



Annex (1)

# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

LAB ACCREDITED BY National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

STACK MONITORING TEST REPORT			
Report Release Date	5 <sup>th</sup> April, 2018	Ref.No.	YBAEEL/WA/LIA/March-18/12
Report ID	YBAEEL/RAM/18-03-29/Stack/01	Sample Description	Stack Emission
Sampling Date	29.03.2018	Type of Industry	Power Generation
Name of Industry	M/s Inland Power Limited Tonaghata, Gola, Ramgarh, Jharkhand	Sampling Location	Port hole
		Pollution Control System	ESP + Bag Filter
		Ladder	Permanent
		Platform	Permanent
		Weather Condition	Clear
Customer Ref.	Mr S.N. Sinha	Sample drawn by	Mr. Mukesh Singh & Team

General Information			
Stack No. if any	-		One
Height of Stack from ground	in meter		95
Inner Dimension of Stack	in meter		3
Height of porthole from ground	in meter		48

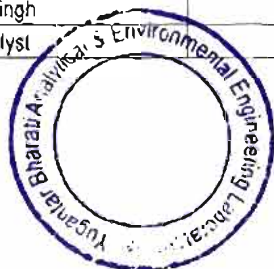
Fuel Characteristic Report & Oven Description			
Type of Fuel	-		Coal + Dola Char + Washry Reject
Fuel Consumption	-		1400 - 1500 MT/ Day
Production Capacity	-		63 MW

Result of Analysis			
Atmospheric temperature	in °C		32
Stack gas temperature	in °C		143
Stack gas velocity	in m/s		9.23
Volumetric flow rate	in Nm <sup>3</sup> /hr		168309.24
Concentration of Particulate Matter	in mg/Nm <sup>3</sup>		31.44
Concentration of Sulphur dioxide	in mg/Nm <sup>3</sup>		19.47
Concentration of Oxides of Nitrogen	in mg/Nm <sup>3</sup>		22.38
Concentration of CO	in mg/Nm <sup>3</sup>		32
Concentration of Hg	in mg/Nm <sup>3</sup>		0.004

Emission Rate			
Dust	kg/hr		5.29
Sulphure dioxide	kg/hr		3.27
Oxides of nitrogen	kg/hr		3.76

\*\*\*\*\* END of REPORT \*\*\*\*\*

Remarks	All values are observed well within the limit		
Note	The results listed refer only to the tested sample and applicable parameter		
	This report, in full or in part, shall not be used for advertising or as evidence in any court of law		
	This report cannot be reproduced, except when in full, without the written permission of the Lab In-charge		
	The samples collected shall be destroyed after 45 days from the date of issue of the certificate unless specified otherwise		
	Tested by	Verified by	Issued by
	Pramod Singh	Brijnandan Kumar	Umesh Singh
	Field Analyst	Section Incharge	Technical Manager



Yugantar Bharati Analytical & Environmental Engineering Laboratory



# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Jharkhand State Pollution Control Board (JSPCB)

(T 2992, T-2918)  
(B-1874)

## STACK MONITORING TEST REPORT

Report Release Date	22-Jan-18	Protocol	IS 11255	Part III	Part I
Report ID	YBAEEL/RAM/17-12-28/Stack/01	Sample Description			Stack Emission
Sampling Date	28th December, 2017	Type of Industry			Electricity Power Plant
Name of Industry		Sampling Location			Port hole
M/s - Inland Power Limited		Pollution Control System			ESP + Bag filter
Tonagatu, Gola		Ladder			Parmanent
Dist.-Ramgarh, Jharkhand		Platform			Parmanent
		Weather Condition			Clear
Customer Ref.	Mr. S. N. Sinha	Sample drawn by	Own/ Neeraj Kumar & team		

### General Information

Stack No. if any		One
Height of Stack from ground	in metre	95
Inner dimation of stack	in metre	3
Height of porthole from ground	in metre	48

### Fuel Characteristic Report

Type of Fuel	Coal + Dola Char + Washry reject
Fuel Consuption	1400 - 1500 MT/Day
Production Capacity	63 MW

### Result of Analysis

Atmospheric temperature	in °K	302
Stack gas temperature	in °K	416
Stack gas velocity	in m/s	9.88
Volumetric flow rate	in Nm <sup>3</sup> /hr	180180.11
Concentration of Particulate Matter	in mg/Nm <sup>3</sup>	27.63
Concentration of Sulphur dioxide	in mg/Nm <sup>3</sup>	26.89
Concentration of Oxides of Nitrogen	in mg/Nm <sup>3</sup>	8.39
Concentration of CO	in mg/Nm <sup>3</sup>	19
Concentration of Mercury	in mg/Nm <sup>3</sup>	0.003

### Emission Rate

Particulate Matter	kg/hr	4.98
Sulphure dioxide	kg/hr	4.85
Oxides of nitrogen	kg/hr	1.51

\*\*\*\*\* END of REPORT \*\*\*\*\*

Remarks All values are observed well within the limit

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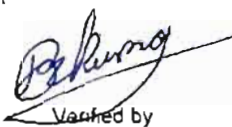
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All disputes are subjected to the Ranchi Jurisdiction

  
Tested by  
Pramod Singh  
Lab Analyst



  
Verified by  
Brij Nandan Kumar  
Section In-charge

  
Issued by  
Umesh Das  
Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



An ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory

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Jharkhand State Pollution Control Board (JSPCB)

(T 2982, T-2918)  
(B-1874)

## STACK MONITORING TEST REPORT

Report Release Date	1st November 2017	Protocol	IS 11255	Part III	Part I
Report ID	YBAEEL/RAM/17-10-25/Stack/01	Sample Description			Stack Emission
Sampling Date	25th October, 2017	Type of Industry			Electricity Power Plant
Name of Industry		Sampling Location		Port hole	
M/s - Inland Power Limited Tonagatu, Gola Dist.-Ramgarh, Jharkhand		Pollution Control System		ESP + Bag filter	
		Ladder		Parmanent	
		Platform		Parmanent	
		Weather Condition		Clear	
Customer Ref.	Mr. S. N. Sinha	Sample drawn by		Own/ Mukesh Singh & team	
<b>General Information</b>					
Stack No. if any				One	
Height of Stack from ground		in metre			95
Inner dimation of stack		in metre			3
Height of porthole from ground		in metre			48

<b>Fuel Characteristic Report</b>	
Type of Fuel	Coal + Dola Char + Washry reject
Fuel Consuption	1400 - 1500 MT/Day
Production Capacity	63 MW

<b>Result of Analysis</b>		
Atmospheric temperature	in ° K	305
Stack gas temperature	in ° K	471
Stack gas velocity	in m/s	7.37
Volumetric flow rate	in Nm <sup>3</sup> /hr	118782.82
Concentration of Particulate Matter	in mg/Nm <sup>3</sup>	31.10
Concentration of Sulphur dioxide	in mg/Nm <sup>3</sup>	22.86
Concentration of Oxides of Nitrogen	in mg/Nm <sup>3</sup>	8.17

<b>Emission Rate</b>		
Particulate Matter	kg/hr	3.69
Sulphure dioxide	kg/hr	2.72
Oxides of nitrogen	kg/hr	0.97

\*\*\*\*\* END of REPORT \*\*\*\*\*

**Remarks** All values are observed well within the limit

**Note** The results listed refer only to the tested sample and applicable parameter.

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Tested by  
Mukesh Singh  
Field Analyst



Verified by  
Brijnandan Kumar  
Section Incharge

Issued by  
Brijnandan Kumar  
Technical Manager



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(F 2982, T-2918)  
(B-1874)

## STACK MONITORING TEST REPORT

Report Release Date	11th July 2017	Protocol	IS 11255	Part III	Part I
Report ID	YBAEEL/RAM/17-6-29/Stack/01	Sample Description			Stack Emission
Sampling Date	29th June, 2017	Type of Industry			Electricity Power Plant
Name of Industry		Sampling Location			Port hole
M/s - Inland Power Limited Tonagatu, Gola Dist.-Ramgarh, Jharkhand		Pollution Control System			ESP + Bag filter
		Ladder			Parmanent
		Platform			Parmanent
		Weather Condition			Clear
Customer Ref.	Mr. S. N. Sinha	Sample drawn by	Own/ Mukesh Singh & team		
General Information					
	Stack No. if any		One		
	Height of Stack from ground	in metre	95		
	Inner dimation of stack	in metre	3		
	Height of porthole from ground	in metre	48		

