



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by :- National Accreditation Board for Testing Laboratory (NABL) & Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- An ISO 9001:2015 & BS OHSAS 18001 : 2007

Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Water Test Report		URL (Unique Lab Report) No.	TC7813213000031P
Date of Issue	02 nd April, 2021	Report ID	YBAEEL-210324 -123714 - WW01
Sample Description	Waste Water	Job code / Ref. no.	YBAEEL/WA/LIC/Mar.-21/17
Type of Industries	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issued to :-	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		
Sampling date	26/03/2021	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	210326 - WW - W01
Sampling Location	Final Effluent	Sampling Source	Effluent Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C. - Clear	RH - 46 %	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	7.68	5.5-9.0
2.	Temperature*	IS 3025 (P-09):1984	°C	27.2	40
3.	Total suspended solids	IS 3025 (P-17):2012	mg/l	78.0	100
4.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	630.0	2100
5.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	116.6	1000
6.	BOD	IS 3025 (P-44):2009	mg/l	12.8	30
7.	COD	IS 3025 (P-58):2006	mg/l	124.0	250
8.	Oil & Grease	IS 3025 (P-39):2003	mg/l	6.0	10
9.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	14.9	1000
10.	Nitrogen (Nitrate)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	6.76	-
11.	Phenols*	IS 3025 (P-43):1992	mg/l	0.74	1.0

*****End of Test*****

Remarks :- Samples Comply with the prescribed Specification as per IS:2490:1974

Note : The parameters marked with * are not accredited by NABL.

Specific contractual notes :-

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- ◆ The liability of the laboratory is limited to the invoiced amount.
- ◆ All disputes are subjected to the Ranchi Jurisdiction.
- ◆ ND - not detected, DL - detectable limit

Tested by	Checked by	Issued by
Prem Kumar	Brij Nandan Kumar	Umesh Das
Lab Analyst	In-Charge Pollution & Environment	Authorized Signatory Pollution & Environment Technical Manager

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Branch Office :- Jamshedpur | Dhanbad | Environmental Engineering Laboratory

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ANALYTICAL TEST REPORT

Water Test Report		URL (Unique Lab Report) No.	TC7813211000076P
Date of Issue	02 nd April, 2021	Report ID	YBAEEL-210324-123714-GW04
Sample Description	Ground Water	Job code / Ref. no.	YBAEEL/WA/L/C/Mar.-21/15
Type of Industries	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issued to: -	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		
Sampling date	26/03/2021	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	210326 - GW - W04
Sampling Location	Bayang Village	Sampling Source	Ground Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Metereological cond.	W.C. - Clear	RH - 46%	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	6.56	6.5-8.5
2.	Temperature	IS 3025 (P-09):1984	°C	29.4	--
3.	Colour	IS 3025 (P-04):1983	Hazen	<5	15, max
4.	Odour	IS 3025 (P-05)	--	Agree.	Agreeable
5.	Turbidity	IS 3025 (P-10):2002	NTU	1.0	5, max
6.	Alkalinity (as CaCO ₃)	IS 3025 (P-23):2003	mg/l	140.0	600, max
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009	mg/l	238.0	600, max
8.	Chlorine Residual	IS 3025 (P-26):2003	mg/l	ND (DL 0.07)	--
9.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	448.0	2000, max
10.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	63.6	1000, max
11.	Fluoride (as F ⁻)	APHA 4500 F-C 23 rd edition 2017	mg/l	0.4	1.5, max
12.	Nitrate (as NO ₃ ⁻)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	42.2	45, max
13.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.003)	--
14.	Calcium (as CaCO ₃)	IS 3025 (P-40): 2003	mg/l	210.0	--
15.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	1.5, max
16.	Iron (as Fe)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.1)	0.3, max
17.	Magnesium (as CaCO ₃)	IS 3025 (P-46):2003	mg/l	28.0	--
18.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.1)	15, max
19.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	68.6	400, max

*****End of Test*****

Remarks :-Samples Comply with the prescribed Specification as per IS:10500:2012.

Note : The parameters marked with * are not accredited by NABL.

