



**ENVIRONMENTAL AUDIT STATEMENT  
2022-23**

**For**

**JAMPALI OPENCAST MINE**

**Under**

**(RAIGARH AREA)**

**South Eastern Coalfields Limited**

*(A Mini Ratna Company)*

**Year of establishment - 2015**

**Capacity of Mine - 3.00 MTPA**

**Project Area - 658.10 Ha**

**Central Mine Planning & Design Institute Limited  
Regional Institute – V  
CMPDI Complex, Seepat Road  
BILASPUR (C.G.)**

# ENVIRONMENTAL AUDIT STATEMENT (2022 – 23)

## JAMPALI OPENCAST MINE

### CHAPTER-I

TABLE-1.1

|            |   |   |   |
|------------|---|---|---|
| <b>1.0</b> | <b>General Information</b>                                    | : | Jampali Opencast Mine, Jampali Sub Area Raigarh Area, SECL Company, State- Chhattisgarh           |
| a)         | <b>Extractable Reserves (as on 01.04.2023)</b>                | : | 13.48 MT (3MTY Capacity)  |
| b)         | <b>Target output &amp; grade of coal (2023-24)</b>            | : | 03 MT, Grade – (G-10, G-12, G-15)   |
| c)         | <b>Seams Worked</b>   | : | Seam – XI-Top, Seam- XI- Bottom and Seam-XII  |
| d)         | <b>Thickness of Seam Worked (in metres.)</b>                  | : | Seam- XI- Top - 4.0m to 5.0m<br>Seam – XI – Bottom – 2.0 m to 2.5 m<br>Seam- XII- 2.0 m to 2.5 m. |
| e)         | <b>Depth of Seams from the surface</b>                        | : |   |
|            | Minimum :   |   | 6.16 mtrs.  |
|            | Maximum:  |   | 74.82 mtrs  |
| f)         | <b>Av. Stripping ratio mining purpose</b>                     | : | 1: 4.35   |
| g)         | <b>No. of villages/ families</b>                              | : | 02 Villages   |
| h)         | <b>(i) Mining area (in Ha.)</b>                               | : | 398.00 Ha   |
|            | <b>(ii) Leasehold area other than mining purpose (in Ha.)</b> | : | 260.10  |
|            | <b>(iii) Total Leasehold Area (in Ha.)</b>                    | : | 658.10 Ha   |

| 1.1   | <b>Brief Geology of Mine</b>      | :              | Singmouza- Jampali block is covered mainly by soil and alluvium. The general strike of strata of the shows NW-SE with local variation and dipping south-west. The amount of the dip is around 4°, general variation of dip of the strata in the block is 2° to 5° at present seam XI Top and XI (Bottom). The three coal horizons with average thickness 1.20m to 6.07m have been considered for exploration. |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
|---|-----------------------------------|----------------|---|------|----------------------------|----------------|---------|---------|------------|---------|---------|-----------|---------|---------|-----------|---------|--------|-----------|---------|---------|-------------|------------------|---------|-------------|
| 1.2   | <b>Mining Method Description</b>  | :              | The overburden is being removed by shovel and dumper combination. Coal winning is done by surface miner. Tippers and pay loaders have been deployed on coal benches   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 1.3   | <b>Present Status of the mine</b> | :              | Active  |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 1.  | <b>Production Figures</b>         | :              |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Year</th> <th>Coal Production<br/>(in MT)</th> <th>OB in ( M CUM)</th> </tr> </thead> <tbody> <tr> <td>2018-19</td> <td>2.41 MT</td> <td>6.317 MCuM</td> </tr> <tr> <td>2019-20</td> <td>2.23 MT</td> <td>2.79 MCuM</td> </tr> <tr> <td>2020-21</td> <td>1.77 MT</td> <td>6.36 Mcum</td> </tr> <tr> <td>2021-22</td> <td>3.0 MT</td> <td>9.75 Mcum</td> </tr> <tr> <td>2022-23</td> <td>3.00 MT</td> <td>10.73 Mcum.</td> </tr> <tr> <td>2023-24 (Target)</td> <td>3.60 MT</td> <td>12.60 Mcum.</td> </tr> </tbody> </table> |                                   |                |   | Year | Coal Production<br>(in MT) | OB in ( M CUM) | 2018-19 | 2.41 MT | 6.317 MCuM | 2019-20 | 2.23 MT | 2.79 MCuM | 2020-21 | 1.77 MT | 6.36 Mcum | 2021-22 | 3.0 MT | 9.75 Mcum | 2022-23 | 3.00 MT | 10.73 Mcum. | 2023-24 (Target) | 3.60 MT | 12.60 Mcum. |
| Year  | Coal Production<br>(in MT)        | OB in ( M CUM) |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 2018-19   | 2.41 MT                           | 6.317 MCuM     |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 2019-20   | 2.23 MT                           | 2.79 MCuM      |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 2020-21   | 1.77 MT                           | 6.36 Mcum      |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 2021-22   | 3.0 MT                            | 9.75 Mcum      |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 2022-23   | 3.00 MT                           | 10.73 Mcum.    |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 2023-24 (Target)  | 3.60 MT                           | 12.60 Mcum.    |   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 2.  | <b>No. of Inclines (Running)</b>  | :              | NA  |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 3.  | <b>Shafts</b>                     | :              | NA  |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 4.  | <b>No. of quarries</b>            | :              | 01  |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 5.  | <b>Overburden</b>                 | :              | Number of External Dumps- Two<br>Number of Internal Dump- One   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 6.  | <b>Main Consumers</b>             | :              | Power Plants  |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |
| 7.  | <b>Mode of dispatch</b>           | :              | Road sale   |      |                            |                |         |         |            |         |         |           |         |         |           |         |        |           |         |         |             |                  |         |             |

## CHAPTER-II

### FORM-V (See rule 14)

Environmental Statement for the Financial Year ending  
31<sup>st</sup> March 2023

#### PART-A

|       |   |   |   |
|-------|---|---|---|
| (i)   | <b>Name and address of the mine</b>                                 | : | Jampali Opencast Mine,<br>Tehsil-Gharghoda<br>Distt. – Raigarh (Chhattisgarh) |
| (ii)  | <b>Industry category Primary (SIC Code) or Secondary (SIC Code)</b> | : | Primary   |
| (iii) | <b>Production capacity units</b>                                    | : | 3.00 MT per Year  |
| (iv)  | <b>Year of establishment</b>  | : | 2015  |
| (v)   | <b>Date of the last environmental Statement Submitted</b>           | : | September 2022  |

## PART- B

### Water and Raw Materials Consumption:

**(i) Water Consumption (KLD)**

**Industrial** - 5230 KLD  
**Domestic** - 13 KLD

| Name of Products | Process water consumption per product output |  |
|------------------|--|--|
|                  | During the previous financial year 2021-22   | During the previous financial year 2022-23 |
| Coal             | Water is not required for coal production    |  |

**(ii) Raw materials consumption:**

| *Name of raw materials | Name of products | Consumption of raw material per unit of output |  |
|------------------------|------------------|--|--|
|                        |                  | During the previous financial year 2021-22     | During the previous financial year 2022-23 |
| Explosive              | Coal             | NIL  | NIL  |
|                        | OB               | 1.99 m <sup>3</sup> /kg                        | 1.99 m <sup>3</sup> /kg                    |
| P.O.L                  | Coal             | 0.195 Ltr./tonne                               | 0.141 Ltr./tonne                           |

\*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw materials used.

## PART-C

### POLLUTANT DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(Parameters as specified in the consent issued)

| Pollutants (Including mine & colony discharge of water) | Quantity of pollutants discharged KLD        | Concentrations of pollutants in discharge KLD | Percentage of variation from prescribed standards with reasons |
|---|--|---|--|
| Air   | Environmental Monitoring report is enclosed. |   |  |
| Water   |  |   |  |
| 1. Mine water pumped out                                |  |   |  |
| 2. Industrial water discharged                          |  |   |  |
| 3. Colony water discharged                              |  |   |  |
| Noise   |  |   |  |

**PART-D**

**(Hazardous Wastes)**

**(As specified under Hazardous Wastes/Management Handling Rule, 1989)**

| <b>Hazardous Wastes</b>                  | <b>Total quantity (Kg)</b>                        |   |
|--|---|---|
|  | <b>During the previous financial year 2021-22</b> | <b>During the previous financial year 2022-23</b> |
| <b>From Process</b>                      | 1000 lts  | 650 lts   |
| <b>From Pollution control facilities</b> | NA  | NA  |

Neither liquid nor solid hazardous waste is generated during underground coal mining.

**PART-E**

**SOLID WASTES**

| <b>Removal of overburden</b>       | <b>Total quantity</b>                             |   |
|------------------------------------|---|---|
|                                    | <b>During the previous financial year 2021-22</b> | <b>During the previous financial year 2022-23</b> |
| <b>Total O.B.</b>                  | 6.36 MCuM   | 10.73 MCuM  |
| <b>Total O.B. For back filling</b> | 6.36 MCuM   | 10.73 MCuM  |
| <b>Total O.B. disposed</b>         | NA  | NA  |

**PART-F**

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

| <b>Description</b>     | <b>Qty. MT / Year(22-23)</b> | <b>Collection Method</b>                     |
|------------------------|------------------------------|--|
| <b>Steel Scrap</b>     | NA                           | NA   |
| <b>Copper Scrap</b>    | NA                           | NA   |
| <b>Aluminium Scrap</b> | NA                           | NA   |
| <b>Used Oil</b>        | 650Ltrs.                     | Through hand barrel pump & stored in MS drum |

## PART-G

### **Impact of the pollution abatement measure taken on conservation of natural resources and on the cost of production.**

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In order to carry mining in eco-friendly manner following pollution measures have been implemented.

#### **(A) Anti- Air pollution Measures: -**

1. Regular water sprinkling on haul road and coal transport road.
2. Water sprinkling on coal stock is practiced.
3. Black topping of transport road for 5.1 km has been done to arrest fugitive dust emission

#### **(B) Anti - Water pollution Measures: -**

1. Mine water is passed through sedimentation pond for sedimentation of silt.
2. Catch drain has been constructed all around quarry and dump to control soil erosion.

#### **(C) Anti – Noise pollution Measures: -**

1. Workers exposed to high noise condition is provided with Ear Muff & Ear Plug.
  2. Generally the Blasting Operation are carried out in between 1.30 PM to 3.00 PM.
  3. Surface Miner is deployed for blasting free coal production, hence control the noise & air pollution.
- 

## PART- H

### **Additional measures/investment proposals for environmental protection including abatement of pollution, prevention of pollution.**

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1. Plantation of 123500 Nos. sapling has been planted in the mine area till the FY 2022-23
  2. Construction of oil and grease trap along with sedimentation tank is proposed for workshop effluent.
- 

## PART- I

### **Any other particulars for improving the quality of the environment.**

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1. Plantation of 123500 Nos. sapling has been planted till the FY 2022-23 and 12 km safety zone fencing with 24000 nos plantation as greenbelt has been done.
  2. Burnt oil is being collected regularly and stored in MS drums at safe place and then dispatched to Regional Store for its final disposal.
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# **ENVIRONMENTAL MONITORING REPORT**



**CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED**

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Company*

**AIR QUALITY REPORT**

|       |                |      |                |           |                       |
|-------|----------------|------|----------------|-----------|-----------------------|
| Month | <b>JANUARY</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/01/05</b> |
|-------|----------------|------|----------------|-----------|-----------------------|

|                             |   |                             |                |
|-----------------------------|---|-----------------------------|----------------|
| <b>Name of the Customer</b> | South Eastern Coal fields Ltd, Bilaspur | <b>Date of Issue</b>        | 07.02.2023     |
| <b>Name of the Project</b>  | <b>Jampali OC</b>                       | <b>Sample Reference No.</b> | <b>RJ1-RJ2</b> |

| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs                       | Parameter  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                 | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |
|---|--|------------------|---------------------|----------------------|-----------------------------------|---------------------|---------------------|---------|
|   | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000)                             | A-O              | <b>600</b>          | <b>300</b>           | -                                 | <b>120</b>          | <b>120</b>          |         |
|   |  | A-N              | <b>500</b>          | <b>250</b>           | -                                 | <b>120</b>          | <b>120</b>          |         |
|   | Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) | <b>B</b>         | <b>200</b>          | <b>100</b>           | <b>60</b>                         | <b>80</b>           | <b>80</b>           |         |
| <b>Method of analysis</b>   |  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPACFR 40,Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |
| <b>Uncertainty Range (in <math>\mu\text{g}/\text{m}^3</math>)</b> |  |                  |                     | ±19.04               |                                   | ±0.0687             | ±0.4420             |         |
| Station Name (Code)   | Station category   | Date of sampling | Date of analysis    |                      |                                   |                     |                     |         |
| <b>1-Jampali SAM Office</b>                                       | <b>A-N</b>   | 02.01.2023       | 05.01.2023          | 429                  | 245                               | 81                  | 32                  | 34      |
|   |  | 05.01.2023       | 08.01.2023          | 433                  | 248                               | 82                  | 35                  | 36      |
|   |  | 09.01.2023       | 12.01.2023          | 448                  | 225                               | 75                  | 32                  | 33      |
|   |  | 12.01.2023       | 15.01.2023          | 436                  | 253                               | 87                  | 35                  | 34      |
|   |  | 16.01.2023       | 19.01.2023          | 448                  | 247                               | 82                  | 32                  | 33      |
|   |  | 19.01.2023       | 22.01.2023          | 475                  | 226                               | 75                  | 28                  | 35      |
|   |  | 23.01.2023       | 28.01.2023          | 473                  | 222                               | 77                  | 27                  | 32      |
|   |  | 27.01.2023       | 30.01.2023          | 469                  | 213                               | 71                  | 28                  | 31      |
|   |  | 30.01.2023       | 02.02.2023          | 474                  | 246                               | 82                  | 27                  | 27      |
| <b>2-Sigmojha Village</b>   | <b>B</b>   | 02.01.2023       | 05.01.2023          | 172                  | 74                                | 25                  | 30                  | 31      |
|   |  | 05.01.2023       | 08.01.2023          | 138                  | 78                                | 26                  | 31                  | 33      |
|   |  | 09.01.2023       | 12.01.2023          | 166                  | 74                                | 25                  | 27                  | 27      |
|   |  | 12.01.2023       | 15.01.2023          | 160                  | 79                                | 27                  | 32                  | 34      |
|   |  | 16.01.2023       | 19.01.2023          | 185                  | 75                                | 25                  | 27                  | 27      |
|   |  | 19.01.2023       | 22.01.2023          | 137                  | 71                                | 24                  | 27                  | 28      |
|   |  | 23.01.2023       | 28.01.2023          | 145                  | 78                                | 26                  | 22                  | 23      |
|   |  | 27.01.2023       | 30.01.2023          | 141                  | 79                                | 27                  | 24                  | 27      |
|   |  | 30.01.2023       | 02.02.2023          | 151                  | 77                                | 25                  | 22                  | 26      |

*Mouishy*  
Analyzed by

*Rakesh*  
Checked by

*C.K. Vel*  
Manager-Environment

Note: 1) The results above relate to the samples tested.