### Fuel Characteristic Report

Type of Fuel	Coal + Dola Char + Washry reject
Fuel Consumption	1400 - 1500 MT/Day
Production Capacity	63 MW

### Result of Analysis

Atmospheric temperature	in °K	311
Stack gas temperature	in °K	482
Stack gas velocity	in m/s	7.09
Volumetric flow rate	in Nm <sup>3</sup> /hr	111593.46
Concentration of Particulate Matter	in mg/Nm <sup>3</sup>	48.93
Concentration of Sulphur dioxide	in mg/Nm <sup>3</sup>	42.57
Concentration of Oxides of Nitrogen	in mg/Nm <sup>3</sup>	18.79

### Emission Rate

Particulate Matter	kg/hr	5.46
Sulphure dioxide	kg/hr	4.75
Oxides of nitrogen	kg/hr	2.10

\*\*\*\*\* END of REPORT \*\*\*\*\*

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Tested by  
Mukesh Singh  
Field Analyst



Verified by  
Bajrang Kumar  
Lab Analyst

Issued by  
Technical Manager  
Yugantar Analytical & Environmental Engineering Laboratory





# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Amx - (iv)

LAB ACCREDITED BY

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
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## Ambient Noise Quality Test Report

Report Release Date	5 <sup>th</sup> April, 2018	Ref. No.	YBAEEL/WA/L/A/March-18/12
Report ID	YBAEEL/RAM/18-03-29/Noise/01	Sample Description	Ambient Noise
Name of Industry	M/s Inland Power Limited Tonaghata, Gola, Ramgarh, Jharkhand	Type of Industry	Power Generation
		Sampling Duration	24 Hrs.
		Sample Collected by	Mr. Mukesh Singh & team
		Protocol	IS : 15575.1.2005
		Customer Rep.	Mr. S.N. Sinha

Location	Date & Time	Leq in dB (Day)	Leq in dB (Night)	(Norms) CPCB
Main Gate	29.03.18 - 30.03.18	66.3	60.1	Industrial Area Day - 75 dB Night - 70 dB
	10:20 am - 10:20 am			
Weigh Bridge	29.03.18 - 30.03.18	68.6	60.7	
	10:30 am - 10:30 am			
Cooling Tower	29.03.18 - 30.03.18	72.3	65.9	
	10:45 am - 10:45 am			
T.G. Building	29.03.18 - 30.03.18	73.2	68.9	
	11:00 am - 11:00 am			
Hostel	29.03.18 - 30.03.18	58.6	53.0	
	11:15 am - 11:15 am			

Remarks :- All values are observed well within the limit

Note :- The results listed refer only to the tested sample and applicable parameter.

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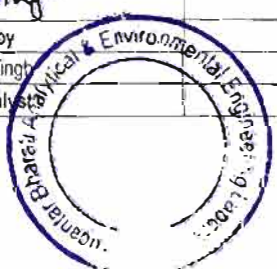
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<i>Mukesh Singh</i>	<i>Brij Nandan Kumar</i>	<i>Umesh</i> 5/4/18
Tested by Mukesh Singh Field Analyst	Verified by Brij Nandan Kumar Section In-Charge	Issued by Umesh Technical Manager



Technical Manager  
Yugantar Bharati Analytical & Environmental Engineering Laboratory



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(T 2982, T-2918)  
(B-1874)

## Ambient Noise Quality Test Report

Report Release Date	22-Jan-18	Protocol	IS : 15575.1.2005
Report ID	YBAEEL/RAM/17-12-27/Noise/01	Sample Description	Ambient Noise level
Name of Industry		Type of Industry	Electricity Power Plant
M/s Inland Power Ltd. Tonagatu, Gola, Dist.- Ramgarh Jharkhand		Sampling Duration	24 Hrs.
		Sample Collected by	Mr. Neeraj Kumar & team
		Sampling Date	27.12.2017 - 28.12.2017
		Customer Rep.	Mr. S.N. Sinha

Location	Station No.	Leq in dB (Day)	Leq in dB (Night)	Norms (CPCB)
Main Gate 27.12.17 - 28.12.17	N 1	66.4	60.5	
Weigh Bridge 27.12.17 - 28.12.17	N 2	68.3	60.7	
Cooling Tower 27.12.17 - 28.12.17	N 3	72.1	62.7	Day - 75dB Night -70dB
T.G. Building 27.12.17 - 28.12.17	N 4	73.0	68.5	
Hostel 27.12.17 - 28.12.17	N 5	59	53.8	

**Ren** All values are observed well within the limit

**Not** Day Time - From 6:00 Am to 10:00Pm, Night Time - From 10:00 PM to 6:00 Am

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*Neeraj Kumar*

Tested by  
Neeraj Kumar  
Field Analyst

*Brij Nandan Kumar*

Verified by  
Brij Nandan Kumar  
Lab Analyst

*Umesh Das*  
22/1/18

Issued by  
Umesh Das

Technical Manager  
Yugantar Bharati Analytical  
Environmental Engineering Laboratory



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(T 2982, T-2918)  
(S-1874)

## Ambient Noise Quality Test Report

Report Release Date	31st October 2017	Protocol	IS : 15575.1.2005
Report ID	YBAEEL/RAM/17-10-23/Noise/01	Sample Description	Ambient Noise
Name of Industry		Type of Industry	Electricity Power Plant
M/S Inland Power Limited		Sampling Duration	24 Hrs.
At- Tonagatu, Gola		Sample Collected by	Mr. Mukesh Singh & team
Dist.- Dhanbad, State- Jharkhand		Sampling Date	23.10.2017 - 24.10.2017
		Customer Rep.	Mr. S.N. Sinha

Location	Station No.	Leq in dB (Day)	Leq in dB (Night)	Norms (CPCB)
Main Gate	N 1	69.2	62.5	Day - 75 dB, Night -70 dB
Weigh Bridge	N 2	69.5	61.5	
Cooling Tower	N 3	67.7	63.2	
T.G. Building	N 4	66.8	62.1	
Hostel	N 5	59.7	54.7	

### Remarks

All values are observed well within the limit

### Note

Day Time - From 5:00 Am to 10:00Pm, Night Time - From 10:00 PM to 6:00 Am

The results listed refer only to the tested sample and applicable parameter.

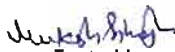
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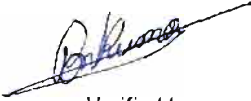
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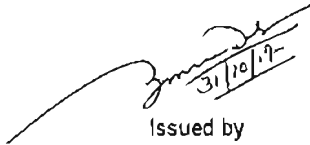
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Field Analyst

  
Verified by  
Brijnandan Kumar  
Section Incharge

  
Issued by  
Umesh Das  
Technical Manager  
Yugantar Bharati Analytical  
Environmental Engineering Labo







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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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(T 2982, T-2918)  
(B-1874)

## Ambient Noise Quality Test Report

Report Release Date	11th July 2017	Protocol	IS : 15575.1.2005
Report ID	YBAEEL/RAM/17-06-28/Noise/01	Sample Description	Ambient Noise level
Name of Industry	M/S Inland Power Limited At- Tonagatu, Gola Dist.- Ramgarh, State- Jharkhand	Type of Industry	Electricity Power Plant
		Sampling Duration	24 Hrs.
		Sample Collected by	Mr. Mukesh Singh & team
		Sampling Date	28.06.2017 - 29.06.2017
		Customer Rep.	Mr. S.N. Sinha

Location	Station No.	Leq in dB (Day)	Leq in dB (Night)	Norms (CPCB)
28.06.17 Main Gate	N 1	67.8	51.4	
28.06.17 Weigh Bridge	N 2	68.1	58.3	
28.06.17 Cooling Tower	N 3	74.2	68.5	Day - 75 dB, Night - 70 dB
28.06.17 T.G.Building	N 4	72.7	69.3	
28.06.17 Hostel	N 5	61.4	53.0	

### Remarks

All values are observed well within the limit

### Note

Day Time - From 6:00 Am to 10:00Pm, Night Time - From 10:00 PM to 6:00 Am

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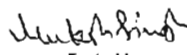
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Lab Analyst

  
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Umesh Das  
Technical Manager  
Technical Manager  
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# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Assx - (iii)

LAB ACCREDITED BY: National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
 Jharkhand State Pollution Control Board (JSPCB)

