



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by :- NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|-----------------------|--|------------------------------|--|-----------------------|--|--------------------------|--|---------------------------------|--|-------------------|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 2 9 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Atmospheric Pollution | | | | Sample Description | | | | Ambient Air Quality (Core Zone) | | | | |
| Report Release Date | 06 th May, 2022 | | | | Report ID | | | | YBAEEL-220428-124042-A01 | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | | Work Order Date | | | | 28.04.2022 | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | | Job code/ Ref. no. | | | | YBAEEL/WA/LIA/May-22/01 | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gofa, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Period | 29/04/2022 – 30/04/2022 | | | | Mode of sample collection | | | | By YBAEEL Team | | | | | | |
| Sampling Protocol | IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13) | | | | | | | | | | | | | | |
| Sampling Locations | A. Near Main Gate | | | | 23°28'59.74"N, 85°39'38.39"E | | | | | | | | | | |
| | B. Near Weight Bridge | | | | 23°29'57.99"N, 85°39'22.10"E | | | | | | | | | | |
| | C. Near T G Building | | | | 23°28'59.23"N, 85°39'23.57"E | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | | RH % - 38 | | | | Temp. - 34°C | | | | W.D.- East - West | | |
| Sample receipt Date | 02/05/2022 | | Analysis Started on | | 02/05/2022 | | Analysis completed on | | 06/05/2022 | | | | | | |

*****Test Results*****

| Parameters | Test Methods | Units | MU % | Sampling Location | | | Limits |
|---|------------------------------|-------------------|------|-------------------|--------|--------|--------|
| | | | | Site A | Site B | Site C | |
| Particulate matter (PM ₁₀) | IS:5182 (P-23) 2006, RA 2017 | µg/m ³ | 2.68 | 87.4 | 90.4 | 85.2 | 100 |
| Particulate matter (PM _{2.5}) | IS:5182 (P-24) 2019 | µg/m ³ | 2.60 | 49.3 | 52.4 | 48.4 | 60 |
| Sulphure Dioxide (SO ₂) | IS:5182 (P-2) 2001 RA 2017 | µg/m ³ | 7.84 | 25.0 | 21.7 | 19.0 | 60 |
| Nitrogen Dioxide (NO ₂) | IS:5182 (P-6) 2006 RA 2017 | µg/m ³ | 4.17 | 53.7 | 50.3 | 45.3 | 80 |

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

| | |
|----------------------------|--|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. |
| | 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 CEO. |
| | The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise |
| | The liability of the laboratory is limited to the invoiced amount. |
| Remarks | All disputes are subjected to the Ranchi Jurisdiction. |
| | Samples comply with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Amr Kumar Sinha (Lab Analyst)

| | |
|---|---|
| | |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Atmospheric Pollution
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazarbag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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Accredited by :- Jharkhand State Pollution Control Board (JSPCB)
Certified by :- An ISO 9001:2015 & ISO 45001:2018



Test Certificate

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|-------------------------------|---|---------------------|------------------------------|--------------------------|---------------------------------|
| Discipline | Chemical | Group | Atmospheric Pollution | Sample Description | Ambient Air Quality (Core Zone) |
| Report Release Date | 06 th May, 2022 | | Report ID | YBAEEL-220428-124042-A01 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LA/May-22/01 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Goia, Ramgarh, Jharkhand. | | | | |
| Sampling Period | 29/04/2022 - 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS:5182 and GPCB Air Manual Volume-1(NAAQM/36/2012-13) | | | | |
| Sampling Locations | A. Near Main Gate | | 23°28'59.74"N, 85°39'38.39"E | | |
| | B. Near Weight Bridge | | 23°29'57.99"N, 85°39'22.10"E | | |
| | C. Near T G Building | | 23°28'59.23"N, 85°39'23.57"E | | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 38 | Temp. - 34°C | W.D.- East - West |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 06/05/2022 |

*****Test Results*****

| Parameters | Test Methods | Units | MU % | Sampling Location | | | Limits |
|----------------------|---------------------------|-------------------|------|-------------------|------------------|------------------|--------|
| | | | | Site A | Site B | Site C | |
| Carbon Monoxide (CO) | SOP No. YBAEEL/SOP/AIR/01 | mg/m ³ | - | BDL (MDL 1.8) | BDL (MDL 1.8) | BDL (MDL 1.8) | - |

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

| | |
|----------------------------|--|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. |
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| Remarks | The liability of the laboratory is limited to the invoiced amount. |
| | All disputes are subjected to the Ranchi Jurisdiction. |
| Remarks | Samples comply with prescribed limit. |

Sample Drawn By - Angad Munda
Tested By - Amit Kumar Sinha (Lab Analyst)

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|-------------------|-------------------|
| | |
| Verified by | Issued by |
| Brij Nandan Kumar | Umesh Das |
| Section In-Charge | Technical Manager |

Authorized Signatory
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Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
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Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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ISO 45001:2018



ISO 9001:2015



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TC-4032

Test Certificate

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|-------------------------------|---|-----------------------------------|-----------------------|--|------------------------------|--|--------------------|--|--------------------------|--|-----------------------------------|--|-----------------------|--|--|--|------------|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 3 2 F | | | | | | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Atmospheric Pollution | | | | Sample Description | | | | Ambient Air Quality (Buffer Zone) | | | | | | | | | |
| Report Release Date | 06 th May, 2022 | | | | Report ID | | | | YBAEEL-220428-124042-A02 | | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | | Work Order Date | | | | 28.04.2022 | | | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | | Job code/ Ref. no. | | | | YBAEEL/WA/LIA/May-22/01 | | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | | | | | | |
| Sampling Period | 30/04/2022 - 01/05/2022 | | | | Mode of sample collection | | | | By YBAEEL Team | | | | | | | | | | | |
| Sampling Protocol | IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13) | | | | | | | | | | | | | | | | | | | |
| Sampling Locations | A. Serenghatu | | | | 23°29'25.99"N, 85°40'30.15"E | | | | | | | | | | | | | | | |
| | B. Biyang | | | | 23°30'0.99"N, 85°39'4.99"E | | | | | | | | | | | | | | | |
| | C. Bariyatu | | | | 23°29'47.77"N, 85°40'17.24"E | | | | | | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | | RH % - 24 | | | | Temp. - 37°C | | | | W.D.- East - West | | | | | | | |
| Sample receipt Date | 02/05/2022 | | | | Analysis Started on | | | | 02/05/2022 | | | | Analysis completed on | | | | 06/05/2022 | | | |

*****Test Results*****

| Parameters | Test Methods | Units | MU % | Sampling Location | | | Limits |
|---|------------------------------|-------------------|------|-------------------|--------|--------|--------|
| | | | | Site A | Site B | Site C | |
| Particulate matter (PM ₁₀) | IS:5182 (P-23) 2006, RA 2017 | µg/m ³ | 2.68 | 80.2 | 79.6 | 74.1 | 100 |
| Particulate matter (PM _{2.5}) | IS:5182 (P-24) 2019 | µg/m ³ | 2.60 | 45.8 | 42.4 | 44.2 | 60 |
| Sulphure Dioxide (SO ₂) | IS:5182 (P-2) 2001 RA 2017 | µg/m ³ | 7.84 | 16.2 | 17.3 | 18.4 | 80 |
| Nitrogen Dioxide (NO ₂) | IS:5182 (P-6) 2006 RA 2017 | µg/m ³ | 4.17 | 38.0 | 40.0 | 36.0 | 80 |

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

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| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
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| | All disputes are subjected to the Ranchi Jurisdiction. |
| Remarks | Samples comply with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Amit Kumar Sinha (Lab Analyst)

| | |
|---|---|
| 06/05/2022 | 06/05/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

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Technical Manager
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ISO 9001:2015
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Test Certificate

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|-------------------------------|---|---------------------|------------------------------|------------|--------------------------|-----------------------------------|-------------------|
| Discipline | Chemical | Group | Atmospheric Pollution | | Sample Description | Ambient Air Quality (Buffer Zone) | |
| Report Release Date | 06 th May, 2022 | | Report ID | | YBAEEL-220428-124042-A02 | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | | 28.04.2022 | | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | | YBAEEL/WA/L/A/May-22/01 | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | |
| Sampling Period | 30/04/2022 - 01/05/2022 | | Mode of sample collection | | By YBAEEL Team | | |
| Sampling Protocol | IS:5182 and CPCB Air Manual Volume-1(NAAQM/36/2012-13) | | | | | | |
| Sampling Locations | A. Serenghatu | | 23°29'25.99"N, 85°40'30.15"E | | | | |
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| | C. Bariyatu | | 23°29'47.77"N, 85°40'17.24"E | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 24 | | Temp. - 37°C | | W.D.- East - West |
| Sample receipt Date | 02/05/2022 | Analysis Started on | | 02/05/2022 | Analysis completed on | | 06/05/2022 |

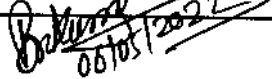

*****Test Results*****

| Parameters | Test Methods | Units | MU % | Sampling Location | | | Limits |
|----------------------|---------------------------|-------------------|------|-------------------|------------------|------------------|--------|
| | | | | Site A | Site B | Site C | |
| Carbon Monoxide (CO) | SOP No. YBAEEL/SOP/AIR/01 | mg/m ³ | - | BDL (MDL 1.8) | BDL (MDL 1.8) | BDL (MDL 1.8) | - |

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

| | |
|----------------------------|--|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 198:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. |
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| Remarks | All disputes are subjected to the Ranchi Jurisdiction. Samples comply with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Amit Kumar Sinha (Lab Analyst)

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|  06/05/2022 |  6/5/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

