

# BRAHMANI RIVER PELLETS LIMITED



No. BRPL/OSPCB/PP/22/ 211

Date: 10.09.2022

**Registered Office :**

4th Floor, IPICOL House, Janpath  
BHUBANESWAR, ODISHA - 751022

Tel. No.: 0674-2543390

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E-mail : admin@brplind.com

(CIN)-U27106OR2006PLC008914

To,

The Member Secretary  
State Pollution Control Board, Odisha,  
Paribesh Bhawan,  
A/118, Nilkantha Nagar, Unit- VIII,  
Bhubaneswar-751012

**Sub: - Submission of Environmental Statement Report for the financial year 2021-2022 of M/s. Brahmani River Pellets Ltd (Pellet Plant), At-Khurunti, P.O-Danagadi, Kalinga Nagar Industrial Complex, Dist-Jajpur, Odisha.**

Dear Sir,

We are submitting herewith the Environmental Statement Report for the financial year 2021-2022 of M/s. Brahmani River Pellets Ltd (Pellet Plant), At-Khurunti, P.O-Danagadi, Kalinga Nagar Industrial Complex, Dist-Jajpur, Odisha in a duly filled up Form-V.

This is for favour of your kind information and perusal.

Thanking You.

Yours Sincerely,

**Shilp Sharma**  
**(Plant Head)**

Encl: As stated above.

C.C to: Regional Officer, SPCB, Jajpur.

**FORM-V**  
**ENVIRONMENTAL STATEMENT**  
**(See rule 14)**

Environmental Statement for the financial year ending with 31<sup>st</sup> March 2022

**PART-A**

*i.* Name and address of the occupier of the industry operation or process:

**Mr. Shilp Sharma**

**Plant Head**

**M/s BRAHMANI RIVER PELLETS Limited,**

**At-Khurunti, P.O- Danagadi,**

**Kalinga Nagar Industrial complex**

**Dist. -Jajpur, Odisha**

**Mr. Shilp Sharma**

**Plant Head**

**M/s BRAHMANI RIVER PELLETS Limited,**

**4<sup>th</sup> Floor, IPICOL House,**

**Janpath, Bhubaneswar,**

**Odisha-751022**

*ii.* Industry category: Pellet Plant

Primary- **Large**

Secondary- **Red**

*iii.* Production category - Units.

**Iron ore Pellets: 4.0 Million Ton Per Annum (MTPA)**

*iv.* Year of establishment: **2007**

*v.* Date of the last environmental statement submitted: **20.08.2021.**

**PART –B**

Water and Raw Material Consumption:

- i. Water consumption in m<sup>3</sup>/d: (Average requirement) = (5712-6744) m<sup>3</sup>/d  
     **Process** : (1488-1656) m<sup>3</sup>/d  
     **Cooling** : (984-1080) m<sup>3</sup>/d  
     **Domestic (Drinking within plant premises)** : (72 -96) m<sup>3</sup>/d

Name of Products	Process water consumption per unit of products	
	During the previous financial year 2020-21	During the current financial year 2021-22
1. Iron Ore pellet	1784195 m <sup>3</sup>	1747071 m <sup>3</sup>

ii. Raw material consumption

Name of raw materials*	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year 2020-21	During the current financial year 2021-22
1. Concentrate Iron Ore/Filter cake	Pellet	32,91,836 MT	32,33,910 MT
2. Bentonite	Pellet	11,759.110 MT	11,696.760 MT
3. Lime stone	Pellet	63,300.230 MT	56,680.431 MT
4. Coke breeze	Pellet	47,469.470 MT	44,338.220 MT
5. Furnace oil	Pellet	58,226.416 KL	60,636.447 KL
6. LDO	Pellet	1,496.974 KL	1,535.225 KL

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

**PART-C**

**Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)**

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of Variation from prescribed standards with reasons.
Water	Nil	Nil	<p>The waste water from iron ore slurry is separated through filtration system and treated in the thickener. The treated water is used as make up water and other uses in pellet plant.</p> <p>We have thickener wherein all de-dusting/scrubber return water is passed and the thickener underflow is reused again in the filtration process.</p> <p>STP (Sewage treatment Plant) has been installed for treatment of domestic waste generated from plant buildings.</p> <p>WTP has been installed for treatment of water generated from the process. The water from iron ore slurry is separated through filtration system and treated in the thickener and WTP. The treated water is used as make up water and other uses in pellet plant.</p> <p>Apart from this we have also installed ETP having capacity 250 KLD for surface runoff management.</p>

**Air-**

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (micrograms/cu.meter)	Standards (micrograms/cu.meter)
PM <sub>10</sub>	Refer to Annexure- I	Refer to Annexure- I	100 µg/m <sup>3</sup>
PM <sub>2.5</sub>	Refer to Annexure- I	Refer to Annexure- I	60 µg/m <sup>3</sup>
NO <sub>x</sub>	Refer to Annexure- I	Refer to Annexure- I	80 µg/m <sup>3</sup>
SO <sub>2</sub>	Refer to Annexure- I	Refer to Annexure- I	80 µg/m <sup>3</sup>
CO	Refer to Annexure- I	Refer to Annexure- I	4 mg/m <sup>3</sup>
O <sub>3</sub>	Refer to Annexure- I	Refer to Annexure- I	180 µg/m <sup>3</sup>
NH <sub>3</sub>	Refer to Annexure- I	Refer to Annexure- I	400 µg/m <sup>3</sup>
Pb	Refer to Annexure- I	Refer to Annexure- I	1.0 µg/m <sup>3</sup>
Benzene	Refer to Annexure- I	Refer to Annexure- I	05 µg/m <sup>3</sup> (Annul * )
Benzo(a)pyrene	Refer to Annexure- I	Refer to Annexure- I	01 mg/m <sup>3</sup> (Annul * )
Ni	Refer to Annexure- I	Refer to Annexure- I	20 mg/m <sup>3</sup> (Annul * )
As	Refer to Annexure- I	Refer to Annexure- I	06 mg/m <sup>3</sup> (Annul * )