## Ambient Air Quality Report (Buffer Zone)

Report Release Date	5 <sup>th</sup> April, 2018	Ref. No.	YBAEEL/WA/LIA/March-18/13				
Report ID	YBAEEL/RAM/18-03-29/AAQ/01	Sample Description	Ambient Air Quality				
Sampling Date	29 <sup>th</sup> - 30 <sup>th</sup> March, 2018	Type of Industry	Power Generation				
Sampling Time	29 <sup>th</sup> March, 12:20 PM to 30 <sup>th</sup> March 1:20 PM	Site A	Serenghatu Village				
Name of industry	M/s Inland Power Limited Tonaghatu, Gola, Ramgarh, Jharkhand	Site B	Bariyatu Village				
		Site C	Urba Village				
		Site D	Tonaghatu Village				
		Work Order No.	.....				
		Work Order Date	.....				
		Weather Condition	Clear				
Customer Ref.	Mr. S. N. Sinha	Sample drawn by	Mr. Mukesh Singh & team				
Monitored Parameters	Method	Sampling Location				Units	NAAQS Industrial Area
		Site A	Site B	Site C	Site D		
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guidline	37.95	40.17	37.04	41.70	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>
Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23	75.42	79.18	76.56	82.49	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	9.19	11.87	10.17	11.52	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	20.57	22.35	21.34	20.57	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>

\*\*\*\*\* End of Report\*\*\*\*\*

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Tested by	Verified by	Issued by
Pramod Singh Lab Analyst	Brij Nandan Kumar Section In-Charge	Umesh D... Technical Manager



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Jharkhand State Pollution Control Board (JSPCB)

## Ambient Air Quality Report (Core Zone)

Report Release Date	4 <sup>th</sup> April, 2018	Ref. No.	YBAEEL/WA/L/A/March-18/12				
Report ID	YBAEEL/RAM/18-03-28/AAO/01	Sample Description	Ambient Air Quality				
Sampling Date	28 <sup>th</sup> - 29 <sup>th</sup> March, 2018	Type of Industry	Power Generation				
Sampling Time	28 <sup>th</sup> March. 11:00 AM to 29 <sup>th</sup> March 12:00 PM	Sampling Locations	Site A	Near Main Gate			
Name of Industry	M/s Inland Power Limited Tonaghata, Gola, Ramgarh, Jharkhand		Site B	Near Switch Yard			
			Site C	Near Guard Rest Room			
			Site D	Near B Gate			
		Work Order No.	.....				
		Work Order Date	.....				
		Weather Condition	Clear				
Customer Ref.	Mr. S. N. Sinha	Sample drawn by	Mr. Mukesh Singh & team				
Monitored Parameters	Method	Sampling Location				Units	NAAQS Industrial Area
		Site A	Site B	Site C	Site D		
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guideline	40.85	39.49	42.76	34.44	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>
Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23	82.53	79.34	87.07	69.12	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	14.45	16.30	12.87	11.24	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	26.67	21.34	22.86	19.43	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>

\*\*\*\*\* End of Report \*\*\*\*\*

**Remarks Note**  
 All values are observed well within the limit  
 All values are expressed in as unit.  
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 The samples collected shall be destroyed after 45 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

*P Singh*  
 Tested by  
 Pramod Singh  
 Lab Analyst

*Brij Nandan Kumar*  
 Verified by  
 Brij Nandan Kumar  
 Section In-Charge

*Umesh Singh*  
 4/4/18  
 Issued by  
 Umesh Singh  
 Technical Manager  
 Yugantar Bharati Analytical &  
 Environmental Engineering Laboratory





# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

LAB ACCREDITED BY

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
 Jharkhand State Pollution Control Board (JSPCB)  
 (T 2982, T-2918)  
 (B-1874)

## Ambient Air Quality Report (Core Zone)

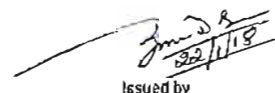
Report Release Date	22-Jan-2018	Protocol	IS	5182	Part II	Part IV	Part VI			
Report ID	YBAEEL/RAM/17-12-27/AAQ/01	Sample Description			Ambient Air Quality (Core Zone)					
Sampling Date	27th - 28th December, 2017	Type of Industry			Electricity Power Plant					
Name of Industry		M/s Inland Power Ltd. Tonagatu, Gola Dist : Ramgarh, Jharkhand			Sampling Locations					
								Near Main Gate		
								Near Switch Yard		
								Near Guard Rest Room		
					Near B. Gate					
		Weather Condition			Clear					
Customer Ref.	Mr. S. N. Sinha	Sample drawn by			Mr. Neeraj Kumar & team					
Monitored Parameters	Method	Sampling Location				Units	NAAQS industrial, residential, rural & other area			
		Site A	Site B	Site C	Site D					
Particulate Matter (PM2.5)	CPCB Guideline	37.23	29.03	41.23	24.92	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>			
Particulate Matter (PM10)	IS 5182 Part IV	84.30	80.52	92.34	71.49	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>			
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	17.46	14.87	18.69	15.91	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>			
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	33.14	27.13	35.81	24.93	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>			

\*\*\*\*\* End of Report\*\*\*\*\*

**Remarks** All values are observed well within the limit  
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 Tested by  
 Pramod Singh  
 Lab Analyst

  
 Verified by  
 Brij Nandan Kumar  
 Section In-charge

  
 Issued by  
 Umesh Das  
 Technical Manager

Technical Manager  
 Yugantar Bharati Analytical &  
 Environmental Engineering Laboratory







# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Jharkhand State Pollution Control Board (JSPCB)

(T 2982, T-2918)  
(B-1874)


## Ambient Air Quality Report (Buffer Zone)

Report Release Date	22-Jan-2018	Protocol	IS	5182	Part II	Part IV	Part VI
Report ID	YBAEEL/RAM/17-12-28/AAQ/01	Sample Description			Ambient Air Quality (Core-Zone) <i>Buffer</i>		
Sampling Date	28th - 29th December, 2017	Type of Industry			Electricity Power Plant		
Name of Industry		Sampling Locations				Seranghatu Village	
M/s Inland Power Ltd. Tonagatu, Gola Dist : Ramgarh, Jharkhand						Bariatu Village	
						Urba Village	
						Tonagatu Village	
		Weather Condition				Clear	
Customer Ref.	Mr. S. N. Sinha	Sample drawn by			Mr. Neeraj Kumar & team		
Monitored Parameters	Method	Sampling Location				Units	NAAQS Industrial, residential, rural & other area
		Site A	Site B	Site C	Site D		
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guideline	29.68	33.12	29.05	28.97	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>
Particulate Matter (PM <sub>10</sub> )	IS 5182 Part IV	72.63	82.34	78.08	86.94	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	7.38	9.13	8.86	9.57	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	15.46	17.51	14.68	16.76	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>

\*\*\*\*\* End of Report\*\*\*\*\*

**Remarks** All values are observed well within the limit  
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Tested by  
Pramod Singh  
Lab Analyst

  
Verified by  
Brij Nandan Kumar  
Section In-Charge

  
Issued by  
Umesh Das  
Technical Manager

Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



An ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory

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# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Buffer Zone

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Jharkhand State Pollution Control Board (JSPCB)


(T 2982, T-2918)  
(E-1374)


## Ambient Air Quality Report

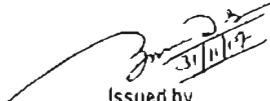
Report Release Date	31st October 2017	Protocol	Part II	Part IV	Part VI		
Report ID	YBAEEL/RAM/17-10-25/AAQ/01	Sample Description	Ambient Air Quality (Buffer Zone)				
Sampling Date	25th - 26th October, 2017	Type of Industry	Electricity Power Plant				
Name of Industry	M/s Inland Power Ltd. Tonagatu, Gola Dist : Ramgarh, Jharkhand	Sampling Locations	Seranghatu Village				
			Bariatu Village				
			Urba Village				
			Tonagatu Village				
		Weather Condition	Clear				
Customer Ref.	Mr. S. N. Sinha	Sample drawn by	Mr. Mukesh Singh & team				
Monitored Parameters	Method	Sampling Location				Units	NAAQS industrial, residential, rural & other area
		Site A	Site B	Site C	Site D		
Particulate Matter (PM2.5)	CPCB Guideline	34.33	38.54	38.66	34.31	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>
Particulate Matter (PM10)	IS 5182 Part IV	80.98	90.96	85.96	93.95	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	8.96	11.26	9.59	10.67	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	19.76	21.47	20.66	20.04	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>

