



# Mahabal Enviro Engineers Pvt. Ltd.

Engineers, Consultants, Environmental Monitoring Laboratory & Contractors

Plot Nos. 13,14,17,18, Grampanchayat Bokhara, 8 km from Nagpur City,

Opp. Patel Petrol Pump, Chhindwara Road, Koradi, Dist.Nagapur-441111

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## Ambient Air Quality Monitoring Report

<b>Report No.:</b> ME-NG2811-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Ambient Air Quality Monitoring	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	1) Near Site Office 2) Terrace of Bachelor Guest House	<b>Sample Quantity/Packing</b>	Filter Paper (PM <sub>10</sub> ): 3 X 2 No. Filter Paper (PM <sub>2.5</sub> ): 1 X 2 No. SO <sub>2</sub> : 30mL X12 No. PVC Bottle NO <sub>2</sub> : 30mL X12 No. PVC Bottle NH <sub>3</sub> : 10 mL X48 No. PVC Bottle O <sub>3</sub> : 10 mL X 48 No. PVC Bottle 3 X 4 No. Charcoal Tubes 3 X 2 No. Rubber Bladder Hg: 30mL X 4 No. PVC Bottle
<b>Date of Sampling</b>	15.02.2019 to 16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	As per Method reference		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Receipt of Sample</b>	23.02.2019

### Meteorological Data/Environmental Conditions

Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max.	Min.	Max.	Min.
3.2	NE	60	36	34.0	12.0
<b>Location</b>	1) Near Site Office			<b>Duration of Survey : 24 hours</b>	
Parameter	Unit	Result	#NAAQM Standard	Method Reference	
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	15.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6	
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	14.0	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10	
Particulate Matter (size less than 10µm) or PM <sub>10</sub>	µg/m <sup>3</sup>	77	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14	
Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub>	µg/m <sup>3</sup>	24	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.15-30	
Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.31-34	

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Parameter	Unit	Result	#NAAQM Standard	Method Reference
Lead (as Pb)	µg/m <sup>3</sup>	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide(CO)	mg/m <sup>3</sup>	0.83	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.22	5.0	IS 5182 (Part 11): 2006
Benzo (a) Pyrene (Particulate phase only)	ng/m <sup>3</sup>	0.073	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m <sup>3</sup>	0.455	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m <sup>3</sup>	2.12	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
*Mercury (as Hg)	µg/m <sup>3</sup>	<0.06	-	Method of analysis of Hg & MoF Japan
<b>Location</b>	2) Terrace of Bachelor Guest House			<b>Duration of Survey : 24 hours</b>
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	12.9	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	15.5	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10µm) or PM <sub>10</sub>	µg/m <sup>3</sup>	62	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub>	µg/m <sup>3</sup>	21	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30
Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.31-34
Lead (as Pb)	µg/m <sup>3</sup>	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide(CO)	mg/m <sup>3</sup>	0.76	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.50	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	ng/m <sup>3</sup>	0.098	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m <sup>3</sup>	0.496	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55

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Parameter	Unit	Result	#NAAQM Standard	Method Reference
Nickel (as Ni)	ng/m <sup>3</sup>	2.36	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
*Mercury (as Hg)	µg/m <sup>3</sup>	<0.06	-	Method of analysis of Hg & MoF Japan
<b>Remarks:</b> TWA - Time Weighted Average., #- NAAQS specified as: 24h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM <sub>10</sub> , PM <sub>2.5</sub> , Lead and Ammonia; 1h. TWA in case of Carbon Monoxide and Ozone; Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel. <b>The tests marked with an * are not accredited by NABL</b>				

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

BRANCH MANAGER



Note:

1. The result listed refers only to the tested sample(s) and applicable parameter(s).
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## Ambient Air Quality Monitoring Report