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*cmpdi**A Mini-Retna Company***AIR QUALITY REPORT**

|                      |   |      |                      |           |                       |
|----------------------|---|------|----------------------|-----------|-----------------------|
| Month                | <b>JANUARY</b>                          | Area | <b>RAIGARH</b>       | Report No | <b>BSP/2023/01/05</b> |
| Name of the Customer | South Eastern Coal fields Ltd, Bilaspur |      | Date of Issue        |           | <b>07.02.2023</b>     |
| Name of the Project  | <b>Jampali OC</b>                       |      | Sample Reference No. |           | <b>RJ3-RJ4</b>        |

| Parameter  |  |                  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                 | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |
|--|--|------------------|------------------|---------------------|----------------------|-----------------------------------|---------------------|---------------------|---------|
| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs      | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000)                             | A-O              |                  | 600                 | 300                  | -                                 | 120                 | 120                 |         |
|  |  | A-N              |                  | 500                 | 250                  | -                                 | 120                 | 120                 |         |
|  | Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) | B                |                  | 200                 | 100                  | 60                                | 80                  | 80                  |         |
| Method of analysis                               |  |                  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPACFR 40,Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |
| Uncertainty Range (in $\mu\text{g}/\text{m}^3$ ) |  |                  |                  |                     | ±19.04               |                                   | ±0.0687             | ±0.4420             |         |
| Station Name (Code)                              | Station category   | Date of sampling | Date of analysis |                     |                      |                                   |                     |                     |         |
| 3-Koshamghat Village                             | B  | 02.01.2023       | 05.01.2023       | 141                 | 71                   | 23                                | 24                  | 28                  |         |
|  |  | 05.01.2023       | 08.01.2023       | 144                 | 71                   | 24                                | 25                  | 26                  |         |
|  |  | 09.01.2023       | 12.01.2023       | 141                 | 69                   | 23                                | 29                  | 30                  |         |
|  |  | 12.01.2023       | 15.01.2023       | 143                 | 77                   | 25                                | 28                  | 30                  |         |
|  |  | 16.01.2023       | 19.01.2023       | 158                 | 73                   | 24                                | 26                  | 29                  |         |
|  |  | 19.01.2023       | 22.01.2023       | 141                 | 79                   | 27                                | 25                  | 28                  |         |
|  |  | 23.01.2023       | 28.01.2023       | 127                 | 70                   | 23                                | 24                  | 25                  |         |
|  |  | 27.01.2023       | 30.01.2023       | 152                 | 78                   | 26                                | 25                  | 28                  |         |
|  |  | 30.01.2023       | 02.02.2023       | 132                 | 77                   | 25                                | 25                  | 27                  |         |
| 4-Posalda Village                                | B  | 02.01.2023       | 05.01.2023       | 176                 | 76                   | 25                                | 23                  | 23                  |         |
|  |  | 05.01.2023       | 08.01.2023       | 191                 | 72                   | 23                                | 22                  | 24                  |         |
|  |  | 09.01.2023       | 12.01.2023       | 175                 | 75                   | 24                                | 24                  | 25                  |         |
|  |  | 12.01.2023       | 15.01.2023       | 161                 | 78                   | 26                                | 30                  | 32                  |         |
|  |  | 16.01.2023       | 19.01.2023       | 155                 | 77                   | 21                                | 27                  | 29                  |         |
|  |  | 19.01.2023       | 22.01.2023       | 141                 | 62                   | 27                                | 25                  | 25                  |         |
|  |  | 23.01.2023       | 28.01.2023       | 149                 | 79                   | 26                                | 26                  | 26                  |         |
|  |  | 27.01.2023       | 30.01.2023       | 169                 | 76                   | 25                                | 25                  | 26                  |         |
|  |  | 30.01.2023       | 02.02.2023       | 167                 | 80                   | 27                                | 24                  | 24                  |         |

*Mouishy*  
 Analyzed by

*Rakesh*  
 Checked by

*C.K. Vel*  
 Manager-Environment

Note: 1) The results above relate to the samples tested.

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*A Mini-Retna  
Company*

**AIR QUALITY REPORT**

|       |                |      |                |           |                       |
|-------|----------------|------|----------------|-----------|-----------------------|
| Month | <b>JANUARY</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/01/05</b> |
|-------|----------------|------|----------------|-----------|-----------------------|

|                             |   |                             |                |
|-----------------------------|---|-----------------------------|----------------|
| <b>Name of the Customer</b> | South Eastern Coal fields Ltd, Bilaspur | <b>Date of Issue</b>        | 07.02.2023     |
| <b>Name of the Project</b>  | <b>Jampali OC</b>                       | <b>Sample Reference No.</b> | <b>RJ5-RJ6</b> |

| Parameter   |  |                  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                   | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |
|---|--|------------------|------------------|---------------------|----------------------|-------------------------------------|---------------------|---------------------|---------|
| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs                       | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000)                             | A-O              |                  | 600                 | 300                  | -                                   | 120                 | 120                 |         |
|   |  | A-N              |                  | 500                 | 250                  | -                                   | 120                 | 120                 |         |
|   | Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) | B                |                  | 200                 | 100                  | 60                                  | 80                  | 80                  |         |
| <b>Method of analysis</b>   |  |                  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPA CFR 40, Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |
| <b>Uncertainty Range (in <math>\mu\text{g}/\text{m}^3</math>)</b> |  |                  |                  |                     | ±19.04               |                                     | ±0.0687             | ±0.4420             |         |
| Station Name (Code)   | Station category   | Date of sampling | Date of analysis |                     |                      |                                     |                     |                     |         |
| 5-Kudumkela   | B  | 02.01.2023       | 05.01.2023       | 159                 | 73                   | 24                                  | 24                  | 26                  |         |
|   |  | 05.01.2023       | 08.01.2023       | 149                 | 81                   | 27                                  | 24                  | 29                  |         |
|   |  | 09.01.2023       | 12.01.2023       | 147                 | 78                   | 26                                  | 27                  | 26                  |         |
|   |  | 12.01.2023       | 15.01.2023       | 157                 | 70                   | 23                                  | 25                  | 26                  |         |
|   |  | 16.01.2023       | 19.01.2023       | 131                 | 76                   | 25                                  | 22                  | 28                  |         |
|   |  | 19.01.2023       | 22.01.2023       | 166                 | 68                   | 23                                  | 25                  | 26                  |         |
|   |  | 23.01.2023       | 28.01.2023       | 139                 | 79                   | 27                                  | 24                  | 25                  |         |
|   |  | 27.01.2023       | 30.01.2023       | 134                 | 78                   | 26                                  | 21                  | 22                  |         |
|   |  | 30.01.2023       | 02.02.2023       | 166                 | 70                   | 23                                  | 21                  | 24                  |         |
| 6-Saraipali Village   | B  | 02.01.2023       | 05.01.2023       | 175                 | 79                   | 26                                  | 24                  | 27                  |         |
|   |  | 05.01.2023       | 08.01.2023       | 142                 | 80                   | 27                                  | 24                  | 25                  |         |
|   |  | 09.01.2023       | 12.01.2023       | 179                 | 69                   | 23                                  | 28                  | 29                  |         |
|   |  | 12.01.2023       | 15.01.2023       | 162                 | 79                   | 26                                  | 23                  | 25                  |         |
|   |  | 16.01.2023       | 19.01.2023       | 160                 | 71                   | 23                                  | 24                  | 25                  |         |
|   |  | 19.01.2023       | 22.01.2023       | 179                 | 73                   | 24                                  | 22                  | 23                  |         |
|   |  | 23.01.2023       | 28.01.2023       | 148                 | 80                   | 27                                  | 24                  | 26                  |         |
|   |  | 27.01.2023       | 30.01.2023       | 175                 | 75                   | 25                                  | 23                  | 24                  |         |
|   |  | 30.01.2023       | 02.02.2023       | 158                 | 79                   | 26                                  | 24                  | 26                  |         |

*Mouishy*  
Analyzed by

*Rakesh*  
Checked by

*C.K. Vel*  
Manager-Environment

Note: 1) The results above relate to the samples tested.

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*cmpdi*

*A Mini-Retna  
Company*

**AIR QUALITY REPORT**

|       |                |      |                |           |                       |
|-------|----------------|------|----------------|-----------|-----------------------|
| Month | <b>JANUARY</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/01/05</b> |
|-------|----------------|------|----------------|-----------|-----------------------|

|                             |   |                             |                |
|-----------------------------|---|-----------------------------|----------------|
| <b>Name of the Customer</b> | South Eastern Coal fields Ltd, Bilaspur | <b>Date of Issue</b>        | 07.02.2023     |
| <b>Name of the Project</b>  | <b>Jampali OC</b>                       | <b>Sample Reference No.</b> | <b>RJ7-RJ8</b> |

| Parameter                                      |  |                             |                             | PM <sub>100</sub>         | PM <sub>10</sub>           | PM <sub>2.5</sub>                      | SO <sub>2</sub>           | NO <sub>2</sub>           | Remarks |     |
|--|--|-----------------------------|-----------------------------|---------------------------|----------------------------|--|---------------------------|---------------------------|---------|-----|
| Limit (in<br>µg/m <sup>3</sup> )-24<br>hrs     | Industrial Zone -(G.S.R. 742(E),<br>dated 25.09.2000)                                |                             |                             | A-O                       | 600                        | 300                                    | -                         | 120                       |         | 120 |
|  | Residential Zone-(G.S.R. 826(E),<br>dated 16.11.2009 and GSR 176 (E),<br>02.04.1996) |                             |                             | A-N                       | 500                        | 250                                    | -                         | 120                       |         | 120 |
|  |  |                             |                             | B                         | 200                        | 100                                    | 60                        | 80                        |         | 80  |
| <b>Method of analysis</b>                      |  |                             |                             | IS-5182<br>PART<br>4:2005 | IS-5182<br>PART<br>23:2006 | USEPACFR<br>40,Appendi<br>L to Part 50 | IS-5182<br>PART<br>2:2001 | IS-5182<br>PART<br>6:2006 |         |     |
| <b>Uncertainty Range (in µg/m<sup>3</sup>)</b> |  |                             |                             |                           | ±19.04                     |  | ±0.0687                   | ±0.4420                   |         |     |
| <b>Station Name<br/>(Code)</b>                 | <b>Station<br/>category</b>  | <b>Date of<br/>sampling</b> | <b>Date of<br/>analysis</b> |                           |                            |  |                           |                           |         |     |
| 7-Howramoda<br>Village                         | B  | 02.01.2023                  | 05.01.2023                  | 152                       | 74                         | 25                                     | 24                        | 25                        |         |     |
|  |  | 05.01.2023                  | 08.01.2023                  | 150                       | 70                         | 28                                     | 24                        | 26                        |         |     |
|  |  | 09.01.2023                  | 12.01.2023                  | 161                       | 81                         | 27                                     | 27                        | 26                        |         |     |
|  |  | 12.01.2023                  | 15.01.2023                  | 141                       | 80                         | 25                                     | 25                        | 25                        |         |     |
|  |  | 16.01.2023                  | 19.01.2023                  | 181                       | 75                         | 25                                     | 25                        | 27                        |         |     |
|  |  | 19.01.2023                  | 22.01.2023                  | 186                       | 76                         | 26                                     | 21                        | 25                        |         |     |
|  |  | 23.01.2023                  | 28.01.2023                  | 178                       | 79                         | 26                                     | 25                        | 26                        |         |     |
|  |  | 27.01.2023                  | 30.01.2023                  | 168                       | 69                         | 23                                     | 23                        | 24                        |         |     |
|  |  | 30.01.2023                  | 02.02.2023                  | 175                       | 73                         | 24                                     | 22                        | 23                        |         |     |
| 8-Jampali Village                              | B  | 02.01.2023                  | 05.01.2023                  | 153                       | 75                         | 25                                     | 23                        | 24                        |         |     |
|  |  | 05.01.2023                  | 08.01.2023                  | 148                       | 72                         | 24                                     | 25                        | 26                        |         |     |
|  |  | 09.01.2023                  | 12.01.2023                  | 183                       | 70                         | 23                                     | 27                        | 28                        |         |     |
|  |  | 12.01.2023                  | 15.01.2023                  | 155                       | 80                         | 27                                     | 25                        | 26                        |         |     |
|  |  | 16.01.2023                  | 19.01.2023                  | 176                       | 75                         | 25                                     | 23                        | 24                        |         |     |
|  |  | 19.01.2023                  | 22.01.2023                  | 144                       | 79                         | 26                                     | 24                        | 28                        |         |     |
|  |  | 23.01.2023                  | 28.01.2023                  | 167                       | 73                         | 24                                     | 23                        | 26                        |         |     |
|  |  | 27.01.2023                  | 30.01.2023                  | 166                       | 77                         | 26                                     | 22                        | 24                        |         |     |
|  |  | 30.01.2023                  | 02.02.2023                  | 168                       | 73                         | 24                                     | 23                        | 27                        |         |     |

*Mouishy*  
Analyzed by

*Rakesh*  
Checked by

*C.K. Vel*  
Manager-Environment

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 website: [www.cmpdi.co.in](http://www.cmpdi.co.in)