**PART-D**

**HAZARDOUS WASTES**

(As specified under Hazardous Wastes (Management & Handling Rules, 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year 2020-21	During the current financial year 2021-22
1. From Process	Used Oil- 2.52 KL	Used Oil- NIL
2. From Pollution Control Facilities	Nil	Nil

#### PART - E

##### SOLID WASTES:

Solid Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
a. From process	Nil	Nil
b. From Pollution Control Facility	Nil	Nil
c. Quantity recycled or re-utilized within the unit.	Nil	Nil

#### PART - F

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

Hazardous waste:- No used oil is generated during operation & maintenance of equipment. Used oil was stored in barrels in separate storage yard which was sold to an authorized recycler /re-processors approved by State Pollution Control Board, Odisha.

Solid waste: Pellet plant does not generate any solid waste. Any fugitive dust in the process is being extracted and collected through Bag Filters, Scrubbers and reused in the process. Thus, no waste is generated.

Gas flow through stack is done by two fans connected to ESP. Our two ESPs are designed to blow around 4, 00,000 m<sup>3</sup>/hr and 14, 00,000 m<sup>3</sup>/hr of air respectively. The iron ore dust collected by ESP is recycled by sending into thickener and reused in the process. We have thickener wherein all de-dusting/scrubber return water is passed and the underflow is reused in the process.

#### PART-G

**Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production:**

1. The pellet plant utilizes iron ore concentrate which is transported in the form of slurry from Beneficiation plant at Barbil through pipeline. Low grade iron ore beneficiation itself is a mineral conservation. The beneficiation process is a wet process and potential

particulate matter emission is limited to raw material handling and conveying.

Concentrate Iron ore slurry is transported through underground pipeline from Barbil to Jajpur instead of transported through road/rail. Slurry pipelines offer an economic advantage over road/rail and much less noise disturbance to the environment. Also, CO<sub>2</sub> emission is much lower compared to surface transport systems through road/rail. Thus underground pipeline reduces road traffic and ambient dust pollution providing environmental benefit to all.

2. A massive tree plantation is done inside the pellet plant premises by planting various types of indigenous plant species. 30,225 saplings were planted so far inside plant premises in order to enhance vegetation and improvement of air quality and thus environment. Further Green belt development is planned in a phased manner. Apart from the above, we have also planted 8400 trees in Avenue plantation in Kalinga Nagar area. In 2020-21, we also distributed 1000 no. of fruit bearing plants to nearby villagers.
3. Recycled water of the plant is used for the watering of the green belt and water spraying on the road for the fugitive dust control due to vehicular movement.
4. To reduce the particulate matter emissions from the stacks; suitable pollution control equipment have been installed like ESPs (Electrostatic Precipitator), scrubbers and Bag filter system including 85 meters high Chimney to ensure sufficient dispersion of the pollutants. All the air pollution control devices are being operated and maintained properly like fabric bags and cages in bag house and these are regularly checked and replaced whenever required. We also store extra spares with respect to bag filter and ESP system for immediate replacement.

The air pollution from various technological units is controlled by employing suitable pollution control systems for reduction of pollution.

<b>Air Pollution Control Measures</b>		
Sl. No.	Source	Air pollution control Devices installed
1.	Induration Furnace	ESP (Electrostatic Precipitator)
2.	Additives Grinding Unit	Pulse Jet Bag Filter
3.	Mixing and Feed end area of Induration Furnace	Wet Scrubber
4.	Discharge end of Induration Furnace	Wet Scrubber
5.	HLSB(Hearth Layer Storage Bin)	Wet Scrubber

All roads inside the plant premises are concrete and black topped to avoid fugitive emissions. Water sprinkling is being done on the roads and work zone areas to minimize

the fugitive emissions. Fixed water sprinklers are installed in product yard area & product conveyor while mobile water tanker is used for sprinkling water on the roads.

The main raw material for the pellet plant is beneficiated iron ore concentrate and it comes as slurry form from our Beneficiation plant through pipe line. So there are no fugitive emissions in raw materials handling area. In product area (HLSB), we use wet scrubbers for minimizing the particulate matter emissions and water sprinkling is done to avoid fugitive emissions.