Specific contractual notes: -

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- All disputes are subjected to the Ranchi Jurisdiction.
- ND - not detected, DL - detectable limit

Tested by	Checked by	Issued by
Prem Kumar	Mukesh Kumar	Umesh Das
Lab Analyst	Authorized Signatory	Authorized Signatory
	Chemical Section	Technical Manager

Yugantar Bharati Analytical & Environmental Engineering Laboratory

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ANALYTICAL TEST REPORT

Water Test Report		URL (Unique Lab Report) No.	TC78132110000075P
Date of Issue	02 nd April, 2021	Report ID	YBAEEL-210324 -123714 -GW03
Sample Description	Ground Water	Job code / Ref. no.	YBAEEL/WA/LC/Mar.-21/15
Type of Industries	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issued to : -	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		

Sampling date	26/03/2021	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	210326 - GW - W03
Sampling Location	Bariatu Village	Sampling Source	Ground Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C. - Clear	RH - 46%	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	6.74	6.5-8.5
2.	Temperature	IS 3025 (P-09):1984	°C	28.6	--
3.	Colour	IS 3025 (P-04):1983	Hazen	<5	15, max
4.	Odour	IS 3025 (P-05)	--	Agree.	Agreeable
5.	Turbidity	IS 3025 (P-10):2002	NTU	2.0	5, max
6.	Alkalinity (as CaCO ₃)	IS 3025 (P-23):2003	mg/l	174.0	600, max
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009	mg/l	430.0	600, max
8.	Chlorine Residual	IS 3025 (P-26):2003	mg/l	ND (DL 0.07)	--
9.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	722.0	2000, max
10.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	173.5	1000, max
11.	Fluoride (as F ⁻)	APHA 4500 F-C 23 rd edition 2017	mg/l	0.5	1.5, max
12.	Nitrate (as NO ₃ ⁻)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	22.5	45, max
13.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.003)	--
14.	Calcium (as CaCO ₃)	IS 3025 (P-40): 2003	mg/l	380.0	--
15.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	1.5, max
16.	Iron (as Fe)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.1)	0.3, max
17.	Magnesium (as CaCO ₃)	IS 3025 (P-46):2003	mg/l	50.0	--
18.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.1)	15, max
19.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	86.40	400, max

*****End of Test*****

Remarks :-Samples Comply with the prescribed Specification as per IS:10500:2012.

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Tested by	Checked by	Issued by
Prem Kumar	Mukesh Kumar	Umesh Das
Lab Analyst	Authorized Signatory	Authorized Signatory
	Chemical Section	Technical Manager

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ANALYTICAL TEST REPORT

Water Test Report		URL (Unique Lab Report) No.	TC78132110000073P
Date of Issue	02 nd April, 2021	Report ID	YBAEEL-210324 -123714 -GW01
Sample Description	Ground Water	Job code / Ref. no.	YBAEEL/WA/LC/Mar.-21/15
Type of Industries	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issued to :-	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		

Sampling date	26/03/2021	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	210326 - GW - W01
Sampling Location	Bamhi Village	Sampling Source	Ground Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C. - Clear	RH - 46%	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	6.72	6.5-8.5
2.	Temperature	IS 3025 (P-09):1984	°C	29.2	-
3.	Colour	IS 3025 (P-04):1983	Hazen	<5	15, max
4.	Odour	IS 3025 (P-05)	-	Agree.	Agreeable
5.	Turbidity	IS 3025 (P-10):2002	NTU	1.0	5, max
6.	Alkalinity (as CaCO ₃)	IS 3025 (P-23):2003	mg/l	140.0	600, max
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009	mg/l	134.0	600, max
8.	Chlorine Residual	IS 3025 (P-26):2003	mg/l	ND (DL 0.07)	-
9.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	210.0	2000, max
10.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	5.78	1000, max
11.	Fluoride (as F ⁻)	APHA 4500 F-C 23 rd edition 2017	mg/l	0.8	1.5, max
12.	Nitrate (as NO ₃ ⁻)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	1.03	45, max
13.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.003)	-
14.	Calcium (as CaCO ₃)	IS 3025 (P-40): 2003	mg/l	120.0	-
15.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	1.5, max
16.	Iron (as Fe)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.1)	0.3, max
17.	Magnesium (as CaCO ₃)	IS 3025 (P-46):2003	mg/l	14.0	-
18.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.1)	15, max
19.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	10.4	400, max

*****End of Test*****

Remarks :- Samples Comply with the prescribed Specification as per IS: 10500:2012.