\*\*\*\*\* End of Report\*\*\*\*\*

Remarks All values are observed well within the limit  
Note All values are expressed in microgram/ cubic meter  
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All disputes are subjected to the Ranchi Jurisdiction

  
Tested by  
Mukesh Singh  
Field Analyst

  
Verified by  
Brijnandan Kumar  
Section Incharge

  
Issued by  
Umesh Das  
Technical Manager

Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Labor





# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Core Zone

LAB ACCREDITED BY:

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Jharkhand State Pollution Control Board (JSPCB)

(T-2952, T-2918)  
(B-1374)

## Ambient Air Quality Report

Report Release Date	31st October 2017	Protocol				Part II	Part IV	Part VI
Report ID	YBAEEL/RAM/17-10-26/AAQ/01	Sample Description				Ambient Air Quality (Core Zone)		
Sampling Date	26th - 27th October, 2017	Type of Industry				Electricity Power Plant		
Name of Industry M/s Inland Power Ltd. Tonagatu, Gola Dist : Ramgarh, Jharkhand		Sampling Locations				Near Main Gate		
						Near Switch Yard		
						Near Guard Rest Room		
						Near B. Gate		
		Weather Condition				Clear		
Customer Ref.	Mr. S. N. Sinha	Sample drawn by				Mr. Mukesh Singh & team		
Monitored Parameters	Method	Sample Location				Units	NAAQS industrial, residential, rural &	
		Site A	Site B	Site C	Site D			
Particulate Matter (PM2.5)	CPCB Guideline	42.73	34.55	47.41	29.97	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>	
Particulate Matter (PM10)	IS 5182 Part IV	90.95	86.95	95.98	77.99	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>	
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	13.68	15.44	11.87	10.91	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	25.73	20.38	21.66	18.87	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>	

\*\*\*\*\* End of Report\*\*\*\*\*

Remarks All values are observed well within the limit

Note All values are expressed in microgram/ cubic meter

The results listed refer only to the tested sample and applicable parameter.


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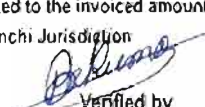
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All disputes are subjected to the Ranchi Jurisdiction

  
Tested by  
Mukesh Singh  
Field Analyst

  
Verified by  
Brijnandan Kumar  
Section Incharge

  
Issued by  
Umesh Das  
Technical Manager  
General Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory







# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Bubbler Zone

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Jharkhand State Pollution Control Board (JSPCB)

(T-2982, T-2918)  
(B-1874)

## Ambient Air Quality Report

Report Release Date	11th July 2017	Protocol	IS 5182	Part II	Part IV	Part VI	
Report ID	YBAEEL/RAM/17-06-29/AAQ/01	Sample Description			Ambient Air Quality (Buffer Zone)		
Sampling Date	29th - 30th June, 2017	Type of Industry			Electricity Power Plant		
Name of Industry		Sampling Locations		Site A	Seranghatu Village		
M/s Inland Power Ltd. Tonagatu, Gola Dist : Ramgarh, Jharkhand				Site B	Bariatu Village		
				Site C	Urba Village		
				Site D	Tonagatu Village		
		Weather Condition		Clear			
Customer Ref.	Mr. S. N. Sinha	Sample drawn by			Mr. Mukesh Singh & team		
Monitored Parameters	Method	Sampling Location				Units	NAAQS industrial, residential, rural & other area
		Site A	Site B	Site C	Site D		
Particulate Matter (PM <sub>2.5</sub> )	CPCB Guideline	38.98	35.07	34.65	38.49	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>
Particulate Matter (PM <sub>10</sub> )	IS 5182 Part IV	79.62	86.24	83.09	84.73	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	12.06	13.52	11.47	14.61	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	17.26	16.86	19.12	18.37	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>

\*\*\*\*\* End of Report \*\*\*\*\*

**Remarks** All values are observed well within the limit

**Note** All values are expressed in microgram/cubic meter

The results listed refer only to the tested sample and applicable parameter.

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*Mukesh Singh*  
Tested by  
Mukesh Singh  
Field Analyst

*B. Kumar*  
Verified by  
Bajrang Kumar  
Lab Analyst

*Umesh Das*  
11/7/17  
Issued by  
Umesh Das

Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



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# YUGANTAR BHARATI

Core zone

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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Jharkhand State Pollution Control Board (JSPCB)

(T 2982, T-2918)  
(B-1874)

### Ambient Air Quality Report

Report Release Date	11th July 2017	Protocol		Part II	Part IV	Part VI
Report ID	YBAEEL/RAM/17-06-28/AAQ/01	Sample Description	Ambient Air Quality (Core Zone)			
Sampling Date	28th - 29th June, 2017	Type of Industry	Electricity Power Plant			
Name of Industry	M/s Inland Power Ltd. Tonagatu, Gola Dist : Ramgarh, Jharkhand	Sampling Locations	Near Main Gate			
			Near Switch Yard			
			Near Guard Rest Room			
		Weather Condition	Clear			
Customer Ref.	Mr. S. N. Sinha	Sample drawn by	Mr. Mukesh Singh & team			
Monitored Parameters	Method	Sampling Location			Units	NAAQS industrial, residential, rural & other
		Site A	Site B	Site C		
Particulate Matter (PM2.5)	CPCB Guideline	41.95	37.33	45.72	µg/m <sup>3</sup>	60 µg/m <sup>3</sup>
Particulate Matter (PM10)	IS 5182 Part IV	89.86	86.60	92.44	µg/m <sup>3</sup>	100 µg/m <sup>3</sup>
Sulphur Dioxide (SO <sub>2</sub> )	IS 5282 Part II	10.52	9.87	12.47	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part VI	22.08	19.47	20.66	µg/m <sup>3</sup>	80 µg/m <sup>3</sup>

\*\*\*\*\* End of Report\*\*\*\*\*

Remarks All values are observed well within the limit

Note All values are expressed in microgram/ cubic meter

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*Mukesh Singh*  
Tested by  
Mukesh Singh  
Field Analyst

*Bajrang Kumar*  
Verified by  
Bajrang Kumar  
Lab Analyst

*Umesh Das*  
11/7/17  
Issued by  
Umesh Das  
Technical Manager

Technical Manager  
Yugantar Bharati Analytical &  
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# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Annexure - (ii)  
Bubble Zone  
Site - 1

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Jharkhand State Pollution Control Board (JSPCB)

## Test Report

Issued to :- M/s Inland Power Limited Tonagatu, Gola, Dist-Ramgarh, Jharkhand	Sample Code: -180329-GW-W01 Report ID :- YBAEELRAM/18-03-29/GW/01 Date of Issue - 07 <sup>th</sup> April 2018 Reference :- YBAEELWAL/CI/Mar.-18/13
--	---

Sample Particulars	Details of Sampling
Sample Name/Description: - Ground Water Sample Quantity: - One litre (1000 ml X 1) Sample pkg. Condition: - Sealed in plastic bottle	Date of sampling: - 29-03-2018 Sample Received Date:- 29-03-2018 Sampling Protocol: -YBAEELISPI/1/00 Sample collected by -Own / Niraj Kumar & team Sampling Location: - Bayang village

### Test Result

Test started on: - 29-03-2018	Test completed on: - 07-04-2018				
Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	-	6.51	IS 3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	24.1	2550 B	< 40° C
3	Total dissolved solid	mg/l	342	IS 3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.6	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	220.2	IS 3025 (Part-21)	600 mg/l
6	Chloride	mg/l	44	IS 3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	3.0	IS 3025 (Part-13)	5 NTU
10	Nitrate	mg/l	41.4	4500 NO3 B	45 mg/l
11	Iron	mg/l	ND (DL 0.1)	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS 3025 (Part-05)	-
13	Colour	mg/l	< 5	IS 3025 (Part-4)	-
14	Alkalinity	mg/l	88	IS 3025 (Part-23)	500 mg/l
15	Magnesium	mg/l	16.2	IS 3025 (Part-46)	100 mg/l
16	Calcium	mg/l	61.2	IS 3025 (Part-40)	200 mg/l
17	Arsenic	mg/l	ND (DL 0.003)	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	0.16	APHA 3111 B	15 mg/l
19	R. Chlorine	mg/l	ND (DL 0.07)	IS 3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	28.3	IS 3025 (Part-24)	400 mg/l
21	Copper	NTU	ND (DL 0.01)	APHA 3111 B	1.5 mg/l

