

Ref: JSL/BHL/L-Mines/2019-20/ 94

Date: 11.11.2019

To,

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

Sub: Half Yearly compliance report of environment clearance conditions of Lampiya Iron Ore, Copper and Associated Minerals Mine (MLNo.627/05) located near Vill: Lampiya in Distt. Bhilwara (Raj).

Ref: Environment Clearance letter No. J-11015/460/2008-IA-II (M) dated 31.05.2011

Dear Sir,

With reference to the above subject matter and environment clearance letter dated 31.05.2011, we are submitting herewith Half Yearly point-wise compliance report of conditions of the above environment clearance for the period from 1st Apr' 2019 to 30th Sep' 2019.

As a part of this compliance report we are enclosing summarized environment result which is based upon Environment Monitoring and analysis carried out by MoEF and NABL accredited lab. Original report (184 pages) also uploaded in company website on routine basis and will provide the same if required. The details of summarized monitoring reports enclosed as mentioned below:

1. Summarized Quarterly Ambient Air Quality Monitoring Result - Annexure (I)
2. Summarized Fortnightly Ambient Air Quality Monitoring Result - Annexure (II)
3. Summarized Ground and Surface Water Quality Analysis Result - Annexure (III)
4. Summarized Fugitive Dust Monitoring Result-Annexure (IV)
5. Summarized Ambient Noise Level Monitoring Result-Annexure (V)

This is for your kind information and record.

Thanking you,

Yours faithfully,
For: Jindal Saw Ltd.


Dinesh Patil
Agent - Lampiya 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 EC Conditions
Lampiya Iron Ore, Copper and Associated Minerals Mine (ML No. 627/05)**

(EC granted vide MoEF IA Division letter No.J-11095 /460/2008 IA.II (M) Dated,31.05.2011)

Period of Report: 01st Apr' 2019 to 30th Sep' 2019

	Specific Conditions	Compliance Status
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.	a. The Consent to Establish was granted by RSPCB on 28.06.2012. b. The Consent to Operate the Mine was granted by RSPCB on 24.02.2014 which was valid upto 31.01.2017. CTO renewal granted by RPCB on 21.03.2017 which is valid upto 31.01.2022.
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.	We shall abide by the final outcome of Hon'ble Supreme Court of India as may be applicable to this Project.
iii.	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, as may be applicable to this project.	No mining activity will be conducted in the agricultural land without approval of State Land Use deptt.
iv.	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained.	Necessary prior permission will be obtained before mining is started in grazing land.
v.	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.	Work is confined within Government waste/barren land. As and when required we shall develop fodder plots in non-mineralized area in lieu of use of grazing land.
vi.	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 conservation and protection of the seasonal nallahs passing through the mine lease during the course of mining operation.	No natural water course/ resources are obstructed due to mining. The seasonal nallah lies far away from the mine workings and will not be obstructed.
vii.	The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.	No top soil was generated during the compliance period from 01.04.2019 to 30.09.2019.

viii.	<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. Backfilling shall commence from the 13th years onwards. There shall be four external dumps. Proper terracing of OB dumps shall be carried out so that the overall slope of dumps shall not exceed 28 degree. The over burden dumps 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>The QB generated from the mine is utilized for road making and levelling of other depressed ground within the lease area as required. OB is being stacked only at earmarked places. 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 28 degree and mature dumps will be vegetated.</p> <p>27280 Tonnes OB was generated during the compliance period from 01.04.2019 to 30.09.2019.</p>
ix.	<p>Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, soil, OB and mineral dumps to arrest flow of silt and sediment directly into the agricultural fields and water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should 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 both around the mine pit and the OB dumps to prevent run off of water and flow of sediments directly into the agricultural fields and water bodies and sump capacity should be 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 should be constructed at the corners of the garland drains and desilted at regular intervals.</p>	<p>Garland drains, check dams and settling tanks shall be constructed as stipulated.</p> <p>At present mining is done on smaller scale, Garland drains, settling tank will be constructed and maintained as when required.</p>
x.	<p>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.</p>	<p>As per mining plan external dumps of OB have been created within the mine lease area. Retaining wall has been constructed to check runoff, The retaining wall is made around the dump 1.5 meter height 2.0 meter wide at ground level and 1.5 meter wide at top. It has been constructed with stone.</p>

