



# Environmental Research and Services (India) Pvt. Ltd.

(An ISO/IEC 17025 : 2005 (NABL) Accredited Laboratory, OSPCB Empanelled Laboratory and ISO 9001 : 2015 Certified Company)

Plot No: B-22, Sector-B, Industrial Estate Chandaka, Infocity Road, Bhubaneswar-751024, Odisha

Tel: +91-9437021932, +91-9937690329, E-mail: ersibbsr@gmail.com

ULR-TC744019000000372P

Test Report Format No.: ERSIPL/FM/37

## TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

**Date: 24 Dec 2019**

**Test Report No: ERSIPL/TR/AA/374**

Name and Address of the Customer : Dulanga Coal Mine of M/s NTPC Limited in Sundargarh district, Odisha.  
 Sample Collected by : Representative of ERS (I) Pvt. Ltd.  
 Sample Collected in presence of : Representative of Client.  
 Date of Sampling/Monitoring : 03-05.12.2019  
 Sample Received on : 10.12.2019  
 Analysis Started on : 11.12.2019  
 Analysis Completed on : 18.12.2019  
 Method of Sampling : As per guidelines for sampling & measurement of notified AAQ parameters (NAAQS 2009)-CPCB  
 Quantity of Sample : 01 sample for each parameter  
 Environment Condition : Sunny

### Sample ID. No.

### Locations (Core Zone)

1. ERSIPL/AA/2353 (03.12.2019)
2. ERSIPL/AA/2354 (04.12.2019)
3. ERSIPL/AA/2355 (03.12.2019)
4. ERSIPL/AA/2356 (04.12.2019)

1. Near Site Office (NTPC), Kapurikachhar
2. Near Coal Lab
3. Near Work Shop
4. Near Village Dulanga

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/AA/2353	ERSIPL/AA/2354	ERSIPL/AA/2355	ERSIPL/AA/2356
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	$\mu\text{g}/\text{m}^3$	xx	228.28	305.16	228.77	252.70
2	Particulate Matter (size less than 10 $\mu\text{m}$ ) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	$\mu\text{g}/\text{m}^3$	100.0	80.67	85.66	71.45	69.45
3	Particulate Matter (size less than 2.5 $\mu\text{m}$ ) or PM 2.5	ERSIPL/SOP/01 Issue No:03, Revision Date: 01.02.2019	$\mu\text{g}/\text{m}^3$	60.0	32.81	39.42	35.79	37.41
4	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	$\mu\text{g}/\text{m}^3$	80.0	6.21	<6.0	6.81	8.33
5	Oxides of Nitrogen (NO <sub>x</sub> )	IS 5182 (Part 6): 2006, Reaffirmed -2017	$\mu\text{g}/\text{m}^3$	80.0	11.40	12.39	14.22	10.66
6	Carbon Monoxide (CO)*	By CO Monitor	$\text{mg}/\text{m}^3$	2.0	<1.14	<1.14	<1.14	<1.14

\*-Not covered under NABL Scope

  
 (Authorized Signatory)  
**S.P. Pattanayak**  
 Tech. Manager

.....END OF TEST REPORT.....



GSTIN : 21AAACE6224D1ZE



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ULR-TC744019000000373P

Test Report Format No.: ERSIPL/FM/37

## TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

**Date: 24 Dec 2019**

**Test Report No: ERSIPL/TR/AA/375**

Name and Address of the Customer : Dulanga Coal Mine of M/s NTPC Limited in Sundargarh district, Odisha.  
Sample Collected by : Representative of ERS (I) Pvt. Ltd.  
Sample Collected in presence of : Representative of Client.  
Date of Sampling/Monitoring : 03-05.12.2019  
Sample Received on : 10.12.2019  
Analysis Started on : 11.12.2019  
Analysis Completed on : 18.12.2019  
Method of Sampling : As per guidelines for sampling & measurement of notified AAQ parameters (NAAQS 2009)-CPCB  
Quantity of Sample : 01 sample for each parameter  
Environment Condition : Sunny

### Sample ID. No.

1. ERSIPL/AA/2357 (04.12.2019)
2. ERSIPL/AA/2358 (03.12.2019)
3. ERSIPL/AA/2359 (04.12.2019)
4. ERSIPL/AA/2360 (03.12.2019)