*cmpdi**A Mini-Ratna Company***NOISE QUALITY REPORT**

|       |         |      |         |           |                |
|-------|---------|------|---------|-----------|----------------|
| Month | JANUARY | Area | RAIGARH | Report No | BSP/2023/01/05 |
|-------|---------|------|---------|-----------|----------------|

|                      |  |                      |            |
|----------------------|--|----------------------|------------|
| Name of the Customer | South Eastern Coalfields Ltd, Bilaspur | Date of Issue        | 21.02.2023 |
| Name of the Project  | JAMPALI OC                             | Sample Reference No. | N83-N90    |

| Parameter                   |  |                     | The Noise Pollution (R & C) rules, 2000 |                | Remarks |
|-----------------------------|--|---------------------|---|----------------|---------|
|                             |  |                     | Day Time                                | Night Time     |         |
| Limit (in dB(A) Leq         | Industrial area                                  | A                   | 75                                      | 70             |         |
|                             | Commercial area                                  | B                   | 65                                      | 55             |         |
|                             | Residential Area                                 | C                   | 55                                      | 45             |         |
|                             | Silence Zone                                     | D                   | 50                                      | 40             |         |
| Method of analysis          | CPCB Protocol For Ambient Level Noise Monitoring |                     |   |                |         |
| Station (Code) Station Name | Station category                                 | Date of measurement | Value in dB(A)                          | Value in dB(A) |         |
| 21-Jampali SAM Office       | A  | 13.01.2023          | 53.4                                    | 47.9           |         |
|                             |  | 31.01.2023          | 53.5                                    | 49.4           |         |
| 22-Singmojha village        | C  | 13.01.2023          | 47.4                                    | 41.2           |         |
|                             |  | 31.01.2023          | 49.3                                    | 47.1           |         |
| 23-Kosamghat Village        | C  | 13.01.2023          | 49.5                                    | 40.8           |         |
|                             |  | 31.01.2023          | 53.3                                    | 47.9           |         |
| 24-Posalda Village          | C  | 13.01.2023          | 48.3                                    | 40.1           |         |
|                             |  | 31.01.2023          | 50.2                                    | 46.2           |         |
| 25-Kudumkela Village        | C  | 13.01.2023          | 49.5                                    | 40.1           |         |
|                             |  | 31.01.2023          | 53.6                                    | 48.4           |         |
| 26-Saraipali Village        | C  | 13.01.2023          | 50.5                                    | 39.4           |         |
|                             |  | 31.01.2023          | 52.4                                    | 49.1           |         |
| 27-Howramoda Village        | C  | 13.01.2023          | 50.0                                    | 40.8           |         |
|                             |  | 31.01.2023          | 51.4                                    | 49.2           |         |
| 28-Jampali Village          | C  | 13.01.2023          | 46.5                                    | 41.2           |         |
|                             |  | 31.01.2023          | 51.6                                    | 49.2           |         |

*[Signature]*  
 Sampled by

*[Signature]*  
 Checked by

*[Signature]*  
 Manager-Environment

Note: 1) The results above relate to the samples tested.

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 22341                                   | <b>Report Issue Date</b>             | 06-02-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | PRAKASH                                 | <b>Date of Sampling</b>              | 13-01-2023                         | <b>Sample ID</b>        | 15581                         |
| <b>Sampling Location</b> | Mine discharge water Jampali O/C        | <b>Sampling Plan</b>                 | AS PER MONTHLY PLAN                | <b>Sampling Method</b>  | CMPDIL/BSP/LSOP               |
| <b>Sample Condition</b>  | APPROPRIATE                             | <b>Date of Receipt of Sample</b>     | 15-01-2023                         | <b>Date of Analysis</b> | From 15-01-2023 To 01-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | BDL            | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.80           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | BDL            | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Akash Gupta

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :06-02-2023 05:25:43

JSA

Note:

- \* This is computer generated report and does not require signature
- \* General Standards for Discharge of Environmental Pollution(Part A:Effluent) as per Schedule VI,Environment (Protection) Rules
  - a. The results relate only to the item sampled and tested.
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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 22692                                   | <b>Report Issue Date</b>             | 06-02-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Sanjay Verma                            | <b>Date of Sampling</b>              | 30-01-2023                         | <b>Sample ID</b>        | 15727                         |
| <b>Sampling Location</b> | Mine discharge water Jampali O/C        | <b>Sampling Plan</b>                 | As a fortnightly                   | <b>Sampling Method</b>  | CMPDI/LSOP/BSP                |
| <b>Sample Condition</b>  | APPROPRIATE                             | <b>Date of Receipt of Sample</b>     | 02-02-2023                         | <b>Date of Analysis</b> | From 03-02-2023 To 04-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 8.16           | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.79           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 11.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Panna Lal Kashyap

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :06-02-2023 05:25:44

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                        |                                    |                               |
|--------------------------|---|--------------------------------------|------------------------|------------------------------------|-------------------------------|
| <b>Unique Report No.</b> | 22340   | <b>Report Issue Date</b>             | 06-02-2023             |                                    |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur       | <b>Address &amp; Contact Details</b> |                        | SEEPAT ROAD BILASPUR<br>7752241927 |                               |
| <b>Sampling By</b>       | PRAKASH                                       | <b>Date of Sampling</b>              | 13-01-2023             | <b>Sample ID</b>                   | 15580                         |
| <b>Sampling Location</b> | At Kurket River 100m up stream<br>Jampali O/C | <b>Sampling Plan</b>                 | AS PER<br>MONTHLY PLAN | <b>Sampling Method</b>             | CMPDIL/BSP/LSOP               |
| <b>Sample Condition</b>  | APPROPRIATE                                   | <b>Date of Receipt of Sample</b>     | 15-01-2023             | <b>Date of Analysis</b>            | From 15-01-2023 To 01-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | BDL            | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.71           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | BDL            | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Akash Gupta

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :06-02-2023 05:25:43

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 22688   | <b>Report Issue Date</b>             | 06-02-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur       | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Sanjay Verma                                  | <b>Date of Sampling</b>              | 30-01-2023                         | <b>Sample ID</b>        | 15726                         |
| <b>Sampling Location</b> | At Kurket River 100m up stream<br>Jampali O/C | <b>Sampling Plan</b>                 | As a fortnightly                   | <b>Sampling Method</b>  | CMPDI/LSOP/BSP                |
| <b>Sample Condition</b>  | APPROPRIATE                                   | <b>Date of Receipt of Sample</b>     | 02-02-2023                         | <b>Date of Analysis</b> | From 03-02-2023 To 04-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 8.16           | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 6.85           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 38.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Panna Lal Kashyap

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :06-02-2023 05:25:44

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Note:

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 22339   | <b>Report Issue Date</b>             | 06-02-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur         | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | PRAKASH   | <b>Date of Sampling</b>              | 13-01-2023                         | <b>Sample ID</b>        | 15579                         |
| <b>Sampling Location</b> | At Kurket River 100m down stream<br>Jampali O/C | <b>Sampling Plan</b>                 | AS PER<br>MONTHLY PLAN             | <b>Sampling Method</b>  | CMPDIL/BSP/LSOP               |
| <b>Sample Condition</b>  | APPROPRIATE                                     | <b>Date of Receipt of Sample</b>     | 15-01-2023                         | <b>Date of Analysis</b> | From 15-01-2023 To 01-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | BDL            | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.50           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | BDL            | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Akash Gupta

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :06-02-2023 05:25:43

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 22684   | <b>Report Issue Date</b>             | 06-02-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur         | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Sanjay Verma                                    | <b>Date of Sampling</b>              | 30-01-2023                         | <b>Sample ID</b>        | 15725                         |
| <b>Sampling Location</b> | At Kurket River 100m down stream<br>Jampali O/C | <b>Sampling Plan</b>                 | As a fortnightly                   | <b>Sampling Method</b>  | CMPDI/LSOP/BSP                |
| <b>Sample Condition</b>  | APPROPRIATE                                     | <b>Date of Receipt of Sample</b>     | 02-02-2023                         | <b>Date of Analysis</b> | From 03-02-2023 To 04-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 8.16           | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.30           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 13.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

**Reported By**  
Panna Lal Kashyap

**Reviewed and Approved**  
M. Reagan  
Manager (Env)  
Date&Time :06-02-2023 05:25:44

JSA

Note:

- \* This is computer generated report and does not require signature
- \* General Standards for Discharge of Environmental Pollution(Part A:Effluent) as per Schedule VI,Environment (Protection) Rules
  - a. The results relate only to the item sampled and tested.
  - b. This report shall not be reproduced except in full without approval of the laboratory.

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website: [www.cmpdi.co.in](http://www.cmpdi.co.in)

*cmpdi**A Mini-Retna Company***AIR QUALITY REPORT**

|       |                 |      |                |           |                       |
|-------|-----------------|------|----------------|-----------|-----------------------|
| Month | <b>FEBRUARY</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/02/05</b> |
|-------|-----------------|------|----------------|-----------|-----------------------|

|                      |   |                      |                |
|----------------------|---|----------------------|----------------|
| Name of the Customer | South Eastern Coal fields Ltd, Bilaspur | Date of Issue        | 07.03.2023     |
| Name of the Project  | <b>Jampali OC</b>                       | Sample Reference No. | <b>RJ1-RJ2</b> |

| Parameter  |  |                  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                 | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |
|--|--|------------------|------------------|---------------------|----------------------|-----------------------------------|---------------------|---------------------|---------|
| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs      | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000)                             | A-O              |                  | <b>600</b>          | <b>300</b>           | -                                 | <b>120</b>          | <b>120</b>          |         |
|  |  | A-N              |                  | <b>500</b>          | <b>250</b>           | -                                 | <b>120</b>          | <b>120</b>          |         |
|  | Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) | B                |                  | <b>200</b>          | <b>100</b>           | <b>60</b>                         | <b>80</b>           | <b>80</b>           |         |
| Method of analysis                               |  |                  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPACFR 40,Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |
| Uncertainty Range (in $\mu\text{g}/\text{m}^3$ ) |  |                  |                  |                     | ±19.04               |                                   | ±0.0687             | ±0.4420             |         |
| Station Name (Code)                              | Station category   | Date of sampling | Date of analysis |                     |                      |                                   |                     |                     |         |
| 1-Jampali SAM Office                             | A-N  | 02.02.2023       | 05.02.2023       | 417                 | 233                  | 77                                | 30                  | 36                  |         |
|  |  | 06.02.2023       | 09.02.2023       | 415                 | 230                  | 73                                | 34                  | 38                  |         |
|  |  | 09.02.2023       | 12.02.2023       | 449                 | 226                  | 76                                | 31                  | 34                  |         |
|  |  | 13.02.2023       | 16.02.2023       | 422                 | 238                  | 78                                | 32                  | 35                  |         |
|  |  | 16.02.2023       | 19.02.2023       | 438                 | 237                  | 79                                | 30                  | 33                  |         |
|  |  | 20.02.2023       | 23.02.2023       | 485                 | 236                  | 75                                | 28                  | 36                  |         |
|  |  | 23.02.2023       | 26.02.2023       | 492                 | 241                  | 80                                | 27                  | 33                  |         |
|  |  | 27.02.2023       | 02.03.2023       | 476                 | 220                  | 72                                | 28                  | 35                  |         |
| 2-Sigmojha Village                               | B  | 02.02.2023       | 05.02.2023       | 174                 | 76                   | 26                                | 28                  | 33                  |         |
|  |  | 06.02.2023       | 09.02.2023       | 136                 | 77                   | 23                                | 29                  | 33                  |         |
|  |  | 09.02.2023       | 12.02.2023       | 167                 | 75                   | 26                                | 26                  | 29                  |         |
|  |  | 13.02.2023       | 16.02.2023       | 157                 | 71                   | 25                                | 29                  | 35                  |         |
|  |  | 16.02.2023       | 19.02.2023       | 183                 | 75                   | 24                                | 24                  | 29                  |         |
|  |  | 20.02.2023       | 23.02.2023       | 138                 | 73                   | 23                                | 25                  | 31                  |         |
|  |  | 23.02.2023       | 26.02.2023       | 145                 | 77                   | 26                                | 20                  | 24                  |         |
|  |  | 27.02.2023       | 02.03.2023       | 139                 | 76                   | 24                                | 22                  | 28                  |         |

*Moulish*  
Analyzed by

*Rakesh*  
Checked by

*C.K. Vel*  
Manager-Environment

Note: 1) The results above relate to the samples tested.

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*cmpdi**A Mini-Retna  
Company***AIR QUALITY REPORT**

|                      |   |      |                      |           |                       |
|----------------------|---|------|----------------------|-----------|-----------------------|
| Month                | <b>FEBRUARY</b>                         | Area | <b>RAIGARH</b>       | Report No | <b>BSP/2023/02/05</b> |
| Name of the Customer | South Eastern Coal fields Ltd, Bilaspur |      | Date of Issue        |           | <b>07.03.2023</b>     |
| Name of the Project  | <b>Jampali OC</b>                       |      | Sample Reference No. |           | <b>RJ3-RJ4</b>        |

| Parameter  |  |                  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                 | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |     |
|--|--|------------------|------------------|---------------------|----------------------|-----------------------------------|---------------------|---------------------|---------|-----|
| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs                                    | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000) |                  |                  | A-O                 | 600                  | 300                               | -                   | 120                 |         | 120 |
|  |  |                  |                  | A-N                 | 500                  | 250                               | -                   | 120                 |         | 120 |
| Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) |  |                  | B                | 200                 | 100                  | 60                                | 80                  | 80                  |         |     |
| Method of analysis   |  |                  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPACFR 40,Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |     |
| Uncertainty Range (in $\mu\text{g}/\text{m}^3$ )                               |  |                  |                  |                     | $\pm 19.04$          |                                   | $\pm 0.0687$        | $\pm 0.4420$        |         |     |
| Station Name (Code)  | Station category                                   | Date of sampling | Date of analysis |                     |                      |                                   |                     |                     |         |     |
| 3-Koshamghat Village   | B  | 02.02.2023       | 05.02.2023       | 141                 | 70                   | 24                                | 22                  | 27                  |         |     |
|  |  | 06.02.2023       | 09.02.2023       | 143                 | 69                   | 23                                | 23                  | 28                  |         |     |
|  |  | 09.02.2023       | 12.02.2023       | 142                 | 70                   | 23                                | 28                  | 33                  |         |     |
|  |  | 13.02.2023       | 16.02.2023       | 142                 | 76                   | 25                                | 26                  | 31                  |         |     |
|  |  | 16.02.2023       | 19.02.2023       | 165                 | 81                   | 28                                | 25                  | 30                  |         |     |
|  |  | 20.02.2023       | 23.02.2023       | 140                 | 78                   | 22                                | 23                  | 29                  |         |     |
|  |  | 23.02.2023       | 26.02.2023       | 128                 | 71                   | 25                                | 22                  | 27                  |         |     |
| 27.02.2023   | 02.03.2023   | 152              | 78               | 26                  | 24                   | 30                                |                     |                     |         |     |
| 4-Posalda Village  | B  | 02.02.2023       | 05.02.2023       | 175                 | 75                   | 23                                | 22                  | 26                  |         |     |
|  |  | 06.02.2023       | 09.02.2023       | 192                 | 73                   | 23                                | 21                  | 25                  |         |     |
|  |  | 09.02.2023       | 12.02.2023       | 172                 | 72                   | 24                                | 20                  | 25                  |         |     |
|  |  | 13.02.2023       | 16.02.2023       | 160                 | 77                   | 27                                | 25                  | 27                  |         |     |
|  |  | 16.02.2023       | 19.02.2023       | 152                 | 75                   | 22                                | 25                  | 31                  |         |     |
|  |  | 20.02.2023       | 23.02.2023       | 144                 | 65                   | 23                                | 22                  | 26                  |         |     |
|  |  | 23.02.2023       | 26.02.2023       | 147                 | 76                   | 25                                | 23                  | 27                  |         |     |
| 27.02.2023   | 02.03.2023   | 171              | 78               | 26                  | 22                   | 28                                |                     |                     |         |     |

*Mouishy*  
Analyzed by

*Rakesh*  
Checked by

*C.K. Vel.*  
Manager-Environment

Note: 1) The results above relate to the samples tested.

