

Ref: JSL/BHL/D-Mines/2018-19/ 167

Date: 01.06.2019

To,

**The Secretary,
Ministry of Environment, Forest and Climate Change,
Government of India, Indra Paryavaran Bhawan,
Jor Bagh Road, New Delhi, Pin-110003**

Sub: Six monthly compliance report ref. to conditions of environment clearance of Dhedwas Iron Ore, Copper and Associated Minerals Mine and Beneficiation Plant (ML No. 631/05) of M/s Jindal Saw Limited located near Village Dhedwas/ Pur, Tehsil & Distt. Bhilwara (Rajasthan).

Ref: Environment Clearance letter No. J-11015/176/2009-IA-II (M) dated 09.08.2010

Dear Sir,

With reference to the above subject matter and referred letter, we are submitting herewith Six monthly compliance report of above environment clearance conditions for the period of 1st Oct' 2018 to 31st Mar' 2019.

As a part of this compliance report we are enclosing summarized monitoring result which is based upon Environment Monitoring and analysis carried out by MoEF and NABL accredited lab. Original report (237 pages) has also been uploaded in company website on routine basis and will provide the same if required. The details of Summarized Monitoring reports enclosed are mentioned below:

1. Summarized Quarterly Ambient Air Quality Monitoring Result – Annexure (I)
2. Summarized Fortnightly Ambient Air Quality Monitoring Result – Annexure (II)
3. Summarized Piezowell Water Quality & Level Monitoring Result- Annexure (III)
4. Summarized Ground and Surface Water Quality Analysis Result-Annexure (IV)
5. Summarized Process and Tailing Water Quality Analysis Result-Annexure (V)
6. Summarized Ambient Noise Level Monitoring Result-Annexure (VI)

This is for your kind information and record.

Thanking you,

Yours faithfully,

For: Jindal Saw Ltd.



**Dinesh Patil
Agent –Dhedwas Iron Ore Mine**

Encl: a/a

Copy to:

1. Regional Office, Ministry of Environment, Forest and Climate Change, Kendriya Bhawan, 5th Floor, Sector-H, Aliganj, Lucknow- 226024 (U.P.)
2. Zonal Office, Central Pollution Control Board (CPCB), Sahkar Bhawan, 3rd Floor, North TT Nagar, Bhopal-462003 (M.P.)
3. The Chairman, Rajasthan State Pollution Control Board, 4 Institutional Area, Jhalana Doongri, Jaipur-302004 (Rajasthan)
4. The Regional Officer, Rajasthan State Pollution Control Board 18, Azad Nagar, Pannadhai Circle, Bhilwara-Rajasthan, Pin-311001

Six monthly Reports on Status of Compliance of Stipulated Environment Clearance Conditions
Dhedwas Iron Ore Mine and Mineral Beneficiation Plant (ML No. 631/05) M/s Jindal Saw Ltd.

(EC granted vide letter No. J-11015/176/2009-IA.II (M) dated 09.08.2010 & Lease Deed executed on 08.12.2010)

Period of Report: 01st Oct' 2018 to 31st Mar' 2019

Date: 01/06/2019

| | Specific Conditions | Compliance Status |
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| i. | The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein. | <p>a. The Consent to Establish was granted by RSPCB on 16.12.2010.</p> <p>b. The Consent to Operate the Mine was granted by RSPCB on 06th June'11 and renewed on 29th Oct 2014 which is valid from 01.06.2014 to 31.05.2017. Further CTO renewal permission has granted by RPCB on 05.07.2017 which is valid from 01.06.2017 to 31.05.2022.</p> |
| ii. | Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India in Contempt Petition (C) 412/2004 in IA No. 833 in Writ Petition (C)No. 202 of 1995, as may be applicable to this project. | We shall abide by the final outcome of Hon'ble Supreme Court of India as may be applicable to this Project. |
| iii. | <p>All the conditions stipulated by the Central Ground Water Authority while according NOC vide letter No.21-4(439/WR/CGWA/2010-795 dated 14.05.10 to be effectively implemented.</p> <ol style="list-style-type: none"> 1. Ground water abstraction only for domestic use and limited to 12 m³/day. 2. Tube well to be fitted with water meter. Monitoring at least once/month. Ground Water quality to be monitored in Pre-monsoon and Post-monsoon periods. 3. Ground water recharge structure to be installed within six months with consultation with Regional Director, CGWB, Jaipur. 4. Photographs of recharge structures after completion to be furnished to The R.D, Jaipur under intimation to CGWA, New Delhi. | <ol style="list-style-type: none"> 1. Ground water is being abstracted to the extent of 12 m³/day and used only for domestic purpose. 2. Water meter has been installed in the bore well and routine flow meter monitoring is under practice. Ground water quality monitoring is being on quarterly basis by MoEF & GOI approved lab, monitoring report is enclosed as Annexure-IV 3. Three Nos. ground water recharge system have been made in plant and mines area. Balance ground water recharge structure construction job is under implementation. 4. Photographs have been furnished to The Regional Director, CGWB, and Jaipur immediately after completion, under intimation to CGWA. |

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| | <p>5. Piezometers shall be installed at suitable locations and ground water regime monitoring programme in and around the project area shall be executed regularly in consultation with the Regional Director, CGWB, Jaipur</p> <p>6. Ground water monitoring data shall be submitted to CGWB, Jaipur on regular basis at least once in a year.</p> <p>7. The firm shall ensure proper recycling and reuse of waste water after adequate treatment.</p> <p>8. Action taken in respect of S.No.1 to 7 shall be submitted to CGWA within one year period.</p> | <p>5. Piezometer installation has been completed as per CGWB recommendation and routine monitoring is under practice.</p> <p>6. Ground water monitoring data of existing Piezowell are submitted to CGWB, Jaipur annually and enclosed as Annexure-III.</p> <p>7. Beneficiation process water is completely recycled through thickener and advanced filter press and reused within the plant.</p> <p>8. Action taken report, photographs of Ground Water Recharge Structure and Piezometer installation has been submitted to MoEF& CC Regional Office Lucknow through letter No. JSL/BHL/D-Mines/2017-18/90 dated 03.08.2017.</p> |
| iv. | The environmental clearance is subject to approval of the State Land use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use. | The application has been submitted on 08.02.2008 to the State Govt. The matter is under consideration of the State Govt. Pending the approval, no mining activity will be conducted in the agricultural land. |
| v. | Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained. | NOC for grazing land has been obtained vide Letter No. 3445 dated 30.07.10 of Distt. Collector, Bhilwara. |
| vi. | The project proponent shall develop fodder plots in the non-mineralised area in lieu of use of grazing land. | <p>Work is confined within Government waste/barren land. We have developed fodder plots in 1.65 ha non-mineralised area.</p> <p>Apart from this, we are also providing fodder to nearby villagers/Gausala on routine basis. During the half year ended upto 31.03.2019 total 253170 Kg. of fodder were supplied to Samodi, Dariba, Suras and Pur villages.</p> |
| vii. | The tailing ponds shall be provided with HDP lining | <p>The bottom and the inner sides of the tailing pond have been covered by synthetic liner (HDP). Presently tailing is being recovered by advanced thickener and filter press technology.</p> <p>Generated tailing cake in dry form is stacked in earmarked place and will be recycled in future to recover the mineral present there.</p> |
| viii. | The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept un-utilized for long. The topsoil shall be used for land reclamation and plantation. | No top soil was generated from the mines during compliance period from 1 st Oct' 2018 to 31 st Mar' 2019. Earlier generated top soil was completely utilized for plantation purpose within the lease area. |