<b>Report No.:</b> ME-NG3811-190304-SA-RIPL-AMRAVATI		<b>Date:</b> 04.03.2019	
<b>Name and address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901.	<b>Order Reference:</b>	
		SO No. 3382014804	
<b>Sample Description/Type</b>	Ambient Air Quality Monitoring	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	1) Near Wagholi gate 2) Mr.Rahul Nakade House Village-Dawargaon 3) Ramkirshna Temple, Village-Kapustalani	<b>Sample Quantity/Packing</b>	Filter Paper (PM <sub>10</sub> ): 3 X 3 No. Filter Paper (PM <sub>2.5</sub> ): 1 X 3 No. SO <sub>2</sub> : 30mL X18 No. PVC Bottle NO <sub>2</sub> : 30mL X18 No. PVC Bottle NH <sub>3</sub> : 10 mL X72 No. PVC Bottle O <sub>3</sub> : 10 mL X 72 No. PVC Bottle 3 X 12 No. Charcoal Tubes 3 X 3 No. Rubber Bladder
<b>Date of Sampling</b>	26.02.2019 & 27.02.2019	<b>Date of Receipt of Sample</b>	27.02.2019
<b>Sampling Procedure</b>	As per Method reference		
<b>Date of Start of Analysis</b>	28.02.2019	<b>Date of Completion of Analysis</b>	04.03.2019

### Meteorological Data/Environmental Conditions

Avg. Wind Velocity	Prominent Wind Direction	Relative Humidity (%)		Temperature (°C)	
		Max.	Min.	Max.	Min.
2.8 km/h	SE	84	74	38.0	26.0
<b>Location</b>	1) Near Wagholi gate			<b>Duration of Survey</b> : 24 hours	
Parameter	Unit	Result	#NAAQM Standard	Method Reference	
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	18.4	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6	
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10	
Particulate Matter (size less than 10µm) or PM <sub>10</sub>	µg/m <sup>3</sup>	64	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14	
Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub>	µg/m <sup>3</sup>	24	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.15-30	
Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.31-34	
Lead (as Pb)	µg/m <sup>3</sup>	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55	

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Parameter	Unit	Result	#NAAQM Standard	Method Reference
Carbon Monoxide(CO)	mg/m <sup>3</sup>	0.94	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.18	5.0	IS 5182 (Part 11): 2006
Benzo (a) Pyrene (Particulate phase only)	ng/m <sup>3</sup>	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m <sup>3</sup>	0.38	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m <sup>3</sup>	4.12	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	µg/m <sup>3</sup>	<0.06	-	Method of analysis of Hg & MoF Japan
<b>Location</b>	2) Mr.Rahul Nakade House Village-Dawargaon			<b>Duration of Survey : 24 hours</b>
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	15.6	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10µm) or PM <sub>10</sub>	µg/m <sup>3</sup>	60	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub>	µg/m <sup>3</sup>	22	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.15-30
Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13,Page No.31-34
Lead (as Pb)	µg/m <sup>3</sup>	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide(CO)	mg/m <sup>3</sup>	0.84	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.08	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	ng/m <sup>3</sup>	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m <sup>3</sup>	0.48	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m <sup>3</sup>	4.13	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	µg/m <sup>3</sup>	<0.06	-	Method of analysis of Hg & MoF Japan

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*Report No.3811 Cont...*

Parameter	Unit	Result	#NAAQM Standard	Method Reference
<b>Location</b>	3) Ramkirshna Temple Vill- Kapustalani			<b>Duration of Survey</b> : 24 hours
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	16.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.1-6
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.2	80	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.7-10
Particulate Matter (size less than 10µm) or PM <sub>10</sub>	µg/m <sup>3</sup>	64	100	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.11-14
Particulate Matter (size less than 2.5µm) or PM <sub>2.5</sub>	µg/m <sup>3</sup>	26	60	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.15-30
Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	<19.6	180	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.31-34
Lead (as Pb)	µg/m <sup>3</sup>	<0.02	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Carbon Monoxide(CO)	mg/m <sup>3</sup>	0.88	4.0	IS 5182 (Part 10):1999 RA 2003
Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	<20.0	400	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.35-39
Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.1	5.0	IS 5182 (Part 11): 2006
Benzo(a)Pyrene (Particulate phase only)	ng/m <sup>3</sup>	<0.5	1.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.40-47
Arsenic (as As)	ng/m <sup>3</sup>	0.58	6.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Nickel (as Ni)	ng/m <sup>3</sup>	3.70	20.0	CPCB Guidelines for the Measurement of Ambient Air Pollutants, Volume I, 2012-13, Page No.48-55
Mercury (as Hg)	µg/m <sup>3</sup>	<0.06	-	Method of analysis of Hg & MoF Japan
<b>Remarks:</b> N.D. - Not Detected; TWA - Time Weighted Average., #- NAAQS specified as: 24h. TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM <sub>10</sub> , PM <sub>2.5</sub> , Lead and Ammonia; 1h. TWA in case of Carbon Monoxide and Ozone; Annual TWA in case of Benzene, Benzo (a) Pyrene, Arsenic and Nickel.				