xi.	<p>Plantation shall be raised in an area of 133.03ha including a 7.5m wide green belt in the safety zone around the mining lease, OB dumps, along the roads etc. by planting the native species in consultation with the local DFO Agriculture Department. The density of the trees should be around 1000 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.</p>	<p>Stage-wise plantation programme has been raised. At present mining operation is on a small scale within limited area. We have started plantation and shall plant trees as per state govt. circular and approved mine plan.</p> <p>Plantation has been raised inside the mine lease in 3.0 hectare area by the end of Sep 2019. Photographs of plantation have been submitted to MoEF Regional Office, Lucknow on 03.08.2017.</p>
xii.	<p>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.</p>	<p>Effective water sprinkling is under practice to suppress the dust at the mine face, haul road and loading and unloading points.</p>
xiii.	<p>Continuous monitoring of the RSPM level near the crusher house shall be carried out and records maintained. If any stage the levels are found to be exceeding the prescribed limits, the necessary mitigation measures shall be implemented.</p>	<p>Monitoring of RSPM is done near the mining face. Crusher has not been installed. It will be implemented after crusher is installed. The AAQ monitoring reports for the period of Apr' 2019 to Sep' 2019 are enclosed in Annexure- I & II</p>
xiv.	<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>Ground water is not being abstracted. The construction of ground water recharge measures for augmenting the ground water resources of the area shall be implemented before ground water is intersected.</p>
xv.	<p>Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometer during the mining 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</p>	<p>Monitoring of ground water quality and level has been carried out of existing wells. The quality is noted to be within permissible limits. The copies of the Reports for the period of Apr' 2019 to Sep' 2019 are enclosed as Annexure-III</p> <p>Since the mining has been done above the ground level, the ground water has not been affected.</p>

	groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.	
xvi.	Prior permission from the Competent Authority shall be obtained for use of groundwater for the project.	Prior permission has been obtained vide letter dated 21.02.2011. Ground water is not being abstracted.
xvii.	It shall be ensured that the adequate quantity of safe drinking water is provided to the villagers in the area where fluoride levels are found to be high.	Defluoridization Plant will be installed to supply drinking water to villagers.
xviii.	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. Construction of the ground water recharge structures will be started as stipulated.
xix.	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.
xx.	The dust generated during mining operation shall be scavenged.	Dust generated during mining is scavenged by water spraying.
xxi.	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Mining has been started on a very small scale without heavy blasting hence no ground vibration is caused and throw of rocks is limited by controlled blasting.
xxii.	Drills shall either be operated with dust extractors or equipped with water injection system.	The jack hammer drills are operated with dust extractors.
xxiii.	Mineral handling area shall be provided with the 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.	Mining is done on a very small scale. Water sprinkling is done in mineral handling area, at loading and unloading points. This system is found to be effective.
xxiv.	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 or workshop has been constructed as yet. No waste water is being generated during mining.
xxv.	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.	Digital processing of the entire lease area using remote sensing technique has been done and submitted with EIA & EMP report. The Mine was opened on 08.04.2014 after receipt of CTO on 24.02.2014.

		<p>Final Digital processing (Land Use /Land Cover study report has been submitted to MoEF&CC on 21.11.2017 along with compliance report.</p>
xxvi.	<p>The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from proposed mine.</p>	<p>The Pre-project community health status within a radius of 1.0 km from the project site has been conducted and submitted to RPCB along with the application for grant of Consent to Operate.</p>
xxvii.	<p>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.</p>	<p>Pre-placement medical examination of workers is being carried out as required under Mines Rules, 1955.</p>
xxviii.	<p>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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.</p>	<p>Construction workers are from nearby villages. After end of days work they go back to their houses. Therefore, need for temporary structures have not arisen.</p>
xxix.	<p>The critical parameters such as RSPM (Particulate matter with size less than 10micron i.e., PM10) and NOx 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 Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.</p>	<p>The Instructions contained in circular No. J-20012/12006-IA.II (M) dated 27.05.09 issued by MoEF&CC has been noted and is being complied with.</p> <p>As per circular fortnightly AAQ monitoring is under practice in mine lease area. The monitoring reports for the period of 1st Apr' 2019 to 30th Sep' 2019 are enclosed as Annexure- II.</p>
xxx.	<p>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.</p>	<p>The Final Mine Closure Plan shall be submitted as per rules.</p>

