyke is permitted for two more years.	JPL has obtained amendment in EC from MoEF&CC on 28.10.2021 for using the existing ash dyke of 4x250 MW for disposal of unutilised ash of 4x600 MW till December, 2022.
ii	Transport coal by road and installation of crushing facility located within the plant premises for thirty months for all the units.	JPL has obtained amendment in EC from MoEF&CC on 28.08.2020 for coal transportation by road till 20.05.2020 and from 21.5.2020 onward is governed by Ministry's Gazette Notification vide S.o. 1561 (E) dated 21st May, 2020. MOEFCC has also permitted for coal crusher facility within plant permisses.
iii	Use of existing water reservoir for expansion of 4X250 MW TPS is permitted.	Noted.
iv	Change in coal source from imported to domestic coal for Units 3 & 4 is allowed. Coal source from Kulda OCP-MCL (Road: 42 km, CCPC: 7 km), Gare Pelma-IV/ 1, IV/ -2 & IV/ -3-SECL (CCPC: 7 km), Baroud Mines-SECL (Road: 40 km) and Chhal Mine-SECL (Road: 49 km) mines is permitted. Total quantity of coal to be transported through road/CCPC shall not exceed 4.81 MTPA for Unit-3&4 (2x600 MW).	Noted.
v	Details of coal characteristics, source & location of coal mine, traffic study shall be submitted to the Ministry after getting allocation of coal through forward e-auction or any other scheme notified by M/s Coal India Limited.	Coal is being sourced from the above mentioned mines in condition (iv) . However, the Company will submit details as & when source of coal is changed.
vi	Coal transportation shall be preferably by rail or pipe/belt conveyor after thirty months only.	JPL has obtained amendment in EC from MoEF&CC on 28.08.2020 for coal transportation by road till 20.05.2020 and from 21.5.2020 onward is governed by Ministry's Gazette Notification vide S.o. 1561 (E) dated 21st May, 2020.
vii	Any variance in coal characteristics/source/mode of transport, it shall be brought along with environment and traffic impact assessment study	Noted.

	to the Ministry for assessing the adequacy of the conditions already stipulated or to incorporate any additional condition as may be necessary in the interest of environment protection.	
viii	Change in location of ash dyke from Rodapalli to near Dolesara village is allowed.	Noted.
ix	Plantation along CCPC shall be carried out. Fruit bearing, neem and local indigenous species shall be planted.	Noted.
x	MoEFCC Notification S.O, 3305(E) dated 7.12.2015 shall be implemented with respect to specific water consumption, zero liquid discharge and revised emission standards, as applicable.	Noted.
xi	MoEF&CC Notification G.S.R 02(E) dated 2.1.2014 regarding use of raw or blended or beneficiated or washed coal with ash content not exceeding 34% shall be complied with, as applicable.	Not applicable as the Notification G.S.R 02 (E) has been superseded by the MoEF&CC's notification dated 21.05.2020 wherein the Ministry has permitted use of coal by TPPs without stipulations as regards to ash content or distance.
xii	MoEF&CC Notifications on flyash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804(E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 and subsequent amendments shall be complied with.	Noted.
xiii	As proposed, ash pond shall be lined with HDPE liner.	Noted, HDP/LDPE lining will be carried out in the proposed Ash dyke.
xiv	Third party evaluation/ Environment Audit shall be conducted annually for reviewing the compliance conditions stipulated in the clearances along with the baseline data/ studies carried out and the audit report shall be submitted to Ministry's Regional office.	ISM Dhanbad is conducting annual Environmental Audit for reviewing the compliance conditions stipulated in the clearances.
xv	Compliance of EC/amendment conditions, Environment (Protection) Act, 1986, Rules and MoEF86CC Notifications issued time to time shall be achieved by an Environment Officer to be nominated by the Project Head of the Company who shall be responsible for implementation and necessary compliance timely.	GM (Env) is responsible for implementation of EC conditions, EPA rules and MoEF notifications. He is directly reporting to Project head.
	Additional Conditions **(As EC amended vide MoEF letter No. J-13012/117/2008-IA. II (T) dt. 28/08/2020)**	
i	The coal transportation from 21.5.2020 onward is governed by Ministry's Gazette Notification vide S.o. 1561 (E) dated 21st May , 2020.	Noted
ii	The details of quantities of ash generation, utilization to various purposes such as brick manufacturing, construction , soil condition & cement manufacturing and disposal shall be provide for six months (April- September & October- March) in the six monthly compliance report.	The fly ash generation and utilization report for the period of April-2021 to September-2021 is attached as **Annexure-IX**.
iii	As per the Ministry's fly ash amendment Notification vide S.O. 254 (E) dated 25.01.2016 ,	Complied with.

	the company shall upload the details of stock of each type of ash generated/available from all the units (4X250 MW and 4X600 MW) on their website and shall update the stock position regularly.	
iv	As per the Ministry's fly ash amendment Notification vide S.O. 254 (E) dated 25.01.2016 , the fly ash shall be supplied to various utilising units. The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred km from thermal power station shall be borne by the company and the cost of transportation beyond the radius of hundred km and up to three hundred km shall be shared equally between the user and the company.	Noted
v	For achieving compliance of fly ash notification, a map and details of ash utilising units within 100 km radius and 100-300 km along with quantity of ash required for each unit shall be prepared and submitted to the Ministry within 3 months.	The details of ash utilising units within 100 km radius and 100-300 km along with quantity of ash required has been submitted to Ministry vide letter no JPL/EMD/F-33/4X600MW TPP/ OCT-20/377 dated 16.11.2020.
vi	A public notice in major daily newspapers shall be published in both vernacular and English that the fly ash/bottom ash will be supplied free of cost for ash utilising units located within 100 km radius and the cost of transportation will be shared equally between user and company for ash utilising units located in the radius of 100-300 km , in compliance to the fly ash amendment notification dated 25.01.2016. A copy of newspaper advertisement shall be submitted to Regional office.	A public notice has been issued in two major newspapers (Hitavada in English and Naveen Kadam in vernacular language) on 04/11/2020 & 11/11/2020 respectively. The copy of advertisements is attached as Annexure-X.
vii	While commissioning the proposed project, the compliance of applicable revised emission norms vide Notification dated 07.12.2015 , shall be achieved along with specific water consumption as per the notification issued vide dated 28.6.2018. The FGD system, NOX control measures such as SCR/SCNR/De-Nox burners shall be installed to achieve the revised emission norms.	Noted.
viii	Coal crusher inside the plant premises is permitted which is to be set up with bag filters /dust suppression to control air pollution generated due to coal crushing, coal transfer, etc. Air quality monitoring is to be done in and around the crusher house once a month to assess the pollution causing in the vicinity	Already commissioned with requisite pollution control measures, as stipulated
ix	The progress and readiness of railway line being constructed by M/s chhattisgarh East Railway Limited from Gharghoda till Bhalumuda shall be submitted along with compliance report.	

x	The physical and financial progress of private siding by the company and take off line from Bhalumunda station shall be submitted. A copy of detailed Project Report (DPR) approved by South East Central Railway (SECR) is also to be submitted.	
xi	Traffic Marshals at kudumkera village, Baroud Village, Samaruma village and Jhingolpara village along the route of Kulda/Basundhara mines and chhal/Barodh mines shall be developed at the cost of project proponent to streamline the traffic as the total traffic is exceeding the design volume	Complied with
xii	Water sprinkling on the road shall be done during transportation along the routes.	Complied with
xiii	Avenue plantation shall be carried out in consultation with Social Forestry Department of the State Govt. along the proposed routes.	Avenue plantation along the route (both sides of the road) of coal transportation from SECL and MCL mines is being done on continuous basis.

Jindal Power Limited, Tamnar

Compliance Report of Environmental Clearance for Expansion of 4x250 MW by addition of 2x600 MW (Units-3& 4) Coal Based Thermal Power Plant ,Tamnar issued vide letter No.J.13012/117/2008-IA.II (T) dated 04/11/2011 and amendment vide letter No.J.13012/117/2008-IA.II (T) dated 26/04/2017.

Sl. No	Conditions	Compliance Status
(i)	The company shall comply with all the conditions stipulated in environmental clearance of even no. dated 18.03.2011 except the specific condition no.i	All the conditions stipulated in environmental clearance of even no. dated 18/03/2011 has been complied.
(ii)	Prior permission/clearance from the Ministry of Coal shall be obtained before undertaking construction activity for the expansion project.	Permission has been obtained from Ministry of Coal vide letter dated 01/11/2011 and construction is in progress.
(iii)	In case source of fuel supply is to be changed at a later stage for the proposed 2x600 MW (Units 3 and 4) now proposed to be run on imported coal from M/s JSPL Mozambique Minerals LDA, the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change.	JPL has obtained amendment in EC from MoEF&CC on 26.04.2017 for change of coal source from imported to domestic coal for Units 3 & 4.
	Additional conditions as per MoEF Office Memorandum F.No.22-13/2019-IA.III dated 28/08/2019	
i	The guidelines prepared by CPCB for disposal of fly ash for reclamation of low lying areas and in stowing / backfilling of abandoned mines/quarries shall be followed during disposal of ash in abandoned or working mines, as annexed.	Noted
ii	There should at least be clearance of 500 m of safe distance be maintained from River and water body in case of ash dispoal in abandoned mines to prevent embankment failures and flyash flowing into the nearby water body.	Noted
iii	The top layer of the fly ash disposal area in the abandoned mines shall be kept moist during disposal.	Noted
iv	Top layer of the disposed area should have 70 cm overburden or gravels/stones and then 30 cm sweet soil cover. Subsequently, the vegetation shall be raised on the soil cover.	Noted
v	Bioaccumulation and bio-magnification tests shall be conducted on surrounding flora and fauna (tree leaves, vegetation, crop yields and cattle population) during shall be pre-monsoon and post monsoon to find out any trace metals escaped through groundwater or runoff.	Noted
vi	Surface runoff and supernatant water in any	Noted

	case shall not be let into the surrounding areas. It shall be collected by providing adequate drain around the mine. The supernatant water along with surface runoff shall be treated and re-used for mixing ash and plant operations.	
vii	To the extent possible , only decanted water from mine, make up water from treated effluents such as cooling tower blow down and treated sewage water shall be used for making ash slurry.	Noted
viii	Fly ash to be used as soil conditioner in agriculture needs and to be applied in controlled manner to limit excessive application so as to prevent soil degradation. The optimize proportion of ash to be applied which is to be certified by the state Agricultural Universities /Colleges based on the soil testing.	Noted
ix	Approval from DGMS shall be obtained before disposing the ash in mine voids.	Noted
x	Technology for conversion of fly ash into coarse granules for stowing in the underground mines to be explored	Noted
xi	All the power plants should install different silos for dry collection of fly ash.	Complied
xii	Records pertaining to details of month-wise quantity of fly ash disposed and water consumption along with nature/source of water shall be maintained and submitted to Ministry Regional office annually	Records pertaining to details of month-wise quantity of fly ash disposed and water consumption data is maintaining. The record will be submitted to Ministry Regional office annually.
xiii	Before starting the disposal of ash into mine voids , the NOC /Permission from the mine owner is to be obtained in case the mine closure activity are not completed or State Government in case the mine has been handed over to the State Govt. after its closure. A copy of such NOC / Permission is to be submitted to the ministry and its Regional Office	Noted

Jindal Power Limited, Tamnar

Annexure-I

STACK MONITORING REPORT (4x600MW TPP)OF APRIL, 2021 TO SEPTEMBER, 2021

Month	Name of the Unit	Stack height (Mtr.)	Stack diameter (Mtr.)	Exit Velocity (m/sec)	Concentration of PM (mg/Nm^3)
Apr-21	Unit-1	275	6.70	22.4	39.5
	Unit-2			23.6	41.8
	Unit-3			22.8	40.9
	Unit-4			Unit Shut Down	Unit Shut Down
May-21	Unit-1	275	6.70	23.8	40.3
	Unit-2			23.4	39.6
	Unit-3			23.5	38.7
	Unit-4			Unit Shut Down	Unit Shut Down
Jun-21	Unit-1	275	6.70	23.4	42.5
	Unit-2			23.8	40.4
	Unit-3			23.2	41.3
	Unit-4			Unit Shut Down	Unit Shut Down
Jul-21	Unit-1	275	6.70	23	40.4
	Unit-2			23.2	41.5
	Unit-3			23.5	42.3
	Unit-4			Unit Shut Down	Unit Shut Down
Aug-21	Unit-1	275	6.70	23.6	43.2
	Unit-2			23.8	39.8
	Unit-3			23.2	41.6
	Unit-4			Unit Shut Down	Unit Shut Down
Sep-21	Unit-1	275	6.70	22.8	44.3
	Unit-2			23.3	42.2
	Unit-3			23.7	43.5
	Unit-4			Unit Shut Down	Unit Shut Down

Jindal Power Limited, Tamnar

Annexure-II

GREEN BELT DEVELOPMENT

2021-22 (APRIL, 2021 TO SEPTEMBER, 2021)		
Location	**No. of Saplings planted**	**Name of the main species**
Within the plant (Industrial canteen, Kelo vihar, near Gate No.2), Colony, Rabo dam area,Road side and in nearby villages	**8620**	Alostonia, Gulmohar, Chakundi, Neem, Mango, Teak , Peltophorm, Jamun, Amla etc.