5. Ambient Air Quality, Meteorological (weather), Noise level, fugitive Dust monitoring are efficiently carried out at fixed locations as per schedule. The monitoring work is conducted by authorized Third party agency. Monitoring reports indicates that the values of parameters are within the prescribed limits of CPCB. Apart from this online AAQMS (Ambient air quality monitoring station) was set up near main gate for monitoring the dust.
6. Trucks are properly covered with tarpaulin during transportation of materials.
7. Adequate stack height, as per CPCB guidelines, is provided on DG set.
8. Internal roads are black topped, concrete and paver block laid to reduce the fugitive dust emission inside the plant premises.
9. Housekeeping and scrap removal has been undertaken by all departments for implementing 5S drive process in different areas for maintaining neat and clean environment in the plant premises.
10. Water treatment plants having capacities 150 m<sup>3</sup>/hr, 250 m<sup>3</sup>/hr and 150 m<sup>3</sup>/hr are installed for treatment of water.
11. The STP has installed inside the plant premises for treatment of domestic effluents that are generated from the plant building.
12. An electronic display board has already been installed at the main gate where Environmental Information with respect to Air, water and Hazardous Waste is being displayed.
13. Landscape development has been done in front of canteen area, MRSS, Electrical work station, Near CCR by lawn development and planting decorative plants; thus preventing soil erosion and enhancing beautification.
14. Effluent treatment plant (ETP) having capacity 250 KLD is installed for surface runoff management.



**PART – H**

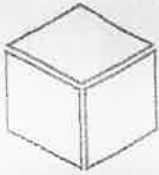
**Additional measures/investment proposal for environmental protection including abatement of pollution.**

Sl.no.	Particulars	Expenditure(Rs.)
1	Water Sprinkling by sprinklers & water tankers	15,00,000/-
2	AAQ, Metrological, Fugitive dust, Noise, Stack Monitoring	16,00,000/-
3	Water Monitoring	2,00,000/-
4	Green belt Maintenance	8,02,000/-
5	O & M for running of STP	4,20,000
6	Maintenance of STP, WTP, sprinkler	8,00,000
7	AMC for electronic display board	60,000
8	AMC for AAQMS(Ambient Air quality Monitoring Station)	1,50,000
9	O& M and chemical required for running of WTP	12,00,000
10	Avenue plantation	2,00,000
11	Maintenance of Bag filter, ESP, Scrubber	15,00,000
	<b>Total</b>	<b>84,32,000/-</b>

**PART –I**

1. No. of saplings proposed for next financial year is 1500 nos.
2. 1000 no. of fruit bearing plants to be distributed to nearby villagers.
3. Small patches of gardens will be developed inside of the plant premises wherever the open space is available to improve the plant beautification.
4. We have a separate Environmental management cell which is headed by Plant head & controlled by Sr.Manager (Environment). This department undertakes monitoring of the environmental pollution levels by measuring fugitive emissions, ambient air quality, water & effluent quality, noise level either departmentally or by appointing external agencies wherever necessary.





# Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Certified for : ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 (OH&S), ISO/IEC 17025:2017

Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

- Infrastructure Engineering
- Water Resource Management
- Environmental & Social Study

- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services  
 Environment Lab  
 Food Lab  
 Material Lab  
 Soil Lab  
 Mineral Lab  
 &  
 Microbiology Lab

Ref: Komlab/21/R-7223

Date: 18/10/21

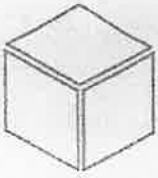
## AVERAGES CORE ZONE AAQ QUALITY RERPORT ( APRIL 2021 TO SEPTEMBER 2021)

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

Name of the Location	PARAMETERS											
	PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>x</sub> µg/m <sup>3</sup>	O <sub>3</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	NH <sub>3</sub> µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>	Bap ng/m <sup>3</sup>	Ni ng/m <sup>3</sup>	Pb µg/m <sup>3</sup>	As ng/m <sup>3</sup>
Near Manpur Gate	57.5	32.6	4.9	15.9	12.8	0.27	22.0	BDL	BDL	BDL	BDL	BDL
Near Canteen	57.6	32.7	4.5	14.5	12.3	0.29	23.8	BDL	BDL	BDL	BDL	BDL
Near Reserver	59.7	33.6	5.1	14.2	11.7	0.29	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	100	4	400	5	1	20	1	6



For Visiontek Consultancy Services Pvt. Ltd



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- Surface & Sub-Surface Investigation
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- Agricultural Development
- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

Enufab/21/R-7224

Date: 18/10/21

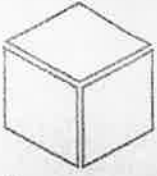
## AVERAGES FUGITIVE EMISSION MONITORING REPORT (APRIL 2021 TO SEPTEMBER 2021)

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

SL. No.	Sampling Location	Parameter
		SPM ( $\mu\text{g}/\text{m}^3$ )
1.	F-1:Near HLSB	450.9
2.	F-2: Near Raw Material Yard	430.2
<b>MoEF Norms</b>	<b>1200 <math>\mu\text{g}/\text{m}^3</math></b>	

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• Infrastructure Engineering  
• Water Resource Management  
• Environmental & Social Study

• Surface & Sub-Surface Investigation  
• Quality Control & Project Management  
• Renewable Energy

• Agricultural Development  
• Information Technology  
• Public Health Engineering

• Mine Planning & Design  
• Mineral/Sub-Soil Exploration  
• Waste Management Services

Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

For/ Lab/21/ R-7225

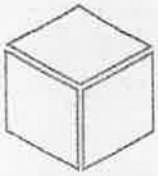
Date: 18/10/21

## AVERAGES NOISE MONITORING REPORT (APRIL 2021 TO SEPTEMBER 2021)

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

Location ID	Ambient Noise Monitoring Station Location	Day time Equivalent	Night time Equivalent
		Noise Level in dB(A) leq	
N-1	Near Main Gate	59.7	54.0
N-2	Near Office Canteen	57.5	50.6
N-3	OPTCL Room	61.4	56.0
N-4	Manpur Gate	56.2	50.2
N-5	Near CCR	68.7	60.9
N-6	Near Store	61.8	56.0
N-7	Electrical Work shop	68.5	60.5
N-8	Near WTP	68.0	59.9
Standard as per CPCB		75	70

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• Public Health Engineering

• Mine Planning & Design  
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• Waste Management Services

Laboratory Services

Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

Enufab/21/R-7226

Date: 18/10/21

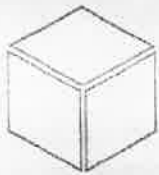
## AVERAGES STATIONARY EMISSION MONITORING REPORT (APRIL 2021 TO SEPTEMBER 2021)

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

Parameters	Unit	Attached to ESP	Attached to Discharge end Scrubber	Attached to Feed End Scrubber	Attached to Bagfilter	Attached to HLSB
Stack Temperature	$^{\circ}\text{C}$	140.8	57.5	70.8	83.7	54.2
Velocity of Flue Gas	m/sec	13.2	7.3	10.7	10.9	8.1
Quantity of Gas flow	$\text{m}^3/\text{hr}$	2147735	54268	55706	29755	44177
Concentration of Particulate Matter as PM	$\text{mg}/\text{Nm}^3$	59.3	14.1	20.6	20.3	20.8
Sulphur dioxide as $\text{SO}_2$	$\text{mg}/\text{Nm}^3$	31.4	14.3	19.4	<2	<2
Oxides of Nitrogen as $\text{NO}_x$	$\text{mg}/\text{Nm}^3$	27.6	15.7	17.9	<5	<5

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Laboratory Services

Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

- Infrastructure Engineering
- Water Resource Management
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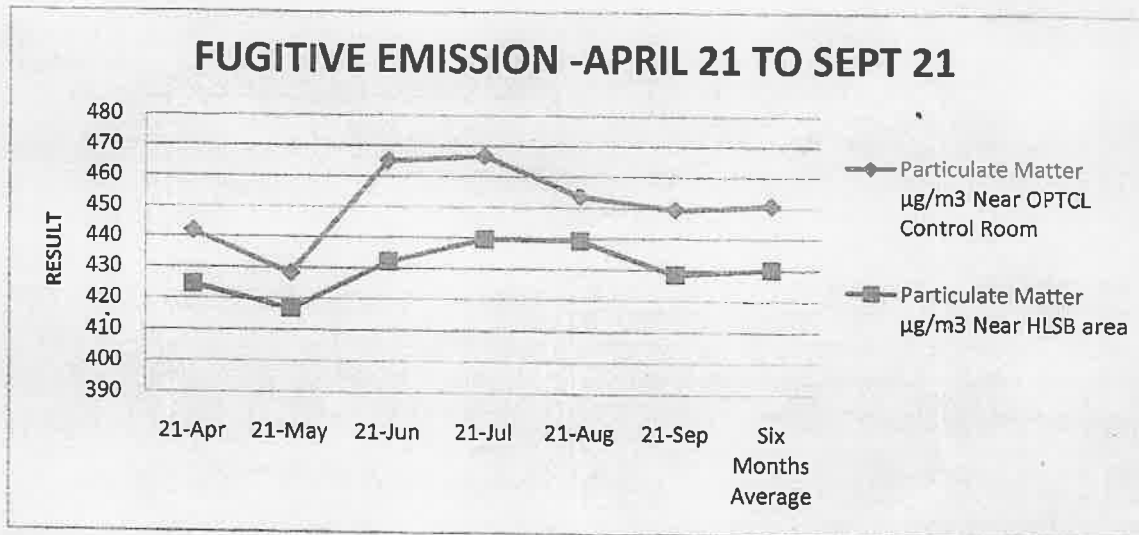
- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

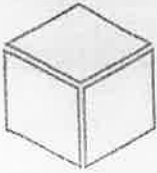
Eqn/lab/21/R-7227  
Annexure-II

Date: 18/10/21

## Fugitive Dust Two Locations:

Month	Particulate Matter $\mu\text{g}/\text{m}^3$	
	Near OPTCL Control Room	Near HLSB area
APRIL-21	441.8	424.6
MAY-21	428.2	416.8
JUNE-21	465.2	432.2
JULY-21	466.8	439.6
AUGUST-21	453.7	439.2
SEPTEMBER-21	449.6	428.5
<b>Six Months Average</b>	<b>450.9</b>	<b>430.2</b>





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**Laboratory Services**

- Environment Lab
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- Soil Lab
- Mineral Lab
- &
- Microbiology Lab

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- Quality Control & Project Management
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- Public Health Engineering