B. General Condition :		
i.	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	No change has been made in mining technology and scope of working. Opencast mining is done by mechanized mine method for upto 10m high and 15m wide benches.
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 and buffer has been prepared in consultation with the local forest and wildlife department. Copy of the same been sent to MoEF&CC, Regional Office Lucknow on 03.08.2017.
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 size less than 10micron i.e., PM 10) & NOx 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 agency from Apr' 2019 to Sep' 2019 and it has been noticed that the AAQ is within permissible limits. The summarized monitoring 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) & NOx 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 summarized Ambient Air quality monitoring reports for the period of Apr' 2019 to Sep' 2019 are enclosed as Annexure- I & II . The reports are submitted to MoEF&CC and its Regional Office located at Lucknow, RPCB and CPCB.
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 spraying arrangement on haul roads, loading and unloading points has been made and maintained properly. Fugitive emission monitoring reports are enclosed as Annexure-IV .
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- V . Proper PPE is being provided to the workers engaged in the operations.

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 19th May, 1993 and 31st 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>	Pre-employment Medical Tests examination is under practice. It is being repeated periodically to observe any contractions due to exposure of dust.
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 RPCB on 24.02.2014. The land development was started from April' 2014.
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 Officer, 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 Apr' 2019 to 30 th Sep' 2019 is enclosed herewith.

	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 SPCB.	
xv.	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, 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.
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 Regional Office of MOEF, Lucknow by e-mail.	Annual Environment Statement for the period of 1 April' 2018 to 31 st Mar' 2019 has been submitted to RPCB, Bhilwara Jaipur office MoEF Regional Office Lucknow on 19.09.2019. 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 Ministry 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. The copies have been forwarded to the Regional Office, MOEF, Lucknow.

For: Jindal Saw Limited

Dinesh Chandra Patil
Agent- Lampiya Iron Ore Mine

SUMMARIZED QUATERLY AMBIENT AIR QUALITY MONITORING RESULTS (APR 2019 TO SEP 2019)
Lampiya Iron Ore Mines, Jindal Saw Limited, Bhilwara

Sr. No.	Monitoring Location/ Parameters	Devpura Village		Kamalpura Village		Lampiya Village		Jaliya Village	
		04.06.2019	04.09.2019	03.06.2019	02.09.2019	03.06.2019	02.09.2019	03.06.2019	04.09.2019
1	PM 10 [$\mu\text{g}/\text{m}^3$]	69.02	55.91	65.03	47.75	71.70	47.32	69.85	46.03
2	PM 2.5 [$\mu\text{g}/\text{m}^3$]	25.45	15.03	34.32	24.28	32.43	20.25	33.55	26.85
3	SPM [$\mu\text{g}/\text{m}^3$]	187.56	112.42	203.09	132.56	198.95	105.79	222.28	99.52
4	SO ₂ [$\mu\text{g}/\text{m}^3$]	8.77	4.28	5.21	6.05	4.06	6.50	4.41	5.19
5	Nox [$\mu\text{g}/\text{m}^3$]	11.73	7.88	13.41	9.17	15.80	7.66	13.41	8.62
6	CO [$\mu\text{g}/\text{m}^3$]	220.00	130.00	190.00	150.00	180.00	160.00	290.00	170.00
7	Ammonia [$\mu\text{g}/\text{m}^3$]	BDL(<20.0)	BDL(<10.0)	BDL(<20.0)	BDL(<10.0)	BDL(<20.0)	BDL(<10.0)	BDL(<20.0)	BDL(<10.0)
8	Lead [$\mu\text{g}/\text{m}^3$]	BDL(<0.1)	0.11	0.13	0.12	0.15	0.14	0.10	0.13
9	Ozone [$\mu\text{g}/\text{m}^3$]	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<10.0)	BDL(<20.0)	BDL(<20.0)
10	Benzene [$\mu\text{g}/\text{m}^3$]	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
11	Benzo-alfa-Pyrine [ng/m ³]	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)
12	Arsenic [ng/m ³]	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(<2.0)	BDL(2.0)	BDL(2.0)	BDL(2.0)	BDL(2.0)
13	Nickel [ng/m ³]	BDL(<2.0)	1.7	2.3	less than 1	2.6	1.9	BDL(<2.0)	1.5