Annexure-III

Financial Expenditure - CSR JPL -Tamnar

April to September - FY-2021-22

Sr. No.	Area of Intervention	Heads	Annual Expenditure (in Lakhs)
A	Health Drinking Water & Sanitation		
		Mobile Health Camp	2.89
		Vatsalya Programme	10.40
		Program Chiranjivi	2.49
		Health Awareness Program & COVID -19 related activities	0.85
		Safe Drinking Water	0.00
		ODF (Awareness and Toilet construction)	0.56
		Supply of safe drinking water	0.30
		Sanjivini Rural Health Care Centre/ Tele Medicine/ e health centre	2.89
		Multispeciality hospital	0.00
		Support to poor patients	1.72
		Old Age Home	0.40
		Improved facilities in PHC/CHC	0.25
		Cooked Food to Birhor	0.97
		Installation of Solar based Safe drinking Water system/water ATMs	0.00
		HIV/AIDS Awareness program	0.00
		Sub Total	**23.72**
B	Community Education		
		Community teachers in Govt Schools	1.41
		Pre School Education- Balwadi	0.78
		Smart clases in Govt. Primary School	20.00
		Little Angel Centre	2.11
		Parivartan Project	0.89
		CLC and Knowledge Park	1.50
		School Infra	0.43
		OPJ Star & OP Jwell Scholorship	0.40
		OPJS Rabo	0.00
		National Event Celebration	0.00
		Asha The Hope	4.14
		OPJCC	0.00
		OPJIPT	0.00
		OPJS Kunjemura	10.00
		Sub total	**41.66**
C	Location based EDP/ Livelihood	Swalamban Project - Training and other support to villagers especially SHG members for Income Generation	2.32
		Shubhangi Project - Project for Menstrual health and hygiene	1.26
		Aakriti Project	2.03
		Livelihood Resource Centre	0.27
		Terracotta	0.49
		Mushroom production	1.37
		Swa-Shakti (Women Leadership Development Program)	2.11
		Sub total	**9.85**
D	Natural Resource Management &	Scientific Technology in Agriculture	3.50
		Community Plantation	1.49
		Wadi Development Program	1.26
		Pond deepening	0.00
		Sub Total	**6.25**
E	Agriculture Developemnt	Paddy cultivation through SRI	2.54
		Vegetable cultivation	0
		SubTotal	**2.63**
F	Sports, Arts & Culture	Maintenance of Ghargoda Stadium	1.66
		O.P.Jindal Cricket Academy	2.32
		Solar Light at crcket Acamedmy	0.84
		Support to Youth Clubs to organize sports competetion and cultural activities	0.00
		Improved sports facilities in the village	0.00
		CSR week Celebration	0.57
		Celebration of Social Entrepreneurship day	0.00

		Sub Total	**5.39**
F	**Rural Infrastructure**		
		Construction of Muktidham	0.00
		Construction of Road	0.00
		Construction of Bathing Ghats and pond renovation	0.00
		Construction of community building/beautification/additional room water facilities for community building	3.48
		Painting/rnovation of community infrastructures	1.80
		Misc. infra work as per request of District Authorities/ local leaders	0.48
		Installation of high mask light at Tamnar	0.00
		Sub Total	**5.76**
		Gare IV/1 area villages	
		Vatsalya Programme	0.50
		Chiranjivi project for combat malnutrition	0.054
		Sub Total	**0.554**
G	**Administrative Documentation**		
		Personnel	11.72
		Vehicle Hire/Petrol	0.67
		Training, Exposure visit, capacity building of staff, HoD meet, conference, Application for Awards / audio visual etc.	0.00
		Sub Total	**12.39**
	Grand Total		**108.21**
		Rupee One Crore Eight Lakhs and Twenty One Thousand only	

Annexure-IV

Physical Achievement Report JPL- CSR 2020-21 (April- 2021 to Sept - 2021)

Health, Sanitation & Drinking water

Rural Health Camp through Mobile Dispensary

- In the villages a total 179 health camps were organised through mobile dispensary. In the camps, a total 3634 patients (Male- 726, Female-1202, Children-1462, Old age-244) were treated in which 29 patients were refereed to e- health centre (telemedicine centre) being run by JSPL foundation with the support of HP at Salihabhanta village. 32 patients were referred to district hospital, Raigarh.

Vatslaya Project –MCHN Program

- Under Vatsalaya Project, 572 community meetings were organised in which 5517 women participated. 235 ante natal and 236 post-natal care sessions were organised in which 1045 pregnant women and 1593 mothers were benefited respectively. 184 Khelwadis were organised in which 2159 children participated respectively. *To ensure sustainability of the project it proposed to strengthen Village Health and Sanitation Committee (VHSC) so that our VHVs become the member of the committee. In this regard 181 VHSC meetings were organised.*

- In the period of April -21 to September-21 a total 218 delivery were reported out of which institutional was 216, which is around 99.08 %, 3152 adolescent girls were aware on health & hygiene through 328 Kishori Swasthaya Pathsala, 40 Vatsalya Centre running to provide counselling and first aid services to community. In the period of April -21 to September -21 -1295 first aid services and 1950 counselling of ANC/PNC, eligible couple done. Total child vaccinated children 1439 against the target of 1139 which is 100%

CSR initiatives under COVID-19

- **Motivate to the people for COVID-19 vaccination:-**

  Under Vatsalaya project our 40 Swasthya Sanginis motivation people for COViD-19 vaccination and ensuring reach of the people at Vaccination Centre. In the period of April to September-21 more than 22500 people motivated for vaccination 22500 (18 to 45 -10118, 45+ 12382) people take vaccine. Through help line our doctor counselled people regarding their myth and motivating to take vaccine.

- **Post COVID counselling session:-**

  The people who recovered from COVID-19 have some trouble and feeling fatigue especially in rural area because they are not much aware about the pandemic and their food pattern is also traditional. The families having fears and anxiety. To reduce the psychological pressure and better care of the post COVID patients 32 post COVID sessions organized in nearby villages more than 960 people attended.

- **Free Mask for Truckers & Cleaners:-**

  COVID-19 spreads mainly from person to person through respiratory droplets. Respiratory droplets travel into the air when you cough, sneeze, talk, shout, or sing. These droplets can then land in the mouths or noses of people who are near you or they may breathe these droplets in. Masks are a simple barrier to help prevent our respiratory droplets from reaching others. Studies show that masks reduce the spray of droplets when worn over the nose and mouth. To ensure 100% use of mask by Truck drivers & cleaners engage in coal transportation regular masks are providing. These masks are stitching by women self -help groups under Aakriti. Aakriti women stitched 9000 mask, out of 3500 mask were arranged for Truck drivers & cleaners and 5000 mask distributed in community. This is the best model of women empowerment where rural women earning handsome amount.

- **DRY RASHAN distribution to COVID Positive families:-**

  The second wave of the COVID-19 is spreading in rural area. Poor people, workers and land less villagers who are infected and are in home isolation, they are facing crises of bread and butter for their whole family. Under Zero Hunger campaign JSPL Foundation JPL Tamnar provided DRY RASHAN to 387 COVID positive poor families of surrounding villages, coal transportation and Gare IV/1 mines area villages.

- **Mission Zero Hunger** - Under Mission Zero Hunger 550 dry food packets were distributed among 550 households benefitting 2750 number of people (490 x average 5 person /household) in 19 villages. Similarly in Birhor community 22 Birhor children are getting cooked food and thus in this quarter 3286 meals were distributed among these children.

- **Dry Rashan and other supporting material under Sneh Project**

  Under Sneh project we have identified 56 poor widow, 21 senior citizen, 10 Parentless children-, 13 single parents, Covid death families -15, and disable 11. Total 126 families identified for support from August -21 we are providing DRY Rashan once in month regularly to these 126 identified

- **Multispecialty Hospital**

OPJHRC Tamnar declared as COVID-19 care hospital by district administration. In the period of July to September- 21, 4177 patients treated (IPD-98, OPD-4079). 14621 people vaccinated for COVID-19 (1st dose-8804, IInd Dose-5817).

- **Support to PHC /CHC**

For better care of the COVID patients and contribution in COVID-19 vaccination, JPL Tamnar provides Tentage, Food, Vehicle support to PHC and CHC for COVID vaccination team. Also 3500 mask and 60Litre sanitizer also provided to health department during COVID-19 vaccination campaign

Chiranjivi Project – Combat Malnutrition

JPL CSR has successfully undertaken the project Chiranjeevi in convergence with ICDS. Under the project, BMI of 2606 children (06 months old to 5 years age group) is measured. 331 malnourished children were identified ***(Moderate-283, Severe -48)*** from 38 core villages. Under this project regular clinical and nutritional intervention is being taking care for all 331 identified children.

The identified malnourished children are linked to ICDS schemes with the help of "Swasthaya Sangini" (VHVs) for nutrition supplement. For better clinical support these children were referred to further treatment at e-health centre. During COVID -19 pandemic Take Home Ration (THR) were provided to the children in convergence with ICDS.

By providing regular nutritional and clinical support, in the period of April to September a total 59 malnourished children turned to normal category. 02 mega malnutrition camps organised in convergence with ICDS at OPJHRC Tamnar 259 malnourished children attended

E health Centre

In the e-health centre at village Salihabhanta, a total 973 patients were registered and treated. The details of registered patients are as Internal medicine -541, Gyne-17, General surgery-01, Pediatric - 238, other - 176, out of 38 referred to OPJHRC, CHC Tamnar and district hospital Raigarh. HB testing of 150 adoscent girls done under ehc, identified 42 anemic girls getting free treatment.

Support to Poor Patients: - To support for the treatment of the poor patients CSR supporting to the patients under referral support. In the period of April to Sept -21, FY-2021-22, 63 patients treated in convergence with OPJHRC Tamnar and Raigarh. 15 poor patients directly supported for treatment.

ODF Program

- Under Open Defecation Free program, 231 meetings were organised in 38 villages to promote use of toilet. Block –Tamnar declared ODF, most of people have toilet. As far as uses of toilets are concerned most of them are using except few like old age people. From the period of April to September-21 under ODF program 150 awareness programs were organised more than 2101 people attended

Community Drinking Water

- To provide drinking water in community 02 submersible pump were repaired and installed in village Basanpali & Dhaurabhanta. Drinking water facilities were provided at village – Kudripara Tamnar by construction of water tank, benefiting more than 2000 people.
- Drinking water was supplied through water tanker to 1000 families, more than 5000 people benefited.

Health Awareness Program

From the period of April to September-21 following national and international health events observed to make people aware on various health issues.

World Health day

Health is not just about physical well-being but also about the mental and social aspects. A person is said to be healthy if he/she possesses all three. According to the WHO, health is central to human happiness and well-being. It also makes an important contribution to economic progress, as healthy populations live longer and are more productive. April 7th of each year marks the celebration of World Health Day. JSPL Foundation in JPL Tamnar celebrated World health day in surrounding villages with the theme of "Building a fairer, healthier world for everyone ". Under the day 06 awareness program organized more than 200 people attended.

National Safe motherhood day

National safe motherhood day observed by JSPL Foundation JPL Tamnar on 11th April. It is observed to enforce that women must have the availability and adequate access to care during pregnancy childbirth and postnatal services. On National safe motherhood day ANC care sessions were organized in 38 operational villages under Vatsalya Project by "Swasthya Sanginis". More than 250 pregnant women attended.

International Yoga Day :-

In the current situation when COVID-19 pandemic continues to upend and livelihood of the people globally. Beyond its immediate impact on physical health, the COVID-19 pandemic has also exacerbated psychological suffering and mental health problems, including depression and anxiety. In a growing trend of people around the world embracing Yoga to stay healthy and rejuvenated and to fight social isolation and depression has been witnessed during the pandemic. Yoga is also playing a significant role in the psycho-social care and rehabilitation of COVID-19 patients in quarantine and isolation. Recognizing this important role of Yoga to promote the holistic health for every individual International Yoga day celebrated in Tamnar by JSPL Foundation on 21st June-21. Under the day Yoga classes and practice sessions were organized with the COVID-19 protocol in 15 villages more than 450 people participated.

World Sickle cell day :-

To increase public awareness and an understanding about sickle cell disease & their challenges experienced by patients and their families, World Sickle Cell day was observed on 19th June-20 under the initiatives Sickle cell awareness program was organised through Swasthaya Sanginis in 38 operational villages. More than 450 people and 45 sickle cell patients attended.

World Food Safety day :-

World Food Safety Day (WFSD) celebrated on 7th June 2021 aims to draw attention and inspire action to help prevent, detect and manage foodborne risks, contributing to food security, human health, economic prosperity, agriculture, market access, tourism and sustainable development. To follow the same JSPL Foundation JPL Tamnar organized World Food Safety Day with Birhor Tribal community village –Seetapara –Kachkova.

World Population Day

World population day is an international level awareness campaign being celebrated all over the world to call people on stage to know the reason of this exploding population year by year as well as solve the big mistake of whole human fraternity. This great awareness event is to bring a population revolution globally as well as breaking sleep of all the deeply slept people to pay their full attention and help in combating this population issue. In JPL Tamnar Population stabilization awanress campaign organised from 11th to 17th July -21 , under the campaign 07 awareness program and felicitation of Ideal couple organised in village Mahloi, Dongamauha, Doleshara, Rabo, Kachkova, Salihabhanta, Regaon. More than 250 people attended 05 ideal couple honoured.

World ORS Day

ORS Day is marked every year on **July 29** to spread awareness about ORS solution, which remains the most easily accessible remedy for dehydration. Under our health program we are sensitizing people

against various health issue to address the same World ORS Day observed in villages, more than 350 people attended

World Hepatitis Day

World Hepatitis Day is observed each year on 28 July to raise awareness of viral hepatitis, an inflammation of the liver that causes severe liver disease and hepatocellular cancer. To make aware people on Hepatitis awareness program organised at village-Tamnar and Salihabhanta, more than 55 people attended.

World Breast feeding week

Breastfeeding provides every child with the best possible start in life. It delivers health, nutritional and emotional benefits to both children and mothers. And it forms part of a sustainable food system. Every year 1st week of August celebrated world breast feeding week. In this regard under the Vatsalya Project a week long awanress campaign organized to promote breast feeding. Under the campaign 15 awareness program on breast feeding organized in 15 villages, 325 mothers attended

World Mosquito Day

World Mosquito Day, recognized each year on August 20, marks the anniversary of the discovery that mosquitoes transmit the parasite that causes malaria. On this day in 1897, Sir Ronald Ross discovered the malaria parasite in the stomach tissue of an *Anopheles* mosquito. His work later confirmed that mosquitoes are the vector which carries this devastating parasite from human to human. To generate awareness among people against mosquito and malaria 02 awareness program organised in village Salihabhanta and CSR office more than 90 people attended

National Nutrition week

National Nutrition Week is observed from 1st to 7th September annually in India. The theme of the 2021 National Nutrition Week is 'feeding smart right from start'. The week is observed to raise awareness about nutritional and adaptive eating habits. JPL Tamnar observe this week as nutrition week , nutrition awareness program organised in villages , more than 275 people attended

World First AID day

World First Aid day is an annual campaign aimed at promoting the importance of first aid training and increasing its accessibility to save more lives in a crisis. When a person suffers from minor or serious injury or illness, the first and immediate assistance given to the patient is termed as 'First Aid'.