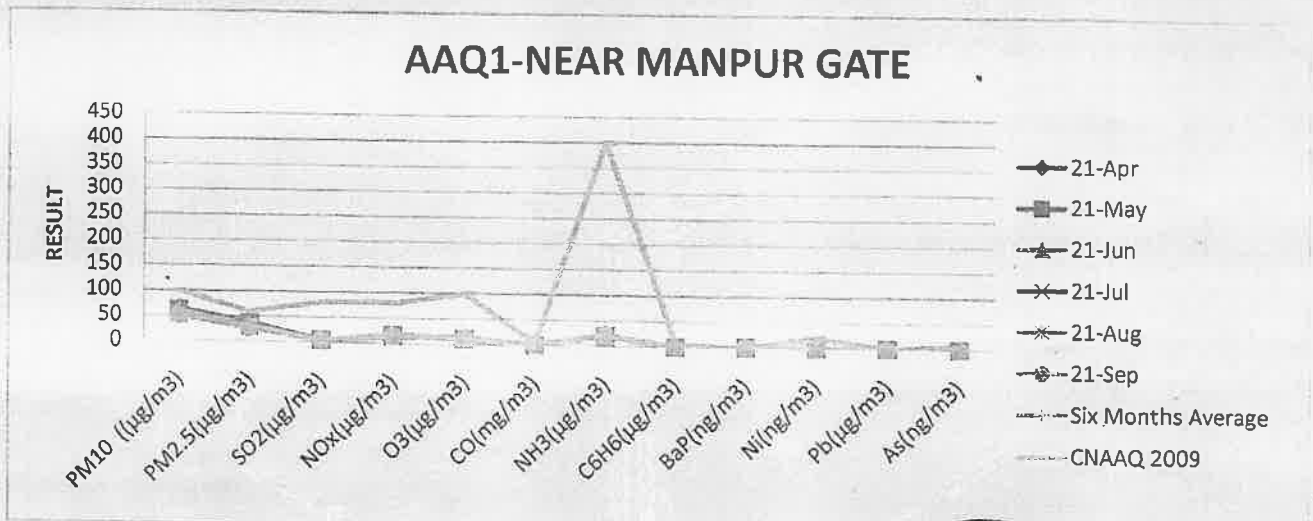
- Mine Planning & Design
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- Waste Management Services

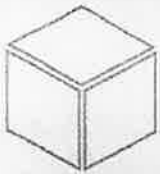
Date: 18/10/21

Env/lab/21/R-7228  
ANNEXURE - I

(A) NEAR MANPUR GATE

Month	PM <sub>10</sub> µg/m	PM <sub>2.5</sub> µg/m	SO <sub>2</sub> µg/m	NO <sub>x</sub> µg/m	O <sub>3</sub> µg/m	CO mg/m	NH <sub>3</sub> µg/m	C <sub>6</sub> H <sub>6</sub> µg/m	Bap ng/m	Ni ng/m	Pb µg/m	As ng/m
APRIL-21	65.2	39.1	5.3	16.7	13.6	0.31	22.7	BDL	BDL	BDL	BDL	BDL
MAY-21	61.1	36.7	4.4	16.2	11	0.23	20.7	BDL	BDL	BDL	BDL	BDL
JUNE-21	61.8	32.1	5.1	16.3	13.2	0.30	22.2	BDL	BDL	BDL	BDL	BDL
JULY-21	53.6	32.2	4.5	14	12.9	0.20	22	BDL	BDL	BDL	BDL	BDL
AUGUST-21	52.3	28	5.1	16.3	13.1	0.30	22.1	BDL	BDL	BDL	BDL	BDL
SEPTEMBER-21	51.2	27.5	5	16.1	12.9	0.30	22	BDL	BDL	BDL	BDL	BDL
<b>Six Months Average</b>	<b>57.5</b>	<b>32.6</b>	<b>4.9</b>	<b>15.9</b>	<b>12.8</b>	<b>0.27</b>	<b>22.0</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>	<b>BDL</b>





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- Information Technology
- Public Health Engineering

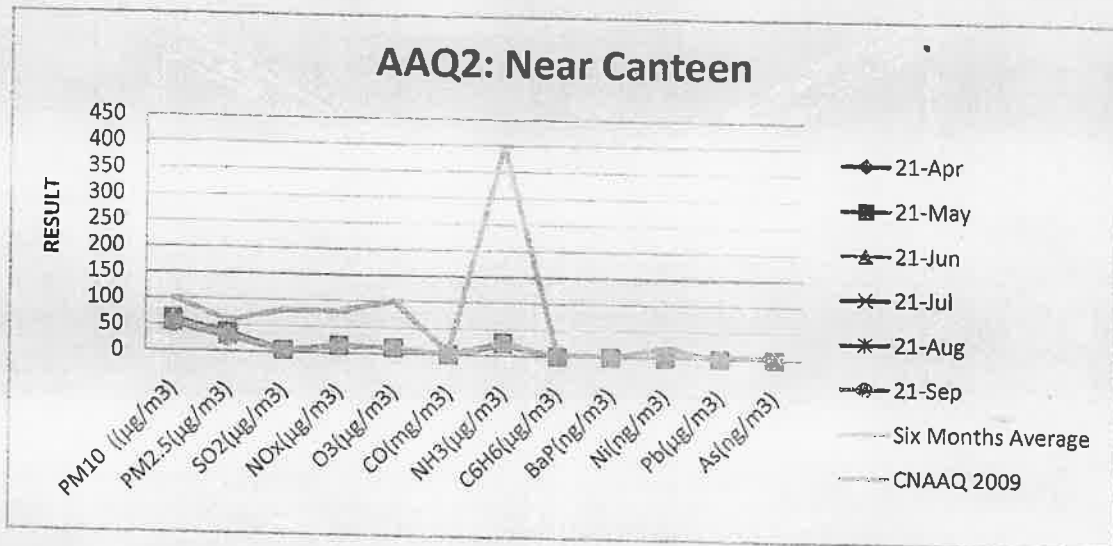
- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Laboratory Services  
 Environment Lab  
 Food Lab  
 Material Lab  
 Soil Lab  
 Mineral Lab  
 &  
 Microbiology Lab