Sr. No.	Monitoring Location/ Parameters	Chimanpura Village		Baneda Village		Mahuakhurd Village		Mandal Village	
		04.06.2019	04.09.2019	05.06.2019	03.09.2019	04.06.2019	03.09.2019	05.06.2019	04.09.2019
1	PM 10 [$\mu\text{g}/\text{m}^3$]	65.89	53.49	73.45	57.13	74.62	47.88	61.98	49.21
2	PM 2.5 [$\mu\text{g}/\text{m}^3$]	26.42	23.94	36.07	25.70	28.88	24.95	25.33	17.85
3	SPM [$\mu\text{g}/\text{m}^3$]	178.33	115.04	248.99	125.54	202.36	158.41	163.54	101.99
4	SO ₂ [$\mu\text{g}/\text{m}^3$]	6.26	6.64	5.82	5.20	5.69	5.11	5.01	4.89
5	Nox [$\mu\text{g}/\text{m}^3$]	12.41	8.95	11.90	9.37	13.59	9.8	13.71	10.22
6	CO [$\mu\text{g}/\text{m}^3$]	140.00	180.00	310.00	160.00	170.00	130.00	210	150
7	Ammonia [$\mu\text{g}/\text{m}^3$]	BDL(<20.0)	BDL(<10.0)	BDL(<20.0)	BDL(<10.0)	BDL(<20.0)	BDL(<10.0)	BDL(<20.0)	BDL(<10.0)
8	Lead [$\mu\text{g}/\text{m}^3$]	0.11	0.14	BDL(<0.1)	0.1	0.12	0.11	0.16	0.10
9	Ozone [$\mu\text{g}/\text{m}^3$]	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<20.0)	BDL(<10.0)
10	Benzene [$\mu\text{g}/\text{m}^3$]	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)	BDL(<1.0)
11	Benzo-alfa-Pyrine [ng/m ³]	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)
12	Arsenic [ng/m ³]	BDL(<2.0)	BDL(<2.0)	BDL(2.0)	BDL(2.0)	BDL(2.0)	BDL(2.0)	BDL(<2.0)	BDL(<2.0)
13	Nickel [ng/m ³]	2	3	BDL(2.0)	less than 1	BDL(2.0)	1	2.7	2.3

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

Annexure-II

Summarized Fortnightly Ambient Air Quality Monitoring Result Apr 2019 to Sep 2019
Lampiya Iron Ore Mines, Jindal Saw Limited, Bhilwara

