


<b>RAIL WHEEL PLANT/BELA (INDIAN RAILWAYS) GOVT. OF INDIA</b>		<b>OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER, ADMINISTRATIVE BUILDING, VILLAGE-BELA, BLOCK- DARIAPUR, SARAN (CHHAPRA), BIHAR.</b>
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**MONTH WISE ANALYSIS OF GROUND WATER APRIL -2018**

- REF:** (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.  
ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.  
(iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

**(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd. )**

<i>Ground Water sample</i>	UNIT	Limit as per IS10500:2012		<i>April- 2018</i>	
		Limit (Max) (mg/l) Desirable	<i>Permissible limit in the absence of alternative source</i>	<i>Borewell No. 01</i>	<i>Borewell No. 02</i>
1. pH	--	6.5 to 8.5	--	7.62	7.52
2. Colour	Hazen	5	15	Colorless	Colorless
3. Turbidity on NTU	NTU	1	5	<1	<1
4. Total Dissolved Solids (TDS)	mg/l.	500	2000	470	560
5. Total Alkalinity as CaCO <sub>3</sub>	mg/l.	200	600	160	240
6. Total Hardness as CaCO <sub>3</sub>	mg/l.	200	600	220	250
7. Calcium as Ca	mg/l.	75	200	60	64
8. Magnesium as Mg	mg/l.	30	100	17	21.9
9. Sulphate as SO <sub>4</sub>	mg/l.	200	400	22	52
10. Chloride as Cl	mg/l.	250	1000	28	35
11. Nitrate as NO <sub>3</sub>	mg/l.	45	---	5.5	5.8
12. Iron as Fe	mg/l.	0.3	---	0.17	0.18
13. Arsenic as As	mg/l.	0.01	0.05	<0.001	<0.001
14. Fluoride as F	mg/l.	1.0	1.5	0.74	0.72
15. Total Coliform	MPN/100 ml	0	--	0	0

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**MONTH WISE ANALYSIS OF NOISE SAMPLE APRIL-2018**

- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
- (ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
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Monitoring Location	Limit (Max) Leq: dBA	Test result	
		Day time Leq: dBA	Night time Leq: dBA
1. Near Main Gate	<b>Day time- 75 dBA Night time- 70 dBA</b>	<b>53.4</b>	<b>44.4</b>
2. Near ADM Building		<b>52.2</b>	<b>43.6</b>

Monitoring Location	Limit (Max) <b>90 dBA</b> (as per Bihar Factories Rule, 1950)	Test result
		Leq: dBA
3. Near Final Wheel Processing Sec.	1- 105 ¾- 107	<b>81.2</b>
4. Near Furnace	½- 110 ¼- 115	<b>85.8</b>

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**MONTH WISE ANALYSIS OF STACK EMISSION MONITORING APRIL-2018**


- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.
- (ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.
- (iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

**(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd. )**

**STACK EMISSION MONITORING REPORT APRIL-2018**

Stack connected to Normalizing Furnace	Prescribed Standard Limit	Test result April-2018
PM mg / NM <sup>3</sup>	<b>50</b>	<b>45</b>
SO <sub>2</sub> mg / NM <sup>3</sup>	<b>Not specified</b>	<b>&lt; 1 (BDL)</b>
NO <sub>x</sub> mg / NM <sup>3</sup>	<b>Not specified</b>	<b>42</b>
Gas Temp °C	---	<b>324</b>
Velocity m/s	----	<b>12.2</b>

Stack connected to DG SET(1)	Prescribed Standard Limit	Test result April -2018
PM mg / NM <sup>3</sup>	<b>75</b>	<b>73</b>
SO <sub>2</sub> mg / NM <sup>3</sup>	<b>S in fuel&lt;2%</b>	<b>70</b>
NO <sub>x</sub> mg / ppm	<b>710</b>	<b>372</b>
Gas Temp °C	---	<b>218</b>
Velocity m/s	----	<b>20.8</b>
NMHC ,mg/ NM <sup>3</sup>	<b>100</b>	<b>80</b>
CO, mg/ NM <sup>3</sup>	<b>150</b>	<b>210</b>