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| ix. | <p>The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Adequate measures shall be taken for protection of the first order and second order seasonal nallahs emanating/passing through the mine lease and also the right main canal of the Meja dam passing through the mine lease during the course of mining operation.</p> | <p>No first order nallah exists within the lease area. The second order seasonal nallah lies far away from the mine workings and will not be obstructed. The right main canal of the Meja Dam passing through lease area is being protected by leaving adequately wide barrier between the working and the Canal.</p> |
| x. | <p>The over burden generated during the mining operation shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. There shall be four external over burden dumps. The maximum height of the dumps shall be maintained to 30m having three terraces of 10m each so that the overall slope of the dump shall be maintained to 27°. The over burden dump shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Lucknow on six monthly basis.</p> | <p>OB is being stacked only at earmarked places and compliance status is submitted to the Ministry of Environment and Forest and its Regional Office at Lucknow on six monthly basis. We assure that all conditions will be complied with, overall slope of the waste dump is being maintained at 27 degree and mature dumps will be vegetated.</p> <p>Total 3076070 Tonnes Over burden was generated during the period of 01.10.2018 to 31.03.2019 which has been stacked as external dump at earmarked place as per condition given in Mining Plan.</p> |
| xi. | <p>Catch drains and siltation ponds of appropriate size shall be constructed around the mineral and over burden dumps to prevent run off of water and flow of sediments directly into the agricultural fields, the Kothari River, first order and second order seasonal nallahs, canal, the Meja dam, the Meja Talav, the Mandai Talav and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after the monsoon and maintained properly.</p> <p>Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed around the mineral and over burden dumps to prevent run off of water and flow of sediments directly into the agricultural fields, the Kothari River, first order and second order seasonal nallahs, canal, the Meja dam, the Meja Talav, the Mandal Talav and other water bodies and sump capacity should be</p> | <p>The. Catch drains have been made around the stockyard. Siltation ponds of appropriate size have also been constructed and water is being utilized for watering the mine area, roads, green belt development etc. and drains are being regularly desilted, particularly after the monsoon and maintained properly.</p> <p>Garland drains, check dams and settling tanks have been constructed and maintained.</p> |

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| | designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals. | |
| xii. | Dimension of the retaining wall at the toe of the OB dump(s) and the OB benches within the mine to check run-off and siltation should be based on the rain fall data. | As per mining plan external dumps of OB have been created within the mine lease area. The stipulation has been complied with by constructing retaining wall to check run off. Retaining walls are all around each dump. These are 1.5 mt in heights, 2.0 meter in width at base and 1.5 mt. Wide at top made by stone. |
| xiii. | The water recovery and spill way system shall be so designed that the natural water resources are not affected and that no spill water goes into the nearby Kothari River and other water bodies. | There is no spillage of water. Water recovery is through settling tank. Natural water resources are not affected. |
| xiv. | The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas. | Water is being sprayed on ore stacks to suppress the dust before handling the same. |
| xv. | The effluent from the ore beneficiation plant shall be treated to conform to the prescribed standards and the tailings slurry shall be transported through a closed pipeline to the tailing dam. | No effluent is being discharged from the beneficiation plant. The tailing slurry is being transported through a closed pipeline to the tailing pond. |
| xvi. | The decanted water from the tailing ponds shall be re-circulated and there should be zero discharge from the tailing ponds. Acid mine water, if any, shall be neutralized and reused within the plant. | The decanted water from the tailing pond is being re-circulated and there is no discharge from tailing pond. There is no acid water in the mine and no acid is used in the process. |
| xvii. | Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as crusher zone, loading and unloading point and all transfer points during handling of the ore. Extensive water sprinkling shall be carried out on roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. | The stipulation is being complied with to contain the Ambient Air Quality parameters within the norms prescribed by the Central Pollution Control Board in this regard. AAQ measurements were carried out by MoEF & GOI approved lab at 6 places on quarterly basis in Dec' 2018 and Mar' 2019 and noticed that AAQ is within permissible limits. Summarized AAQ reports are enclosed as Annexure-I |

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| xviii. | <p>Plantation shall be raised in an area of 491.388ha including a 7.5m wide green belt in the safety zone around the mining lease, over burden dumps, around beneficiation plant, around tailing ponds, roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department.</p> <p>The density of the trees should be around 1500 plants per ha.</p> | <p>Stage-wise plantation programme has been raised as per mining plan. Plantation has been raised inside the mine lease area in 66.17 hectare area by the end of Mar' 2019.</p> <p>We have also carried out plantation outside the mine lease area, 21819 saplings have been planted over 22.6 hectare area by the end of Mar' 2019.</p> |
| xix. | <p>The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.</p> | <p>The ground water recharge measures for augmenting the ground water resources of the area is being implemented as approved by the Central Ground Water Authority. Three nos. recharge structures have been constructed in mine and plant area for perseveration and recharge of ground water.</p> |
| xx. | <p>Regular monitoring of ground water level and quality shall be carried out in and around the project area (mine lease, beneficiation plant and tailing ponds) by establishing a network of existing wells and installing new piezometer during the operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.</p> | <p>Regular monitoring of ground water level and quality is being carried out as stipulated and data thus collected is being sent to all the Authorities.</p> <p>Monitoring of ground water level and quality carried out by MoEF & GOI approved lab on quarterly basis of Piezowell installed near the plant office and mining lease area at 8 locations. Summarized Piezowell water quality reports for the period of Dec' 2018 and Mar' 2019 are enclosed as Annexure-III.</p> |
| xxi. | <p>The groundwater and surface water in and around the mine including tailing ponds shall be regularly monitored at strategic locations for heavy metals. The monitoring stations shall be established in consultation with the Regional Director, Central Ground Water Board and the State Pollution Control Board.</p> | <p>Regular ground and Surface water quality monitoring is being carried out by MoEF & GOI approved lab in and around the mining lease area including tailing pond. Summarized water quality monitoring reports for the period of Dec' 2018 and Mar' 2019 are enclosed as Annexure - IV & V.</p> |
| xxii. | <p>Appropriate mitigative measures shall be taken to prevent pollution of the Kothari River in consultation with the State Pollution Control Board.</p> | <p>There is no discharge of water from the mine. Kothari river is not being polluted due to mining activities.</p> |


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| xxiii. | Water requirement of the project shall be met from the treated sewage only. No water shall be drawn from the Kothari Dam. | Water requirement for the Project is being met from JSAW STP Plant. This STP is treating the sewage of Bhilwara city and the treated water is completely used for Mining, Mineral Beneficiations, Dust suppression and Horticulture /Plantation etc. 12m ³ /day for drinking/domestic use is drawn from ground water as permitted by CGWA. No water is being drawn from Kothari Dam. |
| xxiv. | Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board. | We are in consultation with the Central Ground Water Board in this regard and as per their advice we have started construction of ground water recharge structures. Three structures have already been completed. |
| xxv. | Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operation and in transportation of mineral. The vehicles carrying the mineral shall be covered with a tarpaulin and shall not be overloaded. | The stipulation is being complied with. |
| xxvi. | Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated. | Dry Fog system and continuous water sprinkling arrangement have been installed in crusher unit to control the fine dust in all transfer point. Routine maintenance of water spray nozzle is being carried out by operation and maintenance team. |
| xxvii. | The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from the proposed project. | The Pre-project community health status survey, within a radius of 1.0 km from the proposed project site, had been conducted and submitted to Rajasthan State Pollution Control Board. Pre-project community health status survey report submitted to MoEF& CC Regional Office Lucknow through letter No. JSL/BHL/D-Mines/2017-18/90 dated 03.08.17. |
| xxviii. | Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Health records of the workers shall be maintained. | Occupational health surveillance programme of the workers has been undertaken periodically as required under Mines Rules, 1955. No contraction has been detected. Health records of the workers have been maintained. |
| xxix. | Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. | Pre-placement medical examination of JSAW employees is being carried out as required under Mines Rules, 1955. During 1 st Oct' 2018 to 31 st Mar' 2019 total 1371 workmen and 556 Staff members been examined by Competent Medical Officer. Schedule of Health examination has been drawn and is followed. |