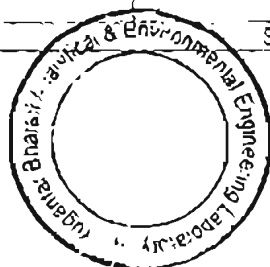
\*\*\*\*\*End of Test\*\*\*\*\*

Remarks - According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

Specific contractual notes: -

- The results listed refer only to the tested sample and applicable parameter
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- This report can be reproduced except when in full without the written permission of the Lab In-charge
- The samples received shall be destroyed after two month from the date of issue of the certificate unless specified otherwise and sample for biological testing will be destroyed after one two week of testing.
- The liability of the laboratory is limited to the invoiced amount
- All disputes are subjected to the Ranchi Jurisdiction

<i>Saimasthin</i> Tested by Saima Afrin Lab Analyst	<i>[Signature]</i> Checked by Baranj Kumar Section In-Charge	<i>[Signature]</i> Issued by Umesh Das Technical Manager
--	---	---



Technical Manager  
Yugantar Bharati Analytical & Environmental Engineering Laboratory







# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Bulbar Zone  
Seli - 9

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Jharkhand State Pollution Control Board (JSPCB)

## Test Report

Issued to :- M/S Inland Power Limited Tonagatu, Gola, Dist.-Rumgarh, Jharkhand	Sample Code :- 180329-GW-W02 Report ID :- YBAEEL/RAW18-03-29/GW/02 Date of Issue :- 07 <sup>th</sup> April 2018 Reference :- YBAEELWAL/C/Mar-18/13
---	---

Sample Particulars	Details of Sampling
Sample Name/Description :- Ground Water	Date of sampling :- 29-03-2018
Sample Quantity :- One litre (1000 ml X 1)	Sample Received Date :- 29-03-2018
Sample pkg. Condition :- Sealed in plastic bottle	Sampling Protocol :- YBAEELSP/01/00
	Sample collected by :- Own / Niraj Kumar & team
	Sampling Location :- Bariyatu village

### Test Result

Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH		6.17	IS:3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	24.6	2550 B	< 40° C
3	Total dissolved solid	mg/l	218	IS:3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.6	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	149.5	IS:3025 (Part-21)	600 mg/l
6	Chloride	mg/l	28.4	IS:3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	2.0	IS:3025 (Part-10)	5 NTU
10	Nitrate	mg/l	43.8	4500 NO3 B	45 mg/l
11	Iron	mg/l	ND (DL 0.1)	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS:3025 (Part-05)	..
13	Colour	mg/l	5	IS:3025 (Part-4)	..
14	Alkalinity	mg/l	76	IS:3025 (Part-23)	600 mg/l
15	Magnesium	mg/l	8.8	IS:3025 (Part-46)	100 mg/l
16	Calcium	mg/l	45.2	IS:3025 (Part-10)	200 mg/l
17	Arsenic	mg/l	ND (DL 0.003)	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	ND (DL 0.01)	APHA 3111 B	15 mg/l
19	R. Chlorine	mg/l	ND (DL 0.07)	IS:3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	22.6	IS:3025 (Part-24)	400 mg/l
21	Copper	NTU	ND (DL 0.05)	APHA 3111 B	1.5 mg/l

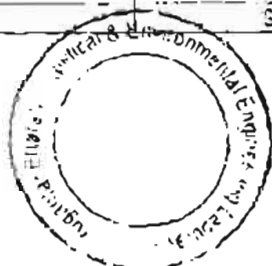
\*\*\*\*\*End of Test\*\*\*\*\*

Remarks:-According to tested parameter, the results found within prescribe limit of Drinking water specification (S 10500).

#### Specific contractual notes :-

- The results listed refer only to the tested sample and applicable parameter
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- All disputes are subjected to the Ranchi Jurisdiction.

<i>Saima Akter</i> Tested by Saima Akter Lab Analyst	<i>Brij Kumar</i> Checked by Brij Kumar Section In Charge	<i>Umesh Das</i> Issued by Umesh Das Technical Director
---	--	--



Yugantar Bharati Analytical & Environmental Engineering Laboratory



ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory

Post Box no. 22 / Namkum Post Office / Sidraul / Ranchi - 834010 Jharkhand  
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# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Bubble zone  
Site - 3

LAB ACCREDITED BY

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

### Test Report

Issued to :- M/s Inland Power Limited Tonagatu, Gola, Dist.-Ramgarh, Jharkhand	Sample Code :- 180329-GW-W03 Report ID :- YBAEEL/AM/18-03-29/GW/03 Date of Issue :- 07 <sup>th</sup> April 2018 Reference :- YBAEEL/WAL/C/Mar.-18/13
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Sample Particulars	Details of Sampling
Sample Name/Description :- Ground Water	Date of sampling :- 29-03-2018
Sample Quantity :- One litre (1000 ml X 1)	Sample Received Date :- 29-03-2018
Sample pkg. Condition :- Sealed in plastic bottle	Sampling Protocol :- YBAEEL/SP/01/00
	Sample collected by :- Own / Niraj Kumar & team
	Sampling Location :- Tonagatu village

### Test Result

St. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	-	7.21	IS:3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	24.3	2550 B	< 40° C
3	Total dissolved solid	mg/l	198	IS:3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.9	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	80.8	IS:3025 (Part-21)	600 mg/l
6	Chloride	mg/l	2.0	IS:3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	2.0	IS:3025 (Part-10)	5 NTU
10	Nitrate	mg/l	14.2	4500 NCS B	45 mg/l
11	Iron	mg/l	ND (DL 0.1)	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS:3025 (Part-05)	-
13	Colour	mg/l	5	IS:3025 (Part-4)	-
14	Alkalinity	mg/l	92	IS:3025 (Part-23)	600 mg/l
15	Magnesium	mg/l	6.4	IS:3025 (Part-16)	100 mg/l
16	Calcium	mg/l	21.8	IS:3025 (Part-40)	200 mg/l
17	Arsenic	mg/l	ND (DL 0.003)	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	ND (DL 0.01)	APHA 3111 B	15 mg/l
19	R. Chlorine	mg/l	ND (DL 0.07)	IS:3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	3.2	IS:3025 (Part-24)	400 mg/l
21	Copper	NTU	ND (DL 0.01)	APHA 3111 B	1.5 mg/l

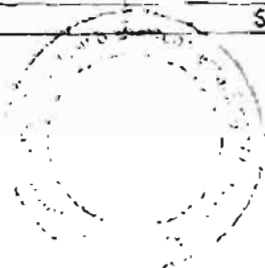
\*\*\*\*End of Test\*\*\*\*

Remarks:-According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

#### Specific contractual notes :-

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- All disputes are subjected to the Ranchi Jurisdiction

<i>Sama Alim</i> Tested by Sama Alim Lab Analyst	<i>Umesh</i> Checked by Umesh Kumar Section In Charge	<i>Umesh</i> Issued by Umesh Kumar Technical Manager Yugantar Bharati Analytical & Environmental Engineering Laboratory
---	--	--



An ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory

Post Box no. 92 | Namkond Post Office | Sidraul | Ranchi - 834610 (Jharkhand)  
Ph: 0651-6003177 | 0651-6003178 | Fax: 0651-6003177 | Email: ybaeel@gmail.com





# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Bhubnagar  
Site - 4

ACCREDITED BY National Accreditation Board for Testing & Calibration Laboratories (NABL) New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

## Test Report

Issued to :- M/s Inland Power Limited Tonagatu, Gola, Dist-Ramgarh, Jharkhand	Sample Code: -180329-GW-W04 Report ID :- YBAEELURAW18-03-29/GW/04 Date of issue: - 07 <sup>th</sup> April 2018 Reference :- YBAEELWALIC/Mar-18/13
--	--

Sample Particulars	Details of Sampling
Sample Name/Description :- Ground Water	Date of sampling :- 29-03-2018
Sample Quantity :- One litre (1000 ml X 1)	Sample Received Date :- 29-03-2018
Sample pkg. Condition :- Sealed in plastic bottle	Sampling Protocol :- YBAEEL/SP/01/00
	Sample collected by :- Own / Niraj Kumar & team
	Sampling Location :- Bahmani village

### Test Result

Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	..	7.30	IS:3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	23.6	2550 B	< 40°C
3	Total dissolved solid	mg/l	188	IS:3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.7	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	133.3	IS:3025 (Part-21)	500 mg/l
6	Chloride	mg/l	1.9	IS:3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	2.0	IS:3025 (Part-10)	5 NTU
10	Nitrate	mg/l	6.6	4500 N 3 B	45 mg/l
11	Iron	mg/l	ND (DL 0.1)	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS:3025 (Part-05)	..
13	Colour	mg/l	10	IS:3025 (Part-4)	..
14	Alkalinity	mg/l	128	IS:3025 (Part-23)	600 mg/l
15	Magnesium	mg/l	14.8	IS:3025 (Part-46)	100 mg/l
16	Calcium	mg/l	29.0	IS:3025 (Part-40)	200 mg/l
17	Arsenic	mg/l	ND (DL 0.003)	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	ND (DL 0.01)	APHA 3111 B	15 mg/l
19	R. Chlorine	mg/l	ND (DL 0.07)	IS:3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	36.5	IS:3025 (Part-24)	400 mg/l
21	Copper	NTU	ND (DL 0.01)	APHA 3111 B	1.5 mg/l

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

Remarks -According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

Specific contractual notes:-

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- All disputes are subjected to the Ranchi Jurisdiction.