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ISO 45001:2018



ISO 9001:2015



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TC-4032

Test Certificate

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|-------------------------------|---|-------|-----------------------|--|--|---------------------------|--|--|--------------------------|--|--|------------|--|--|--|
| ULR (Unique Lab Report) No. | T C 4 0 3 2 2 2 0 0 0 0 0 7 3 0 F | | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Atmospheric Pollution | | | Sample Description | | | Ambient Noise | | | | | | |
| Report Release Date | 06 th May, 2022 | | | | | Report ID | | | YBAEEL-220428-124042-N01 | | | | | | |
| W. Order / JSPCB App. No. | Telephonic Order | | | | | Work Order Date | | | 28.04.2022 | | | | | | |
| Type of Industry (If any) | Thermal Power Plant | | | | | Job code/ Ref. no. | | | YBAEEL/WA/LJA/May-22/01 | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Period | 29/04/2022 - 30/04/2022 | | | | | Mode of sample collection | | | By YBAEEL Team | | | | | | |
| Sampling Protocol | IS 9989:1981 (RA 2020) | | | | | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | | | RH % - 36 | | | Temp. - 40°C | | | | | | |
| Sample receipt Date | 02/05/2022 | | Analysis Started on | | | 02/05/2022 | | | Analysis completed on | | | 06/05/2022 | | | |

*****Test Results*****

| Sl | Locations | Parameters | Units | MU % | Day Time (6.00 a.m. to 10.00 p.m.) | Night Time (10.00 p.m. to 6.00 a.m.) | Limits |
|----|--------------------|------------|--------|------|---------------------------------------|---|------------------------|
| 1. | Near Main Gate | Leq | dB (A) | 3.32 | 54.8 | 46.9 | Day - 75 Night - 70 |
| 2. | Near Weight Bridge | Leq | dB (A) | 3.32 | 61.1 | 48.6 | |
| 3. | Near T G Building | Leq | dB (A) | 3.32 | 64.5 | 62.6 | |
| 4. | Near Cooling Tower | Leq | dB (A) | 3.32 | 64.7 | 64.6 | |
| 5. | Near Hostel | Leq | dB (A) | 3.32 | 61.3 | 43.3 | |

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

| <ul style="list-style-type: none"> 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 referable to human hearing. | Area | | Unit | Day Time | Night time |
|---|------|------------------|--------|----------|------------|
| | A | Industrial Area | dB (A) | 75.0 | 70.0 |
| | B | Commercial Area | dB (A) | 65.0 | 55.0 |
| | C | Residential Area | dB (A) | 55.0 | 45.0 |
| | D | Silence Zone | dB (A) | 50.0 | 40.0 |

| | |
|----------------------------|--|
| Limit is specified as | Noise pollution (Regulation & Control) Rules, 2000 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit, |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
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| Remarks | Samples comply with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Amit Kumar Sinha (Lab Analyst)

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| Verified by Brij Nandan Kumar Section in-Charge | Issued by Umesh Das Technical Manager |

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Test Certificate

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|-------------------------------|---|-----------------------------------|-----------------------|--|---------------------------|--|-----------------------|--|-------------------------|--|----------------------------|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 3 1 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Atmospheric Pollution | | | | Sample Description | | | | Stationary Source Emission | | | | |
| Report Release Date | 06 th May, 2022 | | | | Report ID | | | | YBAEEL-220428-124042-S1 | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | | Work Order Date | | | | 28.04.2022 | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | | Job code/ Ref. no. | | | | YBAEEL/WA/LIA/May-22/01 | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Period | 30/04/2022 | | | | Mode of sample collection | | | | By YBAEEL Team | | | | | | |
| Sampling Protocol | IS: 11255 & CPCB Guideline (Lats/80/2013-14) | | | | | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | | RH % - 40 | | | | Temp.- 34°C | | | | | | |
| Sample receipt Date | 02/05/2022 | | Analysis Started on | | 02/05/2022 | | Analysis completed on | | 06/05/2022 | | | | | | |

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 (During Sampling) | 60 MT/Hr. |
| Stack Description (Shape & Material) | Circular / RCC | Total production Capacity | 58 MW |
| Sampling port | Available | Height of Stack from ground level | 95.0 m |
| Stack Identification | Single | Inner Diameter of Stack | 3.0 m |
| Height of port hole from Ground level | 48.0 m | Pollution Controlling Device (if any) | ESP |
| Running Oven during sampling (if any) | N/A | Total No. of Oven (if any) | N/A |

*****Test Results*****

| Sl | Parameters | Test Method | Units | MU % | Results | Limits |
|----|---|-------------------------------|---------------------|------|---------------|--------|
| 1. | Stack gas Temperature | IS 11255 (Part 3)2008 | k | -- | 427.0 | - |
| 2. | Stack gas Velocity | IS 11255 (Part 3)2008 | m/s | -- | 22.08 | - |
| 3. | Volumetric Flow Rate | IS 11255 (Part 3)2008 | Nm ³ /hr | -- | 378536.7 | - |
| 3. | Particulate Matter (PM) | IS 11255 (Part 1)2009 | mg/Nm ³ | 2.12 | 46.0 | 50 |
| 4. | Sulphure Dioxide (SO ₂) | IS 11255 (Part 2)2009 | mg/Nm ³ | 3.06 | 165.7 | 600 |
| 5. | Oxide of Nitrogen (as NO _x) | IS 11255 (Part 7)2005 RA 2012 | mg/Nm ³ | 2.70 | 69.2 | 450 |
| 7. | Carbon Monoxide (CO) | IS 13270:1992 (RA 2009) | % | -- | BDL (MDL 0.2) | - |

Emission Rate

| | | | | | |
|----|---|-------------------------------|--------|-------|----|
| 1. | Particulate Matter (PM) | IS 11255 (Part 1)2009 | kg/hr. | 17.41 | -- |
| 2. | Sulphure Dioxide (SO ₂) | IS 11255 (Part 2)2009 | kg/hr. | 62.72 | -- |
| 3. | Oxide of Nitrogen (as NO _x) | IS 11255 (Part 7)2005 RA 2012 | kg/hr. | 26.19 | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. The samples collected shall be destroyed after 7 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Amit Kumar Sinha (Lab Analyst)

| | |
|---|---|
| 02/05/2022 | 6/5/22 |
| Verified by Brij Nandan Kumar Section in-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Atmospheric Pollution
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
 Ph : 09835-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
 ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :- Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- An ISO 9001:2015 & ISO 45001:2018



Test Certificate

| | | | | | |
|-------------------------------|---|---------------------------|-----------------------|-------------------------|----------------------------|
| Discipline | Chemical | Group | Atmospheric Pollution | Sample Description | Stationary Source Emission |
| Report Release Date | 06 th May, 2022 | | Report ID | YBAEEL-220428-124042-S1 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEELWAL/A/May-22/01 | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Period | 30/04/2022 | Mode of sample collection | By YBAEEL Team | | |
| Sampling Protocol | IS: 11255 & CPCB Guideline (Lats/80/2013-14) | | | | |
| Meteorological Cond. of Field | W.C. - Clear | RH % - 40 | Temp. - 34°C | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 06/05/2022 |

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 (During Sampling) | 60 MT/Hr. |
| Stack Description (Shape & Material) | Circular / RCC | Total production Capacity | 59 MW |
| Sampling port | Available | Height of Stack from ground level | 95.0 m |
| Stack Identification | Single | Inner Diameter of Stack | 3.0 m |
| Height of port hole from Ground level | 48.0 m | Pollution Controlling Device (if any) | ESP |
| Running Oven during sampling (if any) | N/A | Total No. of Oven (if any) | N/A |

*****Test Results*****

| Sl | Parameters | Test Method | Units | MU % | Results | Limits |
|----|-----------------|------------------|--------------------|------|-----------------|--------|
| 1. | Mercury (as Hg) | Lat's/80/2013-14 | mg/Nm ³ | -- | BDL (MDL 0.003) | 0.03 |

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

| | |
|----------------------------|---|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. The samples collected shall be destroyed after 7 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Amit Kumar Sinha (Lab Analyst)

| | |
|---|---|
| | |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Atmospheric Pollution
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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ISO 45001:2018



ISO 9001:2015



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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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 Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|------------|
| Discipline | Chemical | Group | Pollution & Environment | Sample Description | ASH |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042- S01 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/S/May-22/01 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-S-X01 | |
| Sampling Location | Silo | | Sampling Source | Fly Ash | |
| Sample pkg. Condition | Sealed Pack in Zipper Bag | | Sample Quantity | 2.5 Kg Approx. | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 30 | Temp. - 42°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 09/05/2022 |

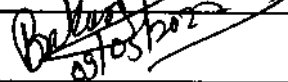
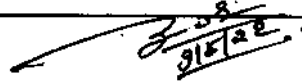
*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results |
|----|------------------|--------------------------------|-------|-------|----------------|
| 1. | Iron (as Fe) | USEPA 3050 B :1996/APHA 3111 B | ppm | 2.73 | 20.02 |
| 2. | Zinc (as Zn) | USEPA 3050 B :1996/APHA 3111 B | ppm | 4.44 | 0.26 |
| 3. | Copper (as Cu) | USEPA 3050 B :1996/APHA 3111 B | ppm | 10.18 | BDL (MDL 0.01) |
| 4. | Lead (as Pb) | USEPA 3050 B :1996/APHA 3111 B | ppm | 2.82 | BDL (MDL 0.02) |
| 5. | Nickel (as Ni) | USEPA 3050 B :1996/APHA 3111 B | ppm | 4.10 | BDL (MDL 0.02) |
| 6. | Cadmium (as Cd) | USEPA 3050 B :1996/APHA 3111 B | ppm | 9.57 | 0.08 |
| 7. | Chromium (as Cr) | USEPA 3050 B :1996/APHA 3111 B | ppm | 5.44 | 0.14 |