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| xxx. | Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and the wastewater generated during mining operation. | No colony has been constructed as yet. No waste water is being generated during mining and in the Plant. The stipulation is being complied with. |
| xxxi. | The R&R of the project affected people shall be carried out as per the NPRR. The plan shall be prepared within three months in consultation with State Government and a copy submitted. | No person has been displaced from their house or village, therefore, there will be no need for resettlement and rehabilitation as mining will be done at places far away from the habitated areas. |
| xxxii. | Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its Regional Office located at Lucknow. | Digital processing of the entire lease area using remote sensing technique has already been done and submitted with EIA & EMP report. Second digital processing was carried by M/s Armenge Engineering & Management Consultant Pvt. Ltd. Jaipur in 2013. Third digital processing study was carried by Mr. Sanjay Raj Environment Consultant Jaipur in July 2016. Digital Processing report of entire lease area Core Zone and Buffer Zone has been sent to MoEF, Lucknow along with compliance report submitted on 23.11.2016. |
| xxxiii. | Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | Construction work has been completed. Maximum workers were from nearby villages. After end of days work they used to go back to their houses. Therefore, need for temporary structures did not arise. |
| xxiv. | The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e., PM ₁₀) & NO _x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by MoEF&CC, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance. | The Instructions contained in circular No. J-20012/12006-IA.II (M) dated 27.05.09 issued by MoEF&CC have been noted and are being complied with. As per circular fortnightly AAQ monitoring is being carried out by MoEF & GOI approved lab in mine lease area. The fortnightly Ambient Air Quality summarized monitoring reports for the period of 1 st Oct' 2018 to 31 st Mar' 2019 are enclosed as Annexure- II |
| xxxv. | A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval. | The Final Mine Closure Plan shall be submitted as per rules. |

| B. General Condition : | | |
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| i. | No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests. | No change will be made in mining technology and scope of working without prior approval of MoEF&CC. |
| ii. | No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made. | No change will be made in the calendar plan. |
| iii. | Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department. | Conservation measure detail for protection of flora and fauna in the core & buffer zone has been prepared with consultation of local forest department, copy of the same report has been submitted to MoEF& CC Regional Office Lucknow through JSAW letter No. JSL/BHL/D-Mines/2017-18/90 dated 03.08.2017. No endangered species of flora and fauna has been observed in core and buffer zone area. |
| iv. | Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10micron i.e., PM ₁₀) & NO _x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board | Ambient air quality monitoring was carried out by MoEF & GOI approved lab from Oct' 2018 to Mar' 2019 and noticed that the AAQ is within permissible limits. Summarized reports are enclosed as Annexure – I & II . Four ambient air quality monitoring stations in each of Core zone and Buffer zone have been established as per approved plan for monitoring the AAQ. |
| v. | Data on ambient air quality RSPM (Particulate matter with size less than 10micron i.e., PM ₁₀) & NO _x should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six months. | The Reports are enclosed as Annexure – I & II . The reports are submitted to MoEF&CC and its Regional Office located at Lucknow, RSPCB and CPCB on regular basis. |
| vi. | Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained. | The fugitive dust emissions from all the sources are being controlled regularly. Regular water sprays arrangement on haul roads, loading and unloading and transfer points been made and maintained properly. |
| vii. | Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs. | Proper measures are being taken for control of noise in the work environment area. The monitoring reports are enclosed as Annexure-VI . Proper PPE are provided to the workers engaged in the operations. |

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| viii. | Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents. | No industrial waste water has been generated till date. Proper arrangement will be made to collect the waste water whenever it will be generated. |
| ix. | <p>Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.</p> <p>Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.</p> | <p>Proper compliance is being done.</p> <p>Pre-employment Medical Tests examination is under practice. It is being repeated periodically to observe any contractions due to exposure of dust.</p> |
| x. | A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization. | The Cell has been set up under the control of a Senior Executive who reports directly to the President & Unit Head. |
| xi. | The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Lucknow. | Separate Fund has been earmarked for environment protection measures. |
| xii. | The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work. | The date of financial closure of the company is 31 st March of every year. The final approval of the Project as Consent to Operate has been given by RSPCB on 6 th June' 2011. The land development was started from 15.06.2011. |
| xiii. | The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports. | The instruction has been noted. The Regional Office, Lucknow has been provided with all the information asked by them. |
| xiv. | The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by email) to the Ministry of Environment and Forests, its Regional Office Lucknow, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the | The Compliance Report for the period from 01 st Oct' 2018 to 31 st Mar' 2019 is enclosed herewith. Earlier reports have been sent regularly to all authorities. |

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| | status of compliance of the 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 the Ministry of Environment and Forests, Lucknow, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. | |
| xv. | A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent. | The copy of the Clearance letter has been sent to all concerned and it has been put on the website of the Company on 23 rd Sep. 2010. |
| xvi. | The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days. | It has been done by RSPCB. |
| xvii. | The environmental statement for each financial year ending 31 st 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 Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail. | Environmental Statements in Form V for the period of 1 st Apr' 2017 to 31 st Mar 2018 has been sent to the RPCB and MoEF Regional office, Lucknow on 27.09.2018. The soft copy of the same was also sent to MoEF Lucknow through email and uploaded on company website. |
| xviii. | The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the MoEF&CC at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow. | It has been advertised in three Newspapers, namely The Hindu, Rajasthan Patrika and Dainik Bhaskar on 13.08.2010. The copies have been forwarded to the Regional Office, MoEF&CC, Lucknow vide our letter No. 923 dated 24.09.2010. |


Dinesh Chandra Patil
 Agent- Dhedwas Iron Ore Mine

Summarized Quarterly Ambient Air Quality Monitoring Results (Oct 2018 to Mar 2019)
Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara

| Sr. No. | Monitoring Locations | Kanoli Village | | Pur Village | | Gandhisager Village | |
|---------|------------------------------|----------------|------------|-------------|------------|---------------------|------------|
| | Monitoring Period/ Parameter | 19.12.2018 | 15.03.2019 | 19.12.2018 | 15.03.2019 | 19.12.2018 | 14.03.2019 |
| 1 | PM 10 | 62.24 | 72.77 | 81.04 | 79.78 | 79.14 | 73.52 |
| 2 | PM 2.5 | 26.78 | 26.93 | 31.5 | 34.89 | 29.3 | 25.27 |
| 3 | SPM | 168.29 | 210.34 | 215.93 | 228.28 | 225.86 | 249.46 |
| 4 | SO2 | 5.17 | 4.97 | 6.76 | 8.06 | 6.94 | 6.74 |
| 5 | Nox | 12.61 | 15.28 | 16.07 | 14.66 | 13.57 | 15.55 |
| 6 | CO | 140.00 | 160.00 | 310.00 | 290.00 | 280.00 | 380.00 |
| 7 | Ammonia | BDL(<2.0) | BDL(<10.0) | 8.50 | BDL(<10.) | 7.90 | BDL(<10) |
| 8 | Lead | 0.04 | 0.06 | 0.14 | 0.11 | 0.14 | 0.14 |
| 9 | Ozone | BDL(<20) | BDL(<20) | BDL(<20) | BDL(<20) | BDL(<20) | BDL(<20) |
| 10 | Benzene | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) |
| 11 | Benzo-alfa-Pyrene | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) |
| 12 | Arsenic | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) |
| 13 | Nickel | 2.2 | 2.80 | 7.7 | 3.70 | 3.4 | 10.70 |

| Sr. No. | Monitoring Locations | Dariba Village | | Mine Workshop | | Near Benefication Plant | |
|---------|------------------------------|----------------|------------|---------------|------------|-------------------------|------------|
| | Monitoring Period/ Parameter | 18.12.2018 | 16.03.2019 | 18.12.2019 | 12.03.2019 | 21.12.2018 | 13.03.2019 |
| 1 | PM 10 | 70.64 | 76.32 | 77.8 | 80.82 | 85.11 | 84.12 |
| 2 | PM 2.5 | 26.97 | 35.22 | 43.36 | 35.11 | 43.34 | 31.18 |
| 3 | SPM | 207.86 | 231.16 | 218.78 | 276.01 | 232.67 | 228.42 |
| 4 | SO2 | 6.5 | 7.99 | 8.85 | 8.36 | 8.01 | 5.26 |
| 5 | Nox | 13.16 | 17.20 | 15.65 | 15.55 | 16.55 | 14.18 |
| 6 | CO | 230.00 | 350.00 | 310 | 340.00 | 270 | 320.00 |
| 7 | Ammonia | BDL(<2.0) | BDL(<10.0) | 13.50 | 10.70 | 10.80 | BDL(<10) |
| 8 | Lead | 0.28 | 0.10 | 0.19 | 0.25 | 0.17 | 0.22 |
| 9 | Ozone | BDL(<20) | BDL(<20) | BDL(<20) | BDL(<20) | BDL(<20) | BDL(<20) |
| 10 | Benzene | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) | BDL(<1.0) |
| 11 | Benzo-alfa-Pyrene | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) |
| 12 | Arsenic | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) | BDL(<2.0) |
| 13 | Nickel | 2.6 | 3.70 | 4.10 | 8.60 | 4.70 | 5.10 |

Note: Above monitoring result is based upon Environment Monitoring carried out by MoEF and NABL Approved Agency.