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**FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.**

**Kishor C. Yeole**  
**BRANCH MANAGER**


Note:

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## Noise Level Monitoring Report

<b>Report No.:</b> ME-NG2914-190223-SA- RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Noise Level Monitoring	<b>Sample Collected by</b>	NA
<b>Date of Sampling</b>	16.02.2019		
<b>Sampling Procedure</b>	IS 9876:1981 & manufacturer Manual		

Location	Unit	Result		Norms as per factory Act.	
		Min.	Max.	Maximum Exposure duration per Day	Limit
Green Point gate	dB(A)	72.5	76.9	8 h	90 Max.
Wagholi gate	dB(A)	69.4	78.6		
Near Material gate	dB(A)	74.2	78.2		
Near Labour Colony	dB(A)	62.8	68.1		
Near Bachelor Colony Building	dB(A)	66.2	69.2		
<b>Remark:</b> : Limit from The Factories Act, 1948, The Maharashtra Factory Rules, 1963, Schedule XXIV Page No. 283-284					

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2806-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Ground Water/Grab	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Well Water Gram Panchayat Pimpal Vihargaon	<b>Sample Quantity/Packing</b>	3 L X 1 No. PVC Can 500mL X 1 No. Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019
<b>Water Level Depth</b>	3.17 meter from ground level		

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Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.4	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	7.5	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI G, 4-72
7.	Total Dissolved Solids	mg/L	410	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	288	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	294	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride( as Cl)	mg/L	12.4	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	23.1	200 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SO <sub>4</sub> -E, 4-199





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Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO <sub>3</sub> )	mg/L	17.2	45 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium (as Ca)	mg/L	76.2	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	25.3	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride( as F)	mg/L	0.485	1.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron( as B)	mg/L	<0.1	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.4	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.202	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20 AAS Method
22.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Cr-B, 3-71
25.	Copper (as Cu)	mg/L	<0.04	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.031	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5530-B & C, 5-49, 5-50

Remarks: The tests marked with an \* are not accredited by NABL; N.D. – Not Detected

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2805-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Ground Water/Grab	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Well Water of Shri Shyamroaji Zode House Village-Talkhanda	<b>Sample Quantity/Packing</b>	3 L X 1 No. PVC Can 500mL X 1 No. Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019
<b>Water Level Depth</b>	4.52 meter from ground level		

ULR-TC748719000002805P

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.4	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	7.1	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI G, 4-72
7.	Total Dissolved Solids	mg/L	461	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	250	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	326	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride( as Cl)	mg/L	53.2	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	58.2	200 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SO <sub>4</sub> -E, 4-199



Report No.2805 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO <sub>3</sub> )	mg/L	12.8	45 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium (as Ca)	mg/L	97.0	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	20.4	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride( as F)	mg/L	0.454	1.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron( as B)	mg/L	<0.1	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	5.9	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.257	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20 AAS Method
22.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Cr-B, 3-71
25.	Copper (as Cu)	mg/L	<0.04	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.024	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5530-B & C, 5-49, 5-50

Remarks: The tests marked with an \* are not accredited by NABL; N.D. – Not Detected

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2804-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Ground Water/Grab	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Well Water of Shri Arun Ghathode Vill. Rasalpur	<b>Sample Quantity/Packing</b>	3 L X 1 No. PVC Can 500mL X 1 No. Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019