To observe the day on September-11 a Frist AID training of mines area VHVs organised. Dr. Ashwani Patel MO OPJHRC –Tamnar deliver the training and demonstration classes also organised, 15 Swasthya Sangini attended.

World Heart Day

As the world struggles to fight COVID-19, we've never been more aware of the importance of our and our loved one's health. Cardiovascular disease (CVD) remains the world's number one killer, resulting in 18.6 million deaths a year. It has many causes: from smoking, diabetes, high blood pressure and obesity, to air pollution, and less common conditions such as Chagas disease and cardiac amyloidosis. For the 520 million people living with CVD, COVID-19 has been heartbreaking. They have been more at risk of developing severe forms of the virus. And many have been afraid to attend routine and

emergency appointments, and have become isolated from friends and family. On the Day 02 awanress program organized in village Janjgeer & Kachkova 70 people attended.

Eye health care week

Eye health care week observed from 20th to 26th September-21. Under the week eye health care awareness program organised in schools to sensitize to the children on eye health care. Under the week 06 awareness program organised in 06 Govt. schools 210 children attended

Population Stabilization Program

Under population stabilization program, 231 eligible couple meetings were organised by VHVs in which 2443 women benefited, counselling was done to 2700 couple in Vatsalya Centre, , and the total contraceptive users were registered to be 8806 where as in villages. World Population day observed, a weeklong awareness campaign organised under the campaign 14 mass awareness program organised with 350 couple. 07 ideal couple honoured under the campaign.

"Shubhangi Project "- Menstrual health and promotion of Low cost Sanitary Napkin

- CSR JPL initiated Subhangi project to enhance the menstrual health status and promotion of low cost Sanitary Napkin among adolescent girls and women. To make aware adolescent girls on menstrual health & hygiene, 384 educational sessions were organised in 38 villages through VHVs. More than 3882 women participated during the awareness sessions information about COVID-19 was also provided to the adolescent girls and women.
- The social business model of manufacturing and distribution of sanitary napkin witnessed social marketing of 8987 packet Sanitary Napkins of Rs.2.25 Lakhs. In the period of April-20 to September-20 a total 8987 packets Sanitary Napkins sold of Rs.2.25 Lakhs by VHVs & SHGs. SHGs earn Rs.9000/. VHVs earn Rs.45000/.

Community Education

Balwadi Birhor Community

In village Kachkoba, the Pre-Primary classes with the children of Primitive tribe (Birhor) are in progress. 13 Children are going through Pre -school education with Mid-day meal facilities.During the COVID-19 Dry Food Packet (Rashan) were distributed to 26 Birhor family, serving regularly mid- day meal to all 22 Birhor Children. World Tribal day observed with Birhor community musical items,mosquito net, soap, face mask distributed among 26 Birhor families.

Little Angel Pre Primary education centre

Pre-Primary classes are in progress at Little Angels in village Doleshara, Salihabhanta, and Kunjemura & Libra, Budia, Chharatangar with strength of 180 children. In current education session 90 children get admission in nearby English medium school 105 new children enrolled. All Little Angels Centre running in Panchyat Building and the centres are managed by Local Management committee. Regular Parents and Management committee meeting were organised to ensure involvement of parents and community. Due to COVID-19 pandemic situation formal classes are not being conducted. The resource persons are undertaking home visit on regular basis to each children to facilitate and groom them as per curriculum. All the 6 centres are functional.

OP Jindal Primary School Rabo & OP Jindal School Kunjemura

OP Jindal Primary School Rabo and OP Jindal Secondary School Kunjemura are running successfully with strength of 240 at Rabo and 904 at Kunjemura against the target of 260 and 1100 children respectively. OP Jindal Primary School Rabo upgraded up-to standard VII.. 53 poor children are benefiting from RTE (39 from OPJS Kunjemura and 14 from OPJS Rabo)

OPJ Star and OPJ Jewell

OP Jindal star scholarship was awarded to 12 students who were shortlisted and finalized last year as per the merit list i.e. marks secured in class X board examination. A total 18 students getting scholarship for education session 2021-22 , 03 scholarships under OP Jewell technical student perusing B.Tech and 15 Scholarship under OPJ star.

Community Learning and Knowledge Centre

- JPL Tamnar established Community Learning Centre (CLC) and KNOWLEDGE PARK at village Libra and Rabo to update children and youth on current affairs, general Knowledge, employment information and Library facilities. Under the CLC and Knowledge centre more than 940 youth and children benefiting.
- **Career Counselling sessions for youth -** To help youth to understand their own strengths and weaknesses with regard to their present academics and let them know what career they would be suited for, a career counselling session was organised under CSR week at community learning and Knowledge centre Libra & Rabo through team of OP Jindal Community college (OPJCC). More than 60 youth attended and guided for better career.

- **Project Asha the Hope-** In the period of April to September a total 1162 especially abled children were catered, Tele-rehabilitation guidance to parents and children-1162, Community based rehabilitation through home visits to children with special needs-08 home visit, Skill and educational activity based video clippings shared 04 video. Physical rehabilitation-529, Special education MR-729, Special Education HI & SI-564, vocational training -458,aid/appliance provided-14. Hospital referral 05 cases
- **Parivartan Project – Orphan Age home (Girls) –Raigarh-** To enhance the skill of the Orphan girls residing in Chhakradhar Balika Grih Raigarh, **Project Parivartan** is being executed where Classical music (Bhav Sangeet, Tabla) Kathak Nirtaya and Sewing training, Art & Craft classes is being imparted aiming 75 orphan girls. 21 girls in Sangeet training, 02 girls completed 2nd year and 02 girls completed 3rd year, 11 are in 1st year Diploma course of Singing (Bhav Sangeet, Tabla) from Parayag Sangeet Samiti -Allahabad now they will peruse in next level Diploma course.24 girls in Kathak Nirtya, 03 completed 2nd year, 09 girl completed 3rd Year and 01 girl completed 5th year & 09 girls are in 1st year of "Kathak Nirtya" Junior and senior diploma course from Prayag Sangeet Samiti Allahabad this year they will peruse next level of Diploma Course .Km Radha the Kathak dance trainee participating in national level dance competition organised by Akhil Lokkala Cultural organisation Pune ,14 girls in 06 month stitching training , Art & Craft -25 girls. A Km Radha Orphan girl is perusing BSc.Nursing from Career College of Nursing Raigarh.

School Infrastructure –

- To provide basic amenities in schools, drinking water facilities provided at Govt. Middle school Basanpali,repairing of Govt. Middle school Chharatangar, Toilet at Govt. Primary school Kunjemura, benefiting more than 2500 children

Entrepreneurship Development Programme

Project Mushroom Production - Training and Capacity Building

- To provide technical support to the farmers and entrepreneurs of the area, **a mushroom production resource centre has been established.** The resource centre comprises of classroom training centre, demonstration centre, spawn production centre and field orientation to the trainees by visiting beneficiaries in villages. The training comprised of theoretical and practical orientation on different process for the cultivation which was later supplemented with the field visit.*In the period of April to Sept.-21 a total 59 training were organised with 1009 farmers.*
- **Mushroom production**: CSR JPL supporting to farmers for Mushroom cultivation by providing regular training and marketing support. In the period of April- to Sept-21, a total 3933 Kg. mushroom (Paddy straw& Oyster) were produce and sell by mushroom growers 250 farmers. The Farmers earned more than Rs.7.88 Lakh by sell of Mushroom.

- **Mushroom Spawn production** - Mushroom spawn production center is being run by a Common Interest Group (CIG) 'Tamnar Samahit Samuh' promoted by OPJSKS. The centre ensures availability of quality Mushroom spawn to villagers on time. In the period of April to September-21 spawn produce 12130 bottles of Rs.2.67 Lakhs and supplied to more than 250 SHGs and Farmers. This self-sustaining center supplies seeds to mushroom growers of the Tamnar block as well as the producers in Raigarh, Korba, Ambikapur districts.

Aakriti Sewing and Design School and Aakriti Production Centre

In the period of April to September -21 the members of the cooperative stitched various cloths i.e. pillow cover, school dress, Kusion cover table mat, suit, cotton mask etc. Total earnings by Aakriti beneficiaries were Rs. 4.65 Lakhs. The group stitched 20000 mask earned income of Rs.1.40 Lakhs from mask. A total 73 women are engages under Aakriti earning Rs.5000 to Rs.9000 per month.

Project Swa Shakti and Swawlamban (Income Generation Activation)

- Under project Swa-Shakti (women SHG formation and strengthening), 156 SHGs exists in 38 villages in which more than 1656 women are associated with the project. Till date more than 84.04 lakhs have been saved and inter loaning by the SHGs. 30 SHGs registered under NRM

- Technical and Marketing support to 73 terracotta artisan is continued in village Mahloi (14), Basanpali (24) and Auraimuda (35). *The Terracotta artisans earned Rs. 7.77 Lakhs from exhibitions and sale.*

- On the basis of performances, many SHGs have been supported financially by CSR JPL to initiate Income Generation Activities. 73 units of IGAs with 722 women are being run by the SHGs. In the period of April to Sept-21. 13 SHGs linked from NABFIN get a Loan of Rs.13.50 Lakhs for setting up IGAs. In this period SHGs earned 26.17 Lakhs from IGAs.

- **Papad making unit: -** Papad making unit established at Mushroom Resource Centre. SHGs members from Salihabhanta, Regaon and Budia (10 women) engaged and continuing their livelihood.

Natural Resource Management & Environment proction

Wadi Development Program in partnership with NABARD

The Wadi project is successfully executed in 335 acre (Phase-I - 159 Phase- II- 176) with 335 tribal families. Fruiting of mango, cashew & lemon are continue in 300 acre Wadi, rest 35 farmers doing intercropping in their field growing and selling cash crop regularly. In the period of April to September-20 WADI farmers earned Rs.42.11 Lakhs by sell of Mango, lemon, cashew, inter cropping and vegetable cultivation. Irrigation facilities completed in all 335 acre Wadi, farmers growing seasonal vegetable, pulses in Wadis. Fertilizer distributed to wadi farmers 05 Solar based irrigation system proposed to install in wadi in convergence with CREDA

Solar based irrigation system in convergence with CREDA

To promote renewable energy sources, JSPL Foundation is promoting installation of solar based irrigation system in farmer's field for irrigation purpose in convergence with CREDA. *32 solar based irrigation systems were installed which has helped irrigation in 112 acres of land, this project make total convergence of Rs. 112.00* lakh. The cost of each unit is Rs. 3.5 Lakhs to 3.75 Lakhs; proposed convergence is more than Rs.157 Lakhs.

Environment protection and community plantation

To make people aware on environment protection, environment pollution and promote them to plant more and more tree to save the earth, World Environment Day was observed on 5th June 2021. Plantation drive, Road side Plantation and environmental awareness program were organized in 06 villages (Mahloi, Rabo, Padigaon, Kachkova, Amaghat, and Chharatangar). In the program 250 farmers were participated & 350 plantations were done. 2000 plantation and gap filling in WADI field done.

World Ozone Day

World Ozone Day is observed on September 16, every year. It is celebrated to spread awareness among people about the depletion of the Ozone Layer and search for possible solutions to preserve it. On this day, people from all over the world are expected to join the Montreal protocol to join the talks and seminars. A number of commonly used chemicals have been found to be extremely damaging to the ozone layer. In JPL Tamnar we have observe World Ozone Day with School children. 02 Awareness program organised in the Govt. Hr. Secondary school Rabo & Govt. High School Kachkova, more than 100 students attended

Agriculture Development

Paddy cultivation through SRI methods

The System of Rice Intensification (SRI) is a methodology aimed at increasing the yield of rice produced in farming. It is a low water, labor-intensive, method that uses younger seedlings singly spaced and typically hand weeded with special tools. To increase productivity in paddy crops through focused interventions and maximizing returns to farmers. SRI methods applied under Paddy cultivation in 180 acre benefiting 186 Farmers. Sugar free black rice cultivation in 08 acres of land is also being done. In this regard best quality Hybrid Paddy seed , training and fertilizer were provided to 186 Farmers.

Farmers training to adopt innovative practices in farming

To improve the skill of farmers and make them adequate enough on new technologies and innovative practices in farming, 31 training programmes were organised with 345 Farmers in convergence with Agriculture Department. In the training new technique in Paddy cultivation, crop insurance, other govt. schemes for farmers, promotion of pulses cultivation was discussed.

Promotion of Vegetable cultivation –

To increase the income of farmers we are promoting vegetable cultivation among farmers. Under the initiative 47 farmers are doing vegetable cultivation. In the quarter during the lock down, farmers earned more than Rs.5.30 Lakhs income from vegetable selling. Farmers sold vegetable in JPL colony Savitri Nagar also.

Art & culture

World Tribal day

Tamnar is a tribal dominated area in which more than 70% population of the area is tribal. **To promote and protect the rights of the world's indigenous population** make them aware about environmental protection, World tribal day was observed among primitive tribe i.e. Birhor community In hamlet Seetapara village –Kachkova where 26 families of Birhors living in forest have no road connectivity. On the occasion of world tribal day musical items, mosquito net, educational material, hand sanitizer, face mask, dresses for Balwadi children distributed and food were arranged for the tribals. Under CSR we are executing a Balwadi Centre at Seetapara Birhor community to ensure pre-primary education for the children and livelihood intervention to enhance socio-economic status of the Birhor tribes.

Sports

Maintenance of sports infrastructure: Maintenance of Ghargoda stadium is continued wherein sports like Cricket, Football and Badminton are organised regularly, benefiting more than 250 youths from the peripheral villages.

OP Jindal cricket Academy- - OP Jindal cricket academy is running in Ghargoda which is fully equipped with latest infrastructure like Bowling machine, cricket net for net practise, equipped cricket kit. Regular Practice match, coaching & guidance to youth is continuing.
Ku. Mansa Sao from OP Jindal Cricket Academy representing CG state under -19 women cricket, Mr. Karan Pandey selected for district level cricket team, Mr. Asif Khan leading as vice-captain of Raigarh district Cricket Team. Mr. Prince Kanojiya from the Academy is caption of Raigarh District team (Under-19). 06 players selected in district level cricket team and representing Raigarh district (Mr. Sobit Tiwari, Mr. Prince Knojiya, Mr. Asif Khan, Mr. Mohar Yadav , Mr.Azharul Khan, Mr. Sakham Chaubey).