* All values in ug/m3

| Summarized Fortnightly Ambient Air Quality Monitoring Results (Oct 2018 to Mar 2019) | | | | | | | | | | | | | |
|--|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------------------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara | | | | | | | | | | | | | |
| Location/ Date of Monitoring | Tiranga Pit (Core Zone) | | | | | | Location/ Date of Monitoring | Samodi Village (Core Zone) | | | | | |
| | PM10 | PM 2.5 | SO ₂ | Nox | CO | SPM | | PM10 | PM 2.5 | SO ₂ | Nox | CO | SPM |
| | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ |
| 13.10.2018 | 73.45 | 31.90 | 8.32 | 14.20 | 360.00 | 258.75 | 11.10.2018 | 69.89 | 28.35 | 7.52 | 12.13 | 350.00 | 267.05 |
| 26.10.2018 | 83.68 | 35.51 | 7.90 | 14.70 | 350.00 | 314.73 | 27.10.2018 | 65.58 | 29.48 | 5.87 | 15.59 | 340.00 | 211.17 |
| 14.11.2018 | 76.02 | 43.24 | 4.88 | 14.44 | 310.00 | 363.28 | 15.11.2018 | 67.27 | 31.90 | 5.85 | 19.60 | 280.00 | 212.92 |
| 23.11.2018 | 71.32 | 36.16 | 5.09 | 13.51 | 350.00 | 226.93 | 23.11.2018 | 72.17 | 39.36 | 4.28 | 18.68 | 340.00 | 300.70 |
| 06.12.2018 | 75.19 | 31.26 | 7.67 | 16.54 | 410.00 | 254.00 | 05.12.2018 | 61.62 | 23.56 | 6.20 | 13.50 | 180.00 | 184.00 |
| 17.12.2018 | 72.56 | 34.35 | 5.35 | 12.63 | 280.00 | 207.82 | 17.12.2018 | 77.53 | 23.04 | 4.78 | 14.57 | 240.00 | 189.06 |
| 04.01.2019 | 74.66 | 29.93 | 5.57 | 14.39 | 290.00 | 226.75 | 06.01.2019 | 81.94 | 39.98 | 6.28 | 16.68 | 250.00 | 230.60 |
| 25.01.2019 | 71.46 | 32.20 | 7.21 | 18.13 | 310.00 | 286.51 | 26.01.2019 | 76.87 | 39.16 | 9.41 | 19.44 | 280.00 | 335.28 |
| 01.02.2019 | 77.23 | 43.09 | 6.06 | 16.59 | 280.00 | 238.42 | 02.02.2019 | 74.93 | 41.21 | 6.45 | 18.18 | 310.00 | 293.95 |
| 27.02.2019 | 75.75 | 43.45 | 3.85 | 11.96 | 290.00 | 262.78 | 26.02.2019 | 79.03 | 39.81 | 5.16 | 17.13 | 250.00 | 227.34 |
| 11.03.2019 | 87.30 | 33.68 | 8.84 | 15.39 | 290.00 | 285.90 | 14.03.2019 | 73.76 | 36.31 | 4.82 | 16.30 | 240.00 | 249.69 |
| 18.03.2019 | 87.57 | 28.09 | 5.80 | 14.53 | 310.00 | 221.84 | 16.03.2019 | 72.63 | 33.65 | 6.18 | 15.26 | 240.00 | 249.09 |
| Min | 71.32 | 28.09 | 3.85 | 11.96 | 280.00 | 207.82 | Min | 61.62 | 23.04 | 4.28 | 12.13 | 180.00 | 184.00 |
| Max | 87.57 | 43.45 | 8.84 | 18.13 | 410.00 | 363.28 | Max | 81.94 | 41.21 | 9.41 | 19.60 | 350.00 | 335.28 |
| Avg | 77.18 | 35.24 | 6.38 | 14.75 | 319.17 | 262.31 | Avg | 72.77 | 33.82 | 6.07 | 16.42 | 275.00 | 245.90 |

| Location/ Date of Monitoring | Suras Pit (Core Zone) | | | | | | Location/ Date of Monitoring | Dhulkhera Pit (Core Zone) | | | | | |
|------------------------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------------------------|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | PM10 | PM 2.5 | SO _x | NO _x | CO | SPM | | PM10 | PM 2.5 | SO _x | NO _x | CO | SPM |
| | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ | ug/m ³ |
| 12.10.2018 | 73.80 | 32.18 | 6.26 | 12.82 | 370.00 | 275.59 | 12.10.2018 | 64.69 | 25.25 | 4.91 | 13.04 | 240.00 | 232.82 |
| 27.10.2018 | 71.45 | 30.25 | 6.23 | 15.19 | 310.00 | 240.71 | 26.10.2018 | 76.26 | 29.00 | 5.84 | 15.25 | 340.00 | 222.07 |
| 15.11.2018 | 83.59 | 28.14 | 5.19 | 12.59 | 250.00 | 248.43 | 14.11.2019 | 79.73 | 29.94 | 5.28 | 14.25 | 490.00 | 277.36 |
| 22.11.2018 | 69.34 | 28.96 | 4.74 | 16.36 | 270.00 | 276.20 | 21.11.2018 | 77.87 | 39.03 | 5.88 | 14.10 | 260.00 | 228.15 |
| 05.12.2018 | 78.85 | 32.65 | 7.44 | 16.40 | 350.00 | 263.00 | 05.12.2018 | 78.40 | 33.25 | 7.47 | 15.28 | 350.00 | 261.00 |
| 17.12.2018 | 75.40 | 28.82 | 5.56 | 15.50 | 250.00 | 132.60 | 21.12.2018 | 87.88 | 35.59 | 9.33 | 17.69 | 270.00 | 302.31 |
| 06.01.2019 | 76.64 | 38.42 | 5.08 | 13.70 | 300.00 | 228.03 | 06.01.2019 | 64.96 | 40.04 | 4.58 | 14.11 | 360.00 | 202.70 |
| 27.01.2019 | 71.21 | 32.50 | 6.89 | 17.16 | 300.00 | 231.76 | 27.01.2019 | 82.11 | 39.87 | 8.09 | 19.36 | 290.00 | 251.59 |
| 03.02.2019 | 84.76 | 34.54 | 5.79 | 15.76 | 330.00 | 310.21 | 03.02.2019 | 78.57 | 39.70 | 5.89 | 16.44 | 320.00 | 330.51 |
| 26.02.2019 | 69.53 | 30.40 | 3.59 | 12.66 | 260.00 | 214.50 | 27.02.2019 | 83.82 | 42.43 | 3.54 | 15.27 | 260.00 | 247.21 |
| 13.03.2019 | 86.54 | 34.32 | 6.76 | 16.70 | 320.00 | 238.19 | 13.03.2019 | 80.23 | 29.12 | 5.69 | 16.20 | 310.00 | 212.46 |
| 18.03.2019 | 81.07 | 32.49 | 5.96 | 16.60 | 280.00 | 207.14 | 17.03.2019 | 81.29 | 28.39 | 6.44 | 15.06 | 320.00 | 228.67 |
| Min | 69.34 | 28.14 | 3.59 | 12.59 | 250.00 | 132.60 | Min | 64.69 | 25.25 | 3.54 | 13.04 | 240.00 | 202.70 |
| Max | 86.54 | 38.42 | 7.44 | 17.16 | 370.00 | 310.21 | Max | 87.88 | 42.43 | 9.33 | 19.36 | 490.00 | 330.51 |
| Avg | 76.85 | 31.97 | 5.79 | 15.12 | 299.17 | 238.86 | Avg | 77.98 | 34.30 | 6.08 | 15.50 | 317.50 | 249.74 |