<i>Saima Afrin</i> Tested by Saima Afrin Lab Analyst	<i>BK</i> Checked by Bajrang Kumar Section In-Charge	<i>Hitesh</i> Issued by Hitesh Das Technical Manager Regional Analytical & Laboratory Environmental
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An ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory

Post Box no. 32 | Nanikom Post Office | Sidraul | Ranchi - 834010 (Jharkhand)  
Ph: 9831 600372 | 065951 07365 | Toll Free: 0881-260787 | E-mail: yugantar@yugantar.com







# YUGANTAR BHARATI

## ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Core Zone  
Sd-1

ACCREDITED BY National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

### Test Report

<b>Issued to :-</b> M/s Inland Power Limited Tonagalu, Gola, Dist.-Ramgarh, Jharkhand	<b>Sample Code :-</b> 180129-DW-W01 <b>Report ID :-</b> YBAEEL/AM/18-03-29/DW/01 <b>Date of Issue :-</b> 07 <sup>th</sup> April 2018 <b>Reference :-</b> YBAEEL/WA/LC/Mar-18/13
--	--

<b>Sample Particulars</b> <b>Sample Name/Description :-</b> Drinking Water <b>Sample Quantity :-</b> Two litre (1000 ml X 2) <b>Sample pkg. Condition :-</b> Sealed in plastic bottle	<b>Details of Sampling</b> <b>Date of sampling :-</b> 29-03-2018 <b>Sample Received Date :-</b> 29-03-2018 <b>Sampling Protocol :-</b> YBAEEL/SP/01/00 <b>Sample collected by :-</b> Own / Nraj Kumar & team <b>Sampling Location :-</b> Near Mess Area
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### Test Result

<b>Test started on :-</b> 29-03-2018	<b>Test completed on :-</b> 07-04-2018				
Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1.	pH	--	6.94	IS:3025 (Part-11)	6.5 to 8.5
2.	Temperature	°C	24.1	2550 B	< 40°C
3.	Total dissolved solid	mg/l	254	IS:3025 (Part-16)	2000 mg/l
4.	Conductivity	µs/cm	416	IS:3025 (Part-14)	--
5.	Nitrate	mg/l	16.3	4500 NO3 B	100 mg/l
6.	T. Alkalinity	mg/l	92	IS:3025 (Part-23)	600 mg/l
7.	T. Hardness	mg/l	192	IS:3025 (Part-21)	600 mg/l
8.	Chloride	mg/l	16.6	IS:3025 (Part-32)	1000 mg/l
9.	BOD	mg/l	0.8	IS:3025 (Part-44)	30 mg/l
10.	COD	mg/l	7.2	IS:3025 (Part-58)	250 mg/l
11.	Oil & grease	mg/l	2.4	IS:3025 (Part-39)	10 mg/l
12.	Copper	mg/l	ND (DL 0.01)	APHA 3111 B	1.5 mg/l
13.	Odour	mg/l	Agreeable	IS:3025 (Part-5)	--
14.	Sulphate	mg/l	18.7	IS:3025 (Part-24)	400 mg/l
15.	Iron	mg/l	ND (DL 0.1)	APHA 3111 D	0.3 mg/l
16.	Calcium	mg/l	48.5	IS:3025 (Part-40)	200 mg/l
17.	Magnesium	mg/l	17.2	IS:3025 (Part-37)	100 mg/l
18.	Zinc	mg/l	0.11	APHA 3111 B	15 mg/l
19.	Fluoride	mg/l	0.6	4500 F C	1.5 mg/l
20.	Turbidity	NTU	2.0	IS:3025 (Part-10)	5 NTU
21.	Potassium	mg/l	0.58	APHA 3111-B	--
22.	Sodium	mg/l	6.21	APHA 3111-B	--

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

Remarks.- According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

**Specific contractual notes :-**

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- All disputes are subjected to the Ranchi Jurisdiction

 Tested by Saima Afrin Lab Analyst	 Checked by Bajrang Kumar Section In-Charge	 Issued by Technical Manager Yugantar Bharati Analytical & Environmental Engineering Laboratory
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**Technical Manager**  
Yugantar Bharati Analytical & Environmental Engineering Laboratory



An ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory

Post Box no. 32 | Namkom Post Office | Sideroo | Ranchi - 834010 (Jharkhand)  
 Ph: 0651-2801372, 0651-2801375 | Tele Fax: 0651-2800797 | E-mail: ybaeel@gmail.com





# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Core zone  
Side-2

ACCREDITED BY National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

### Test Report

Issued to :- Mis Inland Power Limited Tonagalu, Gola, Dist.-Ramgarh, Jharkhand	Sample Code: -180329-GW-W05 Report ID :- YBAEELRAM/18-03-29/GW/05 Date of Issue :- 07 <sup>th</sup> April 2018 Reference :- YBAEELWA/LIC/Mar.-18/13
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Sample Particulars	Details of Sampling
Sample Name/Description :- Ground Water Sample Quantity :- One litre (1000 ml X 1) Sample pkg. Condition :- Sealed in plastic bottle	Date of sampling :- 29-03-2018 Sample Received Date:- 29-03-2018 Sampling Protocol:- YBAEEL/SP/01/00 Sample collected by :- Own / Niraj Kumar & team Sampling Location :- Near Stack

### Test Result

Test started on :- 29-03-2018	Test completed on :- 07-04-2018				
Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	-	7.14	IS 3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	23.8	2550 B	< 40° C
3	Total dissolved solid	mg/l	332	IS 3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.6	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	230.3	IS 3025 (Part-21)	500 mg/l
6	Chloride	mg/l	17.6	IS 3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	1.0	IS 3025 (Part-10)	5 NTU
10	Nitrate	mg/l	4.6	4500 NO <sub>3</sub> B	45 mg/l
11	Iron	mg/l	ND (DL0.1)	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS 3025 (Part-05)	-
13	Colour	mg/l	< 5	IS 3025 (Part-4)	-
14	Alkalinity	mg/l	102	IS 3025 (Part 23)	600 mg/l
15	Magnesium	mg/l	21.6	IS 3025 (Part 46)	100 mg/l
16	Calcium	mg/l	56.5	IS 3025 (Part 40)	200 mg/l
17	Arsenic	mg/l	ND (DL0.003)	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	0.23	APHA 3111 B	15 mg/l
19	R. Chlorine	mg/l	ND (DL0.07)	IS 3025 (Part 25)	1.0 mg/l
20	Sulphate	mg/l	44.9	IS 3025 (Part 24)	400 mg/l
21	Copper	NTU	ND (DL0.01)	APHA 3111 B	1.5 mg/l

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

Remarks.-According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

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- All disputes are subjected to the Ranchi Jurisdiction

<i>Sama Atiin</i> Tested by Sama Atiin Lab Analyst	<i>Barang Kumar</i> Checked by Barang Kumar Section In-Charge	<i>Umesh Kumar</i> Issued by Umesh Kumar Technical Manager Yugantar Environmental & Analytical Laboratory
---	--	--



AN ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory

Post Box No. 32 | Namkoin Post Office | Sadrul | Ranchi - 834010 (Jharkhand)

Phone No: 0651-2360787 | Fax: 0651-2360787 | Email: yugantar@yugantar.com





# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Buffer Zone

Site - 1

LAB ACCREDITED BY

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

(T 2982, T-2916)

(B-1874)