Annexure-V

Status of the Implementation of the Schemes for Tribal families for the period from April -2021 to September-2021 –FY-2021-22

Sl. No.	Program	Details	Intervention of OPJSKS-CSR JPL Tamnar
1.	Balwadi (pre-school education centre) for the children of Birhor primitive tribes in Seetapara of Kachkova village	Birhor is one of the primitive tribes residing in Seetapara of Kachkova Panchayats. At present there are 28 families who are mainly dependent on rope making from plastic gunny bags and wage labour work for their livelihood. The educational status of the community is very poor as out of total 86 people of the community, only 05 are class 8th pass and rest are either primary pass or illiterate.	To improve the educational status of the community, especially the children, a Balwadi centre is being run by OPJSKS-CSR JPL Tamnar since 2009.The organization constructed the building to run the centre and provided Teaching & Learning Materials (TLMs), Uniforms to the children, one Balwadi teacher, one cook and regularly providing mid-day meal to the 26 children. .CSR JPL ensuring health & Sanitation of above primitive tribe, 06 health camps through Mobile dispensary organised, 03 health awareness programs organised in Birhor community. During the COVID-19 Dry Food Packet (Rashan) were distributed to 28 Birhor family, serving regularly mid- day meal to all 26 Birhor Children. Land labelling done at 05 acre and seed and irrigation equipment provided to promote agriculture & vegetable cultivation among Birhors
2.	Wadi Development Program with the support of NABARD for the small and marginal tribal farmers	Indiscriminate exploitation of forest resources and poor crop production practices has resulted into low productivity, degradation of agriculture land and depletion of forest recourses. As a result because of shortage of food and livelihood opportunities the tribal of the area use to migrate to nearby town for the substance. The 'Wadi Development Programme' (WDP) is the first and rare most attempt of JPL, where the farmer are taught about modern techniques of agriculture after making their lands fertile and productive.	The Wadi project is successfully executed in 335 acre (Phase-I - 159 Phase- II- 176) with 335 tribal families. Fruiting of mango, cashew & lemon are continue in 335 acre Wadi, farmers also doing intercropping, vegetable cultivation in their field growing and selling cash crop regularly. In the period of April-21 to September-21 FY-2020-21 farmers earned Rs.42.11 Lakhs. by sell of Mango, lemon, cashew vegetable & other inter cropping. Irrigation facilities completed in all 335 acre Wadi, farmers growing seasonal vegetable, pulses in Wadis.Vegetable seed and Fertilizer distributed to wadi farmers for WADI & vegetable cultivation.1000 mango plant provided to the farmers for Gap filling. 03 Solar based irrigation system installed in convergence with CREDA
3.	Health improvement programme specifically for the tribal women	Health is another challenging area where facilities for health are still far from the reach of rural people specifically tribal. Age old traditional health practices, home based delivery, High MMR and IMR, water borne diseases, communicable diseases have been quite prevalent in the area. Remoteness, unawareness, lack of facilities to access the available	In the period of April-21 to September-21- FY-2021-22 total delivery was reported 218 out of which institutional was 216, which is around 99.08 % 3152 adolescent girls aware on health & hygiene through 328 Kishori Swasthaya Pathsala, 40 Vatsalya Centre running to provide counselling and first aid service benefited more than 3384 people. Total vaccination among children 1439 against the target of 1439 which is 100% In convergence with ICDS has successfully undertaken the nourishment care of 331 malnourished children

		resource/institutions has further aggravated the condition. To address the issues of health of tribal, last year an integrated approach was designed and implemented.	(Moderate-283,Severe-48) by providing regular growth monitoring, parents counselling and clinical support. The identified malnourished children were linked to ICDS schemes with the help of Swasthaya Sangini (VHVs) for nutrition supplement. For better clinical support these children were called for further treatment at e health centre. out of 331 malnourished children 59 had turned to normal category. Under Muskan project 150 identified anaemic girls were covered by providing regular treatment and counselling 83 girls cured from anemia. Under Shubhangi project menstrual health and hygiene session organised and ensuring access of 8987 packets Sanitary Napkins. In the period of April-21 to Sept-21 FY- 2021-22 SHGs and VHVs earned Rs.0.50 Lakhs
4	Rural Health Camp through Mobile Dispensary	To provide basic healthcare services at the doorstep of villagers specifically for vulnerable social group- Tribal	In the period of April-21 to Sept-21- FY 2021-22,,179 Rural Health camp organised more than 3634 patients were treated. The bifurcation of the patients are as- Male- 726, Female-1202, Children-1462, Old age-244
5	Women Empowerment through Self Help Group (SHG) and Income Generation Program (IGP)	Self Help Group of women is a medium to empower women by initiating regular meetings and thrift and credit. Once the groups become strengthen, Income Generation Activities (IGAs) are initiated to involve all the women of the groups in some meaningful activities.	Self Help Groups have been formed in the villages of homogeneous communities. At present 156 SHGs have been formed which constitutes around 1656 women members and the total corpus of the groups is around Rs. 84.04 Lakhs. Around 72 SHGs have initiated IGAs in different villages. Women are involved in goat rearing, Mushroom Cultivation, vegetable cultivation, Poultry,Goatry, multipurpose agricultural activities, flour making, paper plate making etc. In the period of April to Sept-21 FY 2021-22 women earned Rs.26.17 Lakhs. from IGAs.
6.	Mushroom Cultivation	More than 1900 people were trained on Mushroom cultivation.350 villagers are directly involved in production and selling.	Mushroom Cultivation executing in 28 operational villages involved 650 individual cultivators and members of women SHGs who were supported and guided by the CSR JPL. In the period of April to Sept-21, FY 2021-22, 3933 Kg. of Paddy straw Mushroom were produced worth Rs. 7.88 Lakhs. Tamnar Samahit Samuh' – a common interest group of youths supported by CSR JPL to produce *12130 bottles of spawn were produced against the target of 12000 bottle which was sold of Rs. 2.67 Lakhs.* This self-sustaining center supplies seeds to mushroom growers of the Tamnar & Ghargoda block as well as the producers in Raigarh, Korba, Ambikapur districts.

7	Pre –Primary education –Little Angel Centres & OP star scholarship	06 Little Angel Centre in 06 villages , more than 180 tribal children studying	To provide pre-primary English medium education for children's 2.5 year to 4 years with the objective to mainstream them in nearby English medium schools. Under Little Angel 180 tribal children studying. OPJ star scholarship providing to 03 tribal children @ Rs.12000/. Per year who have passed class 10th with 75% 53 tribal children studying under RTE in both schools.
8	Promotion of Agriculture among tribals	Promotion of yield in Paddy cultivation and vegetable cultivation to ensure additional income for their livelihood	Promotion of Paddy cultivation by adopting SRI method with 90 tribal farmers by providing technical support hybrid seed and fertilizer. Vegetable cultivation with 47 tribal farmers. Farmers earned from vegetable cultivation 5.30 Lakhs
9	DRY Rashan for COVID affected tribal families	Hunger reduction	DRY Rashan distributed to 150 tribal COVID -19 families during lock down period

Annexure-VII(g)

Format No. : UES/FORM/09

Ultimate
ENVIROLYTICAL SOLUTIONS

HDD-272, Phase III - Near JP Chowk
Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099
Ph : 0771 - 4027777 | Email : ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer			
To, **Jindal Power Limited** **P.O. Tamnar,** **District: Raigarh** **496107 (C.G.)**	Report No	UES/TR/21-22/1833	
	Lab Ref No	UES/21-22/W/3072-3073	
	Date of Sampling	29/07/2021	
	Date of Receipt	30/07/2021	
	Date of Report	09/08/2021	
	Date of analysis	Start:30/07/2021	End: 09/08/2021

SAMPLE DETAILS

Customer Sample Id /Sampling Location	1. Piezometer - 01 (Near Gate No. 03	Latitude	22.13197
		Longitude	83.45947
	2. Piezometer - 02 (SW near Ash Dyke S.V.2)	Latitude	22.11586
		Longitude	83.45075
Customer Ref. No. & Date	4400013828, Date: 22/07/2020		
Sample Type	GroundWater		
Packing Of Sample	Plastic Bottle (5.0 ltr.), Glass Bottle (1.0 ltr.)		
Sample Collected By	Laboratory Chemist		
Sample Condition At Receipt	Ok		

REPORT NO.01833

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Piezometer 01	Piezometer 02
A.	Organoleptic & Physical Parameters						
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable	Agreeable
3	pH Value at 25.4°C	-	IS:3025:(Part-11)	6.5-8.5	No Relaxation	7.28	7.16
4	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	IS 3025:(Part-10)	1	5	2.6	1.8
6	Total Dissolved Solids	mg/L	IS:3025:(Part-16)	500	2000	196.0	78.6
B.	General Parameters Concerning Substances undesirable in excessive amounts						
1	Aluminium (as Al)	mg/L	IS 3025(part-55)	0.03	0.2	N.D.	N.D.
2	Ammonia (as total ammonia-N)	mg/L	IS 3025(part-34)	0.5	No Relaxation	N.D.	N.D.
3	Anionic Detergent (as MBAS)	mg/L	Annex K of IS:13428	0.2	1.0	N.D.	N.D.
4	Barium (as Ba)	mg/L	Annex F of IS:13428	0.7	No Relaxation	N.D.	N.D.
5	Boron (as B)	mg/L	IS 3025:(Part-57)	0.5	1.0	N.D.	N.D.

Ultimate
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REPORT NO.01833

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Piezometer 01	Piezometer 02
6	Calcium (as Ca)	mg/L	IS 3025:(Part-40)	75	200	26.8	10.8
7	Chloramines (as Cl_2)	mg/L	IS 3025:(Part-26)	4.0	No Relaxation	N.D.	N.D.
8	Chloride (as Cl)	mg/L	IS 3025:(Part-32)	250	1000	26.9	14.9
9	Copper (as Cu)	mg/L	IS 3025(part-42)	0.05	1.5	N.D.	N.D.
10	Fluoride (as F)	mg/L	IS 3025(part-60)	1	1.5	0.11	0.20
11	Free Residual Chlorine	mg/L	IS 3025:(Part-26)	0.2	1	N.D.	N.D.
12	Iron (as Fe)	mg/L	IS 3025(part-53)	0.3	No Relaxation	N.D.	N.D.
13	Magnesium (as Mg)	mg/L	IS 3025:(Part-46)	30	100	6.5	2.8
14	Manganese (as Mn)	mg/L	IS 3025(part-59)	0.1	0.3	N.D.	N.D.
15	Mineral Oil	mg/L	Clause 6 of IS 3025 (Part-39) Infrared partition method	0.5	No Relaxation	N.D.	N.D.
16	Nitrate (as NO_3)	mg/L	IS 3025(part-34)	45	No Relaxation	4.8	2.2
17	Phenolic Compound (as C6H5OH)	mg/L	IS 3025(part-43)	0.001	0.002	N.D.	N.D.
18	Selenium (as Se)	mg/L	IS 3025(part-56)	0.01	No Relaxation	N.D.	N.D.
19	Silver (as Ag)	mg/L	Annex J of IS 13428	0.1	No Relaxation	N.D.	N.D.
20	Sulphate (as SO_4)	mg/L	IS 3025:(Part-24)	200	400	46.0	10.2
21	Sulphide (as H_2S)	mg/L	IS 3025:(Part-29)	0.05	No Relaxation	N.D.	N.D.
22	Total Alkalinity (as $CaCO_3$)	mg/L	IS 3025:(Part-23)	200	600	38.0	20.0
23	Total Hardness (as $CaCO_3$)	mg/L	IS 3025:(Part-21)	200	600	96.0	24.0
24	Zinc (as Zn)	mg/L	IS 3025(part-49)	5	15	N.D.	N.D.
C.	Parameters concerning toxic substances:-						
1	Cadmium (as Cd)	mg/L	IS 3025(part-41)	0.003	No Relaxation	N.D.	N.D.
2	Cyanide (as CN)	mg/L	IS 3025(part-27)	0.05	No Relaxation	N.D.	N.D.
3	Lead (as Pb)	mg/L	IS 3025(part-47)	0.01	No	N.D.	N.D.

Ultimate
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HDD-272, Phase III - Near JP Chowk
Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099
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REPORT NO.01833

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Piezometer 01	Piezometer 02
					Relaxation		
4	Mercury (as Hg)	mg/L	IS 3025(part-48)	0.001	No Relaxation	N.D.	N.D.
5	Molybdenum (as Mo)	mg/L	IS 3025(part-2)	0.07	No Relaxation	N.D.	N.D.
6	Nickel (as Ni)	mg/L	IS 3025(part-54)	0.02	No Relaxation	N.D.	N.D.
7	Polychlorinated biphenyls	mg/L	ASTM 5175	0.0005	No Relaxation	N.D.	N.D.
8	Polynuclear aromatic hydrocarbons (as PAH)	mg/L	APHA 6440	0.0001	No Relaxation	N.D.	N.D.
9	Arsenic (as As)	mg/L	IS 3025(part-37)	0.01	0.05	N.D.	N.D.
10	Chromium (as Cr)	mg/L	Annex J of IS:13428	0.05	No Relaxation	N.D.	N.D.
11	Trihalomethanes:						
a)	Bromoform	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.
b)	Dibromochlorome thane	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.
c)	Bromodichlorome thane	mg/L	APHA 6232	0.06	No Relaxation	N.D.	N.D.
d)	Chloroform	mg/L	APHA 6232	0.2	No Relaxation	N.D.	N.D.
D.	Pesticides:-						
1	Alpha HCH	µg/l	USEPA 508	0.01		N.D.	N.D.
2	Beta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.
3	Delta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.
4	Alachlor	µg/l	USEPA 525.2, 507	20		N.D.	N.D.
5	Aldrin / Dieldrin	µg/l	USEPA 508	0.03		N.D.	N.D.
6	Atrazine	µg/l	USEPA 525.2,8141 A	2		N.D.	N.D.
7	Butachlor	µg/l	USEPA 525.2,8141 A	125		N.D.	N.D.
8	Chlorpyriphos	µg/l	USEPA 525.2,8141 A	30		N.D.	N.D.
9	DDT (o,p and p, p-Isomers of DDT, DDE and DDD)	µg/l	USEPA 508	1		N.D.	N.D.
10	Gamma HCH	µg/l	USEPA 508	2		N.D.	N.D.
11	2,4-Dichlorophenoxy acetic Acid	µg/l	USEPA 515.1	30		N.D.	N.D.
12	Endosulphan (alpha, beta	µg/l	USEPA 508	0.4		N.D.	N.D.