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

| | |
|----------------------------|---|
| Limit is specified as | |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. 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 CEO. 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. |
| Remarks | |

Sample Drawn By : Angad Munda
 Tested By : Shvanti Kumari Singh (Lab Analyst)

| | |
|---|--|
|  |  |
| Verified by | Issued by |
| Brij Nandan Kumar | Umesh Das |
| Section In-Charge | Technical Manager |

Authorized Signatory
 Pollution & Environment
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand

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ISO 45001:2018



ISO 9001:2015



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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



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 Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|--------------|
| Discipline | Chemical | Group | Pollution & Environment | Sample Description | ASH |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042- S02 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/S/May-22/01 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-S-X02 | |
| Sampling Location | Bed Ash Drain Area | | Sampling Source | Bottom Ash | |
| Sample pkg. Condition | Sealed Pack in Zipper Bag | | Sample Quantity | 2.5 Kg Approx. | |
| Meteorological Cond. of Field | W.C. - Clear | | RH % - 30 | | Temp. - 38°C |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 09/05/2022 |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results |
|----|------------------|--------------------------------|-------|-------|----------------|
| 1. | Iron (as Fe) | USEPA 3050 B :1996/APHA 3111 B | ppm | 2.73 | 18.92 |
| 2. | Zinc (as Zn) | USEPA 3050 B :1996/APHA 3111 B | ppm | 4.44 | 0.24 |
| 3. | Copper (as Cu) | USEPA 3050 B :1996/APHA 3111 B | ppm | 10.18 | BDL (MDL 0.01) |
| 4. | Lead (as Pb) | USEPA 3050 B :1996/APHA 3111 B | ppm | 2.82 | BDL (MDL 0.02) |
| 5. | Nickel (as Ni) | USEPA 3050 B :1996/APHA 3111 B | ppm | 4.10 | BDL (MDL 0.02) |
| 6. | Cadmium (as Cd) | USEPA 3050 B :1996/APHA 3111 B | ppm | 9.57 | 0.06 |
| 7. | Chromium (as Cr) | USEPA 3050 B :1996/APHA 3111 B | ppm | 5.44 | 0.10 |

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

| | |
|----------------------------|---|
| Limit is specified as | ----- |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 85 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. 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 CEO. 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. |
| Remarks | ----- |

Sample Drawn By : Angad Munda
 Tested By : Shivani Kumari Singh (Lab Analyst)

| | |
|-------------------|-------------------|
| | |
| Verified by | Issued by |
| Brij Nandan Kumar | Umesh Das |
| Section In-Charge | Technical Manager |

Authorized Signatory
 Pollution & Environment
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by: - NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by: - ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|------------|---------------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 3 3 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Surface Water | | | | | | | | | | |
| Report Release Date | 06 th May, 2022 | | | Report ID | YBAEEL-220428-124042-SW01 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/C/May-22/01 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 02/05/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-SW-X01 | | | | | | | | | | |
| Sampling Location | Near Cooling Tower | | | Sampling Source | Surface Water (Effluent) | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 3000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | Temp. - 42°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 06/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|-----|--|--|-------|-------|----------------|--------|
| 1. | pH value | IS 3025 (P-11):2002 | pH | 1.77 | 7.98 | -- |
| 2. | Total Alkalinity (as CaCO ₃) | IS 3025 (P-23):2003 | mg/l | 3.68 | 90.0 | -- |
| 3. | Total Hardness (as CaCO ₃) | IS 3025 (P-21):2009 | mg/l | 1.35 | 110.0 | -- |
| 4. | Oxygen (dissolved) | IS 3025 (P-38):2003 | mg/l | 6.5 | 6.7 | -- |
| 5. | Total dissolved solids | IS 3025 (P-16):2006 | mg/l | 2.85 | 164.0 | -- |
| 6. | Total suspended solids | IS 3025 (P-17):2012 | mg/l | 5.7 | BDL (MDL 10.0) | -- |
| 7. | Oil and grease | IS 3025 (P-39):2003 | mg/l | 8.79 | 4.2 | -- |
| 8. | BOD | IS 3025 (P-44):2009 | mg/l | 11.04 | 1.4 | -- |
| 9. | COD | IS 3025 (P-58):2006 | mg/l | 8.75 | 28.0 | -- |
| 10. | Chloride (as Cl ⁻) | IS 3025 (P-32):2003 | mg/l | 3.41 | 28.5 | -- |
| 11. | Nitrate (as NO ₃ ⁻) | APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017 | mg/l | 11.33 | 0.38 | -- |
| 12. | Sulphate (as SO ₄ ²⁻) | IS 3025 (P-24):2003 | mg/l | 5.42 | 16.2 | -- |
| 13. | Sodium (as Na ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 16.98 | 12.0 | -- |
| 14. | Potassium (as K ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 9.21 | 1.0 | -- |

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

| | |
|----------------------------|---|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL - Minimum detection limit. BDL - Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 198:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh / Akash Khaikho (Lab Analyst)

| | |
|---|---|
| 06/05/2022 | 6/5/22 |
| Verified by Brij Nandan Kumar Section in-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
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Technical Manager
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Accredited by: - Jharkhand State Pollution Control Board (JSPCB)

Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|---------------|
| Discipline | Chemical | Group | Water | Sample Description | Surface Water |
| Report Release Date | 06 th May, 2022 | | Report ID | YBAEEL-220428-124042-SW01 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEELWA/L/C/May-22/01 | |
| Report issue to | M/s Inland Power Limited Tonagatu, Goia, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 02/05/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-SW-X01 | |
| Sampling Location | Near Cooling Tower | | Sampling Source | Surface Water (Effluent) | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 3000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 42°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 06/05/2022 |

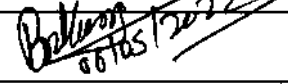
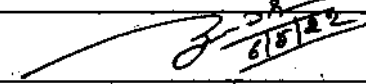
*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|--|---------------------|-------|------|---------------|--------|
| 1. | Nitrogen Ammonia | IS 3025 (P-34):1988 | mg/l | - | BDL (MDL 0.1) | - |
| 2. | Phosphate (as PO ₄ ⁺) | IS 3025 (P-31):2003 | mg/l | - | 0.246 | 5 |

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

| | |
|----------------------------|---|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
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| | The liability of the laboratory is limited to the invoiced amount. |
| Remarks | All disputes are subjected to the Ranchi Jurisdiction. Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari singh / Akash Khalkho (Lab Analyst)

| | |
|---|--|
|  06/05/2022 |  06/05/2022 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|------------|---------------------------|---------------------------|---------------------------------|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 3 4 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | | Sample Description | Residue & Contaminants in Water | | | | | | | | | |
| Report Release Date | 06 th May, 2022 | | | Report ID | YBAEEL-220428-124042-SW01 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/01 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-SW-X01 | | | | | | | | | | |
| Sampling Location | Near Cooling Tower | | | Sampling Source | Surface Water (Effluent) | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 1000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | Temp. - 42°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 06/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|------------------|---|-------|-------|----------------|--------|
| 1. | Copper (as Cu) | APHA 3111 B 23 rd edition 2017 | mg/l | 11.11 | BDL (MDL 0.01) | -- |
| 2. | Iron (as Fe) | APHA 3111 B 23 rd edition 2017 | mg/l | 2.34 | 0.25 | -- |
| 3. | Lead (as Pb) | APHA 3111 B 23 rd edition 2017 | mg/l | 10.64 | BDL (MDL 0.02) | -- |
| 4. | Cadmium (as Cd) | APHA 3111 B 23 rd edition 2017 | mg/l | 5.0 | BDL (MDL 0.02) | -- |
| 5. | Chromium (as Cr) | APHA 3111 B 23 rd edition 2017 | mg/l | 12.53 | BDL (MDL 0.02) | 0.2 |
| 6. | Nickel (as Ni) | APHA 3111 B 23 rd edition 2017 | mg/l | 13.72 | BDL (MDL 0.02) | -- |
| 7. | Cobalt (Co) | APHA 3111 B 23 rd edition 2017 | mg/l | 28.33 | BDL (MDL 0.03) | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | Environmental (Protection) Rule - 1986. |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumeri Singh (Lab Analyst)

| | |
|---|---|
| | |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office : - Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
 Ph : 09835-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: - Jharkhand State Pollution Control Board (JSPCB)
Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|---------------------------------|
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water |
| Report Release Date | 06 th May, 2022 | | Report ID | YBAEEL-220428-124042-SW01 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/01 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Goia, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-SW-X01 | |
| Sampling Location | Near Cooling Tower | | Sampling Source | Surface Water (Effluent) | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 1000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 42°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 06/05/2022 |



*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|-------------------|---------------------|-------|------|----------------|--------|
| 1. | Aluminium (as Al) | IS 3025 (P-55):2003 | mg/l | - | BDL (MDL 0.02) | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | |

Sample Drawn By - Angad Munda
Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|--|
|  06/05/2022 |  06/05/22 |
| Verified by Brij Nandan Kumar Section in-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office : - Jamshedpur Dhanbad Hazaribag Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand

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ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by: - NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by: - ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|------------|---------------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 4 5 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Ground Water | | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW01 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LC/May-22/02 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X01 | | | | | | | | | | |
| Sampling Location | Tonaghatu | | | Sampling Source | Ground Water | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 3000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | Temp. - 39°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|-----|--|--|-------|-------|----------------|------------------|
| 1. | pH value | IS 3025 (P-11):2002 | pH | 1.77 | 6.72 | 6.5-8.5 |
| 2. | Colour | IS 3025 (P-04):1983 | Hazen | -- | 10 | 5-15 |
| 3. | Conductivity | IS 3025 (P-14):2013 | µs/cm | 1.90 | 220.0 | -- |
| 4. | Total Alkalinity (as CaCO ₃) | IS 3025 (P-23):2003 | mg/l | 3.68 | 66.0 | 200-600 |
| 5. | Total Hardness (as CaCO ₃) | IS 3025 (P-21):2009 | mg/l | 1.35 | 74.0 | 200-600 |
| 6. | Total dissolved solids | IS 3025 (P-16):2006 | mg/l | 2.85 | 120.0 | 500-2000 |
| 7. | Chlorine Residual | IS 3025 (P-26):2003 | mg/l | 30.64 | BDL (MDL 0.07) | 0.2-1 |
| 8. | Chloride (as Cl ⁻) | IS 3025 (P-32):2003 | mg/l | 3.41 | 9.0 | 250-1000 |
| 9. | Fluoride (as F ⁻) | APHA 4500 F-C 23 rd edition 2017 | mg/l | 12.22 | 1.0 | 1.0-1.5 |
| 10. | Nitrate (as NO ₃ ⁻) | APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017 | mg/l | 11.33 | 3.87 | 45-No relaxation |
| 11. | Calcium (as Ca ²⁺) | IS 3025 (P-40): 2003 | mg/l | 4.19 | 22.4 | 75-200 |
| 12. | Magnesium (as Mg ²⁺) | APHA 3500 Mg B : 2017 | mg/l | 1.90 | 4.37 | 30-100 |
| 13. | Sodium (as Na ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 16.98 | 20.0 | -- |
| 14. | Potassium (as K ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 9.21 | 1.9 | -- |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility |
| | 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 CEO. |
| | 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. |
| Remarks | All disputes are subjected to the Ranchi Jurisdiction. Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|---|
| 09/05/2022 | 31/5/20 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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 Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|--------------|
| Discipline | Chemical | Group | Water | Sample Description | Ground Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW01 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LC/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X01 | |
| Sampling Location | Tonaghatu | | Sampling Source | Ground Water | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 3000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 39°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|---|---------------------|-------|------|-----------------|--------------------|
| 1. | Odour | IS 3025 (P-05):2002 | -- | -- | Agree. | Agreeable |
| 2. | Taste | IS 3025 (P-07):2002 | -- | -- | Agree. | Agreeable |
| 3. | Phosphate (as PO ₄ ³⁻) | IS 3025 (P-31):2003 | mg/l | -- | BDL (MDL 0.003) | -- |
| 4. | Cyanide (as CN ⁻) | IS 3025 (P-27) | mg/l | -- | BDL (MDL 1.0) | 0.05-No relaxation |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|---|
| | |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by :- NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|-------|---------------------------|-----------------------|---------------------------------|------------|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 3 9 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | | Residue & Contaminants in Water | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | | YBAEEL-220428-124042-GW01 | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | | 28.04.2022 | | | | | | | | | |
| Type of Industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | | YBAEEL/WA/LR/May-22/02 | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | | By YBAEEL Team | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | | 220502-GW-X01 | | | | | | | | | |
| Sampling Location | Tonaghatu | | | Sampling Source | | Ground Water | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | | 1000 ml | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | | Temp. - 39°C | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | | 02/05/2022 | Analysis completed on | | 07/05/2022 | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|------------------|---|-------|-------|-----------------|---------------------|
| 1. | Arsenic (as As) | APHA 3114 B 23 rd edition 2017 | mg/l | 10.34 | BDL (MDL 0.003) | 0.01-No relaxation |
| 2. | Copper (as Cu) | APHA 3111 B 23 rd edition 2017 | mg/l | 11.11 | BDL (MDL 0.01) | 0.05-1.5 |
| 3. | Iron (as Fe) | APHA 3111 B 23 rd edition 2017 | mg/l | 2.34 | 0.16 | 1.0-No relaxation |
| 4. | Lead (as Pb) | APHA 3111 B 23 rd edition 2017 | mg/l | 10.64 | BDL (MDL 0.02) | 0.01-No relaxation |
| 5. | Zinc (as Zn) | APHA 3111 B 23 rd edition 2017 | mg/l | 15.35 | 0.21 | 5-15 |
| 6. | Cadmium (as Cd) | APHA 3111 B 23 rd edition 2017 | mg/l | 5.0 | BDL (MDL 0.02) | 0.003-No relaxation |
| 7. | Chromium (as Cr) | APHA 3111 B 23 rd edition 2017 | mg/l | 12.53 | BDL (MDL 0.02) | 0.05-No relaxation |
| 8. | Nickel (as Ni) | APHA 3111 B 23 rd edition 2017 | mg/l | 13.72 | BDL (MDL 0.02) | 0.02-No relaxation |
| 9. | Cobalt (Co) | APHA 3111 B 23 rd edition 2017 | mg/l | 28.33 | BDL (MDL 0.03) | - |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 198:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh (Lab Analyst)

| | | | |
|---|--|---|--|
| <i>Brij Nandan Kumar</i> 09/05/2022 | | <i>Umesh Das</i> 9/5/22 | |
| Verified by Brij Nandan Kumar Section In-Charge | | Issued by Umesh Das Technical Manager | |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|---------------------------------|
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW01 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(If any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X01 | |
| Sampling Location | Tonaghatu | | Sampling Source | Ground Water | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 1000 ml | |
| Meteorological Cond. of Field | W.C. - Clear | | RH % - 23 | Temp. - 39°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

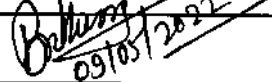

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|-------------------|---------------------|-------|------|----------------|----------|
| 1. | Aluminium (as Al) | IS 3025 (P-55):2003 | mg/l | -- | BDL (MDL 0.02) | 0.03-0.2 |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C) |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|--|
|  09/05/2022 |  09/05/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|------------|---------------------------|---------------------------|--------------------|--------------|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 2 4 F | | | | | | | | | | | | | |
| Discipline | Biological | Group | Water | | | Sample Description | Ground Water | | | | | | | | |
| Report Release Date | 06 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW01 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/M/May-22/01 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 1622:1982, R - 2019 | | | Sample Code | 220502-GW-X01 | | | | | | | | | | |
| Sampling Location | Tonaghatu | | | Sampling Source | Ground Water | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 250 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | Temp. - 39°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 03/05/2022 | Analysis completed on | 05/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | Results | Limits |
|----|----------------|---|------------|---------------|---|
| 1. | Total coliform | APHA 9221B 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | Shall not to be Detectable in any 100 ml sample |
| 2. | Fecal coliform | APHA 9221E 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |
| 3. | E coli | APHA 9221-F 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2012 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit, <1.8 / < 1.1 MPN/100 ml denotes that the presence probability of bacteria is absent in the tested sample. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. |
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| | This report cannot be reproduced, except when in full, without the written permission of the CEO. |
| | The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise. |
| | The liability of the laboratory is limited to the invoiced amount. |
| Remarks | All disputes are subjected to the Ranchi Jurisdiction. Sample complies with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Madhuri Sinha (Lab Analyst)

| | |
|--|---|
| | |
| Verified by Mukesh Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Microbiological Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory



Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
 Ph : 09835-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in





YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by: - NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by: - ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|------------|---------------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 4 6 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Ground Water | | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW02 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LIC/May-22/02 | | | | | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X02 | | | | | | | | | | |
| Sampling Location | Bariyatu | | | Sampling Source | Ground Water | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 3000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | Temp. - 40°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|-----|--|--|-------|-------|----------------|------------------|
| 1. | pH value | IS 3025 (P-11):2002 | pH | 1.77 | 6.85 | 6.5-8.5 |
| 2. | Colour | IS 3025 (P-04):1983 | Hazen | - | < 5 | 5-15 |
| 3. | Conductivity | IS 3025 (P-14):2013 | µs/cm | 1.90 | 516.0 | .. |
| 4. | Total Alkalinity (as CaCO ₃) | IS 3025 (P-23):2003 | mg/l | 3.68 | 52.0 | 200-600 |
| 5. | Total Hardness (as CaCO ₃) | IS 3025 (P-21):2009 | mg/l | 1.35 | 192.0 | 200-600 |
| 6. | Total dissolved solids | IS 3025 (P-16):2006 | mg/l | 2.85 | 270.0 | 500-2000 |
| 7. | Chlorine Residual | IS 3025 (P-26):2003 | mg/l | 30.64 | BDL (MDL 0.07) | 0.2-1 |
| 8. | Chloride (as Cl ⁻) | IS 3025 (P-32):2003 | mg/l | 3.41 | 51.5 | 250-1000 |
| 9. | Fluoride (as F ⁻) | APHA 4500 F-C 23 rd edition 2017 | mg/l | 12.22 | 0.7 | 1.0-1.5 |
| 10. | Nitrate (as NO ₃ ⁻) | APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017 | mg/l | 11.33 | 3.86 | 45-No relaxation |
| 11. | Calcium (as Ca ²⁺) | IS 3025 (P-40): 2003 | mg/l | 4.19 | 55.2 | 75-200 |
| 12. | Magnesium (as Mg ²⁺) | APHA 3500 Mg B : 2017 | mg/l | 1.90 | 13.12 | 30-100 |
| 13. | Sodium (as Na ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 16.98 | 19.0 | .. |
| 14. | Potassium (as K ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 9.21 | 2.0 | .. |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C) |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|--|---|
| | |
| Verified by Bri Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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 Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|--------------|
| Discipline | Chemical | Group | Water | Sample Description | Ground Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW02 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(If any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/C/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Goia, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X02 | |
| Sampling Location | Bariyatu | | Sampling Source | Ground Water | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 3000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 40°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |



*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|---|---------------------|-------|------|---------------|--------------------|
| 1. | Taste | IS 3025 (P-07):2002 | -- | -- | Agree. | Agreeable |
| 2. | Phosphate (as PO ₄ ³⁻) | IS 3025 (P-31):2003 | mg/l | -- | 0.244 | -- |
| 3. | Cyanide(as CN ⁻) | IS 3025 (P-27) | mg/l | -- | BDL (MDL 1.0) | 0.05-No relaxation |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL - Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C) |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By :- Angad Munda
 Tested By :- Shivani Kumari Singh / Akash Khelkho (Lab Analyst)

| | |
|---|--|
|  09/05/2022 |  9/5/22 |
| Verified by Bri Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by :- NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|---------------------|---------------------------|------------|--|-----------------------|---------------------------------|------------|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 4 0 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | | | | Residue & Contaminants in Water | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | | | | YBAEEL-220428-124042-GW02 | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | | | | 28.04.2022 | | | | | | | |
| Type of Industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | | | | YBAEEL/WA/LR/May-22/02 | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | | | | By YBAEEL Team | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | | | | 220502-GW-X02 | | | | | | | |
| Sampling Location | Bariyatu. | | | Sampling Source | | | | Ground Water | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | | | | 1000 ml | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | | | | Temp. - 40°C | | | | | | | |
| Sample receipt Date | 02/05/2022 | | Analysis Started on | | 02/05/2022 | | Analysis completed on | | 07/05/2022 | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|------------------|---|-------|-------|-----------------|---------------------|
| 1. | Arsenic (as As) | APHA 3114 B 23 rd edition 2017 | mg/l | 10.34 | BDL (MDL 0.003) | 0.01-No relaxation |
| 2. | Copper (as Cu) | APHA 3111 B 23 rd edition 2017 | mg/l | 11.11 | BDL (MDL 0.01) | 0.05-1.5 |
| 3. | Iron (as Fe) | APHA 3111 B 23 rd edition 2017 | mg/l | 2.34 | 0.18 | 1.0-No relaxation |
| 4. | Lead (as Pb) | APHA 3111 B 23 rd edition 2017 | mg/l | 10.64 | BDL (MDL 0.02) | 0.01-No relaxation |
| 5. | Zinc (as Zn) | APHA 3111 B 23 rd edition 2017 | mg/l | 15.35 | 0.22 | 5-15 |
| 6. | Cadmium (as Cd) | APHA 3111 B 23 rd edition 2017 | mg/l | 5.0 | BDL (MDL 0.02) | 0.003-No relaxation |
| 7. | Chromium (as Cr) | APHA 3111 B 23 rd edition 2017 | mg/l | 12.53 | BDL (MDL 0.02) | 0.05-No relaxation |
| 8. | Nickel (as Ni) | APHA 3111 B 23 rd edition 2017 | mg/l | 13.72 | BDL (MDL 0.02) | 0.02-No relaxation |
| 9. | Cobalt (Co) | APHA 3111 B 23 rd edition 2017 | mg/l | 28.33 | BDL (MDL 0.03) | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|---|
| | |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- | Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|---------------------------------|
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW02 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/R/May-22/02 | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X02 | |
| Sampling Location | Bariyatu | | Sampling Source | Ground Water | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 1000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 40°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

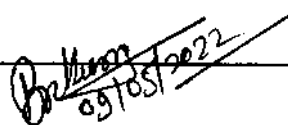
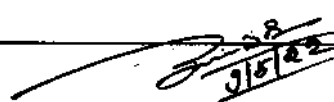
*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|-------------------|---------------------|-------|------|----------------|----------|
| 1. | Aluminium (as Al) | IS 3025 (P-55):2003 | mg/l | -- | BDL (MDL 0.02) | 0.03-0.2 |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit, |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C) |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Anand Murda
 Tested By - Shivani Kumar Singh (Lab Analyst)

| | |
|---|---|
|  09/05/2022 |  01/5/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



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 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|---------------------------|-----------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 2 5 F | | | | | | | | | | | | | |
| Discipline | Biological | Group | Water | Sample Description | Ground Water | | | | | | | | | | |
| Report Release Date | 06 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW02 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/M/May-22/01 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | | |
| Sampling Protocol | IS : 1622:1982, R - 2019 | | Sample Code | 220502-GW-X02 | | | | | | | | | | | |
| Sampling Location | Bariyatu | | Sampling Source | Ground Water | | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 250 ml | | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 40°C | | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 03/05/2022 | Analysis completed on | 05/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | Results | Limits |
|----|----------------|---|------------|---------------|---|
| 1. | Total coliform | APHA 9221B 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | Shall not to be Detectable in any 100 ml sample |
| 2. | Fecal coliform | APHA 9221E 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |
| 3. | E coli | APHA 9221-F 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2012 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit, <1.8 / < 1.1 MPN/100 ml denotes that the presence probability of bacteria is absent in the tested sample. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. |
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| | This report cannot be reproduced, except when in full, without the written permission of the CEO. |
| | The samples collected shall be destroyed after 7 days from the date of issue of the certificate unless specified otherwise |
| | The liability of the laboratory is limited to the invoiced amount. |
| Remarks | All disputes are subjected to the Ranchi Jurisdiction. Sample complies with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Madhuri Sinha (Lab Analyst)

| | |
|-------------------|-------------------|
| | |
| Verified by | Issued by |
| Mukesh Kumar | Umesh Das |
| Section In-Charge | Technical Manager |

Authorized Signatory
 Microbiological Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|------------|---------------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 4 7 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Ground Water | | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW03 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/C/May-22/02 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X03 | | | | | | | | | | |
| Sampling Location | Biyang | | | Sampling Source | Ground Water | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 3000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | Temp. - 38°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|-----|--|--|-------|-------|----------------|------------------|
| 1. | pH value | IS 3025 (P-11):2002 | pH | 1.77 | 6.51 | 6.5-8.5 |
| 2. | Colour | IS 3025 (P-04):1983 | Hazen | -- | 5 | 5-15 |
| 3. | Conductivity | IS 3025 (P-14):2013 | µs/cm | 1.90 | 802.0 | -- |
| 4. | Total Alkalinity (as CaCO ₃) | IS 3025 (P-23):2003 | mg/l | 3.68 | 134.0 | 200-600 |
| 5. | Total Hardness (as CaCO ₃) | IS 3025 (P-21):2009 | mg/l | 1.35 | 324.0 | 200-600 |
| 6. | Total dissolved solids | IS 3025 (P-16):2006 | mg/l | 2.85 | 412.0 | 500-2000 |
| 7. | Chlorine Residual | IS 3025 (P-26):2003 | mg/l | 30.64 | BDL (MDL 0.07) | 0.2-1 |
| 8. | Chloride (as Cl ⁻) | IS 3025 (P-32):2003 | mg/l | 3.41 | 76.0 | 250-1000 |
| 9. | Fluoride (as F ⁻) | APHA 4500 F-C 23 rd edition 2017 | mg/l | 12.22 | 0.9 | 1.0-1.5 |
| 10. | Nitrate (as NO ₃ ⁻) | APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017 | mg/l | 11.33 | 3.87 | 45-No relaxation |
| 11. | Calcium (as Ca ²⁺) | IS 3025 (P-40): 2003 | mg/l | 4.19 | 79.2 | 75-200 |
| 12. | Magnesium (as Mg ²⁺) | APHA 3500 Mg B : 2017 | mg/l | 1.90 | 30.61 | 30-100 |
| 13. | Sodium (as Na ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 16.98 | 18.6 | -- |
| 14. | Potassium (as K ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 9.21 | 1.4 | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shikha Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|-------------------|-------------------|
| | |
| Verified by | Issued by |
| Brij Nandan Kumar | Umesh Das |
| Section in-Charge | Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :- Jharkhand State Pollution Control Board (JSPCB)

Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|--------------|
| Discipline | Chemical | Group | Water | Sample Description | Ground Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW03 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(If any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/C/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X03 | |
| Sampling Location | Biyang | | Sampling Source | Ground Water | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 3000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 38°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

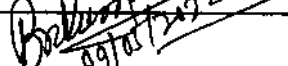

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|---|---------------------|-------|------|-----------------|--------------------|
| 1. | Odour | IS 3025 (P-05):2002 | -- | -- | Agree. | Agreeable |
| 2. | Taste | IS 3025 (P-07):2002 | -- | -- | Agree. | Agreeable |
| 3. | Phosphate (as PO ₄ ³⁻) | IS 3025 (P-31):2003 | mg/l | -- | BDL (MDL 0.003) | -- |
| 4. | Cyanide(as CN ⁻) | IS 3025 (P-27) | mg/l | -- | BDL (MDL 1.0) | 0.05-No relaxation |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|--|
|  09/05/2022 |  09/05/2022 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand

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ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by :- NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|------------|---------------------------|---------------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 4 1 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water | | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW03 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/02 | | | | | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X03 | | | | | | | | | | |
| Sampling Location | Biyang | | | Sampling Source | Ground Water | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 1000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 23 | Temp. - 38°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|------------------|---|-------|-------|-----------------|---------------------|
| 1. | Arsenic (as As) | APHA 3114 B 23 rd edition 2017 | mg/l | 10.34 | BDL (MDL 0.003) | 0.01-No relaxation |
| 2. | Copper (as Cu) | APHA 3111 B 23 rd edition 2017 | mg/l | 11.11 | BDL (MDL 0.01) | 0.05-1.5 |
| 3. | Iron (as Fe) | APHA 3111 B 23 rd edition 2017 | mg/l | 2.34 | 0.17 | 1.0-No relaxation |
| 4. | Lead (as Pb) | APHA 3111 B 23 rd edition 2017 | mg/l | 10.64 | BDL (MDL 0.02) | 0.01-No relaxation |
| 5. | Zinc (as Zn) | APHA 3111 B 23 rd edition 2017 | mg/l | 15.35 | 0.22 | 5-15 |
| 6. | Cadmium (as Cd) | APHA 3111 B 23 rd edition 2017 | mg/l | 5.0 | BDL (MDL 0.02) | 0.003-No relaxation |
| 7. | Chromium (as Cr) | APHA 3111 B 23 rd edition 2017 | mg/l | 12.53 | BDL (MDL 0.02) | 0.05-No relaxation |
| 8. | Nickel (as Ni) | APHA 3111 B 23 rd edition 2017 | mg/l | 13.72 | BDL (MDL 0.02) | 0.02-No relaxation |
| 9. | Cobalt (Co) | APHA 3111 B 23 rd edition 2017 | mg/l | 28.33 | BDL (MDL 0.03) | - |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 198:1966 (C) |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|---|
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager (Authorized Manager) |
|---|---|