Location/ Date of Monitoring	Lampiya Village						Location/ Date of Monitoring	Jaliya Village					
	PM10	PM 2.5	SO2	NOx	CO	SPM		PM10	PM 2.5	SO2	NOx	CO	SPM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
08.04.2019	60.56	26.54	5.95	13.10	250	195.45	09.04.2019	76.12	33.11	5.56	13.61	160	226.03
19.04.2019	74.90	25.26	4.99	13.12	260	281.01	20.04.2019	58.68	33.33	6.04	10.80	210	197.29
01.05.2019	63.61	26.77	5.63	12.70	240	186.97	02.05.2019	67.20	25.31	7.93	12.67	290	228.56
20.05.2019	70.69	35.05	7.74	14.71	320	247.62	21.05.2019	76.82	31.29	4.28	13.78	240	191.65
03.06.2019	71.70	32.43	4.06	15.80	180	198.95	03.06.2019	69.85	33.55	4.41	13.41	290	222.28
28.06.2019	65.69	24.38	5.37	16.08	300	186.78	29.06.2019	71.64	27.98	6.04	17.60	310	175.36
01.07.2019	66.34	27.30	4.44	12.41	260	222.31	02.07.2019	69.66	28.98	5.13	11.38	180	173.73
25.07.2019	59.16	22.48	5.17	24.13	160	139.87	26.07.2019	62.02	27.27	6.22	10.01	150	140.31
03.08.2019	47.97	22.89	4.93	11.22	180	136.48	04.08.2019	48.44	20.70	6.34	12.19	150	131.22
23.08.2019	51.60	25.91	5.02	8.16	130	130.92	23.08.2019	50.76	20.25	6.14	10.30	110	136.43
02.09.2019	47.32	20.25	6.50	7.66	160	105.79	04.09.2019	46.03	26.85	5.19	8.62	170	99.52
28.09.2019	51.24	20.19	5.22	11.70	180	155.00	28.09.2019	54.68	13.44	5.57	10.36	130	168.52
Min	47.32	20.19	4.06	7.66	130.00	105.79	Min	46.03	13.44	4.28	8.62	110.00	99.52
Max	74.90	35.05	7.74	24.13	320.00	281.01	Max	76.82	33.55	7.93	17.60	310.00	228.56
Avg	60.90	25.79	5.42	13.40	218.33	182.26	Avg	62.66	26.84	5.74	12.06	199.17	174.24
Location/ Date of Monitoring	Devpura Village						Location/ Date of Monitoring	Kamalpura Village					
	PM10	PM 2.5	SO2	Nox	CO	SPM		PM10	PM 2.5	SO2	Nox	CO	SPM
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3		ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
09.04.2019	72.74	32.02	8.49	13.04	210	227.19	08.04.2019	77.62	32.98	6.16	14.29	230	211.03
20.04.2019	68.52	31.95	5.09	13.67	180	198.37	19.04.2019	77.77	29.16	4.99	12.92	150	247.50
02.05.2019	63.6	25.99	7.95	11.89	210	244.68	01.05.2019	80.19	26.31	4.35	11.89	250	231.73
21.05.2019	76.77	32.57	4.59	15.12	160	217.50	20.05.2019	65.39	25.26	4.07	16.67	220	194.67
04.06.2019	69.02	25.45	8.77	11.73	220	187.56	03.06.2019	65.03	34.32	5.21	13.41	190	203.09
29.06.2019	63.41	31.54	6.52	17.02	280	172.81	28.06.2019	64.89	26.15	6.37	15.76	310	185.54
02.07.2019	70.00	25.37	5.96	12.20	210	186.56	01.07.2019	60.62	34.53	7.79	13.81	170	231.71
26.07.2019	49.67	24.22	5.74	10.36	160	124.11	25.07.2019	46.87	22.14	5.16	8.11	190	124.78
04.08.2019	52.35	18.95	4.48	12.12	150	127.82	03.08.2019	53.08	22.28	6.66	11.22	130	134.52
23.08.2019	44.59	22.38	5.53	11.13	140	115.16	23.08.2019	50.48	22.98	5.88	7.55	130	128.24
04.09.2019	55.91	15.03	4.28	7.88	130	112.42	02.09.2019	47.75	24.28	6.05	9.17	150	132.56
29.09.2019	41.08	19.61	4.98	12.3	140	142.74	28.09.2019	45.25	21.35	4.36	10.90	150	126.00
Min	41.08	15.03	4.28	7.88	130.00	112.42	Min	45.25	21.35	4.07	7.55	130.00	124.78
Max	76.77	32.57	8.77	17.02	280.00	244.68	Max	80.19	34.53	7.79	16.67	310.00	247.50
Avg	60.64	25.42	6.03	12.37	182.50	171.41	Avg	61.25	26.81	5.59	12.14	189.17	179.28