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REPORT NO.01833

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Piezometer 01	Piezometer 02
	and sulphate)						
13	Ethion	µg/l	USEPA 1657 A	3		N.D.	N.D.
14	Isoproturon	µg/l	USEPA 532	9		N.D.	N.D.
15	Malathion	µg/l	USEPA 8141 A	190		N.D.	N.D.
16	Methyl Parathion	µg/l	USEPA 8141 A	0.3		N.D.	N.D.
17	Monocrotophos	µg/l	USEPA 8141 A	1		N.D.	N.D.
18	Phorate	µg/l	USEPA 8141 A	2		N.D.	N.D.
E.	Microbial Parameters						
1	Total Coliform	MPN/100ml	IS:1622:1981:RA:2019	-		Absent	Absent
2	E. Coli	MPN/100ml	IS:1622:1981:RA:2019	-		Absent	Absent

Note: mg/lit.: milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- *The use of the report for publication, arbitration or as legal dispute is forbidden.*
- *Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.*
- *This is for information as the party has asked for above test(s) only.*

PREPARED BY 22/05/2021

For ULTIMATE ENVIROLYTICAL SOLUTIONS

22/05/2021

AUTHORIZED SIGNATORY

End of the test report

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Name & Address Of The Customer			
To, **Jindal Power Limited** **P.O. Tamnar,** **District: Raigarh** **496107 (C.G.)**	Report No	UES/TR/21-22/1834	
	Lab Ref No	UES/21-22/W/3074-3076	
	Date of Sampling	29/07/2021	
	Date of Receipt	30/07/2021	
	Date of Report	09/08/2021	
	Date of analysis	Start:30/07/2021	End: 09/08/2021

SAMPLE DETAILS

Customer Sample Id /Sampling Location	1. Borewell – 06 (NW Near ash Dyke Reagan Village Side)	Latitude	22.11468
		Longitude	83.46731
	2. Piezometer – 07 (NE Near ash Dyke village pata village)	Latitude	22.13273
		Longitude	83.45694
	3. Piezometer – 08 (SE Near ash Dyke in front of SBI bank)	Latitude	22.11468
		Longitude	83.45507
Customer Ref. No. & Date	4400013628, Date: 22/07/2020		
Sample Type	GroundWater		
Packing Of Sample	Plastic Bottle (5.0 ltr.) Glass Bottle (1.0 ltr.)		
Sample Collected By	Laboratory Chemist		
Sample Condition At Receipt	Ok		

REPORT NO.01834

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Borewell 06	Piezometer 07	Piezometer 08
A.	Organoleptic & Physical Parameters							
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1	<1	<1
2	Odour	-	IS:3025:(part-5)	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH Value at 25.2°C	-	IS:3025:(Part-11)	6.5-8.5	No Relaxation	7.22	7.42	7.28
4	Taste	-	IS:3025:(part-8)	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	IS:3025:(Part-10)	1	5	0.86	0.80	0.78
6	Total Dissolved Solids	mg/L	IS:3025:(Part-16)	500	2000	102.0	158.0	78.2
B.	General Parameters Concerning Substances undesirable in excessive amounts							
1	Aluminium (as Al)	mg/L	IS:3025:(part-55)	0.03	0.2	N.D.	N.D.	N.D.
2	Ammonia (as total ammonia-N)	mg/L	IS:3025:(part-34)	0.5	No Relaxation	N.D.	N.D.	N.D.
3	Anionic Detergent (as MBAS)	mg/L	Annex K of IS:13428	0.2	1.0	N.D.	N.D.	N.D.

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REPORT NO.01834

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Borewell 06	Piezometer 07	Piezometer 08
4	Barium (as Ba)	mg/L	Annex F of IS:13428	0.7	No Relaxation	N.D.	N.D.	N.D.
5	Boron (as B)	mg/L	IS 3025:(Part-57)	0.5	1.0	N.D.	N.D.	N.D.
6	Calcium (as Ca)	mg/L	IS 3025:(Part-40)	75	200	22.4	10.4	16.4
7	Chloramines (as Cl_2)	mg/L	IS 3025:(Part-26)	4.0	No Relaxation	N.D.	N.D.	N.D.
8	Chloride (as Cl)	mg/L	IS 3025:(Part-32)	250	1000	8.9	12.9	20.9
9	Copper (as Cu)	mg/L	IS 3025(part-42)	0.05	1.5	N.D.	N.D.	N.D.
10	Fluoride (as F)	mg/L	IS 3025(part-60)	1	1.5	0.11	0.08	0.06
11	Free Residual Chlorine	mg/L	IS 3025:(Part-26)	0.2	1	N.D.	N.D.	N.D.
12	Iron (as Fe)	mg/L	IS 3025(part-53)	0.3	No Relaxation	N.D.	N.D.	N.D.
13	Magnesium (as Mg)	mg/L	IS 3025:(Part-46)	30	100	5.4	3.1	5.0
14	Manganese (as Mn)	mg/L	IS 3025(part-59)	0.1	0.3	N.D.	N.D.	N.D.
15	Mineral Oil	mg/L	Clause 6 of IS 3025 (Part-39) Infrared partition method	0.5	No Relaxation	N.D.	N.D.	N.D.
16	Nitrate (as NO_3)	mg/L	IS 3025(part-34)	45	No Relaxation	2.6	1.2	2.8
17	Phenolic Compound (as C6H5OH)	mg/L	IS 3025(part-43)	0.001	0.002	N.D.	N.D.	N.D.
18	Selenium (as Se)	mg/L	IS 3025(part-56)	0.01	No Relaxation	N.D.	N.D.	N.D.
19	Silver (as Ag)	mg/L	Annex J of IS 13428	0.1	No Relaxation	N.D.	N.D.	N.D.
20	Sulphate (as SO_4)	mg/L	IS 3025:(Part-24)	200	400	12.8	18.4	9.4
21	Sulphide (as H_2S)	mg/L	IS 3025:(Part-29)	0.05	No Relaxation	N.D.	N.D.	N.D.
22	Total Alkalinity (as $CaCO_3$)	mg/L	IS 3025:(Part-23)	200	600	78.0	120.0	38.0
23	Total Hardness (as $CaCO_3$)	mg/L	IS 3025:(Part-21)	200	600	98.0	124.0	68.0
24	Zinc (as Zn)	mg/L	IS 3025(part-49)	5	15	N.D.	N.D.	N.D.
C.	Parameters concerning toxic substances:-							
1	Cadmium (as Cd)	mg/L	IS 3025(part-41)	0.003	No Relaxation	N.D.	N.D.	N.D.
2	Cyanide (as CN)	mg/L	IS 3025(part-27)	0.05	No Relaxation	N.D.	N.D.	N.D.

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REPORT NO.01834

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Borewell 06	Piezometer 07	Piezometer 08
3	Lead (as Pb)	mg/L	IS 3025(part-47)	0.01	No Relaxation	N.D.	N.D.	N.D.
4	Mercury (as Hg)	mg/L	IS 3025(part-48)	0.001	No Relaxation	N.D.	N.D.	N.D.
5	Molybdenum (as Mo)	mg/L	IS 3025(part-2)	0.07	No Relaxation	N.D.	N.D.	N.D.
6	Nickel (as Ni)	mg/L	IS 3025(part-54)	0.02	No Relaxation	N.D.	N.D.	N.D.
7	Polychlorinated biphenyls	mg/L	ASTM 5175	0.0005	No Relaxation	N.D.	N.D.	N.D.
8	Polynuclear aromatic hydrocarbons (as PAH)	mg/L	APHA 6440	0.0001	No Relaxation	N.D.	N.D.	N.D.
9	Arsenic (as As)	mg/L	IS 3025(part-37)	0.01	0.05	N.D.	N.D.	N.D.
10	Chromium (as Cr)	mg/L	Annex J of IS:13428	0.05	No Relaxation	N.D.	N.D.	N.D.
11	Trihalomethanes:							
a)	Bromoform	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.	N.D.
b)	Dibromochloromethane	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.	N.D.
c)	Bromodichloromethane	mg/L	APHA 6232	0.06	No Relaxation	N.D.	N.D.	N.D.
d)	Chloroform	mg/L	APHA 6232	0.2	No Relaxation	N.D.	N.D.	N.D.
D.	Pesticides:-							
1	Alpha HCH	µg/l	USEPA 508	0.01		N.D.	N.D.	N.D.
2	Beta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.	N.D.
3	Delta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.	N.D.
4	Alachlor	µg/l	USEPA 525.2, 507	20		N.D.	N.D.	N.D.
5	Aldrin / Dieldrin	µg/l	USEPA 508	0.03		N.D.	N.D.	N.D.
6	Atrazine	µg/l	USEPA 525.2,8141 A	2		N.D.	N.D.	N.D.
7	Butachlor	µg/l	USEPA 525.2,8141 A	125		N.D.	N.D.	N.D.
8	Chlorpyriphos	µg/l	USEPA 525.2,8141 A	30		N.D.	N.D.	N.D.
9	DDT (o,p and p, p-Isomers of DDT, DDE and DDD)	µg/l	USEPA 508	1		N.D.	N.D.	N.D.
10	Gamma HCH	µg/l	USEPA 508	2		N.D.	N.D.	N.D.

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REPORT NO.01834

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Borewell 06	Piezometer 07	Piezometer 08
11	2,4-Dichlorophenoxyacetic Acid	µg/l	USEPA 515.1	30		N.D.	N.D.	N.D.
12	Endosulphan (alpha, beta and sulphate)	µg/l	USEPA 508	0.4		N.D.	N.D.	N.D.
13	Ethion	µg/l	USEPA 1657 A	3		N.D.	N.D.	N.D.
14	Isoproturon	µg/l	USEPA 532	9		N.D.	N.D.	N.D.
15	Malathion	µg/l	USEPA 8141 A	190		N.D.	N.D.	N.D.
16	Methyl Parathion	µg/l	USEPA 8141 A	0.3		N.D.	N.D.	N.D.
17	Monocrotophos	µg/l	USEPA 8141 A	1		N.D.	N.D.	N.D.
18	Phorate	µg/l	USEPA 8141 A	2		N.D.	N.D.	N.D.
E.	Microbial Parameters							
1	Total Coliform	MPN/100ml	IS:1622:1981:RA:2019	-		Absent	Absent	Absent
2	E. Coli	MPN/100ml	IS:1622:1981:RA:2019	-		Absent	Absent	Absent

Note: mg/lit.:milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- *The use of the report for publication, arbitration or as legal dispute is forbidden.*
- *Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.*
- *This is for information as the party has asked for above test(s) only.*

Thakur 09/08/2024
PREPARED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS
09/08/2021
AUTHORIZED SIGNATORY

End of the test report

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Name & Address Of The Customer	Report No	UES/TR/21-22/1835	
To, **Jindal Power Limited** **P.O. Tamnar,** **District: Raigarh** **496107 (C.G.)**	Lab Ref No	UES/21-22/W/3077-3079	
	Date of Sampling	29/07/2021	
	Date of Receipt	30/07/2021	
	Date of Report	09/08/2021	
	Date of analysis	Start:30/07/2021	END:09/08/2021

SAMPLE DETAILS

Customer Sample Id /Sampling Location	1. Pata Village	Latitude	22.13781
		Longitude	83.46132
	2. Kunjemura Village	Latitude	22.13519
		Longitude	83.46135
	3. Tamnar Village	Latitude	22.07879
		Longitude	83.42356
Customer Ref. No. & Date	4400013828, Date: 22/07/2020		
Sample Type	GroundWater		
Packing Of Sample	Plastic Bottle (5.0ltr.) Glass Bottle (1.0 ltr.)		
Sample Collected By	Laboratory Chemist		
Sample Condition At Receipt	Ok		

REPORT NO.1835

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Pata Village	Kunjemura Village	Tamnar Village
A.	Organoleptic & Physical Parameters							
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1	<1	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	pH Value at 25.2°C	-	IS:3025:(Part-11)	6.5-8.5	No Relaxation	7.28	7.84	7.26
4	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	IS 3025:(Part-10)	1	5	1.62	1.48	2.42
6	Total Dissolved Solids	mg/L	IS:3025:(Part-16)	500	2000	424.0	322.0	78.2
B.	General Parameters Concerning Substances undesirable in excessive amounts							
1	Aluminium (as Al)	mg/L	IS 3025(part-55)	0.03	0.2	N.D.	N.D.	N.D.
2	Ammonia (as total ammonia-N)	mg/L	IS 3025(part-34)	0.5	No Relaxation	N.D.	N.D.	N.D.
3	Anionic Detergent (as MBAS)	mg/L	Annex K of IS:13428	0.2	1.0	N.D.	N.D.	N.D.