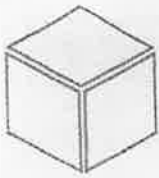
Enr/lab/21 | R-7229  
 (B) NEAR CANTEEN

Date: 18/10/21

Month	PM <sub>10</sub> µg/m	PM <sub>2.5</sub> µg/m	SO <sub>2</sub> µg/m	NO <sub>x</sub> µg/m	O <sub>3</sub> µg/m	CO mg/m	NH <sub>3</sub> µg/m	C <sub>6</sub> H <sub>6</sub> µg/m	Bap ng/m	Ni ng/m	Pb µg/m	As ng/m
APRIL-21	61.8	37.1	4.8	15	12.6	0.37	24.8	BDL	BDL	BDL	BDL	BDL
MAY-21	61.6	37	4.1	15.4	11.7	0.22	24.9	BDL	BDL	BDL	BDL	BDL
JUNE-21	59.8	31.2	4.5	14.6	12.4	0.3	24.3	BDL	BDL	BDL	BDL	BDL
JULY-21	55.9	33.6	4.2	13.3	12.3	0.24	21.7	BDL	BDL	BDL	BDL	BDL
AUGUST-21	53.9	29	4.8	14.5	12.4	0.3	23.7	BDL	BDL	BDL	BDL	BDL
SEPTEMBER-21	52.8	28	4.8	14.3	12.4	0.3	23.5	BDL	BDL	BDL	BDL	BDL
Six Months Average	57.6	32.7	4.5	14.5	12.3	0.29	23.8	BDL	BDL	BDL	BDL	BDL







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- Surface & Sub-Surface Investigation
- Quality Control & Project Management
- Renewable Energy

- Agricultural Development
- Information Technology
- Public Health Engineering

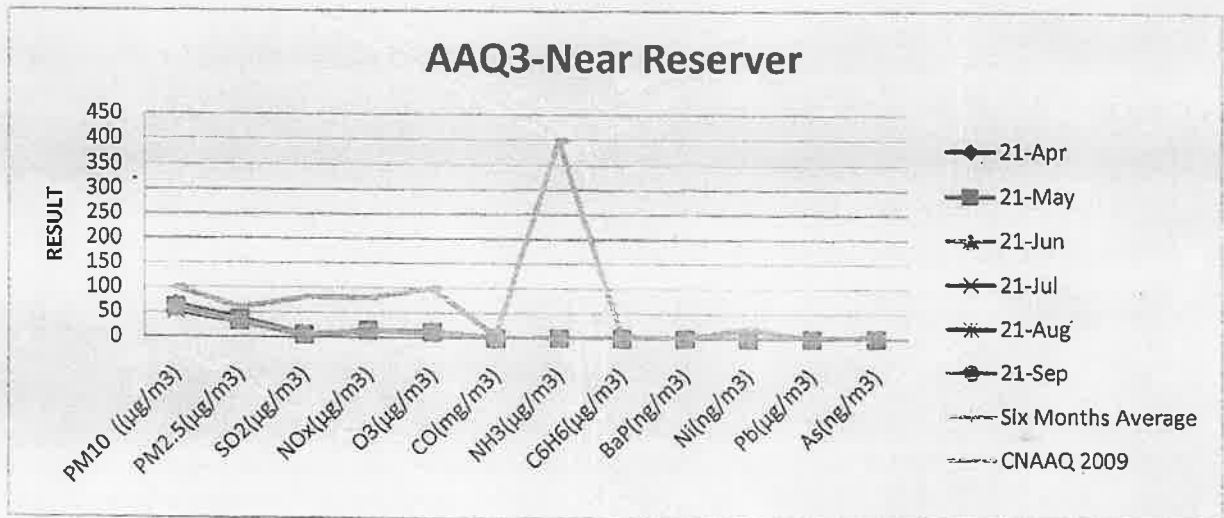
- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

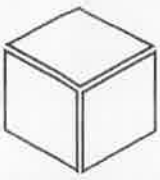
Env/lab/21/R-7230

Date: 18/10/21

## (C) NEAR RESERVER

Month	PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>x</sub> µg/m <sup>3</sup>	O <sub>3</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	NH <sub>3</sub> µg/m <sup>3</sup>	C <sub>6</sub> H <sub>6</sub> µg/m <sup>3</sup>	Bap ng/m <sup>3</sup>	Ni ng/m <sup>3</sup>	Pb µg/m <sup>3</sup>	As ng/m <sup>3</sup>
APRIL-21	65	39	5.5	14.8	12.4	0.34	BDL	BDL	BDL	BDL	BDL	BDL
MAY-21	60.8	36.5	5.1	14.9	10.7	0.24	BDL	BDL	BDL	BDL	BDL	BDL
JUNE-21	61.7	32.1	5.2	14.4	10.8	0.3	BDL	BDL	BDL	BDL	BDL	BDL
JULY-21	52.0	31.2	4.5	13.1	12.5	0.24	BDL	BDL	BDL	BDL	BDL	BDL
AUGUST-21	59.9	31.9	5.3	14.2	11.9	0.3	BDL	BDL	BDL	BDL	BDL	BDL
SEPTEMBER-21	58.8	31.1	5.2	14	11.8	0.3	BDL	BDL	BDL	BDL	BDL	BDL
Six Months Average	59.7	33.6	5.1	14.2	11.7	0.29	BDL	BDL	BDL	BDL	BDL	BDL