Note: Above monitoring result is based upon Environment Monitoring carried out by MoEF and NABL Approved Agency.

| Summarized Piezowell Water Quality Monitoring Results (Oct 2018 to Mar 2019) | | | | | | | | | | |
|--|----------------------------------|------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|
| Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara | | | | | | | | | | |
| Sr. No. | Parameters | Units | Piezowell No.1 | | Piezowell No.2 | | Piezowell No.3 | | Piezowell No.4 | |
| | | | 19.12.2018 | 16.03.2019 | 19.12.2018 | 16.03.2019 | 19.12.2018 | 16.03.2019 | 19.12.2018 | 16.03.2019 |
| 1 | Color | Hazen | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 |
| 2 | Odour | | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 5 | pH | | 7.5 | 7.48 | 7.48 | 7.14 | 7.16 | 7.18 | 7.99 | 7.24 |
| 6 | Total Hardness | mg/l | 550 | 570 | 490 | 500 | 250 | 408 | 260 | 309 |
| 7 | Iron | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 8 | Chloride | mg/l | 178 | 184.31 | 198.02 | 318.27 | 152.3 | 131.11 | 169.73 | 233.71 |
| 9 | Total Dissolved Solids | mg/l | 1256 | 1359 | 1609 | 1600 | 877 | 860 | 877 | 1109 |
| 10 | Calcium | mg/l | 124 | 190 | 140 | 148 | 56 | 120 | 68.8 | 88 |
| 11 | Copper | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 12 | Magnesium | mg/l | 58.32 | 29.16 | 34.02 | 31.59 | 24.3 | 26.24 | 21.38 | 21.4 |
| 13 | Manganese | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 14 | Sulphate | mg/l | 187.42 | 225 | 162.5 | 175.62 | 85 | 112.5 | 145 | 146.25 |
| 15 | Nitrate | mg/l | 16.2 | 17.65 | 34.7 | 28.74 | 7.1 | 32.19 | BDL(<1) | 7.47 |
| 16 | Fluoride | mg/l | 0.87 | 1.11 | 0.9 | 0.59 | 0.47 | 0.66 | 0.14 | 0.63 |
| 17 | Cadmium | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 18 | Arsenic | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 19 | Lead | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 20 | Zinc | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 21 | Total Alkalinity | mg/l | 300 | 280 | 380 | 390 | 230 | 356 | 162 | 310 |
| 22 | Aluminium | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 23 | Boron | mg/l | 0.36 | 0.36 | 0.4 | 0.59 | 0.35 | 0.4 | 0.39 | 0.34 |
| 24 | E.Coli, MPN/100 ml | MPN/100 ml | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Total coliform, MPN/100ml | MPN/100 ml | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 26 | Total Chromium | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 27 | Selenium | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 28 | Residual Free chlorine | mg/l | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 29 | Mercury | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 30 | Phenolic Compound | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 31 | Mineral Oil | mg/l | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) |
| 32 | Cyanide | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 33 | Anionic surface detergents | mg/l | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 34 | Polynuclear aromatic hydrocarbon | mg/l | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) |
| 35 | Calcium Hardness | mg/l | 310 | 450 | 350 | 370 | 140 | 300 | 172 | 220 |
| 36 | Pesticides | mg/l | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected |

| Summarized Piezowell Water Quality Monitoring Results (Oct 2018 to Mar 2019) | | | | | | | | | | |
|--|----------------------------------|------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|
| Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara | | | | | | | | | | |
| Sr. No. | Parameters | Units | Piezowell No. 5 | | Piezowell No. 6 | | Piezowell No. 7 | | Piezowell No. 8 | |
| | | | 19.12.2018 | 16.03.2019 | 19.12.2018 | 16.03.2019 | 19.12.2018 | 16.03.2019 | 19.12.2018 | 16.03.2019 |
| 1 | Color | Hazen | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 |
| 2 | Odour | | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 5 | pH | | 7.78 | 7.17 | 7.2 | 7.03 | 7.98 | 7.13 | 7.34 | 7.5 |
| 6 | Total Hardness | mg/l | 470 | 510 | 580 | 570 | 560 | 550 | 250 | 328 |
| 7 | Iron | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 8 | Chloride | mg/l | 282.89 | 216.61 | 330.04 | 327.77 | 205.57 | 172.91 | 145.22 | 114.01 |
| 9 | Total Dissolved Solids | mg/l | 1692 | 1624 | 1593 | 1785 | 1050 | 1039 | 1004 | 979 |
| 10 | Calcium | mg/l | 136 | 116 | 128 | 124 | 156 | 104 | 76 | 105.6 |
| 11 | Copper | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 12 | Magnesium | mg/l | 31.59 | 53.46 | 63.18 | 63.2 | 41.31 | 16.47 | 14.58 | 15.55 |
| 13 | Manganese | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 14 | Sulphate | mg/l | 231.87 | 220 | 267.5 | 247.5 | 142.5 | 146.87 | 80.75 | 96.2 |
| 15 | Nitrate | mg/l | 1.4 | 24.98 | 30.2 | 40.75 | 12.5 | 10.4 | 14.55 | 15.4 |
| 16 | Fluoride | mg/l | 1.15 | 1.21 | 1.13 | 0.83 | 0.97 | 1.36 | 0.84 | 1.29 |
| 17 | Cadmium | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 18 | Arsenic | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 19 | Lead | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 20 | Zinc | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 21 | Total Alkalinity | mg/l | 248 | 260 | 408 | 380 | 208 | 184 | 168 | 230 |
| 22 | Aluminium | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 23 | Boron | mg/l | 0.38 | 0.43 | 0.41 | 0.46 | 0.43 | 0.4 | 0.41 | 0.37 |
| 24 | E.Coli, MPN/100 ml | MPN/100 ml | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Total coliform, MPN/100ml | MPN/100 ml | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 26 | Total Chromium | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 27 | Selenium | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 28 | Residual Free chlorine | mg/l | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 29 | Mercury | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 30 | Phenolic Compound | mg/l | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 31 | Mineral Oil | mg/l | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) |
| 32 | Cyanide | mg/l | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 33 | Anionic surface detergents | mg/l | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 34 | Polynuclear aromatic hydrocarbon | mg/l | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) |
| 35 | Calcium Hardness | mg/l | 340 | 290 | 320 | 310 | 390 | 260 | 190 | 244 |
| 36 | Pesticides | mg/l | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected |

Note: Above monitoring result is based upon Environment Monitoring carried out by MoEF and NABL Approved Agency.

Summarized Piezowell Level (Oct 2018 to Mar 2019)

| Sr. No. | Location Name | Dec-18 | Mar-19 |
|---------|--|--------|--------|
| 1 | Piezowell No. 1 (Nr. Tailing Filter Press) | 19.17 | 21.3 |
| 2 | Piezowell No. 2 (OB Dump Yard Nr. Gate No. 5) | 10.48 | 14.05 |
| 3 | Piezowell No. 3 (Nr. Mines Office - Suras) | 12.11 | 15.32 |
| 4 | Piezowell No. 4 (Nr. OB Dump Yard - Suras Mines) | 22.2 | 20.3 |
| 5 | Piezowell No. 5 (Nr. Mines Office - Dhulkheda - N) | 5.2 | 6.2 |
| 6 | Piezowell No. 6 (Nr. OB Dump Yard - Dhulkheda - N) | 12.5 | 13.15 |
| 7 | Piezowell No. 7 (Nr. Vista Office - Dhulkheda - S) | 10.13 | 11.5 |
| 8 | Piezowell No. 8 (Nr. OB Dump Yard - Dhulkheda - S) | 6.82 | 9.05 |

Summarized Ground Water Quality Monitoring Results (Oct 2018 - Mar 2019)

Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara

| Sampling Location: | | Dhulkhera Village | | Suras Village | | Pur Village | |
|--------------------|---|-------------------|--------------|---------------|--------------|--------------|--------------|
| Sr. No. | Monitoring Period/ Parameters | Dec-18 | Mar-19 | Dec-18 | Mar-19 | Dec-19 | Mar-19 |
| | Date of Monitoring | 20.12.2018 | 14.03.2019 | 20.12.2018 | 15.03.2019 | 20.12.2018 | 14.03.2019 |
| 1 | Color [Hazen] | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 |
| 2 | Odour | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity [NTU] | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 5 | pH | 7.16 | 6.95 | 7.33 | 7.12 | 7.83 | 7.82 |
| 6 | Total Hardness [mg/l] | 540 | 400 | 560 | 510 | 550 | 580 |
| 7 | Iron [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 8 | Chloride [mg/l] | 150.88 | 204.26 | 212.17 | 296.89 | 471.49 | 270.77 |
| 9 | Total Dissolved Solids [mg/l] | 979 | 1169 | 979 | 1007 | 1789 | 1553 |
| 10 | Calcium [mg/l] | 168 | 76.8 | 160 | 120 | 148 | 140 |
| 11 | Copper [mg/l] | BDL(<0.01) | BDL(<0.1) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 12 | Magnesium [mg/l] | 29.16 | 50.54 | 38.88 | 51.03 | 43.74 | 55.8 |
| 13 | Manganese [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 14 | Sulphate [mg/l] | 88.75 | 85.2 | 61.5 | 66.25 | 301.25 | 302.62 |
| 15 | Nitrate [mg/l] | 28.57 | 31.52 | 21.34 | 24.94 | 34.2 | 28.6 |
| 16 | Fluoride [mg/l] | 0.49 | 0.37 | 0.44 | 0.52 | 0.84 | 0.95 |
| 17 | Cadmium [mg/l] | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 18 | Arsenic [mg/l] | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 19 | lead [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 20 | Zinc [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 21 | Total Alkalinity [mg/l] | 300 | 284 | 280 | 252 | 400 | 428 |
| 22 | Aluminium [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 23 | Boron [mg/l] | 0.42 | BDL(<0.02) | 0.41 | BDL(<0.02) | 0.39 | BDL(<0.02) |
| 24 | E Coli, MPN/100 ml | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Total coliform, MPN/100ml | BDL | BDL | BDL | BDL | BDL | BDL |
| 26 | Total Chromium [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 27 | Selenium [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 28 | Residual Free chlorine [mg/l] | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 29 | Mercury [mg/l] | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 30 | Phenolic Compound [mg/l] | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 31 | Mineral Oil [mg/l] | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) |
| 32 | Cyanide [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 33 | Anionic surface detergents [mg/l] | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 34 | Polynuclear aromatic hydrocarbon [mg/l] | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) |
| 35 | Calcium Hardness [mg/l] | 420 | 192 | 400 | 300 | 370 | 350 |
| 36 | Pesticides [mg/l] | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected |

Note: Above monitoring result is based upon Environment Monitoring carriedout by MoEF and NABL Approved Agency.

Summarized Ground Water Quality Monitoring Results (Oct 2018 - Mar 2019)

Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhiwara

| Sampling Location: | | Samodi Village | | Gandhisagar Village | | Kanoli Village | | Dariba Village | |
|--------------------|---|----------------|--------------|---------------------|--------------|----------------|--------------|----------------|--------------|
| Sr. No. | Monitoring Period/ Parameters | Dec-18 | Mar-19 | Dec-18 | Mar-19 | Dec-18 | Mar-19 | Dec-18 | Mar-19 |
| | Date of Sampling | 17.12.2018 | 16.03.2019 | 19.12.2018 | 14.03.2019 | 19.12.2018 | 15.03.2019 | 18.12.2018 | 16.03.2019 |
| 1 | Color (Hazen) | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 | Less than 5 |
| 2 | Odour | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity (NTU) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 5 | pH | 7.61 | 7.39 | 7.59 | 7.38 | 8.04 | 7.85 | 7.41 | 7.26 |
| 6 | Total Hardness [mg/l] | 544 | 372 | 324 | 520 | 244 | 256 | 544 | 416 |
| 7 | Iron [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.1) | BDL(<0.01) | BDL(<0.01) | 0.05 | BDL(<0.01) | BDL(<0.01) |
| 8 | Chloride [mg/l] | 150.88 | 165.31 | 201.8 | 212.81 | 28.29 | 76 | 150.88 | 144.41 |
| 9 | Total Dissolved Solids [mg/l] | 888 | 890 | 1153 | 1207 | 331 | 475 | 967 | 1070 |
| 10 | Calcium [mg/l] | 148.8 | 91.2 | 65.6 | 136 | 57.6 | 62.4 | 166.4 | 112 |
| 11 | Copper [mg/l] | BDL(<0.01) | BDL(<0.1) | BDL(<0.01) | BDL(<0.1) | BDL(<0.01) | BDL(<0.1) | BDL(<0.01) | BDL(<0.1) |
| 12 | Magnesium [mg/l] | 41.8 | 34.99 | 38.88 | 17.5 | 24.3 | 24.3 | 31.1 | 33.05 |
| 13 | Manganese [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 14 | Sulphate [mg/l] | 191.25 | 212.5 | 190 | 212.5 | 25.37 | 28.62 | 202.5 | 215 |
| 15 | Nitrate [mg/l] | 9.12 | 26.89 | 37.5 | 35.15 | 4.73 | 10.3 | BDL(<1) | 2.39 |
| 16 | Fluoride [mg/l] | 0.48 | 0.32 | 0.65 | 0.9 | 0.44 | 0.58 | 0.48 | 0.54 |
| 17 | Cadmium [mg/l] | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 18 | Arsenic [mg/l] | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 19 | lead [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 20 | Zinc [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 21 | Total Alkalinity [mg/l] | 316 | 367 | 250 | 260 | 192 | 220 | 312 | 384 |
| 22 | Aluminium [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 23 | Boron [mg/l] | 0.44 | BDL(<0.2) | 0.41 | BDL(<0.2) | 0.4 | BDL(<0.2) | 0.43 | BDL(<0.2) |
| 24 | E Coli, MPN/100 ml | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 25 | Total coliform, MPN/100ml | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| 26 | Total Chromium [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 27 | Selenium [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 28 | Residual Free chlorine [mg/l] | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 29 | Mercury [mg/l] | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 30 | Phenolic Compound [mg/l] | BDL(<0.001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.001) | BDL(<0.0001) | BDL(<0.001) | BDL(<0.0001) |
| 31 | Mineral Oil [mg/l] | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) |
| 32 | Cyanide [mg/l] | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 33 | Anionic surface detergents [mg/l] | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 34 | Polynuclear aromatic hydrocarbon [mg/l] | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) |
| 35 | Calcium Hardness [mg/l] | 372 | 228 | 164 | 340 | 144 | 156 | 416 | 436 |
| 36 | Pesticides [mg/l] | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected |

Note: Above monitoring result is based upon Environment Monitoring carriedout by MoEF and NABL Approved Agency.

Summarized Surface Water Quality Monitoring Results (Oct 2018 - Mar 2019)

Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara

| Sampling Location: | | Meja Dam | | Samodi Pond | | Kothari River | |
|--------------------|---|--------------|---------------|--------------|--------------|---------------|--------|
| Sr. No. | Monitoring Period/ Parameters | Dec-18 | Mar-19 | Dec-18 | Mar-19 | Dec-18 | Mar-19 |
| | Date of Sampling | 20.12.2018 | 15.03.2019 | 20.12.2018 | 16.03.2019 | 20.12.2018 | |
| 1 | Color (Hazen) | Less than 5 | Less than 5.0 | Less than 5 | Less than 5 | Less than 5 | |
| 2 | Odour | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | |
| 3 | Taste | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | |
| 4 | Turbidity (NTU) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | |
| 5 | pH | 8.02 | 8.1 | 7.44 | 7.12 | 7.89 | |
| 6 | Total Hardness (mg/l) | 110 | 215 | 130 | 208 | 240 | |
| 7 | Iron (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 8 | Chloride (mg/l) | 41.2 | 66.5 | 36.2 | 64.6 | 86.5 | |
| 9 | Total Dissolved Solids (mg/l) | 310 | 369 | 256 | 422 | 487 | |
| 10 | Calcium (mg/l) | 28 | 68.8 | 32 | 59.2 | 76 | |
| 11 | Copper (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<59.2) | BDL(<0.01) | |
| 12 | Magnesium (mg/l) | 9.72 | 10.69 | 12.1 | 14.59 | 12.15 | |
| 13 | Manganese (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 14 | Sulphate (mg/l) | 20.75 | 27.75 | 30.4 | 40.62 | 90 | |
| 15 | Nitrate (mg/l) | 2.97 | 4.53 | 8.5 | 10.12 | 31.93 | |
| 16 | Fluoride (mg/l) | 0.37 | 0.52 | 0.4 | 0.48 | 0.7 | |
| 17 | Cadmium (mg/l) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | |
| 18 | Arsenic (mg/l) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | |
| 19 | lead (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 20 | Zinc (mg/l) | BDL(<0.01) | 0.04 | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 21 | Total Alkalinity (mg/l) | 90 | 72 | 60 | 64 | 130 | |
| 22 | Aluminium (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 23 | Boron (mg/l) | 0.32 | 0.31 | 0.35 | 0.37 | 0.34 | |
| 24 | E Coll, MPN/100 ml | Not Detected | BDL | Not Detected | BDL | Not Detected | |
| 25 | Total coliform, MPN/100ml | Not Detected | BDL | Not Detected | BDL | Not Detected | |
| 26 | Total Chromium (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 27 | Selenium (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 28 | Residual Free chlorine (mg/l) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | |
| 29 | Mercury (mg/l) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | |
| 30 | Phenolic Compound (mg/l) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | |
| 31 | Mineral Oil (mg/l) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | BDL(<0.5) | |
| 32 | Cyanide (mg/l) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | |
| 33 | Anionic surface detergents (mg/l) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | |
| 34 | Polynuclear aromatic hydrocarbon (mg/l) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | BDL(<0.0001) | |
| 35 | Calcium Hardness (mg/l) | 70 | 172 | 80 | 148 | 190 | |
| 36 | Pesticides (mg/l) | Not Detected | Not Detected | Not Detected | Not Detected | Not Detected | |
| 37 | Suspended Solid (mg/l) | 36 | 37 | 38 | 28 | 28 | |

Dry

Note: Above monitoring result is based upon Environment Monitoring carried out by MoEF and NABL Approved Agency.

Summarized BFN Ground Water Quality Monitoring Results (Oct 2018 - Mar 2019)
Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara

| Sampling Location: | | Ground Water BFN | |
|--------------------|---|------------------|--------------|
| Sr. No. | Monitoring Period/ Parameters | Dec-18 | Mar-19 |
| | Date of Monitoring | 19.12.2018 | 16.03.2019 |
| 1 | Color [Hazen] | Less than 5 | Less than 5 |
| 2 | Odour | Agreeable | Agreeable |
| 3 | Taste | Agreeable | Agreeable |
| 4 | Turbidity [NTU] | BDL(<0.1) | BDL(<0.1) |
| 5 | pH | 7.5 | 7.48 |
| 6 | Total Hardness [mg/l] | 550 | 570 |
| 7 | Iron [mg/l] | BDL(<0.01) | BDL(<0.01) |
| 8 | Chloride [mg/l] | 178 | 184.31 |
| 9 | Total Dissolved Solids [mg/l] | 1256 | 1359 |
| 10 | Calcium [mg/l] | 124 | 180 |
| 11 | Copper [mg/l] | BDL(<0.01) | BDL (<0.01) |
| 12 | Magnesium [mg/l] | 58.32 | 29.16 |
| 13 | Manganese [mg/l] | BDL(<0.01) | BDL(<0.01) |
| 14 | Sulphate [mg/l] | 187.42 | 225 |
| 15 | Nitrate [mg/l] | 16.4 | 17.55 |
| 16 | Fluoride [mg/l] | 0.87 | 1.11 |
| 17 | Cadmium [mg/l] | BDL(<0.001) | BDL(<0.001) |
| 18 | Arsenic [mg/l] | BDL(<0.001) | BDL(<0.001) |
| 19 | lead [mg/l] | BDL(<0.001) | BDL(<0.01) |
| 20 | Zinc [mg/l] | BDL(<0.001) | BDL(<0.01) |
| 21 | Total Alkalinity [mg/l] | 300 | 280 |
| 22 | Aluminium [mg/l] | BDL(<0.01) | BDL(<0.01) |
| 23 | Boron [mg/l] | 0.36 | 0.36 |
| 24 | E Coli, MPN/100 ml | BDL | BDL |
| 25 | Total coliform, MPN/100ml | BDL | BDL |
| 26 | Total Chromium [mg/l] | BDL(<0.01) | BDL(<0.01) |
| 27 | Selenium [mg/l] | BDL(<0.1) | BDL(<0.01) |
| 28 | Residual Free chlorine [mg/l] | BDL(<0.1) | BDL(<0.1) |
| 29 | Mercury [mg/l] | BDL(<0.001) | BDL(<0.001) |
| 30 | Phenolic Compound [mg/l] | BDL(<0.001) | BDL(<0.001) |
| 31 | Mineral Oil [mg/l] | BDL(<0.5) | BDL(<0.5) |
| 32 | Cyanide [mg/l] | BDL(<0.01) | BDL(<0.01) |
| 33 | Anionic surface detergents [mg/l] | BDL(<0.1) | BDL(<0.1) |
| 34 | Polynuclear aromatic hydrocarbon [mg/l] | BDL(<0.0001) | BDL(<0.0001) |
| 35 | Calcium Hardness [mg/l] | 310 | 450 |
| 36 | Pesticides [mg/l] | Not Detected | Not Detected |

Note: Above monitoring result is based upon Environment Monitoring carried out by MoEF and NABL Approved Agency.

| Process Water Quality Monitoring Results (Oct 2018 to Mar 2019) | | | | | | |
|--|--|-------|----------------------|-----------------|--------------|-------------|
| Dhedwas Iron Ore Mines & Beneficiation Plant, Jindal Saw Limited, Bhilwara | | | | | | |
| Sr. No. | Parameter/ Date of Monitoring | Units | Tailing filter Press | Recycling Water | Tailing Pond | |
| | | | 19.12.2018 | 16.03.2019 | 19.12.2018 | 16.03.2019 |
| 1 | Color | Hazen | 10 | 10 | 10 | 15 |
| 2 | pH Value | | 7.65 | 7.43 | 7.86 | 7.93 |
| 3 | Total Suspended Solid | mg/L | 11 | 26 | 35 | 43 |
| 4 | Oil & Grees | Mg/L | 3 | 3 | 3 | 4 |
| 5 | Biological Oxygen Demand (3 Days at 27o C) | Mg/L | 2.5 | 2.78 | 4.6 | 5.23 |
| 6 | Chemical Oxygen Demand | Mg/L | 13.4 | 9.89 | 17.28 | 13.5 |
| 7 | Disolve Oxygen | Mg/L | 6.1 | 6.5 | 5.1 | 5.5 |
| 8 | Ammonium Nitrogen as NH4-N | Mg/L | 2.44 | 2.78 | 2.84 | 2.84 |
| 9 | Total Kjeldahal Nitrogen as N | Mg/L | 8.45 | 6.35 | 7.5 | 8.73 |
| 10 | Free Ammonia as NH3 | Mg/L | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 11 | Nitrate Nitrogen as NO3-N | Mg/L | 8.38 | 5.26 | 8.05 | 6.55 |
| 12 | Total Residual chlorine | Mg/L | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 13 | Fluoride | Mg/L | 0.76 | 0.8 | 0.75 | 0.96 |
| 14 | Total Dissolved Solids | Mg/L | 1861 | 1861 | 1885 | 1903 |
| 15 | Total Phosphate as PO4-P | Mg/L | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 16 | Sulphate (as SO4) | Mg/L | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 17 | Phenoilic Compound | Mg/L | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 18 | Arsenic as S | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 19 | Mercury as Hg | Mg/L | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 20 | Lead (as Pb) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 21 | Cadmium (as Cd) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 22 | Copper (as Cu) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 23 | Zinc (as Zn) | Mg/L | BDL(<0.01) | BDL(<0.01) | 0.5 | 0.23 |
| 24 | Selenium as Se | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 25 | Nickel (as Ni) | Mg/L | 0.02 | 0.01 | BDL(<0.01) | BDL(<0.01) |
| 26 | Cyanide (as CN) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 27 | Manganese as Mn | Mg/L | 0.25 | 0.23 | 0.48 | 0.16 |
| 28 | Iron as Fe | Mg/L | 0.03 | 0.02 | 0.03 | 0.02 |
| 29 | Total Chromium as Cr | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |

| Sr. No. | Parameter/ Date of Monitoring | Units | STP Incoming/Reservoir Pond | | Siltation Pond |
|---------|--|-------|-----------------------------|-------------|----------------|
| | | | 19.12.2018 | 16.03.2019 | 19.12.2018 |
| 1 | Color | Hazen | 10 | 10 | 10 |
| 2 | pH Value | | 7.84 | 7.63 | 7.66 |
| 3 | Total Suspended Solid | mg/L | 67 | 38 | 15 |
| 4 | Oil & Grees | Mg/L | 7 | 5 | 3 |
| 5 | Biological Oxygen Demand (3 Days at 27o C) | Mg/L | 8.5 | 9.23 | 6.3 |
| 6 | Chemical Oxygen Demand | Mg/L | 28.3 | 30.4 | 31.4 |
| 7 | Disolve Oxygen | Mg/L | 5 | 5.5 | 6 |
| 8 | Ammonium Nitrogen as NH4-N | Mg/L | 6.35 | 7.41 | 1.55 |
| 9 | Total Kjeldahal Nitrogen as N | Mg/L | 18.7 | 15.25 | 15.2 |
| 10 | Free Ammonia as NH3 | Mg/L | 0.4 | 0.48 | BDL(<0.1) |
| 11 | Nitrate Nitrogen as NO3-N | Mg/L | 6.31 | 7.4 | 2.97 |
| 12 | Total Residual chlorine | Mg/L | BDL(<0.1) | BDL(<0.1) | BDL(<0.1) |
| 13 | Fluoride | Mg/L | 1.4 | 1.33 | 0.32 |
| 14 | Total Dissolved Solids | Mg/L | 1923 | 1874 | 1642 |
| 15 | Total Phosphate as PO4-P | Mg/L | 1.88 | 1.55 | 2.13 |
| 16 | Sulphate (as SO4) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.1) |
| 17 | Phenoilic Compound | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.0001) |
| 18 | Arsenic as S | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 19 | Mercury as Hg | Mg/L | BDL(<0.001) | BDL(<0.001) | BDL(<0.001) |
| 20 | Lead (as Pb) | Mg/L | BDL(<0.01) | BDL(<0.01) | 0.01 |
| 21 | Cadmium (as Cd) | Mg/L | BDL(<0.01) | BDL(<0.01) | 0.003 |
| 22 | Copper (as Cu) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 23 | Zinc (as Zn) | Mg/L | 0.16 | 0.1 | 0.02 |
| 24 | Selenium as Se | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 25 | Nickel (as Ni) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 26 | Cyanide (as CN) | Mg/L | BDL(<0.01) | BDL(<0.01) | BDL(<0.01) |
| 27 | Manganese as Mn | Mg/L | BDL(<0.01) | BDL(<0.01) | 0.14 |
| 28 | Iron as Fe | Mg/L | 0.05 | 0.02 | 0.02 |
| 29 | Total Chromium as Cr | Mg/L | BDL(<0.01) | BDL(<0.01) | 0.01 |

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Note: Above monitoring result is based upon Environment Monitoring carriedout by MoEF and NABL Approved Agency.

| Ambient Noise Level Monitoring Results (Oct 2018 to Mar 2019) | | | | | | | | |
|---|------------------------------|--------------------|--|-------------------------------|-----------------------------|-------------------------------|--|-------------------------------|
| Dhedwas Iron Ore Mines & Beneficiations Plant, Jindal Saw Limited, Bhilwara | | | | | | | | |
| Sr. No. | Location of Sampling/ Month/ | Date of Monitoring | Pur Village | | Samodi Village | | Dariba Village | |
| | | | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) |
| 03 | Dec-18 | | 52.5 | 43.4 | 50.2 | 41.3 | 53.2 | 43.4 |
| 4 | Mar-19 | | 53.5 | 42.4 | 49.6 | 38.5 | 51.4 | 40.5 |
| | Min | | 52.50 | 42.40 | 49.60 | 38.50 | 51.40 | 40.50 |
| | Max | | 53.50 | 43.40 | 50.20 | 41.30 | 53.20 | 43.40 |
| | Avg | | 53.00 | 42.90 | 49.90 | 39.90 | 52.30 | 41.95 |
| Sr. No. | Location of Sampling/ Month/ | Date of Monitoring | Dhulkhera Village | | Suras Village | | Kanoli Village | |
| | | | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) |
| 03 | Dec-18 | | 52.3 | 42.5 | 51.3 | 38.5 | 48.4 | 38.2 |
| 04 | Mar-19 | | 53.4 | 41.2 | 50.3 | 37.6 | 48.6 | 40.3 |
| | Min | | 52.30 | 41.20 | 50.30 | 37.60 | 48.40 | 38.20 |
| | Max | | 53.40 | 42.50 | 51.30 | 38.50 | 48.60 | 40.30 |
| | Avg | | 52.85 | 41.85 | 50.80 | 38.05 | 48.50 | 39.25 |
| Sr. No. | Location of Sampling/ Month/ | Date of Monitoring | Gandhi Sagar Village | | | | | |
| | | | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | | | | |
| 03 | Dec-18 | | 52.5 | 43.7 | | | | |
| 04 | Mar-19 | | 52.6 | 41.2 | | | | |
| | Min | | 52.50 | 41.20 | | | | |
| | Max | | 52.60 | 43.70 | | | | |
| | Avg | | 52.55 | 42.45 | | | | |
| Sr. No. | Location of Sampling/ Month/ | Date of Monitoring | Tiranga Pit | | Suras Pit | | Dhulkhera Pit | |
| | | | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) |
| 03 | Dec-18 | | 71.3 | 62.5 | 70.2 | 59.2 | 67.3 | 55.6 |
| 04 | Mar-19 | | 67.2 | 60.5 | 64.2 | 57.8 | 66.5 | 58.2 |
| | Min | | 67.20 | 60.50 | 64.20 | 57.80 | 66.50 | 55.60 |
| | Max | | 71.30 | 62.50 | 70.20 | 59.20 | 67.30 | 58.20 |
| | Avg | | 69.25 | 61.50 | 67.20 | 58.50 | 66.90 | 56.90 |
| Sr. No. | Location of Sampling/ Month/ | Date of Monitoring | Near Raw material storage yard mine area | | TATA Blue Scop Shed | | Crusher Working area near CCR building | |
| | | | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) |
| 03 | Dec-18 | | 68.5 | 57.3 | 68.3 | 56.7 | 73.4 | 61.2 |
| 04 | Mar-19 | | 67.8 | 61.3 | 65.4 | 58.3 | 63.9 | 55.6 |
| | Min | | 67.80 | 57.30 | 65.40 | 56.70 | 63.90 | 55.60 |
| | Max | | 68.50 | 61.30 | 68.30 | 58.30 | 73.40 | 61.20 |
| | Avg | | 68.15 | 59.30 | 66.85 | 57.50 | 68.65 | 58.40 |
| Sr. No. | Location of Sampling/ Month/ | Date of Monitoring | BFN CCR Building | | Filter press building | | | |
| | | | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | Results in dB(A) (Day Time) | Results in dB(A) (Night Time) | | |
| 03 | Dec-18 | | 69.2 | 60.6 | 70.5 | 58.5 | | |
| 04 | Mar-19 | | 68.7 | 61.2 | | | | |
| | Min | | 68.70 | 60.60 | 70.50 | 58.50 | | |
| | Max | | 69.20 | 61.20 | 70.50 | 58.50 | | |
| | Avg | | 68.95 | 60.90 | 70.50 | 58.50 | | |

Note: Above monitoring result is based upon Environment Monitoring carriedout by MoEF and NABL Approved Agency.