### Locations (Buffer Zone)

1. Near Village Bendrichua
2. Near Village Rengalmunr
3. Near Village Khuntjharua
4. Near Village Kathfali

### TEST FINDINGS:

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/AA/2357	ERSIPL/AA/2358	ERSIPL/AA/2359	ERSIPL/AA/2360
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	$\mu\text{g}/\text{m}^3$	xx	285.67	203.96	220.72	186.66
2	Particulate Matter (size less than 10 $\mu\text{m}$ ) or PM <sub>10</sub>	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	$\mu\text{g}/\text{m}^3$	100.0	83.12	77.21	83.40	66.31
3	Particulate Matter (size less than 2.5 $\mu\text{m}$ ) or PM <sub>2.5</sub>	ERSIPL/SOP/01 Issue No:03, Revision Date: 01.02.2019	$\mu\text{g}/\text{m}^3$	60.0	32.37	34.41	28.07	29.47
4	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	$\mu\text{g}/\text{m}^3$	80.0	8.96	<6.0	6.07	7.49
5	Oxides of Nitrogen (NO <sub>x</sub> )	IS 5182 (Part 6): 2006, Reaffirmed -2017	$\mu\text{g}/\text{m}^3$	80.0	15.30	12.21	9.10	11.32
6	Carbon Monoxide (CO)*	By CO Monitor	$\text{mg}/\text{m}^3$	2.0	<1.14	<1.14	<1.14	<1.14

\*-Not covered under NABL Scope

(Authorized Signatory)

S.P.Pattanayak

.....END OF TEST REPORT.....



GSTIN : 21AAACE6224D1ZE



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ULR-TC744019000000374P

Test Report Format No.: ERSIPL/FM/37

## TEST REPORT (AMBIENT AIR)

Pg No: 1 of 1

**Date: 24 Dec 2019**

**Test Report No: ERSIPL/TR/AA/376**

Name and Address of the Customer : Dulanga Coal Mine of M/s NTPC Limited in Sundargarh district, Odisha.  
Sample Collected by : Representative of ERS (I) Pvt. Ltd.  
Sample Collected in presence of : Representative of Client.  
Date of Sampling/Monitoring : 17-19.12.2019  
Sample Received on : 20.12.2019  
Analysis Started on : 21.12.2019  
Analysis Completed on : 23.12.2019  
Method of Sampling : IS 5182 : Part 5 : 1975, Reaffirmed 2014  
Quantity of Sample : 01 sample for each parameter  
Environment Condition : Sunny

### Sample ID. No.

### Locations (Core Zone)

1. ERSIPL/AA/2387 (17.12.19)
2. ERSIPL/AA/2389 (17.12.19)
3. ERSIPL/AA/2390 (17.12.19)
4. ERSIPL/AA/2388 (18.12.19)

1. Near Site Office (NTPC), Kapurikachhar
2. Near Coal Lab
3. Near Work Shop
4. Near Village Dulanga

Sl. No	Test Parameters	Test method	Unit	Permissible Limit as per NAAQ Standards CPCB Nov-2009	Results			
					ERSIPL/ AA/ 2387	ERSIPL/ AA/ 2389	ERSIPL / AA/ 2390	ERSIPL/ AA/ 2388
1	Suspended Particulate Matter (SPM)	IS: 5182 (Part 4)- 1999, Reaffirmed 2014, Gravimetric Method	$\mu\text{g}/\text{m}^3$	xx	208.37	183.38	215.61	289.74
2	Particulate Matter (size less than 10 $\mu\text{m}$ ) or PM 10	IS 5182 (Part 23): 2006, Reaffirmed -2017, Gravimetric Method	$\mu\text{g}/\text{m}^3$	100.0	72.71	65.73	71.56	80.86
3	Particulate Matter (size less than 2.5 $\mu\text{m}$ ) or PM 2.5	ERSIPL/SOP/01 Issue No:03, Revision Date: 01.02.2019	$\mu\text{g}/\text{m}^3$	60.0	34.30	28.03	31.77	30.37
4	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part. 2): 2001, Reaffirmed-2017, Improved West & Gaeke Method	$\mu\text{g}/\text{m}^3$	80.0	8.40	7.37	<6.0	7.87
5	Oxides of Nitrogen (NO <sub>x</sub> )	IS 5182 (Part 6): 2006, Reaffirmed -2017	$\mu\text{g}/\text{m}^3$	80.0	13.18	10.19	12.96	10.64
6	Carbon Monoxide (CO)*	By CO Monitor	$\text{mg}/\text{m}^3$	2.0	<1.14	<1.14	<1.14	<1.14

\*-Not covered under NABL Scope

.....END OF TEST REPORT.....

(Authorized Signatory)

**S.P. Pattanayak**  
Tech. Manager