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*cmpdi**A Mini-Retna  
Company***AIR QUALITY REPORT**

|       |                 |      |                |           |                       |
|-------|-----------------|------|----------------|-----------|-----------------------|
| Month | <b>FEBRUARY</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/02/05</b> |
|-------|-----------------|------|----------------|-----------|-----------------------|

|                      |   |                      |                |
|----------------------|---|----------------------|----------------|
| Name of the Customer | South Eastern Coal fields Ltd, Bilaspur | Date of Issue        | 07.03.2023     |
| Name of the Project  | <b>Jampali OC</b>                       | Sample Reference No. | <b>RJ5-RJ6</b> |

| Parameter                                  |  |                     |                     | PM <sub>100</sub>         | PM <sub>10</sub>           | PM <sub>2.5</sub>                        | SO <sub>2</sub>           | NO <sub>2</sub>           | Remarks |
|--|--|---------------------|---------------------|---------------------------|----------------------------|--|---------------------------|---------------------------|---------|
| Limit (in<br>µg/m <sup>3</sup> )-24<br>hrs | Industrial Zone -(G.S.R. 742(E),<br>dated 25.09.2000)                                | A-O                 |                     | 600                       | 300                        | -  | 120                       | 120                       |         |
|  |  | A-N                 |                     | 500                       | 250                        | -  | 120                       | 120                       |         |
|  | Residential Zone-(G.S.R. 826(E),<br>dated 16.11.2009 and GSR 176 (E),<br>02.04.1996) | B                   |                     | 200                       | 100                        | 60                                       | 80                        | 80                        |         |
| Method of analysis                         |  |                     |                     | IS-5182<br>PART<br>4:2005 | IS-5182<br>PART<br>23:2006 | USEPA CFR<br>40, Appendi<br>L to Part 50 | IS-5182<br>PART<br>2:2001 | IS-5182<br>PART<br>6:2006 |         |
| Uncertainty Range (in µg/m <sup>3</sup> )  |  |                     |                     |                           | ±19.04                     |  | ±0.0687                   | ±0.4420                   |         |
| Station Name<br>(Code)                     | Station<br>category  | Date of<br>sampling | Date of<br>analysis |                           |                            |  |                           |                           |         |
| 5-Kudumkela                                | B  | 02.02.2023          | 05.02.2023          | 160                       | 74                         | 24                                       | 21                        | 27                        |         |
|  |  | 06.02.2023          | 09.02.2023          | 147                       | 79                         | 28                                       | 23                        | 29                        |         |
|  |  | 09.02.2023          | 12.02.2023          | 146                       | 77                         | 26                                       | 25                        | 27                        |         |
|  |  | 13.02.2023          | 16.02.2023          | 157                       | 70                         | 23                                       | 22                        | 27                        |         |
|  |  | 16.02.2023          | 19.02.2023          | 131                       | 76                         | 25                                       | 23                        | 29                        |         |
|  |  | 20.02.2023          | 23.02.2023          | 167                       | 69                         | 23                                       | 22                        | 27                        |         |
|  |  | 23.02.2023          | 26.02.2023          | 139                       | 78                         | 27                                       | 19                        | 23                        |         |
|  |  | 27.02.2023          | 02.03.2023          | 134                       | 77                         | 26                                       | 20                        | 24                        |         |
| 6-Saraipali Village                        | B  | 02.02.2023          | 05.02.2023          | 175                       | 79                         | 28                                       | 23                        | 29                        |         |
|  |  | 06.02.2023          | 09.02.2023          | 140                       | 77                         | 26                                       | 22                        | 26                        |         |
|  |  | 09.02.2023          | 12.02.2023          | 180                       | 69                         | 23                                       | 27                        | 31                        |         |
|  |  | 13.02.2023          | 16.02.2023          | 161                       | 78                         | 26                                       | 21                        | 24                        |         |
|  |  | 16.02.2023          | 19.02.2023          | 162                       | 73                         | 24                                       | 22                        | 26                        |         |
|  |  | 20.02.2023          | 23.02.2023          | 182                       | 76                         | 25                                       | 19                        | 24                        |         |
|  |  | 23.02.2023          | 26.02.2023          | 147                       | 78                         | 26                                       | 21                        | 26                        |         |
|  |  | 27.02.2023          | 02.03.2023          | 170                       | 70                         | 23                                       | 20                        | 25                        |         |

*Mouishy*  
Analyzed by

*Rakesh*  
Checked by

*C.K. Vel*  
Manager-Environment

Note: 1) The results above relate to the samples tested.

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*cmpdi**A Mini-Retna Company***AIR QUALITY REPORT**

|       |                 |      |                |           |                       |
|-------|-----------------|------|----------------|-----------|-----------------------|
| Month | <b>FEBRUARY</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/02/05</b> |
|-------|-----------------|------|----------------|-----------|-----------------------|

|                      |   |                      |                |
|----------------------|---|----------------------|----------------|
| Name of the Customer | South Eastern Coal fields Ltd, Bilaspur | Date of Issue        | 07.03.2023     |
| Name of the Project  | <b>Jampali OC</b>                       | Sample Reference No. | <b>RJ7-RJ8</b> |

| Parameter  |  |                  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                 | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |
|--|--|------------------|------------------|---------------------|----------------------|-----------------------------------|---------------------|---------------------|---------|
| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs      | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000)                             | A-O              |                  | 600                 | 300                  | -                                 | 120                 | 120                 |         |
|  |  | A-N              |                  | 500                 | 250                  | -                                 | 120                 | 120                 |         |
|  | Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) | B                |                  | 200                 | 100                  | 60                                | 80                  | 80                  |         |
| Method of analysis                               |  |                  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPACFR 40,Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |
| Uncertainty Range (in $\mu\text{g}/\text{m}^3$ ) |  |                  |                  |                     | ±19.04               |                                   | ±0.0687             | ±0.4420             |         |
| Station Name (Code)                              | Station category   | Date of sampling | Date of analysis |                     |                      |                                   |                     |                     |         |
| 7-Howramoda Village                              | B  | 02.02.2023       | 05.02.2023       | 151                 | 71                   | 24                                | 24                  | 27                  |         |
|  |  | 06.02.2023       | 09.02.2023       | 151                 | 71                   | 23                                | 23                  | 29                  |         |
|  |  | 09.02.2023       | 12.02.2023       | 160                 | 81                   | 28                                | 25                  | 28                  |         |
|  |  | 13.02.2023       | 16.02.2023       | 140                 | 80                   | 27                                | 23                  | 29                  |         |
|  |  | 16.02.2023       | 19.02.2023       | 180                 | 74                   | 23                                | 23                  | 28                  |         |
|  |  | 20.02.2023       | 23.02.2023       | 187                 | 77                   | 25                                | 21                  | 26                  |         |
|  |  | 23.02.2023       | 26.02.2023       | 177                 | 78                   | 26                                | 24                  | 28                  |         |
|  |  | 27.02.2023       | 02.03.2023       | 169                 | 70                   | 23                                | 23                  | 27                  |         |
| 8-Jampali Village                                | B  | 02.02.2023       | 05.02.2023       | 154                 | 75                   | 25                                | 24                  | 26                  |         |
|  |  | 06.02.2023       | 09.02.2023       | 149                 | 73                   | 24                                | 23                  | 28                  |         |
|  |  | 09.02.2023       | 12.02.2023       | 184                 | 72                   | 24                                | 25                  | 29                  |         |
|  |  | 13.02.2023       | 16.02.2023       | 154                 | 79                   | 26                                | 23                  | 26                  |         |
|  |  | 16.02.2023       | 19.02.2023       | 177                 | 76                   | 25                                | 22                  | 27                  |         |
|  |  | 20.02.2023       | 23.02.2023       | 143                 | 78                   | 26                                | 23                  | 28                  |         |
|  |  | 23.02.2023       | 26.02.2023       | 168                 | 73                   | 24                                | 21                  | 28                  |         |
|  |  | 27.02.2023       | 02.03.2023       | 165                 | 76                   | 25                                | 20                  | 26                  |         |

*Mouishy*  
 Analyzed by

*Rakesh*  
 Checked by

*C.K. Vel*  
 Manager-Environment

Note: 1) The results above relate to the samples tested.

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*cmpdi**A Mini-Ratna Company***NOISE QUALITY REPORT**

|       |          |      |         |           |                |
|-------|----------|------|---------|-----------|----------------|
| Month | FEBRUARY | Area | RAIGARH | Report No | BSP/2023/02/05 |
|-------|----------|------|---------|-----------|----------------|

|                      |  |                      |            |
|----------------------|--|----------------------|------------|
| Name of the Customer | South Eastern Coalfields Ltd, Bilaspur | Date of Issue        | 10.03.2023 |
| Name of the Project  | JAMPALI OC                             | Sample Reference No. | N83-N90    |

| Parameter                   |  |                     | The Noise Pollution (R & C) rules, 2000 |                | Remarks |
|-----------------------------|--|---------------------|---|----------------|---------|
|                             |  |                     | Day Time                                | Night Time     |         |
| Limit (in dB(A) Leq         | Industrial area                                  | A                   | 75                                      | 70             |         |
|                             | Commercial area                                  | B                   | 65                                      | 55             |         |
|                             | Residential Area                                 | C                   | 55                                      | 45             |         |
|                             | Silence Zone                                     | D                   | 50                                      | 40             |         |
| Method of analysis          | CPCB Protocol For Ambient Level Noise Monitoring |                     |   |                |         |
| Station (Code) Station Name | Station category                                 | Date of measurement | Value in dB(A)                          | Value in dB(A) |         |
| 21-Jampali SAM Office       | A  | 14.02.2023          | 56.4                                    | 50.5           |         |
|                             |  | 21.02.2023          | 54.3                                    | 47.8           |         |
| 22-Singmojha village        | C  | 14.02.2023          | 46.7                                    | 40.8           |         |
|                             |  | 21.02.2023          | 49.2                                    | 40.6           |         |
| 23-Kosamghat Village        | C  | 14.02.2023          | 48.3                                    | 43.2           |         |
|                             |  | 21.02.2023          | 50.1                                    | 42.1           |         |
| 24-Posalda Village          | C  | 14.02.2023          | 43.4                                    | 38.5           |         |
|                             |  | 21.02.2023          | 49.2                                    | 41.5           |         |
| 25-Kudumkela Village        | C  | 14.02.2023          | 46.3                                    | 38.9           |         |
|                             |  | 21.02.2023          | 52.8                                    | 43.4           |         |
| 26-Saraipali Village        | C  | 14.02.2023          | 43.4                                    | 38.9           |         |
|                             |  | 21.02.2023          | 50.8                                    | 42.0           |         |
| 27-Howamoda Village         | C  | 14.02.2023          | 42.5                                    | 39.3           |         |
|                             |  | 21.02.2023          | 51.2                                    | 43.1           |         |
| 28-Jampali Village          | C  | 14.02.2023          | 41.4                                    | 38.4           |         |
|                             |  | 21.02.2023          | 48.1                                    | 40.8           |         |

*[Signature]*  
 Sampled by

*[Signature]*  
 Checked by

*[Signature]*  
 Manager-Environment

Note: 1) The results above relate to the samples tested.

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |  |
|--------------------------|---|--------------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> | 25120                                   | <b>Report Issue Date</b>             | 09-03-2023                         |  |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Anil Yadav                              | <b>Date of Sampling</b>              | 14-02-2023                         | <b>Sample ID</b><br>15881                                |
| <b>Sampling Location</b> | Mine discharge water Jampali O/C        | <b>Sampling Plan</b>                 | As per fortnightly plan            | <b>Sampling Method</b><br>CMPDI/BSP/LSOP                 |
| <b>Sample Condition</b>  | APPROPRIATE                             | <b>Date of Receipt of Sample</b>     | 15-02-2023                         | <b>Date of Analysis</b><br>From 15-02-2023 To 20-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 48.00          | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.47           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 72.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Akash Gupta

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :09 03-2023 10:26:53

JSA

Note:

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- \* General Standards for Discharge of Environmental Pollution(Part A:Effluent) as per Schedule VI,Environment (Protection) Rules
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  - b. This report shall not be reproduced except in full without approval of the laboratory.