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Tested by	Checked by	Issued by
Prem Kumar	Mukesh Kumar	Umesh Das
Lab Analyst	Authorized Signatory	Technical Manager
	Authorized Signatory	Chemical Section

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ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	TC78132120000297P	
Report Release Date	02 nd April, 2021	Report ID	YBAEEL- 210324 - 123714 - A01	
Sample Description	Ambient Air Quality (Core Zone)	Job code/ Ref. no.	YBAEEL/WA/LIA/Mar. - 21/52	
Type of Industry	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order	
Issue to	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.			
Sampling Period	26/03/2021 - 27/03/2021	Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)			
Sampling Locations	A. Switch Yard	B. Guard Room	C. B Gate	D. Main Gate
Meteorological Cond.	W.C. - Clear	RH % - 46 %	Temp. - 30°C	W.D. - North-South
Sample receipt Date	28/03/2021	Analysis Started on	28/03/2021	Analysis completed on 01/04/2021

Test Results

Parameters	Test Method	Units	Sampling Location				NAAQS (2009)
			Site A	Site B	Site C	Site D	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006	µg/m ³	74.8	82.3	69.7	78.0	100
Particulate matter (PM _{2.5})	USEPA -40 CFR (PART 50) (50.7)	µg/m ³	38.9	47.4	34.3	40.2	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2) 2001 RA 2012	µg/m ³	24.8	18.9	21.3	22.4	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2012	µg/m ³	33.8	30.0	28.2	34.8	80
Carbon Monoxide (CO)	IS:5182 (P-10) 1999 RA 2003	mg/m ³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	04

End of Report

Remarks	Samples Comply with the prescribed specification as per NAAQS 2009.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
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Tested by Amit Kumar Sinha Lab Analyst	Verified by Brij Nandan Kumar Section In-Charge	Authorized Signatory Issued by Atmospheric Pollution Umesh Das Technical Manager



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ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	TC78132120000298P	
Report Release Date	02 nd April, 2021	Report ID	YBAEEL- 210324 - 123714 - A02	
Sample Description	Ambient Air Quality (Buffer Zone)	Job code/ Ref. no.	YBAEEL/WA/LA/Mar. - 21/53	
Type of Industry	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order	
Issue to	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.			
Sampling Period	27/03/2021 - 28/03/2021	Mode of sample collection	By YBAEEL Team	
Sampling Protocol	IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13)			
Sampling Locations	A. Bariatu Village	B. Senegarha Village	C. Urba Village	D. Tonagatu Village
Meteorological Cond.	W.C.- Clear	RH % - 48%	Temp. - 29°C	W.D.- North-South
Sample receipt Date	28/03/2021	Analysis Started on	28/03/2021	Analysis completed on 01/04/2021

Test Results

Parameters	Test Method	Units	Sampling Location				NAAQS (2009)
			Site A	Site B	Site C	Site D	
Particulate matter (PM ₁₀)	IS:5182 (P-23) 2006	µg/m ³	77.0	84.9	73.3	79.8	100
Particulate matter (PM _{2.5})	USEPA -40 CFR (PART 50) (50.7)	µg/m ³	51.6	48.1	50.4	46.7	60
Sulphure Dioxide (SO ₂)	IS:5182 (P-2) 2001 RA 2012	µg/m ³	16.5	14.2	17.7	15.3	80
Nitrogen Dioxide (NO ₂)	IS:5182 (P-6) 2006 RA 2012	µg/m ³	27.4	25.4	29.1	33.8	80
Carbon Monoxide (CO)*	IS:5182 (P-10) 1999 RA 2003	mg/m ³	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	BDL (MDL 1.8)	04

End of Report

Remarks	Samples Comply with the prescribed specification as per NAAQS 2009.
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit.
Note	The parameters marked with * are not accredited by NABL.
Specific contractual notes	All values are expressed in as unit.
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	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise
	The liability of the laboratory is limited to the invoiced amount
	All disputes are subjected to the Ranchi Jurisdiction

Tested by Amit Kumar Sinha	Verified by Brij Nandan Kumar	Authorized Signatory Umesh Das
Lab Analyst Jamshedpur	Section In-Charge Dhanbad	Quality Manager Jamshedpur



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ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	
Report Release Date	02 nd April, 2021	Report ID	YBAEEL-210324-123714 - S1
Sample Description	Stationary Source Emission	Job code/ Ref. no.	YBAEEL/WA/LJA/Mar. - 21/52
Type of Industry	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issue to	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		
Sampling Period	27 th March, 2021	Mode of sample collection	Sampling team of YBAEEL
Sampling Protocol	IS: 11255 & CPCB Guideline (Lats/80/2013-14)		
Meteorological Cond.	W.C.- Clear	RH % - 42%	Temp.- 31°C
Sample receipt Date	28/03/2021	Analysis Started on	28/03/2021
		Analysis completed on	01/04/2021