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Ranchi

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: - Jharkhand State Pollution Control Board (JSPCB)
Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------------|--------------------|---------------------------|---------------------------------|
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW03 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | Mode of sample collection | By YBAEEL Team | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | Sample Code | 220502-GW-X03 | | |
| Sampling Location | Biyang | Sampling Source | Ground Water | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | Sample Quantity | 1000 ml | | |
| Metereological Cond. of Field | W.C.- Clear | RH % - 23 | Temp. - 38°C | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

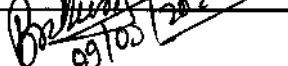

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|-------------------|---------------------|-------|------|----------------|----------|
| 1. | Aluminium (as Al) | IS 3025 (P-55):2003 | mg/l | - | BDL (MDL 0.02) | 0.03-0.2 |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Anagad Munda
Tested By - Shivanil Kumar Singh (Lab Analyst)

| | |
|---|---|
|  09/05/2022 |  31/5/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office : - Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by :- NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|---------------------------|-----------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 2 6 F | | | | | | | | | | | | | |
| Discipline | Biological | Group | Water | Sample Description | Ground Water | | | | | | | | | | |
| Report Release Date | 06 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW03 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/M/May-22/01 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | | |
| Sampling Protocol | IS : 1622:1982, R - 2019 | | Sample Code | 220502-GW-X03 | | | | | | | | | | | |
| Sampling Location | Biyang | | Sampling Source | Ground Water | | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 250 ml | | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 23 | Temp. - 38°C | | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 03/05/2022 | Analysis completed on | 05/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | Results | Limits |
|----|----------------|---|------------|---------------|---|
| 1. | Total coliform | APHA 9221B 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | Shall not to be Detectable in any 100 ml sample |
| 2. | Fecal coliform | APHA 9221E 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |
| 3. | E coli | APHA 9221-F 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2012 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. <1.8 / < 1.1 MPN/100 ml denotes that the presence probability of bacteria is absent in the tested sample. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C) |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. 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 CEO. The samples collected shall be destroyed after 7 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. |
| Remarks | Sample complies with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Madhuri Sinha (Lab Analyst)

| | |
|--|---|
| | |
| Verified by Mukesh Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Microbiology Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory



Branch Office : - Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|------------|---------------------------|---------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 4 8 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Ground Water | | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW04 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry(if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LC/May-22/02 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X04 | | | | | | | | | | |
| Sampling Location | Serengatu | | | Sampling Source | Ground Water | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 3000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 24 | Temp. - 37°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|-----|--|--|-------|-------|----------------|------------------|
| 1. | pH value | IS 3025 (P-11):2002 | pH | 1.77 | 7.06 | 6.5-8.5 |
| 2. | Colour | IS 3025 (P-04):1983 | Hazen | -- | < 5 | 5-15 |
| 3. | Conductivity | IS 3025 (P-14):2013 | µs/cm | 1.90 | 380.0 | -- |
| 4. | Total Alkalinity (as CaCO ₃) | IS 3025 (P-23):2003 | mg/l | 3.68 | 146.0 | 200-600 |
| 5. | Total Hardness (as CaCO ₃) | IS 3025 (P-21):2009 | mg/l | 1.35 | 146.0 | 200-600 |
| 6. | Total dissolved solids | IS 3025 (P-16):2006 | mg/l | 2.85 | 204.0 | 500-2000 |
| 7. | Chlorine Residual | IS 3025 (P-26):2003 | mg/l | 30.64 | BDL (MDL 0.07) | 0.2-1 |
| 8. | Chloride (as Cl ⁻) | IS 3025 (P-32):2003 | mg/l | 3.41 | 14.0 | 250-1000 |
| 9. | Fluoride (as F ⁻) | APHA 4500 F-C 23 rd edition 2017 | mg/l | 12.22 | 1.0 | 1.0-1.5 |
| 10. | Nitrate (as NO ₃ ⁻) | APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017 | mg/l | 11.33 | 2.48 | 45-No relaxation |
| 11. | Calcium (as Ca ²⁺) | IS 3025 (P-40): 2003 | mg/l | 4.19 | 37.6 | 75-200 |
| 12. | Magnesium (as Mg ²⁺) | APHA 3500 Mg B : 2017 | mg/l | 1.90 | 12.63 | 30-100 |
| 13. | Sodium (as Na ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 16.98 | 19.2 | -- |
| 14. | Potassium (as K ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 9.21 | 1.6 | -- |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 198:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|---|
| | |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|--------------|
| Discipline | Chemical | Group | Water | Sample Description | Ground Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW04 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/C/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X04 | |
| Sampling Location | Serengatu | | Sampling Source | Ground Water | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 3000 ml | |
| Meteorological Cond. of Field | W.C. - Clear | | RH % - 24 | Temp. - 37°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

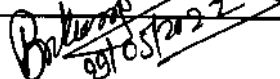
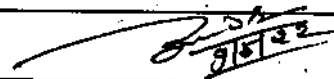
*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|--|---------------------|-------|------|-----------------|--------------------|
| 1. | Odour | IS 3025 (P-05):2002 | -- | -- | Agree. | Agreeable |
| 2. | Taste | IS 3025 (P-07):2002 | -- | -- | Agree. | Agreeable |
| 3. | Phosphate (as PO ₄ ⁺) | IS 3025 (P-31):2003 | mg/l | -- | BDL (MDL 0.003) | -- |
| 4. | Cyanide (as CN ⁻) | IS 3025 (P-27) | mg/l | -- | BDL (MDL 1.0) | 0.05-No relaxation |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|--|
|  |  |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidrout, Ranchi - 834010, Jharkhand

Ph : 098351-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by: - NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by: - ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|------------|---------------------------|---------------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 4 2 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water | | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW04 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/02 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X04 | | | | | | | | | | |
| Sampling Location | Serengatu | | | Sampling Source | Ground Water | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 1000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 24 | Temp. - 37°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|------------------|---|-------|-------|-----------------|---------------------|
| 1. | Arsenic (as As) | APHA 3114 B 23 rd edition 2017 | mg/l | 10.34 | BDL (MDL 0.003) | 0.01-No relaxation |
| 2. | Copper (as Cu) | APHA 3111 B 23 rd edition 2017 | mg/l | 11.11 | BDL (MDL 0.01) | 0.05-1.5 |
| 3. | Iron (as Fe) | APHA 3111 B 23 rd edition 2017 | mg/l | 2.34 | 0.18 | 1.0-No relaxation |
| 4. | Lead (as Pb) | APHA 3111 B 23 rd edition 2017 | mg/l | 10.64 | BDL (MDL 0.02) | 0.01-No relaxation |
| 5. | Zinc (as Zn) | APHA 3111 B 23 rd edition 2017 | mg/l | 15.35 | 0.20 | 5-15 |
| 6. | Cadmium (as Cd) | APHA 3111 B 23 rd edition 2017 | mg/l | 5.0 | BDL (MDL 0.02) | 0.003-No relaxation |
| 7. | Chromium (as Cr) | APHA 3111 B 23 rd edition 2017 | mg/l | 12.53 | BDL (MDL 0.02) | 0.05-No relaxation |
| 8. | Nickel (as Ni) | APHA 3111 B 23 rd edition 2017 | mg/l | 13.72 | BDL (MDL 0.02) | 0.02-No relaxation |
| 9. | Cobalt (Co) | APHA 3111 B 23 rd edition 2017 | mg/l | 28.33 | BDL (MDL 0.03) | - |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|---|
| 09/05/2022 | 9/5/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Des Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &

Branch Office : - Jamshedpur | Dhanbad | Hazarbag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand
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YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by :- Jharkhand State Pollution Control Board (JSPCB)
Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|---------------------------|---------------------------------|
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW04 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/R/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X04 | |
| Sampling Location | Serengatu | | Sampling Source | Ground Water | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 1000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 24 | Temp. - 37°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

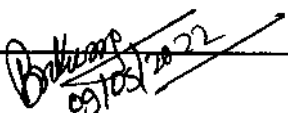

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|-------------------|---------------------|-------|------|----------------|----------|
| 1. | Aluminium (as Al) | IS 3025 (P-55):2003 | mg/l | - | BDL (MDL 0.02) | 0.03-0.2 |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility |
| | 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 CEO. |
| | 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. |
| Remarks | All disputes are subjected to the Ranchi Jurisdiction. Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
Tested By - Shvani Kumari Singh (Lab Analyst)

| | |
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|  |  |
| Verified by | Issued by |
| Brij Nandan Kumar | Umesh Das |
| Section In-Charge | Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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YUGANTAR BHARATI