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● Public Health Engineering

● Mine Planning & Design  
● Mineral/Sub-Soil Exploration  
● Waste Management Services

Ref : Envlab/22/R-2251

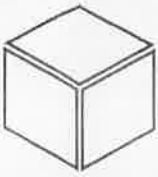
Date : 18.05.2022

## SIX MONTHLY AVERAGES CORE ZONE AAQ QUALITY RERPORT ( OCTOBER 2021 TO MARCH 2022)

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

Name of the Location	PARAMETERS											
	PM <sub>10</sub> ( $\mu\text{g}/\text{m}^3$ )	PM <sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>x</sub> ( $\mu\text{g}/\text{m}^3$ )	O <sub>3</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )	NH <sub>3</sub> ( $\mu\text{g}/\text{m}^3$ )	C <sub>6</sub> H <sub>6</sub> ( $\mu\text{g}/\text{m}^3$ )	BaP ( $\text{ng}/\text{m}^3$ )	Ni ( $\text{ng}/\text{m}^3$ )	Pb ( $\mu\text{g}/\text{m}^3$ )	As ( $\text{ng}/\text{m}^3$ )
Near Manpur Gate	60.5	34.9	5.5	14.4	12.6	0.27	22.9	BDL	BDL	BDL	BDL	BDL
Near Canteen	53.0	30.1	5.3	15.7	13.2	0.30	23.3	BDL	BDL	BDL	BDL	BDL
Near Reserver	56.6	31.9	5.2	14.8	12.3	0.32	22.6	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	100	4	400	5	1	20	1	6





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● Public Health Engineering

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● Mineral/Sub-Soil Exploration  
● Waste Management Services

Laboratory Services

Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

Ref : Envlab/22/R-2252

Date : 18.05.2022

## SIX MONTHLY AVERAGES FUGITIVE EMISSION MONITORING REPORT ( OCTOBER 2021 TO MARCH 2022)

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

SL.No.	Sampling Location	Parameter
		SPM ( $\mu\text{g}/\text{m}^3$ )
1.	F-1:Near HLSB	477.82
2.	F-2: Near Raw Material Yard	488.75
MoEF Norms	1200 $\mu\text{g}/\text{m}^3$	



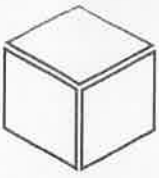
Reviewed By

*M. Panda*

*Puja Mohanty*



Approved By



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Laboratory Services

Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

Ref : Envlab/22/R-2253

Date : 18.05.2022

## SIX MONTHLY AVERAGES NOISE MONITORING REPORT ( OCTOBER 2021 TO MARCH 2022)

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

Location ID	Ambient Noise Monitoring Station Location	Day time Equivalent	Night time Equivalent
		Noise Level in dB(A) leq	
N-1	Near Main Gate	65.2	61.6
N-2	Near Office Canteen	65.3	62.7
N-3	OPTCL Room	66.6	60.0
N-4	Manpur Gate	67.1	61.5
N-5	Near CCR	66.8	61.3
N-6	Near Store	66.6	60.2
N-7	Electrical Work shop	65.2	61.6
N-8	Near WTP	65.3	62.7
Standard as per CPCB		75	70



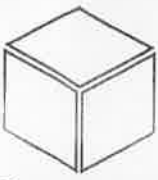
*M. Panda*

Reviewed By

*Puja Mahapatra*



Approved By



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Laboratory Services  
Environment Lab  
Food Lab  
Material Lab  
Soil Lab  
Mineral Lab  
&  
Microbiology Lab

Ref : Envlab/22/R-2254

Date : 18.05.2022

## SIX MONTHLY AVERAGES STATIONARY EMISSION MONITORING REPORT ( OCTOBER 2021 TO MARCH 2022 )

1. Name of the Industry : M/s Brahmani River Pellets Limited, Kalinga Nagar, Jajpur

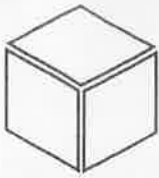
Parameters	Unit	Attached to ESP	Attached to Discharge end Scrubber	Attached to Feed End Scrubber	Attached to Bag filter	Attached to HLSB
Stack Temperature	$^{\circ}\text{C}$	114.5	40	65.5	81.5	39.33333
Velocity of Flue Gas	m/sec	12.555	7.945	10.225	12.38667	9.148333
Quantity of Gas flow	$\text{m}^3/\text{hr}$	689405.1	179328.3	56916.45	234806.3	50675.1
Concentration of Particulate Matter as PM	$\text{mg}/\text{Nm}^3$	35.55	15.88333	18.5	21.33333	23.18333
Sulphur dioxide as $\text{SO}_2$	$\text{mg}/\text{Nm}^3$	24.95	15.55	19.15	<2.0	<2.0
Oxides of Nitrogen as $\text{NO}_x$	$\text{mg}/\text{Nm}^3$	21.88333	17.65	17.66667	<5.0	<5.0