General information

As observed while sampling		As reported by customer	
Location	Sampling port hole	Type of fuel Used	Coal
Platform	Permanent	Quantity of Fuel Used	1400 - 1500 MT/Day.
Stack Description (Shape & Material)	Circular / RCC	Total production Capacity	63 MW
Sampling port	Available	Height of Stack from ground level	96 mtr.
Stack Identification	Stack - 01	Inner Diameter of Stack	3.3 mtr.
Height of port hole from Ground level	40 mtr.	Pollution Controlling Device	ESP (for PM)

Test Results

Sl	Parameter s	Test Method	Units	Results	Limits
1.	Stack gas Temperature	IS 11255 (Part 3)2008	k	398.0	-
2.	Stack gas Velocity	IS 11255 (Part 3)2008	m/s	13.4	-
3.	Volumetric Flow Rate	IS 11255 (Part 3)2008	Nm ³ /hr	298293.5	-
3.	Particulate Matter (PM) (at 6% O ₂)	IS 11255 (Part 1)2009	mg/Nm ³	42.6	50
4.	Sulphure Dioxide (SO ₂) (at 6% O ₂)	IS 11255 (Part 2)2009	mg/Nm ³	142.8	600
5.	Oxide of Nitrogen (as NO _x) (at 6% O ₂)	IS 11255 (Part 7)2005 RA 2012	mg/Nm ³	72.4	450
6.	Carbon Monoxide (as CO)	IS 13270 : 1992 RA 2009	%	<0.2 %	-
7.	Mercury* (as Hg)	Lats/80/2013-14	mg/Nm ³	<0.003 ppm	0.03

Emission Rate

1.	Particulate Matter (PM)	IS 11255 (Part 1)2009	Kg/hr	12.7	-
2.	Sulphure Dioxide (SO ₂)	IS 11255 (Part 2)2009	Kg/hr	42.6	-
3.	Oxide of Nitrogen (as NO _x)	IS 11255 (Part 7)2005 RA 2012	Kg/hr	21.6	-

End of Report

Remarks	Samples Comply with the prescribed specification as per Thermal Power Plant.		
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,		
Note	The parameters marked with * are not accredited by NABL.		
Specific contractual notes	All values are expressed in as unit.		
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	The samples collected shall be destroyed after 15 days from the date of issue of the certificate unless specified otherwise		
	The liability of the laboratory is limited to the invoiced amount		
All disputes are subjected to the Ranchi Jurisdiction			
Tested by	Verified by	Issued by	
Amit Kumar Sinha	Brij Nandan Kumar	Umesh Das	
Lab Analyst	Section in-charge	Authorized Signatory Technical Manager	

Yugantar Bharati Analytical &
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Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Atmospheric Pollution Test Report		URL (Unique Lab Report) No.	TC78132120000299F
Report Release Date	02 nd April, 2021	Report ID	YBAEEL-210324 -123714 -N01
Sample Description	Ambient Noise	Job code/ Ref. no.	YBAEELWAL/A/Mar. - 21/52
Type of Industry	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issue to	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		
Sampling Period	26/03/2021 - 27/03/2021	Mode of sample collection	By YBAEEL Team
Sampling Protocol	IS 9876:1981 (RA 2007) & CPCB Method S.O.50 (E) dated 11/01/2010		
Metereological Cond.	Temp.- 30°C	RH % - 46%	W.C.- Clear
Sample receipt Date	28/03/2021	Analysis Started on	28/03/2021
		Analysis completed on	01/04/2021

Test Results

Sl.NO.	Locations	Parameters	Units	Day Time	Night Time	Limits
1.	Near Main Gate	Leq	dB (A)	67.8	59.64	Day Time -75 Night Time-70
2.	Near Weight Bridge	Leq	dB (A)	69.2	63.0	
3.	Near Cooling Tower	Leq	dB (A)	74.5	67.5	
4.	Near T G Building	Leq	dB (A)	71.3	63.8	
5.	Near Hostel	Leq	dB (A)	56.1	51.2	

End of Report

- Day time shall mean from 6.00 a.m. to 10.00 p.m.
- Night time shall mean from 10.00 p.m. to 6.00 a.m.
- Silence zone is an area comprising not less than 100 meters around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.
- Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale(A) which is relatable to human hearing.