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REPORT NO.1835

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Pata Village	Kunjemura Village	Tamnar Village
4	Barium (as Ba)	mg/L	Annex F of IS:13428	0.7	No Relaxation	N.D.	N.D.	N.D.
5	Boron (as B)	mg/L	IS 3025:(Part-57)	0.5	1.0	N.D.	N.D.	N.D.
6	Calcium (as Ca)	mg/L	IS 3025:(Part-40)	75	200	60.0	64.0	28.4
7	Chloramines (as Cl_2)	mg/L	IS 3025:(Part-26)	4.0	No Relaxation	N.D.	N.D.	N.D.
8	Chloride (as Cl)	mg/L	IS 3025:(Part-32)	250	1000	74.9	68.9	32.9
9	Copper (as Cu)	mg/L	IS 3025(part-42)	0.05	1.5	N.D.	N.D.	N.D.
10	Fluoride (as F)	mg/L	IS 3025(part-60)	1	1.5	0.12	0.16	0.11
11	Free Residual Chlorine	mg/L	IS 3025:(Part-26)	0.2	1	N.D.	N.D.	N.D.
12	Iron (as Fe)	mg/L	IS 3025(part-53)	0.3	No Relaxation	0.18	0.24	0.11
13	Magnesium (as Mg)	mg/L	IS 3025:(Part-46)	30	100	28.4	12.4	6.2
14	Manganese (as Mn)	mg/L	IS 3025(part-59)	0.1	0.3	N.D.	N.D.	N.D.
15	Mineral Oil	mg/L	Clause 6 of IS 3025 (Part-39) Infrared partition method	0.5	No Relaxation	N.D.	N.D.	N.D.
16	Nitrate (as NO_3)	mg/L	IS 3025(part-34)	45	No Relaxation	2.2	1.4	1.2
17	Phenolic Compound (as C_6H_5OH)	mg/L	IS 3025(part-43)	0.001	0.002	N.D.	N.D.	N.D.
18	Selenium (as Se)	mg/L	IS 3025(part-56)	0.01	No Relaxation	N.D.	N.D.	N.D.
19	Silver (as Ag)	mg/L	Annex J of IS 13428	0.1	No Relaxation	N.D.	N.D.	N.D.
20	Sulphate (as SO_4)	mg/L	IS 3025:(Part-24)	200	400	28.4	12.6	22.8
21	Sulphide (as H_2S)	mg/L	IS 3025:(Part-29)	0.05	No Relaxation	N.D.	N.D.	N.D.
22	Total Alkalinity (as $CaCO_3$)	mg/L	IS 3025:(Part-23)	200	600	88.0	142.0	68.0
23	Total Hardness (as $CaCO_3$)	mg/L	IS 3025:(Part-21)	200	600	142.0	198.0	68.0
24	Zinc (as Zn)	mg/L	IS 3025(part-49)	5	15	N.D.	N.D.	N.D.
C.	Parameters concerning toxic substances:-							
1	Cadmium (as Cd)	mg/L	IS 3025(part-41)	0.003	No Relaxation	N.D.	N.D.	N.D.
2	Cyanide (as CN)	mg/L	IS 3025(part-27)	0.05	No Relaxation	N.D.	N.D.	N.D.

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REPORT NO.1835

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Pata Village	Kunjemura Village	Tamnar Village
3	Lead (as Pb)	mg/L	IS 3025(part-47)	0.01	No Relaxation	N.D.	N.D.	N.D.
4	Mercury (as Hg)	mg/L	IS 3025(part-48)	0.001	No Relaxation	N.D.	N.D.	N.D.
5	Molybdenum (as Mo)	mg/L	IS 3025(part-2)	0.07	No Relaxation	N.D.	N.D.	N.D.
6	Nickel (as Ni)	mg/L	IS 3025(part-54)	0.02	No Relaxation	N.D.	N.D.	N.D.
7	Polychlorinated biphenyls	mg/L	ASTM 5175	0.0005	No Relaxation	N.D.	N.D.	N.D.
8	Polynuclear aromatic hydrocarbons (as PAH)	mg/L	APHA 6440	0.0001	No Relaxation	N.D.	N.D.	N.D.
9	Arsenic (as As)	mg/L	IS 3025(part-37)	0.01	0.05	N.D.	N.D.	N.D.
10	Chromium (as Cr)	mg/L	Annex J of IS:13428	0.05	No Relaxation	N.D.	N.D.	N.D.
11	Trihalomethanes:							
a)	Bromoform	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.	N.D.
b)	Dibromochloromethane	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.	N.D.
c)	Bromodichloromethane	mg/L	APHA 6232	0.06	No Relaxation	N.D.	N.D.	N.D.
d)	Chloroform	mg/L	APHA 6232	0.2	No Relaxation	N.D.	N.D.	N.D.
D.	Pesticides:-							
1	Alpha HCH	µg/l	USEPA 508	0.01		N.D.	N.D.	N.D.
2	Beta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.	N.D.
3	Delta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.	N.D.
4	Alachlor	µg/l	USEPA 525.2, 507	20		N.D.	N.D.	N.D.
5	Aldrin / Dieldrin	µg/l	USEPA 508	0.03		N.D.	N.D.	N.D.
6	Atrazine	µg/l	USEPA 525.2,8141 A	2		N.D.	N.D.	N.D.
7	Butachlor	µg/l	USEPA 525.2,8141 A	125		N.D.	N.D.	N.D.
8	Chlorpyriphos	µg/l	USEPA 525.2,8141 A	30		N.D.	N.D.	N.D.
9	DDT (o,p and p, p-Isomers of DDT, DDE and DDD)	µg/l	USEPA 508	1		N.D.	N.D.	N.D.
10	Gamma HCH	µg/l	USEPA 508	2		N.D.	N.D.	N.D.

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Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

REPORT NO.1835

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT		
				Acceptable Limit	Permissible limit	Pata Village	Kunjemura Village	Tamnar Village
11	2,4-Dichlorophenoxyacetic Acid	µg/l	USEPA 515.1	30		N.D.	N.D.	N.D.
12	Endosulphan (alpha, beta and sulphate)	µg/l	USEPA 508	0.4		N.D.	N.D.	N.D.
13	Ethion	µg/l	USEPA 1657 A	3		N.D.	N.D.	N.D.
14	Isoproturon	µg/l	USEPA 532	9		N.D.	N.D.	N.D.
15	Malathion	µg/l	USEPA 8141 A	190		N.D.	N.D.	N.D.
16	Methyl Parathion	µg/l	USEPA 8141 A	0.3		N.D.	N.D.	N.D.
17	Monocrotophos	µg/l	USEPA 8141 A	1		N.D.	N.D.	N.D.
18	Phorate	µg/l	USEPA 8141 A	2		N.D.	N.D.	N.D.
E.	Microbial Parameters							
1	Total Coliform	MPN/100ml	IS:1622:1981:RA:2019	-		Absent	Absent	Absent
2	E. Coli	MPN/100ml	IS:1622:1981:RA: 2019	-		Absent	Absent	Absent

Note: mg/lit.: milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- *The above analysis report refers to the particular sample received at our end and the use of the report for publication, arbitration or as legal dispute is forbidden.*
- *Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.*
- *This is for information as the party has asked for above test(s) only.*

PREPARED BY 09/08/2021

For ULTIMATE ENVIROLYTICAL SOLUTIONS

09/08/2021

AUTHORIZED SIGNATORY

End of the test report

Annexure-VI b

Format No. : UES/FORM/09

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Name & Address Of The Customer	Report No	UES/TR/21-22/1836	
To, **Jindal Power Limited** **P.O. Tamnar,** **District: Raigarh** **496107 (C.G.)**	Lab Ref No	UES/21-22/W/3080-3081	
	Date of Sampling	29/07/2021	
	Date of Receipt	30/07/2021	
	Date of Report	09/08/2021	
	Date of analysis	Start:30/07/2021	End: 09/08/2021

SAMPLE DETAILS

Customer Sample Id /Sampling Location	1. Kelo River Upstream 2. Kelo River Downstream	Latitude	22.69700
		Longitude	83.42118
Customer Ref. No. & Date	4400013828, Date: 22/07/2020		
Sample Type	SurfaceWater		
Packing Of Sample	Plastic Bottle (5.0ltr.) Glass Bottle (1.0 ltr.)		
Sample Collected By	Laboratory Chemist		
Sample Condition At Receipt	Ok		

REPORT NO.01836

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Kelo River Upstream	Kelo River Down stream
A.	Organoleptic & Physical Parameters						
1	Colour	Hazen	IS:3025:(Part-4)	5	15	15.5	20.5
2	Odour	-	IS:3025:(part-5)	Agreeable	Agreeable	Agreeable	Agreeable
3	pH Value at 25.2°C	-	IS:3025:(Part-11)	6.5-8.5	No Relaxation	6.98	7.11
4	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	IS 3025:(Part-10)	1	5	38.0	52.0
6	Total Dissolved Solids	mg/L	IS:3025:(Part-16)	500	2000	124.0	186.0
B.	General Parameters Concerning Substances undesirable in excessive amounts						
1	Aluminium (as Al)	mg/L	IS 3025(part-55)	0.03	0.2	N.D.	N.D.
2	Ammonia (as total ammonia-N)	mg/L	IS 3025(part-34)	0.5	No Relaxation	N.D.	N.D.
3	Anionic Detergent (as MBAS)	mg/L	Annex K of IS:13428	0.2	1.0	N.D.	N.D.
4	Barium (as Ba)	mg/L	Annex F of IS:13428	0.7	No Relaxation	N.D.	N.D.
5	Boron (as B)	mg/L	IS 3025:(Part-57)	0.5	1.0	N.D.	N.D.
6	Calcium (as	mg/L	IS 3025:(Part-40)	75	200	18.4	36.4

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REPORT NO.01836

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Kelo River Upstream	Kelo River Down stream
	Ca)						
7	Chloramines (as Cl_2)	mg/L	IS 3025:(Part-26)	4.0	No Relaxation	N.D.	N.D.
8	Chloride (as Cl)	mg/L	IS 3025:(Part-32)	250	1000	16.9	38.9
9	Copper (as Cu)	mg/L	IS 3025(part-42)	0.05	1.5	N.D.	N.D.
10	Fluoride (as F)	mg/L	IS 3025(part-60)	1	1.5	0.16	0.32
11	Free Residual Chlorine	mg/L	IS 3025:(Part-26)	0.2	1	N.D.	N.D.
12	Iron (as Fe)	mg/L	IS 3025(part-53)	0.3	No Relaxation	0.12	0.38
13	Magnesium (as Mg)	mg/L	IS 3025:(Part-46)	30	100	4.5	8.2
14	Manganese (as Mn)	mg/L	IS 3025(part-59)	0.1	0.3	N.D.	N.D.
15	Mineral Oil	mg/L	Clause 6 of IS 3025 (Part-39) Infrared partition method	0.5	No Relaxation	N.D.	N.D.
16	Nitrate (as NO_3)	mg/L	IS 3025(part-34)	45	No Relaxation	8.2	4.2
17	Phenolic Compound (as C6H5OH)	mg/L	IS 3025(part-43)	0.001	0.002	N.D.	N.D.
18	Selenium (as Se)	mg/L	IS 3025(part-56)	0.01	No Relaxation	N.D.	N.D.
19	Silver (as Ag)	mg/L	Annex J of IS 13428	0.1	No Relaxation	N.D.	N.D.
20	Sulphate (as SO_4)	mg/L	IS 3025:(Part-24)	200	400	16.4	28.4
21	Sulphide (as H_2S)	mg/L	IS 3025:(Part-29)	0.05	No Relaxation	N.D.	N.D.
22	Total Alkalinity (as $CaCO_3$)	mg/L	IS 3025:(Part-23)	200	600	36.0	82.0
23	Total Hardness (as $CaCO_3$)	mg/L	IS 3025:(Part-21)	200	600	62.0	120.0
24	Zinc (as Zn)	mg/L	IS 3025(part-49)	5	15	N.D.	N.D.
C.	Parameters concerning toxic substances:-						
1	Cadmium (as Cd)	mg/L	IS 3025(part-41)	0.003	No Relaxation	N.D.	N.D.
2	Cyanide (as CN)	mg/L	IS 3025(part-27)	0.05	No Relaxation	N.D.	N.D.
3	Lead (as Pb)	mg/L	IS 3025(part-47)	0.01	No Relaxation	N.D.	N.D.

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REPORT NO.01838

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Kelo River Upstream	Kelo River Down stream
4	Mercury (as Hg)	mg/L	IS 3025(part-48)	0.001	No Relaxation	N.D.	N.D.
5	Molybdenum (as Mo)	mg/L	IS 3025(part-2)	0.07	No Relaxation	N.D.	N.D.
6	Nickel (as Ni)	mg/L	IS 3025(part-54)	0.02	No Relaxation	N.D.	N.D.
7	Polychlorinated biphenyls	mg/L	ASTM 5175	0.0005	No Relaxation	N.D.	N.D.
8	Polynuclear aromatic hydrocarbons (as PAH)	mg/L	APHA 6440	0.0001	No Relaxation	N.D.	N.D.
9	Arsenic (as As)	mg/L	IS 3025(part-37)	0.01	0.05	N.D.	N.D.
10	Chromium (as Cr)	mg/L	Annex J of IS:13428	0.05	No Relaxation	N.D.	N.D.
11	Trihalomethanes:						
a)	Bromoform	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.
b)	Dibromochloromethane	mg/L	APHA 6232	0.1	No Relaxation	N.D.	N.D.
c)	Bromodichloromethane	mg/L	APHA 6232	0.06	No Relaxation	N.D.	N.D.
d)	Chloroform	mg/L	APHA 6232	0.2	No Relaxation	N.D.	N.D.
D.	Pesticides:-						
1	Alpha HCH	µg/l	USEPA 508	0.01		N.D.	N.D.
2	Beta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.
3	Delta HCH	µg/l	USEPA 508	0.04		N.D.	N.D.
4	Alachlor	µg/l	USEPA 525.2, 507	20		N.D.	N.D.
5	Aldrin / Dieldrin	µg/l	USEPA 508	0.03		N.D.	N.D.
6	Atrazine	µg/l	USEPA 525.2,8141 A	2		N.D.	N.D.
7	Butachlor	µg/l	USEPA 525.2,8141 A	125		N.D.	N.D.
8	Chlorpyriphos	µg/l	USEPA 525.2,8141 A	30		N.D.	N.D.
9	DDT (o,p and p, p-Isomers of DDT, DDE and DDD)	µg/l	USEPA 508	1		N.D.	N.D.
10	Gamma HCH	µg/l	USEPA 508	2		N.D.	N.D.
11	2,4-Dichlorophenox	µg/l	USEPA 515.1	30		N.D.	N.D.