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Accredited by :- NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|---------------------------|-----------------------|---------------------------|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 2 7 F | | | | | | | | | |
| Discipline | Biological | Group | Water | Sample Description | Ground Water | | | | | | |
| Report Release Date | 06 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW04 | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/M/May-22/01 | | | | | | |
| Report Issue to | M/s inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | | | | | | | |
| Sampling Protocol | IS : 1622:1982, R - 2019 | | Sample Code | 220502-GW-X04 | | | | | | | |
| Sampling Location | Serenghatu | | Sampling Source | Ground Water | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 250 ml | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 24 | Temp. - 37°C | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 03/05/2022 | Analysis completed on | 05/05/2022 | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | Results | Limits |
|----|----------------|---|------------|---------------|---|
| 1. | Total coliform | APHA 9221B 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | Shall not to be Detectable in any 100 ml sample |
| 2. | Fecal coliform | APHA 9221E 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |
| 3. | E coli | APHA 9221-F 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2012 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit, <1.8 / < 1.1 MPN/100 ml denotes that the presence probability of bacteria is absent in the tested sample. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. The samples collected shall be destroyed after 7 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. |
| Remarks | Sample complies with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Madhuri Sinha (Lab Analyst)

| | |
|--|---|
| | |
| Verified by Mukesh Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Microbiological Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|------------|---------------------------|-------------------------------|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 4 9 F | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Ground Water | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW05 | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/C/May-22/02 | | | | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X05 | | | | | | | | | |
| Sampling Location | Near Stack | | | Sampling Source | Ground Water (Drinking Water) | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 3000 ml | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 36 | Temp. - 40°C | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|-----|--|--|-------|-------|----------------|------------------|
| 1. | pH value | IS 3025 (P-11):2002 | pH | 1.77 | 6.96 | 6.5-8.5 |
| 2. | Colour | IS 3025 (P-04):1983 | Hazen | -- | < 5 | 5-15 |
| 3. | Conductivity | IS 3025 (P-14):2013 | µs/cm | 1.90 | 376.0 | -- |
| 4. | Total Alkalinity (as CaCO ₃) | IS 3025 (P-23):2003 | mg/l | 3.68 | 132.0 | 200-600 |
| 5. | Total Hardness (as CaCO ₃) | IS 3025 (P-21):2009 | mg/l | 1.35 | 162.0 | 200-600 |
| 6. | Total dissolved solids | IS 3025 (P-16):2006 | mg/l | 2.85 | 200.0 | 500-2000 |
| 7. | Chlorine Residual | IS 3025 (P-26):2003 | mg/l | 30.64 | BDL (MDL 0.07) | 0.2-1 |
| 8. | Chloride (as Cl ⁻) | IS 3025 (P-32):2003 | mg/l | 3.41 | 12.5 | 250-1000 |
| 9. | Fluoride (as F ⁻) | APHA 4500 F-C 23 rd edition 2017 | mg/l | 12.22 | 0.8 | 1.0-1.5 |
| 10. | Nitrate (as NO ₃ ⁻) | APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017 | mg/l | 11.33 | 3.77 | 45-No relaxation |
| 11. | Calcium (as Ca ²⁺) | IS 3025 (P-40): 2003 | mg/l | 4.19 | 46.40 | 75-200 |
| 12. | Magnesium (as Mg ²⁺) | APHA 3500 Mg B : 2017 | mg/l | 1.90 | 11.17 | 30-100 |
| 13. | Sodium (as Na ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 16.98 | 18.0 | -- |
| 14. | Potassium (as K ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 9.21 | 1.6 | -- |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivanj Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|---|
| | |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|-------------------------------|--------------|
| Discipline | Chemical | Group | Water | Sample Description | Ground Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW05 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LC/May-22/02 | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X05 | |
| Sampling Location | Near Stack | | Sampling Source | Ground Water (Drinking Water) | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 3000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 36 | Temp. - 40°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

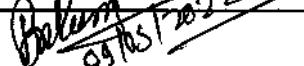

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|---|---------------------|-------|------|---------------|--------------------|
| 1. | Odour | IS 3025 (P-05):2002 | -- | -- | Agree. | Agreeable |
| 2. | Taste | IS 3025 (P-07):2002 | -- | -- | Agree. | Agreeable |
| 3. | Phosphate (as PO ₄ ³⁻) | IS 3025 (P-31):2003 | mg/l | -- | 0.170 | -- |
| 4. | Cyanide(as CN ⁻) | IS 3025 (P-27) | mg/l | -- | BDL (MDL 1.0) | 0.05-No relaxation |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|--|
|  09/05/2022 |  09/05/2022 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
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TC-4032

Test Certificate

| | | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|------------|---------------------------|---------------------------------|--|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 4 3 F | | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water | | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW05 | | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/R/May-22/02 | | | | | | | | | | |
| Report issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X05 | | | | | | | | | | |
| Sampling Location | Near Stack | | | Sampling Source | Ground Water (Drinking Water) | | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 1000 ml | | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 36 | Temp. - 40°C | | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|------------------|---|-------|-------|-----------------|---------------------|
| 1. | Arsenic (as As) | APHA 3114 B 23 rd edition 2017 | mg/l | 10.34 | BDL (MDL 0.003) | 0.01-No relaxation |
| 2. | Copper (as Cu) | APHA 3111 B 23 rd edition 2017 | mg/l | 11.11 | BDL (MDL 0.01) | 0.05-1.5 |
| 3. | Iron (as Fe) | APHA 3111 B 23 rd edition 2017 | mg/l | 2.34 | 0.15 | 1.0-No relaxation |
| 4. | Lead (as Pb) | APHA 3111 B 23 rd edition 2017 | mg/l | 10.64 | BDL (MDL 0.02) | 0.01-No relaxation |
| 5. | Zinc (as Zn) | APHA 3111 B 23 rd edition 2017 | mg/l | 15.35 | 0.19 | 5-15 |
| 6. | Cadmium (as Cd) | APHA 3111 B 23 rd edition 2017 | mg/l | 5.0 | BDL (MDL 0.02) | 0.003-No relaxation |
| 7. | Chromium (as Cr) | APHA 3111 B 23 rd edition 2017 | mg/l | 12.53 | BDL (MDL 0.02) | 0.05-No relaxation |
| 8. | Nickel (as Ni) | APHA 3111 B 23 rd edition 2017 | mg/l | 13.72 | BDL (MDL 0.02) | 0.02-No relaxation |
| 9. | Cobalt (Co) | APHA 3111 B 23 rd edition 2017 | mg/l | 28.33 | BDL (MDL 0.03) | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|---|
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |
|---|---|

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand

Ph : 09835-97960, 098357-86677, Email - ybaeel@gmail.com, Web - https://ybaeel.in



ISO 9001:2015
 ISO 45001:2018



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

Accredited by: - Jharkhand State Pollution Control Board (JSPCB)

Certified by: - An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|-------------------------------|---------------------------------|
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW05 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry (if any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Goia, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X05 | |
| Sampling Location | Near Stack | | Sampling Source | Ground Water (Drinking Water) | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 1000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 36 | Temp. - 40°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

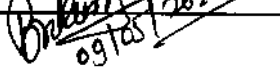
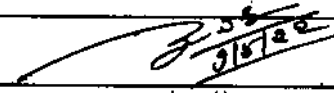
*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|-------------------|---------------------|-------|------|----------------|----------|
| 1. | Aluminium (as Al) | IS 3025 (P-55):2003 | mg/l | - | BDL (MDL 0.02) | 0.03-0.2 |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|--|
|  09/05/2022 |  09/05/2022 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazarbag | Pakur

Main Office : Namkum Post Office, Sidroul, Ranchi - 834010, Jharkhand

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ISO 45001:2018



ISO 9001:2015



YUGANTAR BHARATI

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY



Accredited by :- NABL accredited testing laboratory vide certificate Number TC-4032
 Jharkhand State Pollution Control Board (JSPCB)
 Certified by :- ISO 9001:2015 & ISO 45001:2018

TC-4032

Test Certificate

| | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|---------------------------|-------------------------------|---------------------------|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 2 8 F | | | | | | | | | |
| Discipline | Biological | Group | Water | Sample Description | Ground Water | | | | | | |
| Report Release Date | 06 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW05 | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | |
| Type of Industry(If any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/L/W/May-22/01 | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | | | | | | | |
| Sampling Protocol | IS : 1622:1982, R - 2019 | | Sample Code | 220502-GW-X05 | | | | | | | |
| Sampling Location | Near Stack | | Sampling Source | Ground Water (Drinking Water) | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 250 ml | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 36 | Temp. - 40°C | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 03/05/2022 | Analysis completed on | 05/05/2022 | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | Results | Limits |
|----|----------------|---|------------|---------------|---|
| 1. | Total coliform | APHA 9221B 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | Shall not to be Detectable in any 100 ml sample |
| 2. | Fecal coliform | APHA 9221E 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |
| 3. | E coli | APHA 9221-F 23 rd Edition 2017 | MPN/100 ml | BDL (MDL 1.1) | |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2012 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit, <1.8 / <1.1 MPN/100 ml denotes that the presence probability of bacteria is absent in the tested sample. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility. 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 CEO. The samples collected shall be destroyed after 7 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. |
| Remarks | Sample complies with prescribed limit. |

Sample Drawn By - Angad Munda
 Tested By - Madhuri Sinha (Lab Analyst)

| | |
|--|---|
| | |
| Verified by Mukesh Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Microbiology Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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YUGANTAR BHARATI