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**MONTH WISE ANALYSIS OF WASTE WATER FROM CANTEEN (BEFORE TREATMENT), TEST RESULT**  
**APRIL -2018**

- REF:** (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.  
ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.  
(iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

**(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd.,)**

S.N	Parameters	Unit	Test Method	Result	General Discharge Standard Inland Surface Water
1.	pH	-	APHA-4500	6.72	5.5 -9.0
2.	Colour	Hazen Unit	APHA-2120B	8	-
3.	Total suspended solids	Mg/l	APHA-2540D	80	100
4.	Total dissolved solids	Mg/l	APHA-2540B	910	2100
5.	BOD	Mg/l	APHA-5210B	24	30
6.	COD	Mg/l	APHA-5220D	72	250
7.	Oil and grease	Mg/l	APHA4500D	7.5	10
8.	Chloride as Cl	Mg/l	APHA-4500B	138	1000
9.	Sulphate as SO <sub>2</sub>	Mg/l	APHA-4500E	72	1000
10.	Ammonical N as N	Mg/l	APHA-5220D	24	50
11.	Total Kjeldahl Nitrogen as N	Mg/l	APHA-4500B	38	100
12.	Dissolved Phosphate	Mg/l	APHA-4500C	2.5	5.0

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**MONTH WISE ANALYSIS OF POND WATER, TEST RESULT APRIL-2018**

**REF: (i)** Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.

ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.

(iii) BSPCB Emission Consent Order letter No. PT(NOC)-628/09 T-6095, dated 03.08.2016.

**(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd. )**

S.N	Parameters	Unit	Test Method	Result
1.	pH	-	APHA-4500	7.59
2.	Colour	Hazen Unit	APHA-2120B	4
3.	Total suspended solids	Mg/l	APHA-2540D	20
4.	Total dissolved solids	Mg/l	APHA-2540B	440
5.	BOD	Mg/l	APHA-5210B	12
6.	COD	Mg/l	APHA-5220D	52
7.	Oil and grease	Mg/l	APHA4500D	2.8
8.	Chloride as Cl	Mg/l	APHA-4500B	45
9.	Sulphate as SO <sub>2</sub>	Mg/l	APHA-4500E	42
10.	Ammonical N as N	Mg/l	APHA-5220D	4.5
11.	Total Kjeldahl Nitrogen as N	Mg/l	APHA-4500B	16.8
12.	Dissolved Phosphate	Mg/l	APHA-4500C	1.16

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**MONTH WISE MONITORING & ANALYSIS OF AMBIENT AIR QUALITY, APRIL-2018**

- (i) Ministry of Environment and Forest (MoEF)/GOI environmental Clearance no. J-11011/527/2010-IA.II(I) dated 12.01.2012.  
(ii) Bihar State Pollution Control Board (BSPCB) Discharge Consent Order Letter No. pt 2-116/11 t-6094, dated 03.08.2016.  
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**(Sampling & Analysis done by MoEF Recognized Environmental Laboratory, EMTRC Consultants Pvt. Ltd. )**

Month	Parameters	Limit(Max)	Near Main Gate	Near East Side Boundary Wall (Store Yard)	Near Main Store 2	Near ADM Building	Near Main Gate	Near East Side Boundary Wall (Store Yard)	Near Main Store 2	Near ADM Building
<b>24 Hrs. Average Conc<sup>n</sup> in µg/m<sup>3</sup></b>										
<b>APRIL 2018</b>	<b>01<sup>st</sup> Monitoring</b>					<b>02<sup>nd</sup> Monitoring</b>				
	PM <sub>10</sub>	100 µg/m <sup>3</sup> (24 hours average)	89	90	84	79	84	85	87	<b>76</b>
	PM <sub>2.5</sub>	60 µg/m <sup>3</sup> (24 hours average)	45	47	42	38	43	44	45	<b>37</b>
	SO <sub>2</sub>	80 µg/m <sup>3</sup> (24 hours average)	8.2	8.8	7.2	6.8	7.5	8.5	7.8	<b>6.5</b>
	NO <sub>2</sub>	80 µg/m <sup>3</sup> (24 hours average)	16.8	17.8	15.8	15.5	15.2	16.8	16.5	<b>14.8</b>