Remarks	Samples Comply with the prescribed specification as per the noise pollution (Regulation & Control) Rules, 2000
Abbreviation	MDL : Minimum detection limit, BDL : Below detection limit,
Note	The parameters marked with * are not accredited by NABL.
Specific contractual notes	All values are expressed in as unit.
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	All disputes are subjected to the Ranchi Jurisdiction

Tested by Amit Kumar Sinha Lab Analyst	Verified by Brij Nandan Kumar Section In-Charge	Issued by Umesh Das Authorized Signatory Atmospheric Pollution Technical Manager
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Certificate No. - TC 7813

ANALYTICAL TEST REPORT

Water Test Report		URL (Unique Lab Report) No.	TC78132110000072P
Date of Issue	02 nd April, 2021	Report ID	YBAEEL-210324 -123714 - DW02
Sample Description	Drinking Water	Job code / Ref. no.	YBAEEL/WA/LC/Mar.-21/16
Type of Industries	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issued to : -	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		
Sampling date	26/03/2021	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	210326 - DW - W02
Sampling Location	Near Stack	Sampling Source	Drinking Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C. - Clear	RH - 46%	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	6.74	6.5-8.5
2.	Temperature	IS 3025 (P-09)	°C	28.4	-
3.	Colour	IS 3025 (P-04):1983	Hazen	<5	15, max
4.	Odour	IS 3025 (P-05):	-	Agree.	Agreeable
5.	Turbidity	IS 3025 (P-10):2002	NTU	1.0	5, max
6.	Alkalinity (as CaCO ₃)	IS 3025 (P-23):2003	mg/l	186.0	600, max
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009	mg/l	280.0	600, max
8.	Conductivity	IS 3025 (P-14):2013	µs/cm	658.0	-
9.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	398.0	2000, max
10.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	27.0	1000, max
11.	Ammonia (free)*	IS 3025 (P-34):2003	mg/l	ND (DL 0.05)	--
12.	Fluoride (as F ⁻)	APHA 4500 F-C 23 rd edition 2017	mg/l	0.34	1.5, max
13.	Nitrate (as NO ₃ ⁻)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	4.0	45, max
14.	Aluminium (as Al) [*]	IS 3025 (P-55)	mg/l	ND (DL 0.001)	0.03-0.2
15.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.003)	-
16.	Calcium (as CaCO ₃)	IS 3025 (P-40): 2003	mg/l	225.0	-
17.	Chromium (as Cr)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.02)	-
18.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	1.5, max

Tested by	Checked by	Issued by
Prem Kumar	Mukesh Kumar	Umesh Das
Lab Analyst	Authorized Signatory	Authorized Signatory
	Chemical Section	Technical Manager

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ANALYTICAL TEST REPORT

Water Test Report		URL(Unique Lab Report) No.	TC78132110000072P
Date of Issue	02 nd April, 2021	Report ID	YBAEEL-210324 -123714 - DW02
Sample Description	Drinking Water	Job code / Ref. no.	YBAEEL/WA/LC/Mar.-21/16
Type of Industries	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issued to :-	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		

Sampling date	26/03/2021	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	210326 - DW - W02
Sampling Location	Near Stack	Sampling Source	Drinking Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C. - Clear	RH - 46%	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

19.	Iron (as Fe)	APHA 3111 B 23 rd edition 2017	mg/l	0.13	0.3, max
20.	Lead (as Pb)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.05)	0.01, max
21.	Magnesium (as CaCO ₃)	IS 3025 (P-46):2003	mg/l	54.7	-
22.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	0.20	15, max
23.	Cadmium (as Cd)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	0.003, max
24.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	82.4	400, max

*****End of Test*****

Remarks :- Samples Comply with the prescribed Specification as per IS:10500:2012.

Note : The parameters marked with * are not accredited by NABL.