**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |                                  |  |                         |                                      |                               |                                    |  |
|--------------------------|----------------------------------|--|-------------------------|--------------------------------------|-------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> |                                  | 26109                                    |                         | <b>Report Issue Date</b>             |                               | 09-03-2023                         |  |
| <b>Customer Name</b>     |                                  | South Eastern Coal Field Ltd<br>Bilaspur |                         | <b>Address &amp; Contact Details</b> |                               | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Binud , Prakash                  | <b>Date of Sampling</b>                  | 24-02-2023              | <b>Sample ID</b>                     | 16073                         |                                    |  |
| <b>Sampling Location</b> | Mine discharge water Jampali O/C | <b>Sampling Plan</b>                     | AS PER FORTNIGHTLY PLAN | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                |                                    |  |
| <b>Sample Condition</b>  | APPROPRIATE                      | <b>Date of Receipt of Sample</b>         | 26-02-2023              | <b>Date of Analysis</b>              | From 28-02-2023 To 02-03-2023 |                                    |  |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 16.32          | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.32           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 19.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
D.Dayakar

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :09 03-2023 10:26:56

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |  |
|--------------------------|---|--------------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> | 25116   | <b>Report Issue Date</b>             | 09-03-2023                         |  |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur       | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Anil Yadav                                    | <b>Date of Sampling</b>              | 14-02-2023                         | <b>Sample ID</b><br>15880                                |
| <b>Sampling Location</b> | At Kurket River 100m up stream<br>Jampali O/C | <b>Sampling Plan</b>                 | As per fortnightly<br>plan         | <b>Sampling Method</b><br>CMPDI/BSP/LSOP                 |
| <b>Sample Condition</b>  | APPROPRIATE                                   | <b>Date of Receipt of Sample</b>     | 15-02-2023                         | <b>Date of Analysis</b><br>From 15-02-2023 To 20-02-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 96.00          | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.40           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 126.00         | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Akash Gupta

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :09 03-2023 10:26:53

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                               |  |
|--------------------------|---|--------------------------------------|-------------------------------|--|
| <b>Unique Report No.</b> | 26105   | <b>Report Issue Date</b>             | 09-03-2023                    |  |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur       | <b>Address &amp; Contact Details</b> |                               | SEEPAT ROAD BILASPUR<br>7752241927                       |
| <b>Sampling By</b>       | Binud , Prakash                               | <b>Date of Sampling</b>              | 24-02-2023                    | <b>Sample ID</b><br>16072                                |
| <b>Sampling Location</b> | At Kurket River 100m up stream<br>Jampali O/C | <b>Sampling Plan</b>                 | AS PER<br>FORTNIGHTLY<br>PLAN | <b>Sampling Method</b><br>CMPDI/BSP/LSOP                 |
| <b>Sample Condition</b>  | APPROPRIATE                                   | <b>Date of Receipt of Sample</b>     | 26-02-2023                    | <b>Date of Analysis</b><br>From 28-02-2023 To 02-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 8.16           | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.62           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | BDL            | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
D.Dayakar

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M. Reagan  
Manager (Env)  
Date&Time :09 03-2023 10:26:56

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |   |                         |                                      |                               |                                    |  |
|--------------------------|---|---|-------------------------|--------------------------------------|-------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> |   | 25112                                   |                         | <b>Report Issue Date</b>             |                               | 09-03-2023                         |  |
| <b>Customer Name</b>     |   | South Estern Coal Field Ltd<br>Bilaspur |                         | <b>Address &amp; Contact Details</b> |                               | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Anil Yadav                                      | <b>Date of Sampling</b>                 | 14-02-2023              | <b>Sample ID</b>                     | 15879                         |                                    |  |
| <b>Sampling Location</b> | At Kurket River 100m down stream<br>Jampali O/C | <b>Sampling Plan</b>                    | As per fortnightly plan | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                |                                    |  |
| <b>Sample Condition</b>  | APPROPRIATE                                     | <b>Date of Receipt of Sample</b>        | 15-02-2023              | <b>Date of Analysis</b>              | From 15-02-2023 To 20-02-2023 |                                    |  |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 128.00         | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.34           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 175.00         | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Akash Gupta

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :09 03-2023 10:26:53

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |  |
|--------------------------|---|--------------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> | 26101   | <b>Report Issue Date</b>             | 09-03-2023                         |  |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur         | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Binud , Prakash                                 | <b>Date of Sampling</b>              | 24-02-2023                         | <b>Sample ID</b><br>16071                                |
| <b>Sampling Location</b> | At Kurket River 100m down stream<br>Jampali O/C | <b>Sampling Plan</b>                 | AS PER<br>FORTNIGHTLY<br>PLAN      | <b>Sampling Method</b><br>CMPDI/BSP/LSOP                 |
| <b>Sample Condition</b>  | APPROPRIATE                                     | <b>Date of Receipt of Sample</b>     | 26-02-2023                         | <b>Date of Analysis</b><br>From 28-02-2023 To 02-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 16.32          | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.44           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | BDL            | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
D.Dayakar

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :09 03-2023 10:26:56

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 website: [www.cmpdi.co.in](http://www.cmpdi.co.in)

*cmpdi*

*A Mini-Retna  
 Company*

**AIR QUALITY REPORT**

|       |              |      |                |           |                       |
|-------|--------------|------|----------------|-----------|-----------------------|
| Month | <b>MARCH</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/03/05</b> |
|-------|--------------|------|----------------|-----------|-----------------------|

|                             |   |                             |                |
|-----------------------------|---|-----------------------------|----------------|
| <b>Name of the Customer</b> | South Eastern Coal fields Ltd, Bilaspur | <b>Date of Issue</b>        | 31.03.2023     |
| <b>Name of the Project</b>  | <b>Jampali OC</b>                       | <b>Sample Reference No.</b> | <b>RJ1-RJ2</b> |

| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs                                    | Parameter  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                 | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |
|--|--|------------------|---------------------|----------------------|-----------------------------------|---------------------|---------------------|---------|
|  | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000) | A-O              | <b>600</b>          | <b>300</b>           | -                                 | <b>120</b>          | <b>120</b>          |         |
|  |  | A-N              | <b>500</b>          | <b>250</b>           | -                                 | <b>120</b>          | <b>120</b>          |         |
| Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) | <b>B</b>   | <b>200</b>       | <b>100</b>          | <b>60</b>            | <b>80</b>                         | <b>80</b>           |                     |         |
| <b>Method of analysis</b>  |  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPACFR 40,Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |
| <b>Uncertainty Range (in <math>\mu\text{g}/\text{m}^3</math>)</b>              |  |                  |                     | ±19.04               |                                   | ±0.0687             | ±0.4420             |         |
| Station Name (Code)  | Station category                                   | Date of sampling | Date of analysis    |                      |                                   |                     |                     |         |
| <b>1-Jampali SAM Office</b>  | <b>A-N</b>   | 01.03.2023       | 04.03.2023          | 429                  | 235                               | 76                  | 29                  | 37      |
|  |  | 03.03.2023       | 06.03.2023          | 468                  | 236                               | 73                  | 32                  | 38      |
|  |  | 06.03.2023       | 09.03.2023          | 427                  | 215                               | 75                  | 30                  | 34      |
|  |  | 09.03.2023       | 12.03.2023          | 429                  | 225                               | 77                  | 31                  | 35      |
|  |  | 13.03.2023       | 16.03.2023          | 437                  | 236                               | 73                  | 27                  | 37      |
|  |  | 16.03.2023       | 19.03.2023          | 451                  | 230                               | 75                  | 26                  | 30      |
|  |  | 20.03.2023       | 23.03.2023          | 462                  | 219                               | 79                  | 32                  | 36      |
|  |  | 23.03.2023       | 26.03.2023          | 436                  | 239                               | 72                  | 28                  | 33      |
|  |  | 27.03.2023       | 30.03.2023          | 439                  | 228                               | 75                  | 30                  | 35      |
| <b>2-Sigmojha Village</b>  | <b>B</b>   | 01.03.2023       | 04.03.2023          | 172                  | 74                                | 25                  | 27                  | 32      |
|  |  | 03.03.2023       | 06.03.2023          | 135                  | 76                                | 24                  | 28                  | 33      |
|  |  | 06.03.2023       | 09.03.2023          | 166                  | 74                                | 24                  | 25                  | 29      |
|  |  | 09.03.2023       | 12.03.2023          | 151                  | 69                                | 26                  | 28                  | 35      |
|  |  | 13.03.2023       | 16.03.2023          | 183                  | 73                                | 25                  | 23                  | 30      |
|  |  | 16.03.2023       | 19.03.2023          | 137                  | 71                                | 27                  | 24                  | 32      |
|  |  | 20.03.2023       | 23.03.2023          | 144                  | 76                                | 24                  | 19                  | 25      |
|  |  | 23.03.2023       | 26.03.2023          | 138                  | 75                                | 25                  | 20                  | 27      |
|  |  | 27.03.2023       | 30.03.2023          | 140                  | 74                                | 24                  | 21                  | 29      |

*Rakesh*  
 Analyzed by

*Mouishy*  
 Checked by

*C.K. Vel*  
 Manager-Environment

Note: 1) The results above relate to the samples tested.

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 website: [www.cmpdi.co.in](http://www.cmpdi.co.in)

*cmpdi**A Mini-Retna Company***AIR QUALITY REPORT**

|                      |   |      |                      |           |                       |
|----------------------|---|------|----------------------|-----------|-----------------------|
| Month                | <b>MARCH</b>                            | Area | <b>RAIGARH</b>       | Report No | <b>BSP/2023/03/05</b> |
| Name of the Customer | South Eastern Coal fields Ltd, Bilaspur |      | Date of Issue        |           | <b>31.03.2023</b>     |
| Name of the Project  | <b>Jampali OC</b>                       |      | Sample Reference No. |           | <b>RJ3-RJ4</b>        |

| Parameter  |  |                  |                  | PM <sub>100</sub>   | PM <sub>10</sub>     | PM <sub>2.5</sub>                 | SO <sub>2</sub>     | NO <sub>2</sub>     | Remarks |
|--|--|------------------|------------------|---------------------|----------------------|-----------------------------------|---------------------|---------------------|---------|
| Limit (in $\mu\text{g}/\text{m}^3$ )-24 hrs      | Industrial Zone -(G.S.R. 742(E), dated 25.09.2000)                             | A-O              |                  | 600                 | 300                  | -                                 | 120                 | 120                 |         |
|  |  | A-N              |                  | 500                 | 250                  | -                                 | 120                 | 120                 |         |
|  | Residential Zone-(G.S.R. 826(E), dated 16.11.2009 and GSR 176 (E), 02.04.1996) | B                |                  | 200                 | 100                  | 60                                | 80                  | 80                  |         |
| Method of analysis                               |  |                  |                  | IS-5182 PART 4:2005 | IS-5182 PART 23:2006 | USEPACFR 40,Appendix L to Part 50 | IS-5182 PART 2:2001 | IS-5182 PART 6:2006 |         |
| Uncertainty Range (in $\mu\text{g}/\text{m}^3$ ) |  |                  |                  |                     | ±19.04               |                                   | ±0.0687             | ±0.4420             |         |
| Station Name (Code)                              | Station category   | Date of sampling | Date of analysis |                     |                      |                                   |                     |                     |         |
| 3-Koshamghat Village                             | B  | 01.03.2023       | 04.03.2023       | 142                 | 71                   | 26                                | 21                  | 27                  |         |
|  |  | 03.03.2023       | 06.03.2023       | 144                 | 69                   | 24                                | 23                  | 29                  |         |
|  |  | 06.03.2023       | 09.03.2023       | 142                 | 70                   | 23                                | 27                  | 33                  |         |
|  |  | 09.03.2023       | 12.03.2023       | 141                 | 76                   | 23                                | 25                  | 32                  |         |
|  |  | 13.03.2023       | 16.03.2023       | 158                 | 73                   | 26                                | 24                  | 31                  |         |
|  |  | 16.03.2023       | 19.03.2023       | 139                 | 77                   | 27                                | 22                  | 29                  |         |
|  |  | 20.03.2023       | 23.03.2023       | 127                 | 70                   | 25                                | 21                  | 27                  |         |
|  |  | 23.03.2023       | 26.03.2023       | 151                 | 77                   | 25                                | 23                  | 28                  |         |
| 4-Posalda Village                                | B  | 01.03.2023       | 04.03.2023       | 173                 | 73                   | 23                                | 21                  | 27                  |         |
|  |  | 03.03.2023       | 06.03.2023       | 191                 | 72                   | 23                                | 20                  | 25                  |         |
|  |  | 06.03.2023       | 09.03.2023       | 169                 | 69                   | 24                                | 19                  | 25                  |         |
|  |  | 09.03.2023       | 12.03.2023       | 159                 | 76                   | 23                                | 24                  | 27                  |         |
|  |  | 13.03.2023       | 16.03.2023       | 150                 | 73                   | 25                                | 25                  | 31                  |         |
|  |  | 16.03.2023       | 19.03.2023       | 143                 | 63                   | 24                                | 21                  | 27                  |         |
|  |  | 20.03.2023       | 23.03.2023       | 145                 | 75                   | 24                                | 22                  | 27                  |         |
|  |  | 23.03.2023       | 26.03.2023       | 169                 | 76                   | 25                                | 19                  | 28                  |         |
| 27.03.2023                                       | 30.03.2023   | 137              | 75               | 23                  | 21                   | 27                                |                     |                     |         |