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

Ground Water Quality Monitoring Results (Apr 2019 to Sep 2019)									
Lampiya Iron Ore Mines, Jindal Saw Limited, Bhillwara									
Sampling Location:		Jaliya Village		Kamalpur Village		Lampiya Village		Devpura Village	
Sr. No.	Monitoring Period/ Parameters	Jun-19	Sep-19	Jun-19	Sep-19	Jun-19	Sep-19	Jun-19	Sep-19
	Date of Monitoring	06.06.2019	04.09.2019	06.06.2019	04.09.2019	06.06.2019	03.09.2019	06.06.2019	04.09.2019
1	Color (Hazen)	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0	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	7.35	7.54	8.03	7.93	7.32	7.7	7.4	7.65
6	Total Hardness (mg/l)	550	540	256	264	430	312	448	444
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)	278.85	289.91	68.49	49.98	195.68	85.97	199.6	187.94
9	Total Dissolved Solids (mg/l)	1657	1604	653	612	1194	814	1107	1077
10	Calcium (mg/l)	164	148	59.2	54.4	124	104	124.8	118.4
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)	34.02	41.31	26.24	31.1	29.16	12.64	33.05	35.96
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)	180	205	48.78	32.12	94.44	71.37	83.33	78.6
15	Nitrate (mg/l)	32.74	39.18	39.31	26.12	17.37	25.96	32.16	19.49
16	Fluoride (mg/l)	0.52	0.62	0.61	0.73	0.42	0.36	0.65	0.6
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	310	216	172	220	248	180	188
22	Aluminium (mg/l)	BDL(<0.01)	BDL(<0.01)	BDL(<0.001)	BDL(<0.001)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
23	Boron (mg/l)	0.38	0.35	0.36	0.41	0.33	0.38	0.34	0.34
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(<0.01)	BDL(<0.001)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)	BDL(<0.01)
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)	410	370	148	136	310	260	312	296
36	Pesticides, mg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Ground Water Quality Monitoring Results (Apr 2019 to Sep 2019)									
Lampiya Iron Ore Mines, Jindal Saw Limited, Bhillwara									
Sampling Location:		Mahua Khurd Village		Banera Village		Chimanpura Village		Mandal Village	
Sr. No.	Monitoring Period/ Parameters	Jun-19	Sep-19	Jun-19	Sep-19	Jun-19	Sep-19	Jun-19	Sep-19
	Date of Sampling	06.06.2019	03.09.2019	06.06.2019	03.09.2019	07.06.2019	05.09.2019	07.06.2019	05.09.2019
1	Color (Hazen)	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0	Less than 5.0
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	7.45	7.56	7.28	7.53	8.06	8.07	7.84
6	Total Hardness (mg/l)	340	328	520	484	304	116	176	204
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)	136.98	147.95	194.94	119.96	199.6	29.99	84.14	65.98
9	Total Dissolved Solids (mg/l)	703	760	925	906	871	221	309	457
10	Calcium (mg/l)	73.6	83.2	128	118.4	100.8	36.8	41.6	68.8
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)	37.91	29.16	48.6	45.68	12.64	5.83	17.5	7.78
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)	2.67	62.5	88.89	83.25	48.33	36.25	32.67	30.56
15	Nitrate (mg/l)	24.9	18.37	17.15	23.06	20.19	9.69	10.23	18.37
16	Fluoride (mg/l)	0.46	0.37	2.35	0.65	0.56	0.21	0.67	0.29
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	280	220	224	224	100	164	172
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)	0.42	0.37	0.43	0.42	0.43	0.41	0.39	0.43
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(<0.01)	BDL(<0.01)	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)	184	208	340	296	252	92	104	172
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.

Annexure-III

Summerized Openwell Water Level (APR 2019 TO SEP 2019)			
Lampiya Iron Ore Mines, Jindal Saw Limited, Bhilwara			
Sr. No.	Location Name	Water Level in Meter (JUN 2019)	Water Level in Meter (SEP 2019)
1	Lampiya Village	25.5	3.22
2	Devpura Village	16.71	3.15
3	Jaliya Village	20.15	2.7
4	Kamalpura Village	10.8	9.67
5	Mahuva Khurd	17.01	3.65
6	Banera Village	19.05	4.13
7	Chimanpura Village	7.25	1.7
8	Mandal Village	27.13	1.1

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

Surface Water Quality Monitoring Results (Apr 2019 to Sep 2019)									
Lampiya Iron Ore Mines, Jindal Saw Limited, Bhilwara									
Sampling Location:		Mandal Pond		Lampiya Pond		Jaliya Canal		Chimanpura Pond	
Sr. No.	Monitoring Period/ Parameters	Jun-19	Sep-19	Jun-19	Sep-19	Jun-19	Sep-19	Jun-19	Sep-19
	Date of Sampling	07.06.2019	05.09.2019	07.06.2019	03.09.2019	07.06.2019	04.09.2019	07.06.2019	04.09.2019
1	Color (Hazen)	Less than 5.0	Less than 5.0		Less than 5.0		Less than 5.0		Less than 5.0
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	7.61	7.81		7.67		7.8		7.79
6	Total Hardness (mg/l)	120	52		40		60		60
7	Iron (mg/l)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)		BDL(<0.01)		BDL(<0.01)
8	Chloride (mg/l)	135.02	17.99		10		21.99		10
9	Total Dissolved Solids (mg/l)	394	110		67		189		102
10	Calcium (mg/l)	28.8	16		12.8		20.8		17.6
11	Copper (mg/l)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)		BDL(<0.01)		BDL(<0.01)
12	Magnesium (mg/l)	11.66	2.92		1.94		1.94		3.89
13	Manganese (mg/l)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)		BDL(<0.01)		BDL(<0.01)
14	Sulphate (mg/l)	31.78	25.59		10.85		14.2		18.96
15	Nitrate (mg/l)	12.96	2.72		2.72		5.26		3.59
16	Fluoride (mg/l)	0.49	0.19		0.22		0.17		0.19
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)	Dry	BDL(<0.001)	Dry	BDL(<0.001)	Dry	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)	BDL(<0.01)		BDL(<0.01)		BDL(<0.01)		BDL(<0.01)
21	Total Alkalinity (mg/l)	144	60		40		96		68
22	Aluminium (mg/l)	BDL(<0.01)	BDL(<0.01)		BDL(<0.01)		BDL(<0.01)		BDL(<0.01)
23	Boron (mg/l)	0.36	0.44		0.39		0.35		0.4
24	E Coli, MPN/100 ml	BDL	BDL		BDL		BDL		BDL
25	Total coliform, MPN/100ml	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)
27	Selenium (mg/l)	BDL(<0.1)	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)	72	40		32		52		44
36	Pesticides, mg/l	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.