ULR-TC748719000002804P

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.4	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	8.0	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI G, 4-72
7.	Total Dissolved Solids	mg/L	478	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	338	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	352	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride( as Cl)	mg/L	13.3	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	14.2	200 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SO <sub>4</sub> -E, 4-199



Report No.2804 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO <sub>3</sub> )	mg/L	45.3	45 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium (as Ca)	mg/L	74.5	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	40.3	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride( as F)	mg/L	0.509	1.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron( as B)	mg/L	<0.1	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.6	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.202	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	N.D.	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20 AAS Method
22.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Cr-B, 3-71
25.	Copper (as Cu)	mg/L	<0.04	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.021	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5530-B & C, 5-49, 5-50

Remarks: The tests marked with an \* are not accredited by NABL; N.D. – Not Detected

-----END-----

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2803-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Ground Water/Grab	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Well Water of Shri Madhukarrao Dhote field, Vill.-Kapustalni	<b>Sample Quantity/Packing</b>	3 L X 1 No. PVC Can 500mL X 1 No. Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019

ULR-TC748719000002803P

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.4	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	7.3	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI G, 4-72
7.	Total Dissolved Solids	mg/L	486	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	260	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	342	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride( as Cl)	mg/L	43.7	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	45	200 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SO <sub>4</sub> -E, 4-199



Report No.2803 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO <sub>3</sub> )	mg/L	41.2	45 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium (as Ca)	mg/L	97.8	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	23.8	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride( as F)	mg/L	0.583	1.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron( as B)	mg/L	<0.1	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.7	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.246	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	N.D.	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20 AAS Method
22.	Aluminium (as Al)	mg/L	N.D.	0.03 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Cr-B, 3-71
25.	Copper (as Cu)	mg/L	<0.04	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.026	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5530-B & C, 5-49, 5-50

Remarks: The tests marked with an \* are not accredited by NABL; N.D. – Not Detected

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2802-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Ground Water/Grab	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Borewell- Gram Panchayat Digargoan	<b>Sample Quantity/Packing</b>	3 L X 1 No. PVC Can 500mL X 1 No. Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019

ULR-TC7487190000002802P

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.32	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	7.0	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-Cl G, 4-72
7.	Total Dissolved Solids	mg/L	770	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	320	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	464	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride( as Cl)	mg/L	152	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-Cl-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	68.2	200 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SO <sub>4</sub> -E, 4-199





Report No.2802 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO <sub>3</sub> )	mg/L	48.9	45 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium (as Ca)	mg/L	122	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	38.9	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride( as F)	mg/L	0.387	1.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron( as B)	mg/L	<0.1	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	7.1	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.213	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20 AAS Method
22.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Cr-B, 3-71
25.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	<0.1	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.021	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5530-B & C, 5-49, 5-50

Remarks: The tests marked with an \* are not accredited by NABL; N.D. – Not Detected

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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# Mahabal Enviro Engineers Pvt. Ltd.

Engineers, Consultants, Environmental Monitoring Laboratory & Contractors

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2801-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382012035 Dt.21.09.2015 Amnd 1 Dt. 18.04.2017
<b>Sample Description/Type</b>	Ground Water/Grab	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Back Side Of Ash Dyke Area Well Water Of Mr. Narayan Lomte Farm	<b>Sample Quantity/Packing</b>	3 L X 1 No. PVC Can 500mL X 1 No. Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS:3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019
<b>Water Level Depth</b>	3.17 meter from ground level		

ULR-TC748719000002801P

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.45	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	<0.05	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI G, 4-72
7.	Total Dissolved Solids	mg/L	551	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	7.0	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	320	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	396	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride( as Cl)	mg/L	52.2	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	48.6	200 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SO <sub>4</sub> -E, 4-199



Report No.2801 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO <sub>3</sub> )	mg/L	16.1	45 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium (as Ca)	mg/L	125	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	20.4	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride( as F)	mg/L	0.258	1.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron( as B)	mg/L	<0.1	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.8	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.148	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20 AAS Method
22.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Cr-B, 3-71
25.	Copper (as Cu)	mg/L	<0.04	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.027	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5530-B & C, 5-49, 5-50
<b>Remarks: The tests marked with an * are not accredited by NABL; N.D. – Not Detected</b>					