*Rakesh*  
 Analyzed by

*Mouishy*  
 Checked by

*C.K. Vel*  
 Manager-Environment

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Company*

**AIR QUALITY REPORT**

|       |              |      |                |           |                       |
|-------|--------------|------|----------------|-----------|-----------------------|
| Month | <b>MARCH</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/03/05</b> |
|-------|--------------|------|----------------|-----------|-----------------------|

|                             |   |                             |                |
|-----------------------------|---|-----------------------------|----------------|
| <b>Name of the Customer</b> | South Eastern Coal fields Ltd, Bilaspur | <b>Date of Issue</b>        | 31.03.2023     |
| <b>Name of the Project</b>  | <b>Jampali OC</b>                       | <b>Sample Reference No.</b> | <b>RJ5-RJ6</b> |

| Parameter                                      |  |                     |                     | PM <sub>100</sub>         | PM <sub>10</sub>           | PM <sub>2.5</sub>                        | SO <sub>2</sub>           | NO <sub>2</sub>           | Remarks |
|--|--|---------------------|---------------------|---------------------------|----------------------------|--|---------------------------|---------------------------|---------|
| Limit (in<br>µg/m <sup>3</sup> )-24<br>hrs     | Industrial Zone -(G.S.R. 742(E),<br>dated 25.09.2000)                                | A-O                 |                     | <b>600</b>                | <b>300</b>                 | -  | <b>120</b>                | <b>120</b>                |         |
|  |  | A-N                 |                     | <b>500</b>                | <b>250</b>                 | -  | <b>120</b>                | <b>120</b>                |         |
|  | Residential Zone-(G.S.R. 826(E),<br>dated 16.11.2009 and GSR 176 (E),<br>02.04.1996) | B                   |                     | <b>200</b>                | <b>100</b>                 | <b>60</b>                                | <b>80</b>                 | <b>80</b>                 |         |
| <b>Method of analysis</b>                      |  |                     |                     | IS-5182<br>PART<br>4:2005 | IS-5182<br>PART<br>23:2006 | USEPA CFR<br>40, Appendi<br>L to Part 50 | IS-5182<br>PART<br>2:2001 | IS-5182<br>PART<br>6:2006 |         |
| <b>Uncertainty Range (in µg/m<sup>3</sup>)</b> |  |                     |                     |                           | ±19.04                     |  | ±0.0687                   | ±0.4420                   |         |
| Station Name<br>(Code)                         | Station<br>category  | Date of<br>sampling | Date of<br>analysis |                           |                            |  |                           |                           |         |
| 5-Kudumkela                                    | B  | 01.03.2023          | 04.03.2023          | 159                       | 73                         | 23                                       | 21                        | 27                        |         |
|  |  | 03.03.2023          | 06.03.2023          | 147                       | 79                         | 24                                       | 22                        | 30                        |         |
|  |  | 06.03.2023          | 09.03.2023          | 134                       | 71                         | 23                                       | 24                        | 27                        |         |
|  |  | 09.03.2023          | 12.03.2023          | 139                       | 77                         | 24                                       | 21                        | 28                        |         |
|  |  | 13.03.2023          | 16.03.2023          | 137                       | 75                         | 25                                       | 22                        | 29                        |         |
|  |  | 16.03.2023          | 19.03.2023          | 166                       | 68                         | 23                                       | 21                        | 27                        |         |
|  |  | 20.03.2023          | 23.03.2023          | 145                       | 77                         | 26                                       | 19                        | 24                        |         |
|  |  | 23.03.2023          | 26.03.2023          | 139                       | 76                         | 25                                       | 19                        | 25                        |         |
|  |  | 27.03.2023          | 30.03.2023          | 160                       | 75                         | 23                                       | 20                        | 28                        |         |
| 6-Saraipali Village                            | B  | 01.03.2023          | 04.03.2023          | 174                       | 78                         | 23                                       | 22                        | 30                        |         |
|  |  | 03.03.2023          | 06.03.2023          | 139                       | 77                         | 25                                       | 21                        | 26                        |         |
|  |  | 06.03.2023          | 09.03.2023          | 179                       | 69                         | 26                                       | 26                        | 31                        |         |
|  |  | 09.03.2023          | 12.03.2023          | 161                       | 78                         | 26                                       | 21                        | 24                        |         |
|  |  | 13.03.2023          | 16.03.2023          | 160                       | 71                         | 24                                       | 21                        | 26                        |         |
|  |  | 16.03.2023          | 19.03.2023          | 179                       | 73                         | 23                                       | 19                        | 25                        |         |
|  |  | 20.03.2023          | 23.03.2023          | 145                       | 77                         | 25                                       | 21                        | 27                        |         |
|  |  | 23.03.2023          | 26.03.2023          | 166                       | 65                         | 22                                       | 19                        | 25                        |         |
|  |  | 27.03.2023          | 30.03.2023          | 142                       | 78                         | 23                                       | 22                        | 29                        |         |

*Rakesh*  
Analyzed by

*Mouishy*  
Checked by

*C.K. Vel*  
Manager-Environment

Note: 1) The results above relate to the samples tested.

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**CENTRAL MINE PLANNING AND DESIGN INSTITUTE LIMITED**

Environment Laboratory, Regional Institute-V,  
 Phone: (07815) 271646, email: [rdri5.cmpdi@coalindia.in](mailto:rdri5.cmpdi@coalindia.in),  
 website: [www.cmpdi.co.in](http://www.cmpdi.co.in)

*cmpdi*

*A Mini-Retna  
 Company*

**AIR QUALITY REPORT**

|       |              |      |                |           |                       |
|-------|--------------|------|----------------|-----------|-----------------------|
| Month | <b>MARCH</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/03/05</b> |
|-------|--------------|------|----------------|-----------|-----------------------|

|                             |   |                             |                |
|-----------------------------|---|-----------------------------|----------------|
| <b>Name of the Customer</b> | South Eastern Coal fields Ltd, Bilaspur | <b>Date of Issue</b>        | 31.03.2023     |
| <b>Name of the Project</b>  | <b>Jampali OC</b>                       | <b>Sample Reference No.</b> | <b>RJ7-RJ8</b> |

| Parameter                                      |  |                             |                             | PM <sub>100</sub>         | PM <sub>10</sub>           | PM <sub>2.5</sub>                      | SO <sub>2</sub>           | NO <sub>2</sub>           | Remarks |     |
|--|--|-----------------------------|-----------------------------|---------------------------|----------------------------|--|---------------------------|---------------------------|---------|-----|
| Limit (in<br>µg/m <sup>3</sup> )-24<br>hrs     | Industrial Zone -(G.S.R. 742(E),<br>dated 25.09.2000)                                |                             |                             | A-O                       | 600                        | 300                                    | -                         | 120                       |         | 120 |
|  | Residential Zone-(G.S.R. 826(E),<br>dated 16.11.2009 and GSR 176 (E),<br>02.04.1996) |                             |                             | A-N                       | 500                        | 250                                    | -                         | 120                       |         | 120 |
|  |  |                             |                             | B                         | 200                        | 100                                    | 60                        | 80                        |         | 80  |
| <b>Method of analysis</b>                      |  |                             |                             | IS-5182<br>PART<br>4:2005 | IS-5182<br>PART<br>23:2006 | USEPACFR<br>40,Appendi<br>L to Part 50 | IS-5182<br>PART<br>2:2001 | IS-5182<br>PART<br>6:2006 |         |     |
| <b>Uncertainty Range (in µg/m<sup>3</sup>)</b> |  |                             |                             |                           | ±19.04                     |  | ±0.0687                   | ±0.4420                   |         |     |
| <b>Station Name<br/>(Code)</b>                 | <b>Station<br/>category</b>  | <b>Date of<br/>sampling</b> | <b>Date of<br/>analysis</b> |                           |                            |  |                           |                           |         |     |
| 7-Howramoda<br>Village                         | B  | 01.03.2023                  | 04.03.2023                  | 150                       | 72                         | 23                                     | 23                        | 28                        |         |     |
|  |  | 03.03.2023                  | 06.03.2023                  | 150                       | 70                         | 24                                     | 22                        | 29                        |         |     |
|  |  | 06.03.2023                  | 09.03.2023                  | 159                       | 79                         | 25                                     | 24                        | 28                        |         |     |
|  |  | 09.03.2023                  | 12.03.2023                  | 139                       | 78                         | 22                                     | 22                        | 30                        |         |     |
|  |  | 13.03.2023                  | 16.03.2023                  | 179                       | 73                         | 25                                     | 22                        | 28                        |         |     |
|  |  | 16.03.2023                  | 19.03.2023                  | 184                       | 74                         | 24                                     | 20                        | 26                        |         |     |
|  |  | 20.03.2023                  | 23.03.2023                  | 177                       | 78                         | 25                                     | 23                        | 28                        |         |     |
|  |  | 23.03.2023                  | 26.03.2023                  | 168                       | 69                         | 24                                     | 22                        | 27                        |         |     |
| 27.03.2023                                     | 30.03.2023   | 144                         | 75                          | 23                        | 19                         | 25                                     |                           |                           |         |     |
| 8-Jampali Village                              | B  | 01.03.2023                  | 04.03.2023                  | 153                       | 75                         | 23                                     | 23                        | 27                        |         |     |
|  |  | 03.03.2023                  | 06.03.2023                  | 148                       | 72                         | 26                                     | 22                        | 25                        |         |     |
|  |  | 06.03.2023                  | 09.03.2023                  | 183                       | 70                         | 24                                     | 24                        | 29                        |         |     |
|  |  | 09.03.2023                  | 12.03.2023                  | 153                       | 77                         | 23                                     | 22                        | 27                        |         |     |
|  |  | 13.03.2023                  | 16.03.2023                  | 176                       | 75                         | 24                                     | 21                        | 25                        |         |     |
|  |  | 16.03.2023                  | 19.03.2023                  | 142                       | 78                         | 22                                     | 22                        | 29                        |         |     |
|  |  | 20.03.2023                  | 23.03.2023                  | 167                       | 73                         | 24                                     | 20                        | 28                        |         |     |
|  |  | 23.03.2023                  | 26.03.2023                  | 164                       | 76                         | 25                                     | 19                        | 27                        |         |     |
| 27.03.2023                                     | 30.03.2023   | 179                         | 75                          | 24                        | 20                         | 24                                     |                           |                           |         |     |

*Rakesh*  
 Analyzed by

*Mouishy*  
 Checked by

*C.K. Vel*  
 Manager-Environment

Note: 1) The results above relate to the samples tested.

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Environment Laboratory, Regional Institute-V,  
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 website: [www.cmpdi.co.in](http://www.cmpdi.co.in)

*cmpdi**A Mini-Ratna  
Company***NOISE QUALITY REPORT**

|       |              |      |                |           |                       |
|-------|--------------|------|----------------|-----------|-----------------------|
| Month | <b>MARCH</b> | Area | <b>RAIGARH</b> | Report No | <b>BSP/2023/03/05</b> |
|-------|--------------|------|----------------|-----------|-----------------------|

|                      |   |                      |                   |
|----------------------|---|----------------------|-------------------|
| Name of the Customer | <b>South Eastern Coalfields Ltd, Bilaspur</b> | Date of Issue        | <b>02.04.2023</b> |
| Name of the Project  | <b>JAMPALI OC</b>                             | Sample Reference No. | <b>N21-N28</b>    |

| Parameter                   |  |                     | The Noise Pollution (R & C) rules, 2000 |                | Remarks |
|-----------------------------|--|---------------------|---|----------------|---------|
|                             |  |                     | Day Time                                | Night Time     |         |
| Limit (in dB(A) Leq         | Industrial area                                  | A                   | 75                                      | 70             |         |
|                             | Commercial area                                  | B                   | 65                                      | 55             |         |
|                             | Residential Area                                 | C                   | 55                                      | 45             |         |
|                             | Silence Zone                                     | D                   | 50                                      | 40             |         |
| Method of analysis          | CPCB Protocol For Ambient Level Noise Monitoring |                     |   |                |         |
| Station (Code) Station Name | Station category                                 | Date of measurement | Value in dB(A)                          | Value in dB(A) |         |
| 21-Jampali SAM Office       | A  | 10.03.2023          | 56.4                                    | 46.5           |         |
|                             |  | 29.03.2023          | 54.7                                    | 48.2           |         |
| 22-Singmojha village        | C  | 10.03.2023          | 46.7                                    | 34.8           |         |
|                             |  | 29.03.2023          | 48.1                                    | 35.9           |         |
| 23-Kosamghat Village        | C  | 10.03.2023          | 48.3                                    | 37.2           |         |
|                             |  | 29.03.2023          | 43.7                                    | 35.8           |         |
| 24-Posalda Village          | C  | 10.03.2023          | 43.4                                    | 35.5           |         |
|                             |  | 29.03.2023          | 44.1                                    | 36.4           |         |
| 25-Kudumkela Village        | C  | 10.03.2023          | 46.3                                    | 35.2           |         |
|                             |  | 29.03.2023          | 48.8                                    | 36.4           |         |
| 26-Saraipali Village        | C  | 10.03.2023          | 43.4                                    | 34.4           |         |
|                             |  | 29.03.2023          | 43.8                                    | 35.1           |         |
| 27-Howamoda Village         | C  | 10.03.2023          | 41.4                                    | 37.3           |         |
|                             |  | 29.03.2023          | 48.5                                    | 35.6           |         |
| 28-Jampali Village          | C  | 10.03.2023          | 42.5                                    | 35.4           |         |
|                             |  | 29.03.2023          | 41.8                                    | 36.8           |         |

*[Signature]*  
 Sampled by

*[Signature]*  
 Checked by

*C. K. Vel*  
 Manager-Environment

Note: 1) The results above relate to the samples tested.

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 28655                                   | <b>Report Issue Date</b>             | 27-03-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Anil Yadav                              | <b>Date of Sampling</b>              | 11-03-2023                         | <b>Sample ID</b>        | 16379                         |
| <b>Sampling Location</b> | Mine discharge water Jampali O/C        | <b>Sampling Plan</b>                 | As per fortnightly plan            | <b>Sampling Method</b>  | CMPDI/BSP/LSOP                |
| <b>Sample Condition</b>  | APPROPRIATE                             | <b>Date of Receipt of Sample</b>     | 13-03-2023                         | <b>Date of Analysis</b> | From 19-03-2023 To 22-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | BDL            | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 6.91           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 19.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Sanjivkumar Singh

Reviewed and Approved  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:43

JSA

Note:

- \* This is computer generated report and does not require signature
- \* General Standards for Discharge of Environmental Pollution(Part A:Effluent) as per Schedule VI,Environment (Protection) Rules
  - a. The results relate only to the item sampled and tested.
  - b. This report shall not be reproduced except in full without approval of the laboratory.



**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 28787                                   | <b>Report Issue Date</b>             | 27-03-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Prakash                                 | <b>Date of Sampling</b>              | 19-03-2023                         | <b>Sample ID</b>        | 16473                         |
| <b>Sampling Location</b> | Mine discharge water Jampali O/C        | <b>Sampling Plan</b>                 | As per fortnightly plan            | <b>Sampling Method</b>  | CMPDI/BSP/LSOP                |
| <b>Sample Condition</b>  | APPROPRIATE                             | <b>Date of Receipt of Sample</b>     | 20-03-2023                         | <b>Date of Analysis</b> | From 20-03-2023 To 24-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | BDL            | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.54           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | BDL            | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Manojkumar Baghel

Reviewed and Approved  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:44

JSA

Note:

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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 28651   | <b>Report Issue Date</b>             | 27-03-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur       | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Anil Yadav                                    | <b>Date of Sampling</b>              | 11-03-2023                         | <b>Sample ID</b>        | 16378                         |
| <b>Sampling Location</b> | At Kurket River 100m up stream<br>Jampali O/C | <b>Sampling Plan</b>                 | As per fortnightly<br>plan         | <b>Sampling Method</b>  | CMPDI/BSP/LSOP                |
| <b>Sample Condition</b>  | APPROPRIATE                                   | <b>Date of Receipt of Sample</b>     | 13-03-2023                         | <b>Date of Analysis</b> | From 19-03-2023 To 22-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | BDL            | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.05           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 10.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Sanjivkumar Singh

Reviewed and Approved  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:43

JSA

Note:

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- \* General Standards for Discharge of Environmental Pollution(Part A:Effluent) as per Schedule VI,Environment (Protection) Rules
  - a. The results relate only to the item sampled and tested.
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**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 28783   | <b>Report Issue Date</b>             | 27-03-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur       | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Prakash                                       | <b>Date of Sampling</b>              | 19-03-2023                         | <b>Sample ID</b>        | 16472                         |
| <b>Sampling Location</b> | At Kurket River 100m up stream<br>Jampali O/C | <b>Sampling Plan</b>                 | As per fortnightly<br>plan         | <b>Sampling Method</b>  | CMPDI/BSP/LSOP                |
| <b>Sample Condition</b>  | APPROPRIATE                                   | <b>Date of Receipt of Sample</b>     | 20-03-2023                         | <b>Date of Analysis</b> | From 20-03-2023 To 24-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | BDL            | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 8.05           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | BDL            | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

**Reported By**  
Manojkumar Baghel

**Reviewed and Approved**  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:44

JSA

Note:

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  - b. This report shall not be reproduced except in full without approval of the laboratory.