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REPORT NO.01836

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT	
				Acceptable Limit	Permissible limit	Kelo River Upstream	Kelo River Down stream
	yacetic Acid						
12	Endosulphan (alpha, beta and sulphate)	µg/l	USEPA 508	0.4		N.D.	N.D.
13	Ethion	µg/l	USEPA 1657 A	3		N.D.	N.D.
14	Isoproturon	µg/l	USEPA 532	9		N.D.	N.D.
15	Malathion	µg/l	USEPA 8141 A	190		N.D.	N.D.
16	Methyl Parathion	µg/l	USEPA 8141 A	0.3		N.D.	N.D.
17	Monocrotophos	µg/l	USEPA 8141 A	1		N.D.	N.D.
18	Phorate	µg/l	USEPA 8141 A	2		N.D.	N.D.
E.	Microbial Parameters						
1	Total Coliform	MPN/ 100ml	IS:1622:1981:RA:2019	-		20.0	42.0
2	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	-		10.0	12.0

Note: mg/lit.: milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- *The above analysis report refers to the particular sample received at our end and the use of the report for publication, arbitration or as legal dispute is forbidden.*
- *Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.*
- *This is for information as the party has asked for above test(s) only.*

Thakur 09/08/2021
PREPARED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS
09/08/2021
AUTHORIZED SIGNATORY

End of the test report

Jindal Power Limited, Tamnar

Annexure-VI(a)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF APRIL 2021

Date	Location-1					Location-2					Location-3					Location-4				
	New Switch Yard					Near Hostel 5					Savitrinagar Colony (Tehlirampur village)					Tamnar village				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					0.5					5.0					3.0				
Direction (w.r.t stack)	NW					ESE					ENE					S				
01.04.2021	64.2	14.8	11.5	24.7	0.42	NA	31.5	19.6	24.6	0.65	62.4	30.2	10.4	22.6	0.44	69.4	29.5	15.8	25.1	0.64
05.04.2021	64.8	15.9	13.5	29	0.4	NA	26.1	19.6	25.3	0.86	67.9	17.2	11.1	22.4	0.58	66.3	24.7	18.8	24.1	0.85
08.04.2021	76.6	22.1	17.1	28.4	0.31	NA	29.2	16.6	26.3	0.62	54.5	28.6	15.2	23.8	0.45	77.8	31.2	16.3	23.9	0.76
12.04.2021	42.5	17.4	13.3	28.2	0.5	NA	18.2	13.8	31.6	0.62	54.7	20.5	16.3	22.6	0.55	62.5	21.3	16.2	24.3	0.79
15.04.2021	43.8	14.4	16.1	27.9	0.61	NA	19.4	15.6	25.7	0.48	44.9	19.7	13.1	22.9	0.62	55.3	23.5	8.2	20.8	0.62
19.04.2021	55.6	13.2	11	29.1	0.5	NA	18.4	17.3	27.1	0.59	70.1	21.9	14.6	22.1	0.94	56.2	24.4	8.7	21.1	0.56
22.04.2021	36.8	10.9	14.7	28.1	0.39	NA	13.2	22	24	0.86	43	18.4	18.1	22.3	0.96	56.4	20.5	8.2	21.6	0.64
26.04.2021	47.5	8	9.3	28.9	0.6	NA	13.4	23.2	31.1	0.97	51.9	17.4	18.2	22.6	0.82	56.7	24.2	8.6	22.7	0.65
29.04.2021	64.1	12.8	13.9	29.2	0.52	NA	12.2	23.8	32.1	0.92	29.9	25.2	21.6	22.4	0.84	54.3	18.5	8.7	20.5	0.57
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2
Date	Location-5					Location-6					Location-7					Location-8				
	JIPT Building					Gorhi village					Regaon village					Nirman Bhavan				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					4.5					3.0					0.2				
Direction (w.r.t stack)	W					SSW					N					S				
01.04.2021	67.2	22.3	16.3	23.4	0.7	68.7	26.5	11.8	21.2	0.69	50.9	20.5	13.4	24.7	0.62	71.6	33.1	18.7	26.2	0.68
05.04.2021	74.3	36.1	17.5	26.8	0.8	74.2	27.8	13	21.4	0.84	45.9	25.1	9.6	24.4	0.66	75.4	34.6	16.2	24.8	0.75
08.04.2021	81.6	34.7	18.4	27.6	0.7	68.3	32.5	15.3	23.7	0.77	47.6	21.2	16.1	24.7	0.71	82.3	37.9	17.6	26.7	0.84
12.04.2021	75.8	32.6	16.8	25.1	0.7	64.8	25.2	14.2	24.8	0.73	51.5	14.1	14.5	24.1	0.59	78.9	34.5	15.9	24.5	0.7
15.04.2021	67.2	24.3	14.3	22.3	0.7	51.5	22.5	12.6	21.1	0.66	46.8	9.1	13.8	24.5	0.53	62.5	25.1	16.5	22.3	0.74
19.04.2021	72.4	32.5	15.4	28.1	0.7	45.9	27.1	8.3	21.4	0.8	46.8	10.8	8.2	24.5	0.68	72.1	26.8	14.6	25.4	0.69
22.04.2021	76.1	30.3	12.9	25.2	0.8	53.4	26.3	11.5	22.1	0.85	47.2	9.3	8	25.2	0.76	74.2	28.3	17.3	28.7	0.76
26.04.2021	68.7	26.5	15.7	24.7	0.8	39.2	30.6	10.6	20.8	0.73	45.2	7.6	9.2	14.8	0.61	68.7	24.2	14.7	24.3	0.81
29.04.2021	66.2	24.2	16.5	23.8	0.7	52.4	26.7	11.2	21.8	0.87	51.4	10.3	14.6	23.4	0.75	67.5	22.7	15.3	25.6	0.72
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Note: All Units in $\mu g/m^3$ except CO (in mg/m^3)

Jindal Power Limited, Tamnar

Annexure-VII (b)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF MAY,2021

Date	Location-1					Location-2					Location-3					Location-4				
	New Switch Yard					Near Hostel 5					Savitrinagar Colony (Tehlirampur village)					Tamnar village				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					0.5					5.0					3.0				
Direction (w.r.t stack)	NW					ESE					ENE					S				
03.05.2021	42.5	10.6	26.4	27	0.38	NA	12.4	22.6	32.3	0.86	48.2	21.7	18.3	21.8	0.75	54.1	18.4	8.6	20.4	0.59
06.05.2021	49.6	10.3	21.4	26.5	0.73	NA	12.8	23.6	31.5	0.84	42.1	16.1	9.5	22.4	0.51	54.5	14.5	8.4	19.9	0.54
10.05.2021	NA	15.6	18.3	26.2	0.45	NA	18.4	15.8	25.6	0.68	62.5	15.3	11.2	23.2	0.61	55.2	12.4	8.4	19.7	0.54
13.05.2021	NA	16.8	15.8	20.2	0.48	NA	18.3	16.3	27.2	0.65	56.3	12.6	14.3	22.2	0.41	45.6	10.4	9.3	22.1	0.53
17.05.2021	NA	14.8	16.5	24.8	0.32	NA	27.7	20.8	27.3	0.45	57.7	13.7	15.2	22.6	0.57	47.7	11.3	10.3	24.8	0.54
20.05.2021	NA	10.7	14.3	23.4	0.44	NA	26.4	18.5	27.7	0.54	53.2	12.4	13.2	22.3	0.57	42.8	11.8	9.9	23.7	0.46
24.05.2021	NA	20.8	14.2	23.4	0.57	NA	31.6	16.4	28.5	0.51	52.7	18.9	11.5	24.4	0.64	43.8	19.1	10.1	24.2	0.68
27.05.2021	NA	14.8	15.2	26.1	0.42	NA	15.7	12.7	26.5	0.52	35.3	10.5	8.2	24.2	0.48	32.8	8.8	7.6	23.8	0.56
31.05.2021	NA	NA	NA	NA	NA	NA	31.8	14.2	23.5	0.53	61.6	27.5	9.8	23.9	0.38	42.6	24.7	9.4	23.2	0.62
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2
Date	Location-5					Location-6					Location-7					Location-8				
	JIPT Building					Gorhi village					Regaon village					Nirman Bhavan				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					4.5					3.0					0.2				
Direction (w.r.t stack)	W					SSW					N					S				
03.05.2021	68.5	23.5	16.5	23.6	0.74	52.1	25.4	10.9	21.6	0.76	47.8	10.6	12.3	21.2	0.67	64.2	21.6	15.2	22.4	0.55
06.05.2021	72.2	26.4	18.2	25.8	0.78	39.5	22	12.5	22.4	0.85	47.5	12.5	11.3	24.5	0.58	67.6	24.2	17.6	23.1	0.63
10.05.2021	69.5	24.2	14.6	24.6	0.75	45.4	17.9	9.7	22.3	0.63	45.2	15.2	7.2	25.7	0.51	63.5	22.8	15.2	22.4	0.65
13.05.2021	65.4	22.9	15.8	22.7	0.72	31.8	10.5	9.5	21.3	0.51	46.4	7.9	7.8	19.6	0.54	61.8	20.5	13.9	21.6	0.58
17.05.2021	74.6	26.7	13.7	23.8	0.64	43.9	17.9	11.4	24.1	0.43	44.7	12.3	12.4	22.1	0.46	68.2	24.3	12.9	22.4	0.62
20.05.2021	77.4	28.3	20.2	25.2	0.58	53.8	15.7	10.4	20.9	0.47	48.2	14.4	7.4	21.8	0.53	70.5	26.2	18.4	23.5	0.56
24.05.2021	65.2	23.4	17.6	24.3	0.65	56.6	20.4	10.2	22.5	0.55	44.8	12.8	9.1	22.7	0.51	61.2	21.5	16.2	22.6	0.61
27.05.2021	50.6	15.6	13.2	22.8	0.57	33.5	10.7	10.5	22.6	0.42	36.3	6.9	8.1	21.9	0.48	46.8	13.8	12.8	21.8	0.58
31.05.2021	76.4	26.8	14.2	23.2	0.52	56.1	24.4	9.9	23.9	0.48	47.4	12.2	8.2	22.9	0.59	72.3	24.3	13.5	23.5	0.49
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Jindal Power Limited, Tamnar

Annexure-VII (c)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF JUNE,2021

Date	Location-1					Location-2					Location-3					Location-4				
	New Switch Yard					Near Hostel 5					Savitrinagar Colony (Tehlirampur village)					Tamnar village				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					0.5					5.0					3.0				
Direction (w.r.t stack)	NW					ESE					ENE					S				
03.06.2021	NA	NA	NA	NA	NA	NA	39.2	15.1	24.3	0.56	43.8	29.7	15.6	24.9	0.44	49.4	21.2	6.8	22.4	0.67
07.06.2021	NA	NA	NA	NA	NA	NA	31.8	16.4	29.3	0.51	49.2	27.4	12.1	24.2	0.52	49.8	14.6	7.8	21.8	0.62
10.06.2021	NA	NA	NA	NA	NA	NA	27.1	13.8	24.6	0.44	70.2	19.5	13.2	24.4	0.39	52.8	24.2	15.2	24.1	0.68
14.06.2021	NA	NA	NA	NA	NA	NA	32.3	14.1	22.1	0.58	42.9	10.6	9.5	24.9	0.23	50.9	9.4	15.4	24.3	0.85
17.06.2021	NA	NA	NA	NA	NA	NA	20.4	11.5	25.5	0.52	54.2	13.8	7.5	25.8	0.32	51.2	15.6	9.8	23.2	0.69
21.06.2021	NA	NA	NA	NA	NA	NA	27.6	11.5	22.2	0.49	56.8	14.7	12.2	26.4	0.32	46.3	21.1	12.3	23.7	0.61
24.06.2021	NA	23.5	NA	23.9	0.53	NA	31.5	17.4	27.5	0.58	47.5	17.1	9.1	25.3	0.35	55.2	22.6	8.8	24.3	0.62
28.06.2021	NA	18.9	NA	27.8	0.45	NA	30.2	17.6	28.2	0.61	52.1	18.1	15.2	25.4	0.42	55.2	23.3	12.8	24.3	0.66
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Date	Location-5					Location-6					Location-7					Location-8				
	JIPT Building					Gorhi village					Regaon village					Nirman Bhavan				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t	0.2					4.5					3.0					0.2				
Direction (w.r.t stack)	W					SSW					N					S				
03.06.2021	56.6	18.3	10.3	23.2	0.5	54.2	20.4	11.4	27.4	0.41	33.4	16.3	7.5	22.2	0.61	52.3	17.2	9.8	22.8	0.62
07.06.2021	58.2	19.4	12.2	22.8	0.5	52.3	24.5	11.1	27.1	0.46	38.6	11.8	7.8	24.6	0.64	54.6	18.5	11.2	23.2	0.58
10.06.2021	62.5	21.3	14.3	21.6	0.6	50.2	19.3	12.5	NA	0.45	43.8	14.5	10.1	22.7	0.57	60.5	20.2	12.2	22.1	0.59
14.06.2021	68.2	22.5	15.5	23.8	0.7	NA	15.6	14.2	NA	0.54	37.2	5.5	12.9	21.6	0.63	64.2	21.3	13.4	22.9	0.63
17.06.2021	64.3	20.4	13.6	24.1	0.7	38.2	11.8	10.3	22.3	0.44	31.3	9.2	8.5	23.3	0.47	58.3	19.4	12.8	21.9	0.68
21.06.2021	72.3	23.6	15.6	25.3	0.6	43.5	24.2	17.2	22.7	0.47	44.2	14.5	10.7	24.1	0.49	68.5	22.5	13.8	23.2	0.65
24.06.2021	76.2	25.4	16.2	25.8	0.6	48.2	22.3	12.8	24.6	0.58	42.3	14.2	7.8	22.3	0.48	73.6	23.1	14.8	24.1	0.69
28.06.2021	68.4	22.8	14.3	24.1	0.7	56.3	20.4	15.7	24.2	0.64	50.6	18.3	13.6	24.1	0.46	75.6	24.2	15.3	25.3	0.72
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Note: All Units in $\mu g/m^3$ except CO (in mg/m^3)

Jindal Power Limited, Tamnar

Annexure-VII (d)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF JULY, 2021