Annexure - IV

Fugitive Emission Monitoring Results (Apr 2019 to Sep 2019) Lampiya Iron Ore Mines, Jindal Saw Limited, Bhilwara			
Sr. No.	Period	Locations	
		Haul Road	Ore Storage Material Yard
		SPM (ug/m3)	
1	Jun-19	381.37	329.33
2	Sep-19	235.35	206.28

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

Ambient Noise Level Monitoring Results (Apr 2019 to Sep 2019)
Lampiya Iron Ore Mines, Jindal Saw Limited, Bhilwara

Sr. No.	Location of Sampling/ Month	Date of Monitoring	Haul Road		Date of Monitoring	Ore Storage Yard	
			Results in dB(A) (Day Time)	Results in dB(A) (Night Time)		Results in dB(A) (Day Time)	Results in dB(A) (Night Time)
1	Jun-19	06.06.2019	63.6	55.5	06.06.2019	65.4	58.1
2	Sep-19	05.09.2019	64.5	55.9	05.09.2019	67.1	58.3
	Min		63.6	55.5	Min	65.4	58.1
	Max		64.5	55.9	Max	67.1	58.3
	Avg.		64.1	55.7	Avg.	66.3	58.2

Sr. No.	Location of Sampling/ Month	Date of Monitoring	Lamphiya Village		Date of Monitoring	Kamalpura 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)
1	Jun-19	06.06.2019	52.7	41	03.06.2019	50.4	39.7
2	Sep-19	02.09.2019	53.5	43.6	02.09.2019	51.5	40.5
	Min		52.7	41.0	Min	50.4	39.7
	Max		53.5	43.6	Max	51.5	40.5
	Avg.		53.1	42.3	Avg.	51.0	40.1

Sr. No.	Location of Sampling/ Month	Date of Monitoring	Devpura Village		Date of Monitoring	Jaliya 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)
1	Jun-19	04.06.2019	50.6	42.3	03.06.2019	51.9	43.6
2	Sep-19	04.09.2019	51.3	41.9	04.09.2019	52.4	41.9
	Min		50.6	41.9	Min	51.9	41.9
	Max		51.3	42.3	Max	52.4	43.6
	Avg.		51.0	42.1	Avg.	52.2	42.8

Sr. No.	Location of Sampling/ Month	Date of Monitoring	Baneda Village		Date of Monitoring	Chamanpura 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)
1	Jun-19	05.06.2019	50.3	41.2	04.06.2019	53.1	42.7
2	Sep-19	03.09.2019	51.5	38.7	04.09.2019	50.6	41.3
	Min		50.3	38.7	Min	50.6	41.3
	Max		51.5	41.2	Max	53.1	42.7
	Avg.		50.9	40.0	Avg.	51.9	42.0

Sr. No.	Location of Sampling/ Month	Date of Monitoring	Mandal Village		Date of Monitoring	Mahuakhurd 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)
1	Jun-19	03.06.2019	53.1	40.3	04.06.2019	51.6	41.7
2	Sep-19	04.09.2019	51.2	40.4	03.09.2019	51.7	42
	Min		51.2	40.3	Min	51.6	41.7
	Max		53.1	40.4	Max	51.7	42.0
	Avg.		52.2	40.4	Avg.	51.7	41.9

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