Specific contractual notes: -

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- ◆ The liability of the laboratory is limited to the invoiced amount.
- ◆ All disputes are subjected to the Ranchi Jurisdiction.
- ◆ ND - not detected, DL - detectable limit

Tested by	Checked by	Issued by
Prem Kumar	Mukesh Kumar	Umesh Das
Lab Analyst	Authorized Signatory	Technical Manager
	Authorized Signatory	
	Chemical Section	
	Yugantar Bharati Analytical & Environmental Engineering Laboratory	

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ANALYTICAL TEST REPORT

Water Test Report		URL (Unique Lab Report) No.	TC7813211000071P
Date of Issue	02 nd April, 2021	Report ID	YBAEEL-210324 -123714 - DW01
Sample Description	Drinking Water	Job code / Ref. no.	YBAEEL/WA/L/C/Mar.-21/16
Type of Industries	Thermal Power Plant	Work Order No./ Date	Via - Telephonic Order
Issued to: -	M/s Inland Power Limited Tonagatu, Gola, Dist. - Ramgarh, Jharkhand.		
Sampling date	26/03/2021	Mode of sample Collection	By YBAEEL Team
Sampling Protocol	IS : 3025 (Part-1) 1987, R-2003	Sample Code	210326 - DW - W01
Sampling Location	Canteen	Sampling Source	Drinking Water
Sample pkg. Condition	Sealed Pack in PP Bottle	Sample Quantity	3000 ml
Meteorological cond.	W.C. - Clear	RH - 46%	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

Sl	Parameter	Test Method	Units	Results	Limits
1.	pH value	IS 3025 (P-11):2002	pH	6.72	6.5-8.5
2.	Temperature	IS 3025 (P-09)	°C	28.6	--
3.	Colour	IS 3025 (P-04):1983	Hazen	<5	15, max
4.	Odour	IS 3025 (P-05):	-	Agree.	Agreeable
5.	Turbidity	IS 3025 (P-10):2002	NTU	1.0	5, max
6.	Alkalinity (as CaCO ₃)	IS 3025 (P-23):2003	mg/l	58.0	600, max
7.	Total Hardness (as CaCO ₃)	IS 3025 (P-21):2009	mg/l	66.0	600, max
8.	Conductivity	IS 3025 (P-14):2013	µs/cm	160.0	--
9.	Total dissolved solids	IS 3025 (P-16):2006	mg/l	102.0	2000, max
10.	Chloride (as Cl ⁻)	IS 3025 (P-32):2003	mg/l	3.85	1000, max
11.	Ammonia (free)*	IS 3025 (P-34):2003	mg/l	ND (DL 0.05)	--
12.	Fluoride (as F ⁻)	APHA 4500 F-C 23 rd edition 2017	mg/l	0.32	1.5, max
13.	Nitrate (as NO ₃ ⁻)	APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017	mg/l	3.8	45, max
14.	Aluminium (as Al)*	IS 3025 (P-55)	mg/l	ND (DL 0.001)	0.03-0.2
15.	Arsenic (as As)	APHA 3114 B 23 rd edition 2017	mg/l	ND (DL 0.003)	--
16.	Calcium (as CaCO ₃)	IS 3025 (P-40): 2003	mg/l	55.0	--
17.	Chromium (as Cr)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.02)	--
18.	Copper (as Cu)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	1.5, max

Tested by	Checked by	Issued by
Prem Kumar	Mukesh Kumar	Umesh Das
Lab Analyst	Authorized Signatory	Technical Manager
	Authorized Signatory	Chemical Section

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Sampling Location	Canteen	Sampling Source	Drinking Water
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Meteorological cond.	W.C. - Clear	RH - 46%	Temp. - 30°C
Work allotted date	26/03/2021	Test started on	26/03/2021
		Test completed on	31/03/2021

Test Result

19.	Iron (as Fe)	APHA 3111 B 23 rd edition 2017	mg/l	0.22	0.3, max
20.	Lead (as Pb)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.05)	0.01, max
21.	Magnesium (as CaCO ₃)	IS 3025 (P-46):2003	mg/l	11.0	-
22.	Zinc (as Zn)	APHA 3111 B 23 rd edition 2017	mg/l	0.18	15, max
23.	Cadmium (as Cd)	APHA 3111 B 23 rd edition 2017	mg/l	ND (DL 0.01)	0.003, max
24.	Sulphate (as SO ₄ ²⁻)	IS 3025 (P-24):2003	mg/l	5.2	400, max

*****End of Test*****

Remarks :-Samples Comply with the prescribed Specification as per IS:10500:2012.

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- ND - not detected, DL - detectable limit

Tested by Prem Kumar Lab Analyst	Checked by Mukesh Kumar Authorized Signatory	Issued by Umesh Das Technical Manager
	Authorized Signatory	Authorized Signatory
	Chemical Section	
	Yugantar Bharati Analytical & Environmental Engineering Laboratory	

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