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2800-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Ground Water/Grab	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Dugwell of Field of Mr. Bhaskar Harde Wagholi Village	<b>Sample Quantity/Packing</b>	3 L X 1 No. PVC Can 500mL X 1 No. Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019

ULR-TC748719000002800P

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 05):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.38	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	7.4	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Residual Free Chlorine	ppm	<0.05	0.2 Min.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI G, 4-72
7.	Total Dissolved Solids	mg/L	446	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	11.0	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-69
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	252	200 Max	IS 3025 (Part 23):1986 Reaffirmed 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	304	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride( as Cl)	mg/L	58.9	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	29.0	200 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SO <sub>4</sub> -E, 4-199



Report No.2800 Cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking water (IS 10500:2012)	Method Reference
13.	Nitrate (as NO <sub>3</sub> )	mg/L	16.3	45 Max	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium (as Ca)	mg/L	94.6	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	16.5	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Fluoride( as F)	mg/L	0.319	1.0 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron( as B)	mg/L	<0.1	0.5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	6.0	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	-	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.148	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20 AAS Method
22.	Aluminium (as Al)	mg/L	<0.025	0.03 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Cr-B, 3-71
25.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.012	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 5530-B & C, 5-49, 5-50

Remarks: The tests marked with an \* are not accredited by NABL; N.D. – Not Detected

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2807-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED (Formerly Indiabulls Power Limited)</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901	<b>Order Reference:</b>	
		SO No. 3382014804	
<b>Sample Description/Type</b>	Surface Water	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Wagholi Pond	<b>Sample Quantity/Packing</b>	2 L X 1 No. PVC Can 500mL X 1 No. PVC Can
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019

ULR-TC748719000002807P

Sr. No.	Parameter	Unit	Result	Method Reference
1.	Colour	Hazen	<1	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	IS 3025 (Part 5):1984, Reaffirmed 2006
3.	Taste	-	NA	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.28	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	pH	-	8.0	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
6.	Total Dissolved Solids	mg/L	376	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
7.	Total Suspended Solids	mg/L	11.0	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-70
8.	Free Chlorine (Residual)	mg/L	<0.05	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI G, 4-72
9.	Alkalinity Total (as CaCO <sub>3</sub> )	mg/L	132	IS 3025 (Part 23):1986 RA 2009 Amds 1
10.	Total Hardness (as CaCO <sub>3</sub> )	mg/L	228	APHA 23 <sup>rd</sup> Ed. 2017, 2340-C, 2-48
11.	Chloride (as Cl)	mg/L	64.6	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CI-B, 4-75
12.	Sulphate (as SO <sub>4</sub> )	mg/L	80.6	APHA 23 <sup>rd</sup> Ed. 2017, 4500- SO <sub>4</sub> -E, 4-199
13.	Nitrate (as NO <sub>3</sub> )	mg/L	1.37	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium(as Ca)	mg/L	48.1	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	26.2	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86



Report No.2807 cont...

Sr. No.	Parameter	Unit	Result	Method Reference
16.	Fluoride (as F)	mg/L	0.387	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
17.	Boron (as B)	mg/L	<0.1	APHA 23 <sup>rd</sup> Ed. 2017, 4500-B B, 4-27
18.	Dissolved Oxygen	mg/L	5.4	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
19.	Oil and Grease	mg/L	N.D.	IS 3025 (Part 39): 1991, Reaffirmed 2009, Amds.1
20.	Iron (as Fe)	mg/L	0.246	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
21.	Manganese (as Mn)	mg/L	<0.04	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
22.	Aluminium (as Al)	mg/L	<0.025	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Al-B, 3-63
23.	Cadmium (as Cd)	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Chromium Hexa (as Cr <sup>6+</sup> )	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 3500- Cr-B, 3-71
25.	Copper (as Cu)	mg/L	<0.04	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Lead (as Pb)	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Zinc (as Zn)	mg/L	0.026	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Arsenic (as As)	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
29.	Mercury (as Hg)	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
30.	Selenium (as Se)	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
31.	*Cyanide (as CN)	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-CN, C & E, 4-44 & 4-46
32.	*Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/L	N.D.	APHA 23 <sup>rd</sup> Ed. 2017, 5530- B & C, 5-49, 5-50
<b>Remarks:</b> N.D. – Not Detected; NA – Not Applicable				