**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 28647   | <b>Report Issue Date</b>             | 27-03-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur         | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Anil Yadav                                      | <b>Date of Sampling</b>              | 11-03-2023                         | <b>Sample ID</b>        | 16377                         |
| <b>Sampling Location</b> | At Kurket River 100m down stream<br>Jampali O/C | <b>Sampling Plan</b>                 | As per fortnightly<br>plan         | <b>Sampling Method</b>  | CMPDI/BSP/LSOP                |
| <b>Sample Condition</b>  | APPROPRIATE                                     | <b>Date of Receipt of Sample</b>     | 13-03-2023                         | <b>Date of Analysis</b> | From 19-03-2023 To 22-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 16.00          | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 7.10           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 10.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

Reported By  
Sanjivkumar Singh

Reviewed and Approved  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:43

JSA

Note:

- \* This is computer generated report and does not require signature
- \* General Standards for Discharge of Environmental Pollution(Part A:Effluent) as per Schedule VI,Environment (Protection) Rules
  - a. The results relate only to the item sampled and tested.
  - b. This report shall not be reproduced except in full without approval of the laboratory.





**TEST & SAMPLING REPORT OF (EFFLUENT WATER FORTNIGHTLY)**

|                          |   |                                      |                                    |                         |                               |
|--------------------------|---|--------------------------------------|------------------------------------|-------------------------|-------------------------------|
| <b>Unique Report No.</b> | 28779   | <b>Report Issue Date</b>             | 27-03-2023                         |                         |                               |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur         | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |                         |                               |
| <b>Sampling By</b>       | Prakash   | <b>Date of Sampling</b>              | 19-03-2023                         | <b>Sample ID</b>        | 16471                         |
| <b>Sampling Location</b> | At Kurket River 100m down stream<br>Jampali O/C | <b>Sampling Plan</b>                 | As per fortnightly<br>plan         | <b>Sampling Method</b>  | CMPDI/BSP/LSOP                |
| <b>Sample Condition</b>  | APPROPRIATE                                     | <b>Date of Receipt of Sample</b>     | 20-03-2023                         | <b>Date of Analysis</b> | From 20-03-2023 To 24-03-2023 |

| Sr. No | Parameter                   | Test At | Method of Analysis                 | Range         | Permissible Limit* | Observed Value | UOM (at 95% C.L&k=1.96) |
|--------|-----------------------------|---------|------------------------------------|---------------|--------------------|----------------|-------------------------|
| 1      | C.O.D mg/l                  | Main    | APHA, 23rd Edition, 2017, 5220C    | 8.0 - 500.0   | 250                | 8.16           | ±6.209 at 247.427       |
| 2      | Oil & Grease mg/l           | Main    | IS 3025 (Part 39):1991,(RA : 2003) | 4.0 - 100.0   | 10                 | BDL            | ±1.8109 @ 9.95          |
| 3      | pH Value Unitless           | Main    | IS 3025 (Part 11):1983, R : 2012   | 1.00 - 14.00  | 5.5-9.0            | 8.17           | ±0.1272 at 7.0074       |
| 4      | Total suspended Solids mg/l | Main    | IS 3025 (Part 17):1984, (RA: 1996) | 10.0 - 5000.0 | 100                | 13.00          | ±0.445 @ 24.429         |

----- END OF THE REPORT -----

**Reported By**  
Manojkumar Baghel

**Reviewed and Approved**  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:44

JSA

Note:

- \* This is computer generated report and does not require signature
- \* General Standards for Discharge of Environmental Pollution(Part A:Effluent) as per Schedule VI,Environment (Protection) Rules
  - a. The results relate only to the item sampled and tested.
  - b. This report shall not be reproduced except in full without approval of the laboratory.



**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |   |                                      |                                    |  |
|--------------------------|---|--------------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> | 22950   | <b>Report Issue Date</b>             | 20-02-2023                         |  |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur                                    | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | ABHISHEK BANERJEE   | <b>Date of Sampling</b>              | 13-01-2023                         | <b>Sample ID</b><br>15562                                |
| <b>Sampling Location</b> | Drinking water well water from<br>Kosamghat (Up dip to mine)<br>Jampali O/C | <b>Sampling Plan</b>                 | AS PER<br>MONTHLY PLAN             | <b>Sampling Method</b><br>CMPDIL/BSP/LSOP                |
| <b>Sample Condition</b>  | APPROPRIATE   | <b>Date of Receipt of Sample</b>     | 15-01-2023                         | <b>Date of Analysis</b><br>From 19-01-2023 To 20-02-2023 |

| Sr. No | Parameter                                | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|--|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |  |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO <sub>3</sub>     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 15.00          | ±0.19696@10.0           |
| 2      | Arsenic mg/l                             | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                               | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                             | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 5.680          | ±2.512@99.8             |
| 5      | Chlorides mg/l                           | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 16.87          | ±6.551@253.5            |
| 6      | Colour Hazen                             | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | BDL            | ±1.05@ 49.86            |
| 7      | Copper mg/l                              | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                            | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | BDL            | ±0.014@0.98             |
| 9      | Iron mg/l                                | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | 0.06           | ±0.0782@7.95            |
| 10     | Lead mg/l                                | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l                           | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | BDL            | ±0.026@2.44             |
| 12     | Nitrate mg/l                             | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 9.35           | ±0.528@20.41            |
| 13     | Odour none                               | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                            | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 6.35           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l                  | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l              | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                            | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                            | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 2.76           | ±0.640@19.88            |
| 19     | Total Chromium mg/l                      | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml                | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l              | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 84.00          | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO <sub>3</sub> | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 20.50          | ±11.545@612.8           |
| 23     | Turbidity NTU                            | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | BDL            | ±0.855@41.58            |
| 24     | Zinc mg/l                                | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.03           | ±0.0013@0.01            |

----- END OF THE REPORT -----

**Reported By**  
R.K Thakur      Deepanwita Bin

**Reviewed and Approved**  
M. Reagan  
Manager (Env)  
Date&Time :20-02-2023 03:54:22

**JSA**

Note:

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |  |                                      |                                    |
|--------------------------|--|--------------------------------------|------------------------------------|
| <b>Unique Report No.</b> | 22965  | <b>Report Issue Date</b>             | 20-02-2023                         |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur             | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |
| <b>Sampling By</b>       | ABHISHEK BANERJEE                                    | <b>Date of Sampling</b>              | 13-01-2023                         |
| <b>Sampling Location</b> | Well water from Posalda (Up dip to mine) Jampali O/C | <b>Sampling Plan</b>                 | AS PER MONTHLY PLAN                |
| <b>Sample Condition</b>  | APPROPRIATE  | <b>Date of Receipt of Sample</b>     | 15-01-2023                         |
|                          |  | <b>Sample ID</b>                     | 15563                              |
|                          |  | <b>Sampling Method</b>               | CMPDIL/BSP/LSOP                    |
|                          |  | <b>Date of Analysis</b>              | From 19-01-2023 To 20-02-2023      |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 20.00          | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | BDL            | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 17.36          | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120.C       | 1.0 - 500        | 5                | 15                | BDL            | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | BDL            | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | BDL            | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 9.19           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 6.17           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530.C       | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 4.48           | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 90.00          | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 20.50          | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 2.12           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.02           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
R.K Thakur      Deepanwita Bin

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :20-02-2023 03:54:22

JSA

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |  |                                      |                                    |
|--------------------------|--|--------------------------------------|------------------------------------|
| <b>Unique Report No.</b> | 22980  | <b>Report Issue Date</b>             | 20-02-2023                         |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur                 | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |
| <b>Sampling By</b>       | ABHISHEK BANERJEE  | <b>Date of Sampling</b>              | 13-01-2023                         |
| <b>Sampling Location</b> | Well water from Saraipali (Down dip to mine) Jampali O/C | <b>Sampling Plan</b>                 | AS PER MONTHLY PLAN                |
| <b>Sample Condition</b>  | APPROPRIATE  | <b>Date of Receipt of Sample</b>     | 15-01-2023                         |
|                          |  | <b>Sample ID</b>                     | 15564                              |
|                          |  | <b>Sampling Method</b>               | CMPDIL/BSP/LSOP                    |
|                          |  | <b>Date of Analysis</b>              | From 19-01-2023 To 20-02-2023      |

| Sr. No | Parameter                                | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|--|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |  |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO <sub>3</sub>     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 190.00         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                             | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                               | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                             | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 41.381         | ±2.512@99.8             |
| 5      | Chlorides mg/l                           | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 60.27          | ±6.551@253.5            |
| 6      | Colour Hazen                             | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | 1.00           | ±1.05@ 49.86            |
| 7      | Copper mg/l                              | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                            | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.33           | ±0.014@0.98             |
| 9      | Iron mg/l                                | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                                | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l                           | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | 0.08           | ±0.026@2.44             |
| 12     | Nitrate mg/l                             | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 9.37           | ±0.528@20.41            |
| 13     | Odour none                               | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                            | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 6.65           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l                  | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l              | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                            | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                            | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 33.99          | ±0.640@19.88            |
| 19     | Total Chromium mg/l                      | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml                | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l              | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 329.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO <sub>3</sub> | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 174.25         | ±11.545@612.8           |
| 23     | Turbidity NTU                            | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.82           | ±0.855@41.58            |
| 24     | Zinc mg/l                                | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.02           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
R.K Thakur      Deepanwita Bin

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :20-02-2023 03:54:22

JSA

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |  |                                      |                                    |
|--------------------------|--|--------------------------------------|------------------------------------|
| <b>Unique Report No.</b> | 22935  | <b>Report Issue Date</b>             | 20-02-2023                         |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur                         | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |
| <b>Sampling By</b>       | ABHISHEK BANERJEE  | <b>Date of Sampling</b>              | 13-01-2023                         |
| <b>Sampling Location</b> | Bore well water from Kudumkela<br>(Down dip to mine) Jampali O/C | <b>Sampling Plan</b>                 | AS PER MONTHLY PLAN                |
| <b>Sample Condition</b>  | APPROPRIATE  | <b>Date of Receipt of Sample</b>     | 15-01-2023                         |
|                          |  | <b>Sample ID</b>                     | 15561                              |
|                          |  | <b>Sampling Method</b>               | CMPDIL/BSP/LSOP                    |
|                          |  | <b>Date of Analysis</b>              | From 19-01-2023 To 20-02-2023      |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 50.00          | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 38.136         | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 7.23           | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120.C       | 1.0 - 500        | 5                | 15                | 1.00           | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.31           | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | 0.07           | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 2.98           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 6.63           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530.C       | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 54.81          | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 174.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 108.65         | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 3.94           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.14           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
R.K Thakur      Deepanwita Bin

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :20-02-2023 03:54:22

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |   |   |                        |                                      |                               |                                    |  |
|--------------------------|---|---|------------------------|--------------------------------------|-------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> |   | 24286                                   |                        | <b>Report Issue Date</b>             |                               | 10-03-2023                         |  |
| <b>Customer Name</b>     |   | South Estern Coal Field Ltd<br>Bilaspur |                        | <b>Address &amp; Contact Details</b> |                               | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Anil Yadav  | <b>Date of Sampling</b>                 | 13-02-2023             | <b>Sample ID</b>                     | 15862                         |                                    |  |
| <b>Sampling Location</b> | Drinking water well water from<br>Kosamghat (Up dip to mine)<br>Jampali O/C | <b>Sampling Plan</b>                    | As per monthly<br>plan | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                |                                    |  |
| <b>Sample Condition</b>  | APPROPRIATE   | <b>Date of Receipt of Sample</b>        | 14-02-2023             | <b>Date of Analysis</b>              | From 17-02-2023 To 10-03-2023 |                                    |  |

| Sr. No | Parameter                                | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|--|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |  |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO <sub>3</sub>     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 267.75         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                             | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                               | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                             | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 8.782          | ±2.512@99.8             |
| 5      | Chlorides mg/l                           | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 5.46           | ±6.551@253.5            |
| 6      | Colour Hazen                             | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | 9.54           | ±1.05@ 49.86            |
| 7      | Copper mg/l                              | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                            | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.57           | ±0.014@0.98             |
| 9      | Iron mg/l                                | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                                | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l                           | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | BDL            | ±0.026@2.44             |
| 12     | Nitrate mg/l                             | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 14.66          | ±0.528@20.41            |
| 13     | Odour none                               | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                            | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.25           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l                  | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l              | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                            | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                            | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 25.40          | ±0.640@19.88            |
| 19     | Total Chromium mg/l                      | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml                | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l              | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 442.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO <sub>3</sub> | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 75.39          | ±11.545@612.8           |
| 23     | Turbidity NTU                            | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.70           | ±0.855@41.58            |
| 24     | Zinc mg/l                                | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.07           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
Sanjivkumar Singh      Deepanwita Bin

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :10-03-2023 11:23:41

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |  |                                      |                                    |
|--------------------------|--|--------------------------------------|------------------------------------|
| <b>Unique Report No.</b> | 24289  | <b>Report Issue Date</b>             | 10-03-2023                         |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur             | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |
| <b>Sampling By</b>       | Anil Yadav   | <b>Date of Sampling</b>              | 13-02-2023                         |
| <b>Sampling Location</b> | Well water from Posalda (Up dip to mine) Jampali O/C | <b>Sampling Plan</b>                 | As per monthly plan                |
| <b>Sample Condition</b>  | APPROPRIATE  | <b>Date of Receipt of Sample</b>     | 14-02-2023                         |
|                          |  | <b>Sample ID</b>                     | 15863                              |
|                          |  | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                     |
|                          |  | <b>Date of Analysis</b>              | From 17-02-2023 To 10-03-2023      |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 204.75         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 20.758         | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 10.42          | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | 15.69          | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.81           | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | 0.07           | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | BDL            | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 9.16           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.01           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 10.12          | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 522.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 83.33          | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.97           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.03           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
Sanjivkumar Singh      Deepanwita Bin