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TC-4032

Test Certificate

| | | | | | | | | | | | |
|-------------------------------|---|---------------------------------|------------|---------------------------|-------------------------------|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 7 5 0 F | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Ground Water | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW06 | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | |
| Type of Industry(If any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LC/May-22/02 | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X06 | | | | | | |
| Sampling Location | Near Canteen | | | Sampling Source | Ground Water (Drinking Water) | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 3000 ml | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 36 | Temp. - 40°C | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|-----|--|--|-------|-------|----------------|------------------|
| 1. | pH value | IS 3025 (P-11):2002 | pH | 1.77 | 6.85 | 6.5-8.5 |
| 2. | Colour | IS 3025 (P-04):1983 | Hazen | -- | 5 | 5-15 |
| 3. | Conductivity | IS 3025 (P-14):2013 | µs/cm | 1.90 | 380.0 | -- |
| 4. | Total Alkalinity (as CaCO ₃) | IS 3025 (P-23):2003 | mg/l | 3.68 | 132.0 | 200-600 |
| 5. | Total Hardness (as CaCO ₃) | IS 3025 (P-21):2009 | mg/l | 1.35 | 160.0 | 200-600 |
| 6. | Total dissolved solids | IS 3025 (P-16):2006 | mg/l | 2.85 | 216.0 | 500-2000 |
| 7. | Chlorine Residual | IS 3025 (P-26):2003 | mg/l | 30.64 | BDL (MDL 0.07) | 0.2-1 |
| 8. | Chloride (as Cl ⁻) | IS 3025 (P-32):2003 | mg/l | 3.41 | 16.0 | 250-1000 |
| 9. | Fluoride (as F ⁻) | APHA 4500 F-C 23 rd edition 2017 | mg/l | 12.22 | 0.6 | 1.0-1.5 |
| 10. | Nitrate (as NO ₃ ⁻) | APHA 4500 NO ₃ ⁻ (B) 23 rd edition 2017 | mg/l | 11.33 | 3.74 | 45-No relaxation |
| 11. | Calcium (as Ca ²⁺) | IS 3025 (P-40): 2003 | mg/l | 4.19 | 46.4 | 75-200 |
| 12. | Magnesium (as Mg ²⁺) | APHA 3500 Mg B : 2017 | mg/l | 1.90 | 11.17 | 30-100 |
| 13. | Sodium (as Na ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 16.98 | 16.0 | -- |
| 14. | Potassium (as K ⁺) | APHA 3111 B 23 rd edition 2017 | mg/l | 9.21 | 2.0 | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit. BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 198:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivanl Kumari Singh / Akash Khaikho (Lab Analyst)

| | |
|---|---|
| 09/05/2022 | 9/5/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Des Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Branch Office :- Jamshedpur | Dhanbad | Hazaribag | Pakur

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ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY

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 Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------|---------------------------|-------------------------------|--------------|
| Discipline | Chemical | Group | Water | Sample Description | Ground Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW06 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(If any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/L/C/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | | Mode of sample collection | By YBAEEL Team | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | Sample Code | 220502-GW-X06 | |
| Sampling Location | Near Canteen | | Sampling Source | Ground Water (Drinking Water) | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | Sample Quantity | 3000 ml | |
| Meteorological Cond. of Field | W.C.- Clear | | RH % - 36 | Temp. - 40°C | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

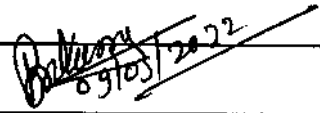
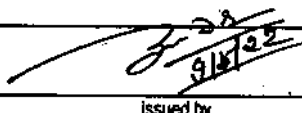
*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|---|---------------------|-------|------|---------------|--------------------|
| 1. | Odour | IS 3025 (P-05):2002 | -- | -- | Agree. | Agreeable |
| 2. | Taste | IS 3025 (P-07):2002 | -- | -- | Agree. | Agreeable |
| 3. | Phosphate (as PO ₄ ³⁻) | IS 3025 (P-31):2003 | mg/l | -- | 0.160 | -- |
| 4. | Cyanide(as CN ⁻) | IS 3025 (P-27) | mg/l | - | BDL (MDL 1.0) | 0.05-No relaxation |

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

| | |
|----------------------------|---|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits. |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh / Akash Khalkho (Lab Analyst)

| | |
|---|--|
|  89103/2022 |  915128 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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TC-4032

Test Certificate

| | | | | | | | | | | | | | | |
|-------------------------------|---|-----------------------------------|------------|---------------------------|---------------------------------|--|--|--|--|--|--|--|--|--|
| ULR (Unique Lab Report) No. | | T C 4 0 3 2 2 2 0 0 0 0 0 7 4 4 F | | | | | | | | | | | | |
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water | | | | | | | | | |
| Report Release Date | 09 th May, 2022 | | | Report ID | YBAEEL-220428-124042-GW06 | | | | | | | | | |
| W. Order/ JSPCB App. No. | Telephonic Order | | | Work Order Date | 28.04.2022 | | | | | | | | | |
| Type of Industry (if any) | Thermal Power Plant | | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/02 | | | | | | | | | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | | | | | | | | | | |
| Sampling Date | 30/04/2022 | | | Mode of sample collection | By YBAEEL Team | | | | | | | | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | | | Sample Code | 220502-GW-X06 | | | | | | | | | |
| Sampling Location | Near Canteen | | | Sampling Source | Ground Water (Drinking Water) | | | | | | | | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | | | Sample Quantity | 1000 ml | | | | | | | | | |
| Meteorological Cond. of Field | W.C.- Clear | | | RH % - 36 | Temp. - 40°C | | | | | | | | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 | | | | | | | | | |

*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|------------------|---|-------|-------|-----------------|---------------------|
| 1. | Arsenic (as As) | APHA 3114 B 23 rd edition 2017 | mg/l | 10.34 | BDL (MDL 0.003) | 0.01-No relaxation |
| 2. | Copper (as Cu) | APHA 3111 B 23 rd edition 2017 | mg/l | 11.11 | BDL (MDL 0.01) | 0.05-1.5 |
| 3. | Iron (as Fe) | APHA 3111 B 23 rd edition 2017 | mg/l | 2.34 | 0.14 | 1.0-No relaxation |
| 4. | Lead (as Pb) | APHA 3111 B 23 rd edition 2017 | mg/l | 10.64 | BDL (MDL 0.02) | 0.01-No relaxation |
| 5. | Zinc (as Zn) | APHA 3111 B 23 rd edition 2017 | mg/l | 15.35 | 0.20 | 5-15 |
| 6. | Cadmium (as Cd) | APHA 3111 B 23 rd edition 2017 | mg/l | 5.0 | BDL (MDL 0.02) | 0.003-No relaxation |
| 7. | Chromium (as Cr) | APHA 3111 B 23 rd edition 2017 | mg/l | 12.53 | BDL (MDL 0.02) | 0.05-No relaxation |
| 8. | Nickel (as Ni) | APHA 3111 B 23 rd edition 2017 | mg/l | 13.72 | BDL (MDL 0.02) | 0.02-No relaxation |
| 9. | Cobalt (Co) | APHA 3111 B 23 rd edition 2017 | mg/l | 28.33 | BDL (MDL 0.03) | -- |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
 Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|---|
| 09/05/2022 | 09/05/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
 Chemical Section
 Yugantar Bharati Analytical &
 Environmental Engineering Laboratory

Technical Manager
 Yugantar Bharati Analytical &
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Certified by :- An ISO 9001:2015 & ISO 45001:2018

Test Certificate

| | | | | | |
|-------------------------------|---|---------------------------|-------------------------------|---------------------------|---------------------------------|
| Discipline | Chemical | Group | Water | Sample Description | Residue & Contaminants in Water |
| Report Release Date | 09 th May, 2022 | | Report ID | YBAEEL-220428-124042-GW06 | |
| W. Order/ JSPCB App. No. | Telephonic Order | | Work Order Date | 28.04.2022 | |
| Type of Industry(If any) | Thermal Power Plant | | Job code/ Ref. no. | YBAEEL/WA/LR/May-22/02 | |
| Report Issue to | M/s Inland Power Limited Tonagatu, Gola, Ramgarh, Jharkhand. | | | | |
| Sampling Date | 30/04/2022 | Mode of sample collection | By YBAEEL Team | | |
| Sampling Protocol | IS : 3025 (Part-1) 1987, R-2003 | Sample Code | 220502-GW-X06 | | |
| Sampling Location | Near Canteen | Sampling Source | Ground Water (Drinking Water) | | |
| Sample pkg. Condition | Sealed Pack in PP Bottle | Sample Quantity | 1000 ml | | |
| Meteorological Cond. of Field | W.C.- Clear | RH % - 36 | Temp. - 40°C | | |
| Sample receipt Date | 02/05/2022 | Analysis Started on | 02/05/2022 | Analysis completed on | 07/05/2022 |

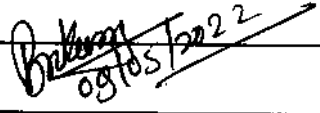
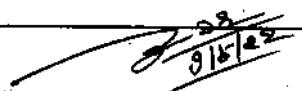
*****Test Results*****

| Sl | Parameter | Test Method | Units | MU % | Results | Limits |
|----|-------------------|---------------------|-------|------|----------------|----------|
| 1. | Aluminium (as Al) | IS 3025 (P-55):2003 | mg/l | - | BDL (MDL 0.02) | 0.03-0.2 |

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

| | |
|----------------------------|--|
| Limit is specified as | IS 10500: 2021 |
| Abbreviation | MDL : Minimum detection limit, BDL : Below detection limit. |
| Env. Condition of Lab | Laboratory is maintaining, Temperature 27 ± 2°C and Relative Humidity 65 ± 5% in all testing areas as per IS 196:1966 (C). |
| Specific contractual notes | All values are expressed in as unit and results listed refer only to the tested sample and applicable parameter in Lab's Permanent Facility 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 CEO. 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. |
| Remarks | Sample complies with prescribed limits |

Sample Drawn By - Angad Munda
Tested By - Shivani Kumari Singh (Lab Analyst)

| | |
|---|--|
|  09/05/2022 |  9/5/22 |
| Verified by Brij Nandan Kumar Section In-Charge | Issued by Umesh Das Technical Manager |

Authorized Signatory
Chemical Section
Yugantar Bharati Analytical &
Environmental Engineering Laboratory

Technical Manager
Yugantar Bharati Analytical &
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ISO 45001:2018



ISO 9001:2015