Date	Location-1					Location-2					Location-3					Location-4				
	New Switch Yard					Near Hostel 5					Savitrinagar Colony (Tehlirampur village)					Tamnar village				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					0.5					5.0					3.0				
Direction (w.r.t stack)	NW					ESE					ENE					S				
01.07.2021	NA	26.1	NA	28.3	0.39	NA	36.3	17.5	27.8	0.62	46.1	14.4	10.6	25.7	0.5	58.6	18.7	10.3	25	0.66
05.07.2021	NA	22.1	NA	24.8	0.32	NA	28.6	17.4	27.5	0.65	51.4	10.5	5.6	23.8	0.4	56.1	12.8	12.5	26	0.67
08.07.2021	NA	21.5	NA	25.4	0.28	NA	30.8	15.9	27.2	0.54	48.5	13.2	10.8	NA	0.6	55.3	18.5	11.8	23	0.66
12.07.2021	NA	21.7	NA	30.9	0.44	NA	28.7	18.6	27.5	0.65	65.3	9.7	11.9	NA	0.7	58.7	19.6	12.5	24	0.64
15.07.2021	52.6	23.4	12.5	26.4	0.36	NA	25.1	18.7	27.9	0.54	61.4	15.7	9.5	NA	0.5	60.6	24.3	14.2	25	0.61
19.07.2021	58.3	19.5	15.8	27.6	0.48	NA	24.5	16.2	27.5	0.58	58.2	21.2	13.3	NA	0.5	62.4	22.3	16.3	25	0.63
22.07.2021	46.4	20.1	13.2	32.2	0.42	NA	26.6	13.6	27.5	0.52	55.5	17.8	12.4	NA	0.4	54.6	19.3	14.2	25	0.68
26.07.2021	46.5	11.8	13.8	27.4	0.46	NA	20.5	14.3	27.8	0.55	50.2	14.8	10.6	NA	0.6	56.7	19.3	15.8	24	0.65
29.07.2021	38.5	9.2	12.9	23.8	0.45	NA	12.6	12.3	26.8	0.47	40.2	9.4	11.3	22.8	0.3	42.3	13.2	12.8	23	0.62
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Date	Location-5					Location-6					Location-7					Location-8				
	JIPT Building					Gorhi village					Regaon village					Nirman Bhavan				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t	0.2					4.5					3.0					0.2				
Direction (w.r.t stack)	W					SSW					N					S				
01.07.2021	65.8	20.3	15.3	23.6	0.5	58.2	25.3	14.2	24.6	0.67	46.8	20.5	12.3	22.8	0.4	62	19.2	15.3	23	0.56
05.07.2021	62.7	18.6	14.8	24.5	0.6	52.6	21.5	13.6	24.7	0.63	44.2	18.7	12.4	23.5	0.5	60	17.4	14.4	23	0.52
08.07.2021	58.5	17.2	13.9	22.8	0.6	53.6	21.2	13.6	23.2	0.62	43.2	17.5	9.8	22.8	0.4	54	15.6	13.5	23	0.51
12.07.2021	54.2	14.6	12.5	23.1	0.5	55.1	22.5	12.3	23.6	0.56	46.4	18.9	11.5	23.8	0.5	51	16.2	13.2	23	0.49
15.07.2021	50.3	13.4	13.5	23.3	0.5	68.2	24.6	14.3	24.4	0.67	54.2	17.3	12.9	23.3	0.5	48	14.8	14.1	22	0.46
19.07.2021	48.6	12.8	12.8	22.9	0.5	48.3	16.8	12.6	23.5	0.46	66.5	23.4	14.6	23.2	0.7	45	13.7	13.8	22	0.53
22.07.2021	42.5	12.2	13.1	22.4	0.5	60.2	22.3	16.3	24.2	0.72	40.5	17.4	12.9	22.9	0.4	40	12.8	14.5	23	0.57
26.07.2021	38.6	11.4	11.8	22.1	0.5	56.8	20.7	14.7	23.2	0.66	45.6	16.5	13.7	22.9	0.5	36	12.3	13.2	22	0.44
29.07.2021	36.4	10.6	10.9	21.6	0.5	40.5	12.6	13.2	22.8	0.64	35.2	10.6	11.8	21.9	0.4	33	13.2	12.5	22	0.43
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Note: All Units in $\mu g/m^3$ except CO (in mg/m^3)

Jindal Power Limited, Tamnar

Annexure-VII (e)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF AUGUST, 2021

Date	Location-1					Location-2					Location-3					Location-4				
	New Switch Yard					Near Hostel 5					Savitrinagar Colony (Tehlirampur village)					Tamnar village				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					0.5					5.0					3.0				
Direction (w.r.t stack)	NW					ESE					ENE					S				
02.08.2021	42.6	7.4	11.3	22.9	0.44	NA	10.3	9.6	27.3	0.49	40.3	9.2	15.8	22.3	0.3	45.2	14.5	14.1	23.9	0.58
05.08.2021	50.4	18.2	12.4	29.6	0.42	NA	21.4	14.7	27.7	0.49	51.9	15.9	12.2	22.9	0.5	62.6	23.1	18.6	24.2	0.63
09.08.2021	45.3	19.2	16.4	26.7	0.46	NA	20.2	14.2	27.7	0.52	52.6	14.2	11.9	23.4	0.6	55.4	20.5	15.4	24.2	0.67
12.08.2021	54.2	17.1	16.5	25.6	0.48	NA	22.3	15.6	27.7	0.56	56.4	16.2	15.4	22.8	0.5	62.3	20.6	17.2	25.2	0.66
16.08.2021	32.2	10.6	12.2	26.3	0.38	NA	12.5	11.7	28.2	0.55	38.6	15.4	15.2	22.4	0.5	44.2	13.5	8.8	23.3	0.66
19.08.2021	38.5	15.2	12.6	29.6	0.47	NA	17.5	12.8	27.8	0.48	42.9	12.3	11.1	26.4	0.4	40.8	14.8	12.3	22.9	0.67
23.08.2021	39.5	13.2	15.1	27.8	0.44	52.4	17.9	16.4	26.8	0.59	51.6	14.8	12.5	24.5	0.5	56.2	22.2	16.8	23.9	0.63
26.08.2021	44.2	15.8	12.7	27.1	0.45	NA	25.7	13.6	27.3	0.42	55.3	16.2	14.3	26.8	0.6	53.4	20.3	15.6	23.2	0.68
30.08.2021	43.7	13.6	17.2	26.5	0.51	NA	30.6	13.8	26.2	0.59	59.2	17.4	16.6	23.1	0.6	50.4	16.8	13.2	21.6	0.61
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Date	Location-5					Location-6					Location-7					Location-8				
	JIPT Building					Gorhi village					Regaon village					Nirman Bhavan				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					4.5					3.0					0.2				
Direction (w.r.t stack)	W					SSW					N					S				
02.08.2021	56.5	17.3	15.3	23.2	0.6	48.5	15.3	14.6	23.2	0.62	42.8	12.3	12.9	23.1	0.4	50.3	15.2	16.1	23.6	0.62
05.08.2021	52.8	16.8	14.6	22.8	0.6	68.3	28.2	16.8	24.4	0.64	46.4	15.5	14.2	23.6	0.4	54.4	18.3	15.3	23.2	0.63
09.08.2021	60.3	20.6	15.7	24.2	0.5	62.3	21.4	16.2	24.2	0.66	42.8	15.9	13.6	23.2	0.5	65.2	22.4	17.2	24.3	0.68
12.08.2021	64.5	21.7	16.2	24.8	0.6	65.5	23.8	16.5	24.8	0.72	52.2	17.4	13.6	23.3	0.4	68.7	25.1	14.9	25.2	0.64
16.08.2021	50.3	15.6	15.8	22.6	0.6	44.3	11.8	12.8	22.8	0.63	30.8	9.6	11.5	22.3	0.4	52.3	17.2	15.7	23.1	0.58
19.08.2021	66.5	23.2	17.2	25.3	0.6	48.6	14.2	13.5	23.6	0.68	38.2	13.3	13.1	23.4	0.4	71.2	27.6	16.8	25.3	0.72
23.08.2021	70.4	26.8	16.3	26.4	0.7	NA	23.2	17.3	23.8	0.67	47.3	16.4	14.2	23.4	0.4	75.3	29.3	18.2	24.8	0.76
26.08.2021	65.3	25.3	14.5	24.1	0.6	NA	22.4	13.8	23.3	0.65	38.2	11.6	12.3	22.4	0.4	68.5	26.1	16.4	24.7	0.69
30.08.2021	68.4	24.4	13.6	24.3	0.7	NA	16.8	14.3	22.9	0.62	32.6	12.6	11.9	22.6	0.4	72.5	28.5	17.3	23.9	0.66
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Jindal Power Limited, Tamnar

Annexure-VII (f)

AMBIENT AIR QUALITY MONITORING DATA FOR THE MONTH OF SEPTEMBER, 2021

Date	Location-1					Location-2					Location-3					Location-4				
	New Switch Yard					Near Hostel 5					Savitrinagar Colony (Tehlirampur village)					Tamnar village				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					0.5					5.0					3.0				
Direction (w.r.t stack)	NW					ESE					ENE					S				
02.09.2021	49.1	15.4	15.3	23.3	0.55	57.2	23.8	15.8	26.3	0.42	45.3	22.3	15.4	22.8	0.9	58.6	24.6	17.3	22.6	0.65
06.09.2021	55.8	20.4	15.8	NA	0.43	61.2	22.8	19.1	25.8	0.52	63.6	19.8	14.3	23.4	0.7	60.2	25.3	16.5	23.7	0.69
09.09.2021	48.5	25.1	18.3	29.2	0.49	68.4	27.3	17.1	28.2	0.64	56.3	19.1	16.9	28.9	0.3	62.8	21.3	16.5	23.2	0.63
13.09.2021	43.2	9.6	16.6	26.3	0.47	41.3	16.4	13.2	29.4	0.62	52.5	16.5	12.2	24.5	0.7	NA	NA	NA	NA	NA
16.09.2021	39.2	12.3	13.5	24.2	0.44	44.4	21.7	13.1	24.9	0.69	43.6	14.9	15.6	24.4	0.6	45.6	15.3	13.2	23.5	0.69
20.09.2021	35.6	14.4	13.6	27.8	0.47	52.5	24.7	14.3	25.3	0.75	46.4	16.3	12.1	26.3	0.7	45.6	15.6	13.2	23.5	0.66
23.09.2021	37.5	18.8	15.1	25.1	0.52	55.7	20.2	14.6	25.5	0.66	49.5	17.6	16.1	24.3	0.4	52.2	18.6	16.2	24.7	0.68
27.09.2021	34.9	17.4	14	26.5	0.49	52.6	18.3	11.6	24.7	0.62	52.9	16.3	12.7	24.2	0.5	52.6	16.8	14.7	24.6	0.65
30.09.2021	46.6	17.3	13.5	25.2	0.48	60.2	26.4	19.8	26.5	0.57	55.1	16.4	15.3	24.6	0.6	56.2	21.2	15.7	23.5	0.67
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Date	Location-5					Location-6					Location-7					Location-8				
	JIPT Building					Gorhi village					Regaon village					Nirman Bhavan				
	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO
Distance (KM) (w.r.t stack)	0.2					4.5					3.0					0.2				
Direction (w.r.t stack)	W					SSW					N					S				
02.09.2021	56.5	16.5	15.6	23.2	0.5	NA	NA	NA	NA	NA	42.6	13.2	14.8	22.7	0.5	59	18.3	16.3	23.6	0.63
06.09.2021	62.4	18.7	17.4	23.8	0.6	NA	NA	NA	NA	NA	50.5	16.4	16.4	23.1	0.5	64	19.5	15.8	24.3	0.58
09.09.2021	58.9	17.6	16.2	23.4	0.6	62.8	21.5	16.3	22.8	0.64	41.2	14.8	13.1	23.5	0.5	56	16.8	14.7	23.1	0.64
13.09.2021	50.3	15.7	14.8	22.9	0.5	43.4	13.8	13.2	22.9	0.67	36.4	8.6	11.1	22.3	0.4	52	16.2	13.9	22.6	0.61
16.09.2021	64.8	19.5	16.5	23.5	0.6	42.3	13.5	13.8	23.2	0.69	36.2	10.5	10.8	22.3	0.4	66	19.6	17.2	24.2	0.59
20.09.2021	68.2	20.6	15.2	24.2	0.7	52.3	17.8	15.6	23.8	0.66	40.6	13.7	12.9	23.6	0.4	70	21.5	17.6	23.8	0.68
23.09.2021	72.3	22.4	14.5	24.6	0.5	56.4	20.1	16.7	24.8	0.67	40.5	14.6	13.8	23.1	0.4	75	23.2	18.2	25.6	0.72
27.09.2021	76.5	23.2	13.2	23.8	0.7	60.5	21.6	16.8	22.5	0.68	46.5	15.7	13.9	21.4	0.5	73	22.7	17.3	24.2	0.69
30.09.2021	70.4	21.9	12.3	23.1	0.6	61.2	20.6	15.9	23.8	0.65	43.8	14.5	13.1	23.6	0.4	68	20.6	16.1	23.5	0.64
Permissible Limits	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2	100	60	80	80	2

Note: All Units in $\mu g/m^3$ except CO (in mg/m^3)

Annexure- VIII

S.NO.	MONTH	20 KWp TG-1 ROOF TOP PANEL	5 KWp HOSTEL NO-1 ROOF TOP PANEL	150KWp CENTERAL STORE ROOF TOP PANEL	Solar Strite light at Colony	Total in KWH
		ENERGY GENERATED IN(KWH)	ENERGY GENERATED IN(KWH)	ENERGY GENERATED IN(KWH)	ENERGY GENERATED IN(KWH)	
1	Apr-21	1356	259	19702	510	21826.80
2	May-21	1352	255	19463	510	21580.30
3	Jun-21	1002	191	14302	510	16004.70
4	Jul-21	806	159	9526	510	11001.40
5	Aug-21	935	194	12680	510	14318.50
6	Sep-21	756	212	14072	510	15550.30
Total		6207	1270	89745	3060	100282

Annexure-IX

FLY ASH UTILIZATION REPORT FROM APRIL , 2021 TO SEPTEMBER, 2021 (4x600 MW)						
Month	Ash generation (Tonnes)	Utilization of Fly Ash (Tonnes)				Total utilization (Tonnes)
		Supply to Cement Plant	Brick making plant	Stone Mine Filling	Mine filling	
Apr-21	291543	0	130	0	130271	130402
May-21	235578	879	82	0	138307	139268
Jun-21	283757	0	203	8716	140550	149470
Jul-21	217025	0	154	30961	124548	155663
Aug-21	353394	0	275	68366	117117	185758
Sep-21	236746	0	204	66420	150280	216904