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C.Yeole  
**BRANCH MANAGER**



Note:

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ULR-TC748719000002807P



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## Water Sample Analysis Report

<b>Report No.:</b> ME-NG2799-190223-SA-RIPL-AMRAVATI		<b>Date:</b> 23.02.2019	
<b>Name and Address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Drinking Water	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	Water Cooler at RIPL Office MCR	<b>Sample Quantity/Packing</b>	1 L X 1 No. PVC Can 500mL X 1 No. PVC Can 500 mL X 1 No. Sterilised Glass Bottle
<b>Date of Sampling</b>	16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	IS: 3025(Part I):1987 RA 2003; APHA 23 <sup>rd</sup> Ed. 2017, 1060-B, 1-40;		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Completion of Analysis</b>	23.02.2019

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Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking Water (IS 10500:2012)	Method Reference
1.	Colour	Hazen	<1	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2120-B, 2-6
2.	Odour	-	Agreeable	Agreeable	IS 3025 (Part 5):1984, Reaffirmed 2006
3.	Taste	-	Agreeable	Agreeable	IS 3025 (Part 7 & 8):1984, Reaffirmed 2006
4.	Turbidity	NTU	0.32	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 2130-B, 2-13
5.	*Oxygen absorbed in 4 hours at 37 <sup>o</sup> C	mg/L	<0.1	-	IS 3025:1964, 51 Pg-96, Reaffirmed 2005, Amds.3
6.	pH	-	8.0	6.5 to 8.5	APHA 23 <sup>rd</sup> Ed. 2017, 4500-H <sup>+</sup> -B, 4-95
7.	Total Dissolved Solids	mg/L	102	500 Max.	IS 3025 (Part 16):1984 Reaffirmed 2006, Ed.2.1(1999-12)
8.	Total Suspended Solids	mg/L	<5	-	APHA 23 <sup>rd</sup> Ed. 2017, 2540-D, 2-70
9.	P-Alkalinity (as CaCO <sub>3</sub> )	mg/L	N.D.	-	IS 3025 (Part 23):1986 Reaffirmed 2009
10.	M-Alkalinity (as CaCO <sub>3</sub> )	mg/L	56	-	IS 3025 (Part 23):1986 Reaffirmed 2009
11.	Chloride (as Cl)	mg/L	14.2	250 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-Cl-B, 4-75





Report No. 2799 cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking Water (IS 10500:2012)	Method Reference
12.	Sulphate (as SO <sub>4</sub> )	mg/L	8.2	200 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500- SO <sub>4</sub> -E, 4-199
13.	Nitrate (as NO <sub>3</sub> )	mg/L	1.9	45 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-NO <sub>3</sub> , E 4-131
14.	Calcium(as Ca)	mg/L	14.4	75 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Ca-B, 3-69
15.	Magnesium (as Mg)	mg/L	7.3	30 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Mg- B, 3-86
16.	Sodium (as Na)	mg/L	9.1	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-Na-B, 3-99
17.	Potassium (as K)	mg/L	1.5	-	APHA 23 <sup>rd</sup> Ed. 2017, 3500-K- B, 3-89
18.	Silica (as SiO <sub>2</sub> )	mg/L	3.41	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-SiO <sub>2</sub> - D, 4-175, 4-177
19.	Phosphate Total (as PO <sub>4</sub> )	mg/L	0.043	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-P B, 4-160, E, 4-164
20.	Dissolved Oxygen	mg/L	6.4	-	APHA 23 <sup>rd</sup> Ed. 2017, 4500-O, B & C, 4-144, 4-146
21.	Fluoride (as F)	mg/L	0.160	1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 4500-F, D, 4-90
22.	Iron (as Fe)	mg/L	0.312	0.3 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
23.	Manganese (as Mn)	mg/L	<0.04	0.1 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
24.	Cadmium (as Cd)	mg/L	N.D.	0.003 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
25.	Chromium Total (as Cr)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
26.	Copper (as Cu)	mg/L	N.D.	0.05 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
27.	Lead (as Pb)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
28.	Zinc (as Zn)	mg/L	<0.01	5 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
29.	Arsenic (as As)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
30.	Mercury (as Hg)	mg/L	N.D.	0.001 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3112-B, 3-25
31.	Selenium (as Se)	mg/L	N.D.	0.01 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3114-C, 3-40
32.	*Nickel (as Ni)	mg/L	N.D.	0.02 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111-B, 3-20
33.	*Barium (as Ba)	mg/L	N.D.	0.7 Max.	APHA 23 <sup>rd</sup> Ed. 2017, 3111 D, 3-21

