


RAIL WHEEL PLANT/BELA (INDIAN RAILWAYS) GOVT. OF INDIA		OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER, ADMINISTRATIVE BUILDING, VILLAGE-BELA, BLOCK- DARIAPUR, SARAN (CHHAPRA), BIHAR.
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MONTH WISE ANALYSIS OF GROUND WATER MARCH -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>February-2018</i>	
		Limit (Max) (mg/l) Desirable	<i>Permissible limit in the absence of alternative source</i>	<i>Borewell No. 03</i>	<i>Borewell No. 04</i>
1. pH	--	6.5 to 8.5	--	7.56	7.49
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	480	490
5. Total Alkalinity as CaCO ₃	mg/l.	200	600	210	220
6. Total Hardness as CaCO ₃	mg/l.	200	600	240	240
7. Calcium as Ca	mg/l.	75	200	72	72
8. Magnesium as Mg	mg/l.	30	100	14.6	14.6
9. Sulphate as SO ₄	mg/l.	200	400	25	28
10. Chloride as Cl	mg/l.	250	1000	32	35
11. Nitrate as NO ₃	mg/l.	45	---	5.2	5.6
12. Iron as Fe	mg/l.	0.3	---	0.18	0.16
13. Arsenic as As	mg/l.	0.01	0.05	<0.001	<0.001
14. Fluoride as F	mg/l.	1.0	1.5	0.78	0.78
15. Total Coliform	MPN/100 ml	0	--	0	0

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MONTH WISE ANALYSIS OF NOISE SAMPLE MARCH-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	Day time- 75 dBA Night time- 70 dBA	53.8	44.8
2. Near ADM Building		51.8	43.0

Monitoring Location	Limit (Max) 90 dBA (as per Bihar Factories Rule, 1950)	Daytime dB	Night time dB
3. Near Final Wheel Processing Sec.	1- 105 ¾- 107	73.6	66.8
4. Near Furnace	½- 110 ¼- 115	91.8	86.2

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MONTH WISE ANALYSIS OF STACK EMISSION MONITORING MARCH-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 MARCH-2018

Stack connected to Bag House attached with Electric Arc Furnace	Prescribed Standard Limit	Test result march-2018
PM mg / NM ³	50	46
SO ₂ mg / NM ³	Not specified	< 1 (BDL)
NO _x mg / NM ³	Not specified	52
Gas Temp °C	---	55
Velocity m/s	----	11.8

Stack connected to Draw Furnace	Prescribed Standard Limit	Test result March-2018
PM mg / NM ³	50	28
SO ₂ mg / NM ³	Not specified	< 1 (BDL)
NO _x mg / NM ³	Not specified	22
Gas Temp °C	---	44
Velocity m/s	----	7.2

Stack connected to Normalizing Furnace	Prescribed Standard Limit	Test result march-2018
PM mg / NM ³	50	42
SO ₂ mg / NM ³	Not specified	< 1 (BDL)
NO _x mg / NM ³	Not specified	38
Gas Temp °C	---	319
Velocity m/s	----	11.8

Stack connected to DG SET(1)	Prescribed Standard Limit	Test result march-2018
PM mg / NM ³	75	72
SO ₂ mg / NM ³	S in fuel<2%	74
NO _x mg / ppm	710	380
Gas Temp °C	---	202
Velocity m/s	----	21.4
NMHC ,mg/ NM ³	100	82
CO, mg/ NM ³	150	206


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**MONTH WISE ANALYSIS OF WASTE WATER FROM CANTEEN (BEFORE TREATMENT), TEST RESULT
MARCH-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	6.78	5.5 -9.0
2.	Colour	Hazen Unit	APHA-2120B		-
3.	Total suspended solids	Mg/l	APHA-2540D	74	100
4.	Total dissolved solids	Mg/l	APHA-2540B	830	2100
5.	BOD	Mg/l	APHA-5210B	20	30
6.	COD	Mg/l	APHA-5220D	65	250
7.	Oil and grease	Mg/l	APHA4500D	6.8	10
8.	Chloride as Cl	Mg/l	APHA-4500B	130	1000
9.	Sulphate as SO ₂	Mg/l	APHA-4500E	68	1000
10.	Ammonical N as N	Mg/l	APHA-5220D	20	50
11.	Total Kjeldahl Nitrogen as N	Mg/l	APHA-4500B	35	100
12.	Dissolved Phosphate	Mg/l	APHA-4500C	2.2	5.0

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MONTH WISE ANALYSIS OF POND WATER, TEST RESULT MARCH-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	7.65
2.	Colour	Hazen Unit	APHA-2120B	5
3.	Total suspended solids	Mg/l	APHA-2540D	22
4.	Total dissolved solids	Mg/l	APHA-2540B	460
5.	BOD	Mg/l	APHA-5210B	14
6.	COD	Mg/l	APHA-5220D	56
7.	Oil and grease	Mg/l	APHA4500D	3.2
8.	Chloride as Cl	Mg/l	APHA-4500B	50
9.	Sulphate as SO ₂	Mg/l	APHA-4500E	45
10.	Ammonical N as N	Mg/l	APHA-5220D	4.8
11.	Total Kjeldahl Nitrogen as N	Mg/l	APHA-4500B	17.2
12.	Dissolved Phosphate	Mg/l	APHA-4500C	1.22

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MONTH WISE MONITORING & ANALYSIS OF AMBIENT AIR QUALITY, MARCH-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
24 Hrs. Average Concⁿ. in µg/m³										
MARCH20 18	01st Monitoring					02nd Monitoring				
	PM ₁₀	100 µg/m ³ (24 hours average)	84	85	79	74	86	84	85	78
	PM _{2.5}	60 µg/m ³ (24 hours average)	43	46	40	36	45	43	44	35
	SO ₂	80 µg/m ³ (24 hours average)	7.2	7.5	6.8	6.2	7.8	7.5	7.5	6.8
	NO ₂	80 µg/m ³ (24 hours average)	15.2	16.8	16.5	14.8	16.4	15.6	17.2	15.2

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(INDIAN RAILWAYS)
GOVT. OF INDIA**



**OFFICE OF THE
CHIEF ADMINISTRATIVE OFFICER,
ADMINISTRATIVE BUILDING,
VILLAGE-BELA, BLOCK- DARIAPUR,
SARAN (CHHAPRA), BIHAR.**

MONTH WISE ANALYSIS OF FUGITIVE EMISSION, TEST RESULT MARCH-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	Prescribe standard as per factories Act	Result	Location
1	Suspended particulate matter	$\mu\text{g}/\text{m}^3$	2000	380	Near Electric Arc furnace
2	Suspended particulate matter	$\mu\text{g}/\text{m}^3$	2000	220	Near JMP office