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :10-03-2023 11:23:41

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |  |   |                     |                                      |                               |                                    |  |
|--------------------------|--|---|---------------------|--------------------------------------|-------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> |  | 24292                                   |                     | <b>Report Issue Date</b>             |                               | 10-03-2023                         |  |
| <b>Customer Name</b>     |  | South Estern Coal Field Ltd<br>Bilaspur |                     | <b>Address &amp; Contact Details</b> |                               | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Anil Yadav   | <b>Date of Sampling</b>                 | 13-02-2023          | <b>Sample ID</b>                     | 15864                         |                                    |  |
| <b>Sampling Location</b> | Well water from Saraipali (Down dip to mine) Jampali O/C | <b>Sampling Plan</b>                    | As per monthly plan | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                |                                    |  |
| <b>Sample Condition</b>  | APPROPRIATE  | <b>Date of Receipt of Sample</b>        | 14-02-2023          | <b>Date of Analysis</b>              | From 17-02-2023 To 10-03-2023 |                                    |  |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 189.00         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 9.581          | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 8.44           | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | 11.85          | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.97           | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | 0.08           | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 6.69           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.02           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 17.35          | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 255.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 75.39          | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.84           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | BDL            | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
Sanjivkumar Singh      Deepanwita Bin

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :10-03-2023 11:23:41

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |   |   |                     |                                      |                               |                                    |  |
|--------------------------|---|---|---------------------|--------------------------------------|-------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> |   | 24283                                   |                     | <b>Report Issue Date</b>             |                               | 10-03-2023                         |  |
| <b>Customer Name</b>     |   | South Estern Coal Field Ltd<br>Bilaspur |                     | <b>Address &amp; Contact Details</b> |                               | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | Anil Yadav  | <b>Date of Sampling</b>                 | 13-02-2023          | <b>Sample ID</b>                     | 15861                         |                                    |  |
| <b>Sampling Location</b> | Bore well water from Kudumkela<br>(Down dip to mine ) Jampali O/C | <b>Sampling Plan</b>                    | As per monthly plan | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                |                                    |  |
| <b>Sample Condition</b>  | APPROPRIATE   | <b>Date of Receipt of Sample</b>        | 14-02-2023          | <b>Date of Analysis</b>              | From 17-02-2023 To 10-03-2023 |                                    |  |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 225.75         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 20.758         | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 7.44           | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | 27.23          | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.88           | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | 0.06           | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | 0.06           | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 5.94           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.21           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | 0.12           | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 23.97          | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 382.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 132.93         | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 3.18           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.06           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
Sanjivkumar Singh      Deepanwita Bin

Reviewed and Approved  
M. Reagan  
Manager (Env)  
Date&Time :10-03-2023 11:23:41

JSA

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |   |                                      |                                    |  |
|--------------------------|---|--------------------------------------|------------------------------------|--|
| <b>Unique Report No.</b> | 28366   | <b>Report Issue Date</b>             | 27-03-2023                         |  |
| <b>Customer Name</b>     | South Estern Coal Field Ltd<br>Bilaspur                                     | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |  |
| <b>Sampling By</b>       | P Oram  | <b>Date of Sampling</b>              | 10-03-2023                         | <b>Sample ID</b><br>16360                                |
| <b>Sampling Location</b> | Drinking water well water from<br>Kosamghat (Up dip to mine)<br>Jampali O/C | <b>Sampling Plan</b>                 | As per monthly<br>plan             | <b>Sampling Method</b><br>CMPDI/BSP/LSOP                 |
| <b>Sample Condition</b>  | APPROPRIATE   | <b>Date of Receipt of Sample</b>     | 13-03-2023                         | <b>Date of Analysis</b><br>From 13-03-2023 To 20-03-2023 |

| Sr. No | Parameter                                | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|--|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |  |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO <sub>3</sub>     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 200.00         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                             | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                               | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                             | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 33.267         | ±2.512@99.8             |
| 5      | Chlorides mg/l                           | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 19.77          | ±6.551@253.5            |
| 6      | Colour Hazen                             | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | BDL            | ±1.05@ 49.86            |
| 7      | Copper mg/l                              | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                            | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.58           | ±0.014@0.98             |
| 9      | Iron mg/l                                | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                                | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l                           | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | 0.06           | ±0.026@2.44             |
| 12     | Nitrate mg/l                             | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 4.78           | ±0.528@20.41            |
| 13     | Odour none                               | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                            | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.61           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l                  | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l              | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                            | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                            | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 6.63           | ±0.640@19.88            |
| 19     | Total Chromium mg/l                      | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml                | Main    | APHA, 23rd Edition, 9221 B            | -                | Null             | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l              | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 294.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO <sub>3</sub> | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 181.56         | ±11.545@612.8           |
| 23     | Turbidity NTU                            | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.15           | ±0.855@41.58            |
| 24     | Zinc mg/l                                | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | BDL            | ±0.0013@0.01            |

----- END OF THE REPORT -----

**Reported By**  
Nirmal Kumar      Manojkumar Baghel

**Reviewed and Approved**  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:42

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |  |                                      |                                    |
|--------------------------|--|--------------------------------------|------------------------------------|
| <b>Unique Report No.</b> | 28375  | <b>Report Issue Date</b>             | 27-03-2023                         |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur             | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |
| <b>Sampling By</b>       | P Oram   | <b>Date of Sampling</b>              | 10-03-2023                         |
| <b>Sampling Location</b> | Well water from Posalda (Up dip to mine) Jampali O/C | <b>Sampling Plan</b>                 | As per monthly plan                |
| <b>Sample Condition</b>  | APPROPRIATE  | <b>Date of Receipt of Sample</b>     | 13-03-2023                         |
|                          |  | <b>Sample ID</b>                     | 16361                              |
|                          |  | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                     |
|                          |  | <b>Date of Analysis</b>              | From 13-03-2023 To 20-03-2023      |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 205.00         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 38.136         | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 20.73          | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | BDL            | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.59           | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | BDL            | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 4.68           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.70           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 5.96           | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 277.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 185.64         | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.15           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | BDL            | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
Nirmal Kumar      Manojkumar Baghel

Reviewed and Approved  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:42

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |  |                                      |                                    |
|--------------------------|--|--------------------------------------|------------------------------------|
| <b>Unique Report No.</b> | 28384  | <b>Report Issue Date</b>             | 27-03-2023                         |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur                 | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |
| <b>Sampling By</b>       | P Oram   | <b>Date of Sampling</b>              | 10-03-2023                         |
| <b>Sampling Location</b> | Well water from Saraipali (Down dip to mine) Jampali O/C | <b>Sampling Plan</b>                 | As per monthly plan                |
| <b>Sample Condition</b>  | APPROPRIATE  | <b>Date of Receipt of Sample</b>     | 13-03-2023                         |
|                          |  | <b>Sample ID</b>                     | 16362                              |
|                          |  | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                     |
|                          |  | <b>Date of Analysis</b>              | From 13-03-2023 To 20-03-2023      |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 185.00         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 44.627         | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 19.77          | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120. C      | 1.0 - 500        | 5                | 15                | BDL            | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.57           | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | BDL            | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | BDL            | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 4.41           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.77           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530. C      | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 6.15           | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 238.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 177.48         | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.15           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.17           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
Nirmal Kumar      Manojkumar Baghel

Reviewed and Approved  
**KUMARAVEL.C**  
Manager (Env)  
Date&Time :27-03-2023 03:49:42

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**TEST & SAMPLING REPORT OF (DRINKING WATER)**

|                          |   |                                      |                                    |
|--------------------------|---|--------------------------------------|------------------------------------|
| <b>Unique Report No.</b> | 28357   | <b>Report Issue Date</b>             | 27-03-2023                         |
| <b>Customer Name</b>     | South Eastern Coal Field Ltd<br>Bilaspur                          | <b>Address &amp; Contact Details</b> | SEEPAT ROAD BILASPUR<br>7752241927 |
| <b>Sampling By</b>       | P Oram  | <b>Date of Sampling</b>              | 10-03-2023                         |
| <b>Sampling Location</b> | Bore well water from Kudumkela<br>(Down dip to mine ) Jampali O/C | <b>Sampling Plan</b>                 | As per monthly plan                |
| <b>Sample Condition</b>  | APPROPRIATE   | <b>Date of Receipt of Sample</b>     | 13-03-2023                         |
|                          |   | <b>Sample ID</b>                     | 16359                              |
|                          |   | <b>Sampling Method</b>               | CMPDI/BSP/LSOP                     |
|                          |   | <b>Date of Analysis</b>              | From 13-03-2023 To 20-03-2023      |

| Sr. No | Parameter                    | Test At | Method of Analysis                    | Range of Testing | IS 10500:2012    |                   | Observed Value | UOM (at 95% C.L&K=1.96) |
|--------|------------------------------|---------|---------------------------------------|------------------|------------------|-------------------|----------------|-------------------------|
|        |                              |         |                                       |                  | Acceptable Limit | Permissible Limit |                |                         |
| 1      | Alkalinity mg/l as CaCO3     | Main    | IS 3025(Part 23):1986,R 2003          | 5.0 - 1000.0     | 200              | 1000              | 195.00         | ±0.19696@10.0           |
| 2      | Arsenic mg/l                 | Main    | IS 3025 (Part 37):1988,R 2003         | 0.002 - 0.040    | 0.01             | 0.05              | BDL            | ±0.0081@0.018           |
| 3      | Boron mg/l                   | Main    | APHA, 23rd Edition,2017, 4500-B       | 0.5 - 14.0       | 0.5              | 1                 | BDL            | ±0.310@5.16             |
| 4      | Calcium mg/l                 | Main    | IS 3025 (Part 40): 1991, R : 2009     | 5.0 - 500.0      | 75               | 200               | 43.004         | ±2.512@99.8             |
| 5      | Chlorides mg/l               | Main    | IS 3025(Part 32):1988 , R : 2007      | 5.0 - 1000.0     | 250              | 1000              | 71.84          | ±6.551@253.5            |
| 6      | Colour Hazen                 | Main    | APHA, 23rd Edition,2017, 2120.C       | 1.0 - 500        | 5                | 15                | 1.13           | ±1.05@ 49.86            |
| 7      | Copper mg/l                  | Main    | IS 3025 (Part 42) : 1992 R : 2009     | 0.03 - 10.0      | 0.05             | 1.5               | BDL            | ±0.13@4.90              |
| 8      | Fluoride mg/l                | Main    | APHA, 23rd Edition,2017, 4500, F- D   | 0.1 - 5.0        | 1.0              | 1.5               | 0.39           | ±0.014@0.98             |
| 9      | Iron mg/l                    | Main    | IS 3025 (Part 53) :2003, R:2009       | 0.05 - 15.0      | 0.3              | No Relaxation     | 0.06           | ±0.0782@7.95            |
| 10     | Lead mg/l                    | Main    | APHA, 23rd Edition,2017, 3113B        | 0.0050 - 0.1000  | 0.01             | No relaxation     | BDL            | ±0.000266@0.005         |
| 11     | Manganese mg/l               | Main    | IS 3025 (Part 59) : 2006              | 0.05 - 5.0       | 0.1              | 0.3               | BDL            | ±0.026@2.44             |
| 12     | Nitrate mg/l                 | Main    | APHA, 23rd Edition,2017, 4500, B      | 0.5 - 45         | 45               | No Relaxation     | 7.61           | ±0.528@20.41            |
| 13     | Odour none                   | Main    | IS 3025 (Part 5):1983                 | -                | Agreeable        | Agreeable         | Agreeable      | Not applicable          |
| 14     | pH Value none                | Main    | IS 3025 (Part 11):1983, R : 2012      | 4.00 - 10.00     | 6.5 - 8.5        | No Relaxation     | 7.30           | ±0.127@7.01             |
| 15     | Phenolic compounds mg/l      | Main    | APHA, 23rd Edition,2017, 5530.C       | 0.001 - 0.2      | 0.001            | 0.002             | BDL            | ±0.0204 at 0.1004       |
| 16     | Residual Free Chlorine mg/l  | Main    | APHA, 23rd Edition,2017, 4500G        | 0.1 - 10.0       | 0.2              | 1                 | BDL            | ±0.0082@0.1             |
| 17     | Selenium mg/l                | Main    | IS 3025 (Part 56):2003                | 0.001 - 0.040    | 0.01             | No Relaxation     | BDL            | ±0.000938@0.001         |
| 18     | Sulphate mg/l                | Main    | APHA, 23rd Edition,2017, 4500-SO42- E | 2.0 - 40.0       | 200              | 400               | 13.21          | ±0.640@19.88            |
| 19     | Total Chromium mg/l          | Main    | IS 3025 ( Part 52 ) : 2003            | 0.05 - 15.0      | 0.05             | No relaxation     | BDL            | ±0.004@0.05             |
| 20     | Total Coliform MPN/100 ml    | Main    | APHA, 23rd Edition, 9221 B            | -                | Nil              | No Relaxation     | BDL            | Not specified           |
| 21     | Total Dissolved Solids mg/l  | Main    | IS 3025 (Part 16):1984 R : 2006       | 30.0 - 2000.0    | 500              | 2000              | 431.00         | ±4.473@592.0            |
| 22     | Total Hardness mg/l as CaCO3 | Main    | IS 3025 (Part 21):2009                | 4.0 - 2000.0     | 200              | 600               | 204.00         | ±11.545@612.8           |
| 23     | Turbidity NTU                | Main    | IS 3025 (Part 10):1984, R : 2006      | 1.0 - 100.0      | 1                | 5                 | 1.15           | ±0.855@41.58            |
| 24     | Zinc mg/l                    | Main    | IS 3025 ( Part 49 ) : 1994, R : 2009  | 0.01 - 2.0       | 5                | 15                | 0.03           | ±0.0013@0.01            |

----- END OF THE REPORT -----

Reported By  
Nirmal Kumar      Manojkumar Baghel

Reviewed and Approved  
KUMARAVEL.C  
Manager (Env)  
Date&Time :27-03-2023 03:49:42

JSA

Note:

- \* This is computer generated report and does not require signature
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# RAIGARH DISTRICT