## Test Report

Issued to - M/s Inland Power Limited Tonagatu, Gola, Dist. Ramgarh, Jharkhand	Sample Code: -171228-GW-W01 Report ID: - YBAEELRAMU17-12-27/GW/01 Date of Issue: - 22 <sup>nd</sup> Jan. 2018 Reference: - YBAEEL/WA/UC/Dec.-17/09
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Sample Particulars	Details of Sampling
Sample Name/Description: - Ground Water	Date of sampling: - 27-12-2017
Sample Quantity: - One litre (1000 ml X 1)	Sample Received Date: - 28-12-2017
Sample pkg. Condition: - Sealed in plastic bottle	Sampling Protocol: - YBAEEL/SP/01/00
	Sample collected by: - Own / Neeraj Kumar & team
	Sampling Location: - Bayang

### Test Result

Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	-	6.22	IS 3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	20.8	2550 B	< 40°C
3	Total dissolved solid	mg/l	334	IS 3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.7	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	209.8	IS 3025 (Part-21)	600 mg/l
6	Chloride	mg/l	42.9	IS 3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	3	IS 3025 (Part-10)	5 NTU
10	Nitrate	mg/l	40.6	4500 NO3 B	45 mg/l
11	Iron	mg/l	0.00	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS 3025 (Part-05)	-
13	Colour	mg/l	<5	IS 3025 (Part-4)	-
14	Alkalinity	mg/l	116	IS 3025 (Part-23)	500 mg/l
15	Magnesium	mg/l	16.3	IS 3025 (Part-46)	100 mg/l
16	Calcium	mg/l	57	IS 3025 (Part-40)	200 mg/l
17	Arsenic	mg/l	NO	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	0.13	APHA 3111 B	15 mg/l
19	R. Chlorine	mg/l	0.00	IS 3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	34.4	IS 3025 (Part-24)	400 mg/l
21	Copper	mg/l	0.00	APHA 3111 B	1.5 mg/l

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

Remarks:- According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

Specific contractual notes:-

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- All disputes are subjected to the Ranchi Jurisdiction

Tested by  
Bajrang Kumar  
Analyst

Checked by  
Sunil Kr. Singh  
Section In-Charge

Issued by  
Umesh Das  
Technical Manager  
Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory







# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Buffer Zone

Site - 2.

LAB ACCREDITED BY

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)  
(T-2982, T-2918)  
(B-1874)

## Test Report

Issued to :  
M/s Inland Power Limited  
Tonagah, Gola,  
Dist.-Ramgarh, Jharkhand

Sample Code: - 171228-GW-W02  
Report ID: - YBAEEL/RA/17-12-27/GW/02  
Date of Issue: - 22<sup>nd</sup> Jan. 2018  
Reference: YBAEEL/WA/LIC/Dec.-17/09

Sample Particulars	Details of Sampling
Sample Name/Description: - Ground Water	Date of sampling: - 27-12-2017
Sample Quantity: - One litre (1000 ml X 1)	Sample Received Date: - 28-12-2017
Sample pkg. Condition: - Sealed in plastic bottle	Sampling Protocol: - YBAEEL/SP/17/100
	Sample collected by: - Own: Heeraj Kumar & team
	Sampling Location: - Bariyatu

### Test Result

Test started on: -	28.12.2017	Test completed on: -	05.01.2018		
Sl No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	-	6.05	IS 3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	20.8	2550 B	< 40°C
3	Total dissolved solid	mg/l	206	IS 3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.6	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	142.5	IS:3025 (Part-21)	600mg/l
6	Chloride	mg/l	23	IS 3025 (Part-32)	1000mg/l
7	Turbidity	mg/l	3.0	IS 3025 (Part-10)	5 NTU
10	Nitrate	mg/l	41.5	4500 NO3 B	45 mg/l
11	Iron	mg/l	0.00	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS 3025 (Part-05)	--
13	Colour	mg/l	5	IS:3025 (Part-4)	--
14	Alkalinity	mg/l	70	IS 3025 (Part-23)	600 mg/l
15	Magnesium	mg/l	8.3	IS 3025 (Part-15)	100mg/l
16	Calcium	mg/l	43.3	IS 3025 (Part-40)	200 mg/l
17	Arsenic	mg/l	ND	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	0.06	APHA 3117 B	15 mg/l
19	R.Chlorine	mg/l	0.00	IS 3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	20.1	IS 3025 (Part-24)	400 mg/l
21	Copper	NTU	0.00	APHA 3111 E	1.5 mg/l

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

Remarks:-According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

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- All disputes are subjected to the Ranchi Jurisdiction.

Tested by  
Barang Kumar  
Analyst

Checked by  
Sural Kr. Singh  
Section In-Charge

Issued by  
Umesh Das  
Technical Manager

Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Bubbu zone  
Siti - 3

LAB ACCREDITED BY

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

(T-2982, T-2918)  
(B-1874)

## Test Report

Issued to : - M/s Inland Power Limited Tonagatu, Gola, Dist.-Ramgarh, Jharkhand	Sample Code: -171228-GW-W03 Report ID : - YBAEEL/RAW/17-12-27/GW/03 Date of Issue. - 22 <sup>nd</sup> Jan. 2018 Reference : - YBAEEL/WA/LC/Dec.-17/09
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Sample Particulars	Details of Sampling
Sample Name/Description: - Ground Water	Date of sampling : - 27-12-2017
Sample Quantity : - One litre (1000 ml X 1)	Sample Received Date. - 28-12-2017
Sample pkg. Condition : - Sealed in plastic bottle	Sampling Protocol. -YBAEEL/SP/01/00
	Sample collected by: -Own / Neeraj Kumar & team
	Sampling Location: - Tonagatu

Test Result					
Test started on: - 28.12.2017		Test completed on: - 05.01.2018			
Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	--	7.3	IS.3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	20.9	2550 B	< 40° C
3	Total dissolved solid	mg/l	174	IS.3025 (Part-18)	2000 mg/l
4	Fluoride	mg/l	0.8	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	73.2	IS.3025 (Part-21)	600mg/l
6	Chloride	mg/l	1.0	IS.3025 (Part-32)	1000mg/l
7	Turbidity	mg/l	2.0	IS.3025 (Part-19)	5NTU
10	Nitrate	mg/l	11.3	4500 NO3 B	45 mg/l
11	Iron	mg/l	0.00	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS:3025 (Part-05)	-
13	Colour	mg/l	5	IS:3025 (Part-4)	-
14	Alkalinity	mg/l	84	IS.3025 (Part 23)	600 mg/l
15	Magnesium	mg/l	6.7	IS.3025 (Part-46)	100mg/l
16	Calcium	mg/l	18.2	IS:3025 (Part 40)	200 mg/l
17	Arsenic	mg/l	ND	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	0.04	APHA 3111 B	15 mg/l
19	R.Chlorine	mg/l	0.00	IS.3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	2.7	IS.3025 (Part 24)	400 mg/l
21	Copper	NTU	0.00	APHA 3111 B	1.5 mg/l

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

Remarks:-According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500,

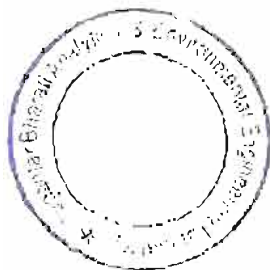
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- All disputes are subjected to the Ranchi Jurisdiction

Tested by  
Bajrang Kumar  
Analyst

Checked by  
Sunil Kr Singh  
Section In-Charge

Issued by  
Umesh Das  
Technical Manager  
Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



AN ISO 9001: 2008 & OHSAS 18001 2007 Certified Laboratory

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# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Berhampur Zone  
Site - B4

LAB ACCREDITED BY

National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB)

(T-2982, T-2916;  
(B-1874)

## Test Report

Issued to :- M/s Inland Power Limited Tonagatu, Gola, Dist.-Ramgarh, Jharkhand	Sample Code :- 171228-GW-W04 Report ID :- YBAEEL/RAW/17-12-27/GW/04 Date of Issue :- 22 <sup>nd</sup> Jan. 2018 Reference :- YBAEEL/WAL/C/Dec.-17/09
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Sample Particulars	Details of Sampling
Sample Name/Description :- Ground Water	Date of sampling :- 27-12-2017
Sample Quantity :- One litre (1000 ml X 1)	Sample Received Date :- 28-12-2017
Sample pkg. Condition :- Sealed in plastic bottle	Sampling Protocol :- YBAEEL/SP/D/1/00
	Sample collected by :- Own / Neera Kumar & team
	Sampling Location :- Bahmani