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Report No. 2799 cont...

Sr. No.	Parameter	Unit	Result	Acceptable Limit for Drinking Water (IS 10500:2012)	Method Reference
<b>Microbiological Analysis</b>					
34.	Total Colliforms	MPN/100 mL	<1.1	Not Detectable	APHA 23 <sup>rd</sup> Ed. 2017, 9221-B & C, 9-69, 9-72
35.	E-Coli	MPN/100 mL	Absent	Not Detectable	APHA 23 <sup>rd</sup> Ed. 2017, 9221-B, C & G, 9-69, 9-72 & 9-80
<b>Remarks:</b> N.D. – Not Detected. <b>The tests marked with an * are not accredited by NABL.</b>					

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FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole  
**BRANCH MANAGER**  
(Chemical Testing)



Pranali Kurve  
**TECHNICAL MANAGER**  
(Biological Testing)

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## Workplace Air Quality Monitoring Report

<b>Report No.:</b> ME-NG2813-190222-SA-RIPL-AMRAVATI		<b>Date:</b> 22.02.2019	
<b>Name and address of Customer</b>	<b>RATTANINDIA POWER LIMITED</b> Plot No.D-2 & D-2 (PART) at Additional MIDC, Village-Nandgaonpeth, Tal & Dist: Amravati 444 901		<b>Order Reference:</b>
			SO No. 3382014804
<b>Sample Description/Type</b>	Fugitive	<b>Sample Collected by</b>	Laboratory
<b>Sampling Location</b>	1) Near Coal Stock Area 2) Near L & T Guest House	<b>Sample Quantity/Packing</b>	Filter Paper (PM <sub>10</sub> ): 1 X 1 No. SO <sub>2</sub> : 30mL X 8 No. PVC Bottle NO <sub>2</sub> : 30mL X 8 No. PVC Bottle
<b>Date of Sampling</b>	15.02.2019 to 16.02.2019	<b>Date of Receipt of Sample</b>	18.02.2019
<b>Sampling Procedure</b>	As per Method reference		
<b>Date of Start of Analysis</b>	18.02.2019	<b>Date of Receipt of Sample</b>	22.02.2019

Parameter	Unit	Result		Standard for 8 hr. exposure (Schedule 2 of factories act)	Method Reference
Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	23.8	25.6	5000	IS 5182 ( Part 2): 2001, RA 2006
Sulphur Dioxide (SO <sub>2</sub> )Avg.	µg/m <sup>3</sup>	24.7		-	
Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	35.5	36.2	6000	IS 5182 (Part 6): 2006
Nitrogen Dioxide (NO <sub>2</sub> ) Avg.	µg/m <sup>3</sup>	35.85		-	
Particulate Matter (size less than 10µm) or PM <sub>10</sub>	µg/m <sup>3</sup>	175	167	-	IS 5182 ( Part 23): 2006
Difference Upwind and Downwind Particulate Matter (size less than 10µm) or PM <sub>10</sub>	µg/m <sup>3</sup>	8		-	
<b>Remarks:</b>					

-----END-----

FOR MAHABAL ENVIRO ENGINEERS PVT. LTD.

Kishor C. Yeole

BRANCH MANAGER



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