## Test Result

Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH		7.28	IS 3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	20.8	2550 B	< 40° C
3	Total dissolved solid	mg/l	198	IS 3025 (Part-15)	2000 mg/l
4	Fluoride	mg/l	0.8	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	140.5	IS 3025 (Part-21)	600 mg/l
6	Chloride	mg/l	1.0	IS 3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	2.0	IS 3025 (Part-10)	5 NTU
10	Nitrate	mg/l	5.0	4500 NO3 B	45 mg/l
11	Iron	mg/l	0.00	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS 3025 (Part-05)	..
13	Colour	mg/l	10	IS 3025 (Part-4)	..
14	Alkalinity	mg/l	122	IS 3025 (Part-23)	600 mg/l
15	Magnesium	mg/l	14.7	IS 3025 (Part-46)	100 mg/l
16	Calcium	mg/l	31.9	IS 3025 (Part-40)	200 mg/l
17	Arsenic	mg/l	ND	APHA 314 B	0.05 mg/l
18	Zinc	mg/l	0.00	APHA 3111 B	1.5 mg/l
19	R.Chlorine	mg/l	0.00	IS 3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	32.4	IS 3025 (Part-24)	400 mg/l
21	Copper	NTU	0.00	APHA 3111 B	1.5 mg/l

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

Remarks:-According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

Specific contractual notes :-

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Tested by  
Bajrang Kumar  
Analyst

Checked by  
Sunil Kr Singh  
Section In-Charge

Issued by  
Umesh Das  
Technical Manager  
Yugantar Bharati Analytical &  
Environmental Engineering Laboratory



An ISO 9001:2008 & OHSAS 18001:2007 Certified Laboratory







# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Core Zone  
Site - 1

LAB ACCREDITED BY National Accreditation Board for Testing & Calibration Laboratory (NABL), New Delhi  
Jharkhand State Pollution Control Board (JSPCB) (T 2002, T-23 of B-1874)

## Test Report

Issued to :- M/s Inland Power Limited Tonagatu, Gola, Dist-Ramgarh, Jharkhand	Sample Code: -171228-GW-W05 Report ID :- YBAEEL/RAW/17-12-27/GW/05 Date of Issue: - 22 <sup>nd</sup> Jan. 2018 Reference :- YBAEEL/RAW/17/05
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Sample Particulars	Details of Sampling
Sample Name/Description: - Ground Water Sample Quantity :- One litre (1000 ml X 1) Sample pkg. Condition :- Sealed in plastic bottle	Date of sampling :- 27-12-2017 Sample Received Date:- 28-12-2017 Sampling Protocol:- YBAEEL/SPI/100 Sample collected by:- Own / Neeraj Kumar & team Sampling Location:- Near Stack

### Test Result

Sl. No.	Tested Parameter	Unit	Results	Method Name	Permissible Limit (As per IS 10500 Specification)
1	pH	..	6.95	IS:3025 (Part-11)	6.5 to 8.5
2	Temperature	°C	20.8	2550 B	< 40° C
3	Total dissolved solid	mg/l	318	IS:3025 (Part-16)	2000 mg/l
4	Fluoride	mg/l	0.5	4500 F C	1.5 mg/l
5	T. Hardness	mg/l	237.8	IS:3025 (Part-21)	600 mg/l
6	Chloride	mg/l	16	IS:3025 (Part-32)	1000 mg/l
7	Turbidity	mg/l	0.00	IS:3025 (Part-10)	5 NTU
10	Nitrate	mg/l	3.4	4500 NO3 B	45 mg/l
11	Iron	mg/l	0.00	3111 B	0.3 mg/l
12	Odour	mg/l	Agreeable	IS:3025 (Part-05)	..
13	Colour	mg/l	<5	IS:3025 (Part-4)	..
14	Alkalinity	mg/l	204	IS:3025 (Part-23)	600 mg/l
15	Magnesium	mg/l	25.0	IS:3025 (Part-46)	100 mg/l
16	Calcium	mg/l	53.9	IS:3025 (Part-40)	200 mg/l
17	Arsenic	mg/l	ND	APHA 3114 B	0.05 mg/l
18	Zinc	mg/l	0.18	APHA 3111 B	15 mg/l
19	R.Chloride	mg/l	0.00	IS:3025 (Part-26)	1.0 mg/l
20	Sulphate	mg/l	47.3	IS:3025 (Part-24)	400 mg/l
21	Copper	NTU	0.00	APHA 3111 B	1.5 mg/l

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

Remarks:-According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

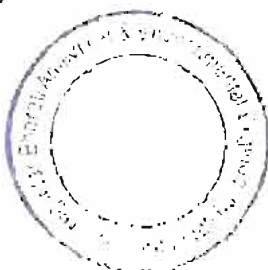
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Analyst

Checked by  
Sunit Kr. Singh  
Section In Charge

Issued by  
Umesh Das  
Technical Manager  
Technical Manager  
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# YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Core Zone  
Site - 2.

LAB ACCREDITED BY National Accreditation Board for Testing & Calibration Laboratory (NABL) New Delhi  
Jharkhand State Pollution Control Board (JSPCB) (T 2982, T 2018)

## Test Report

Issued to :- M/s Inland Power Limited Tonagatu, Gola, Dist.-Ramgarh, Jharkhand	Sample Code :- 171228-OW-W01 Report ID :- YBAEELRAM(17-12-27)OWW01 Date of Issue :- 27 <sup>th</sup> Jan. 2018 Reference :- YBAEELWALIC/Dec.-17110
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Sample Particulars	Details of Sampling
Sample Name/Description :- Drinking Water	Date of sampling :- 27-12-2017
Sample Quantity :- One litre (1000 ml X 1)	Sample Received Date :- 28-12-2017
Sample pkg. Condition :- Sealed in plastic bottle	Sampling Protocol :- YBAEEL/SP/01/00
	Sample collected by :- Own / Neeraj Kumar & team
	Sampling Location :- Near Mess Area

Test started on :-		Test completed on :-		Permissible Limit (As per IS 10500 Specification)	
Sl. No.	Tested Parameter	Unit	Results	Method Name	
1.	pH	-	7.04	IS 3025 (Part 1)	6.5 to 8.5
2.	Temperature	°C	20.8	2550 B	< 40° C
3.	Total dissolved solid	mg/l	242	IS 3025 (Part-16)	2000 mg/l
4.	Conductivity	µs/cm	393	IS 3025 (Part-14)	-
5.	Nitrate	mg/l	14.1	4500 NO3 B	100 mg/l
6.	T. Alkalinity	mg/l	148	IS 3025 (Part-23)	600mg/l
7.	T. Hardness	mg/l	178.2	IS 3025 (Part-21)	600mg/l
8.	Chloride	mg/l	15	IS 3025 (Part-32)	1000mg/l
9.	BOD	mg/l	0.4	IS 3025 (Part-44)	30mg/l
10.	COD	mg/l	11.5	IS 3025 (Part-52)	250mg/l
11.	Oil & grease	mg/l	<4	IS 3025 (Part-39)	10mg/l
12.	Copper	mg/l	ND	APHA 3111 B	1.5mg/l
13.	Odour	mg/l	Agreeable	IS 3025 (Part-5)	-
14.	Sulphate	mg/l	20.2	IS 3025 (Part-24)	400mg/l
15.	Iron	mg/l	ND	APHA 3111 B	0.3mg/l
16.	Calcium	mg/l	31.7	IS 3025 (Part-40)	200mg/l
17.	Magnesium	mg/l	11.8	IS 3025 (Part-37)	100mg/l
18.	Zinc	mg/l	0.06	APHA 3111 B	1.5mg/l
19.	Fluoride	mg/l	0.5	4500 F C	1.5mg/l
20.	Turbidity	NTU	1.0	IS 3025 (Part-10)	5NTU
21.	Potassium	mg/l	0.6	APHA 3111-B	-
22.	Sodium	mg/l	5.7	APHA 3111-B	-

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

Remarks:- According to tested parameter, the results found within prescribe limit of Drinking water specification IS 10500.

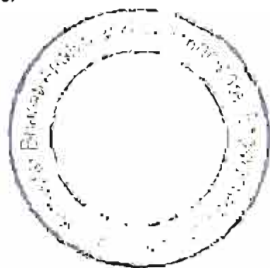
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