*M. Panda*

*Puja Mohanty*





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- Information Technology
- Public Health Engineering

- Mine Planning & Design
- Mineral/Sub-Soil Exploration
- Waste Management Services

Ref : Envlab/22/R-2255

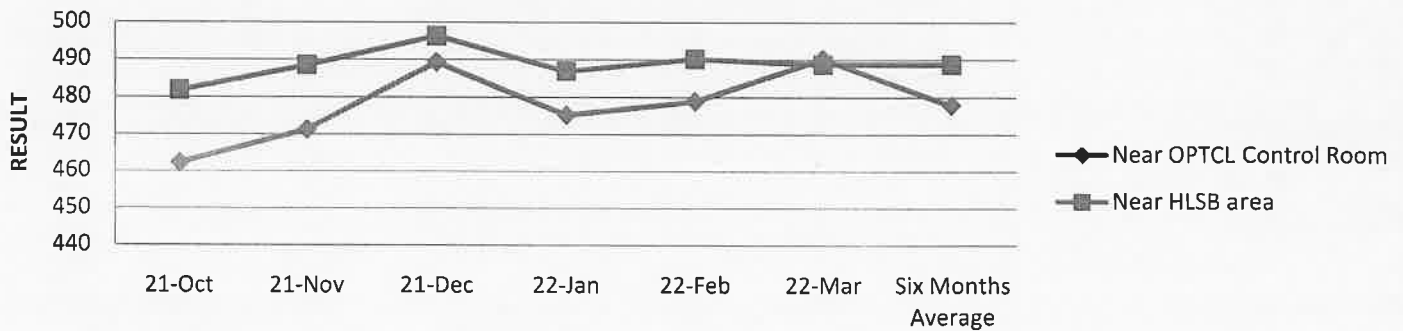
Date : 18.05.2022

## Annexure-II

### Fugitive Dust Two Locations:

Month	Particulate Matter $\mu\text{g}/\text{m}^3$	
	Near OPTCL Control Room	Near HLSB area
OCTOBER-21	462.3	481.8
NOVEMBER-21	471.2	488.5
DECEMBER-21	489.2	496.4
JANUARY-22	475.2	486.9
FEBRUARY-22	478.8	490.2
MARCH-22	490.2	488.7
<b>Six Months Average</b>	<b>477.82</b>	<b>488.75</b>

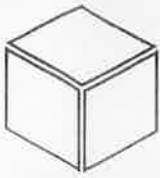
### FUGITIVE EMISSION RESULT



*M. Panda*

*Puja Mishra*





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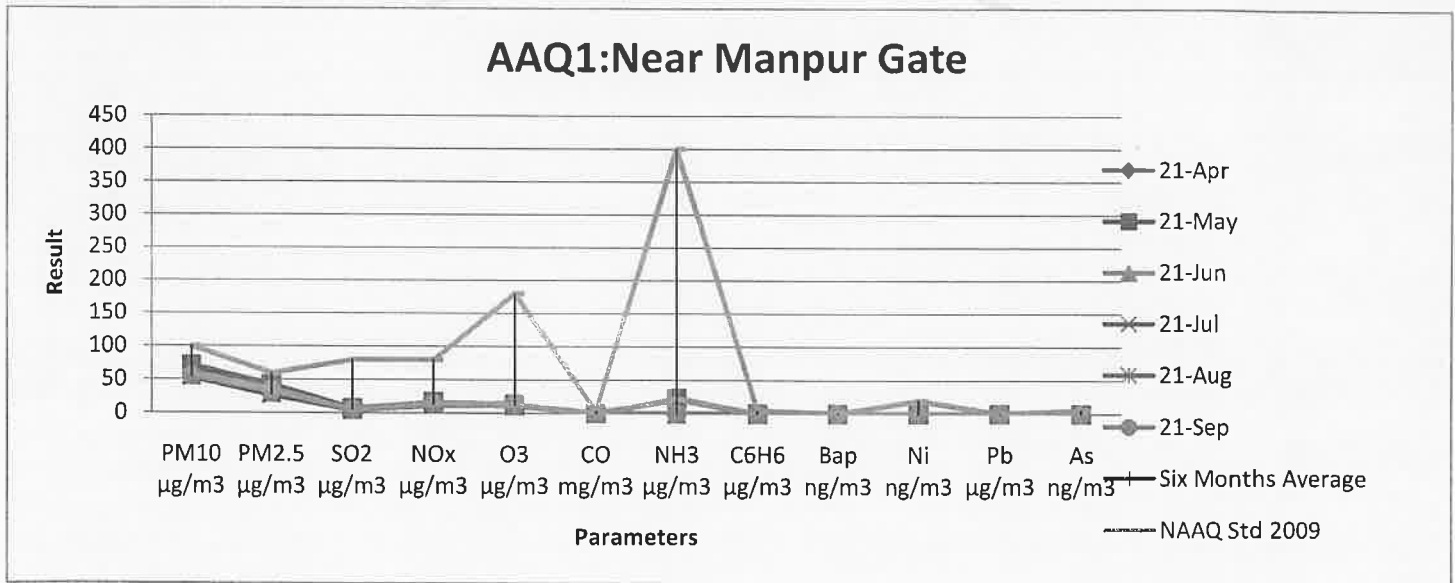
Ref : Envlab/22/R-2256

Date : 18.05.2022

## ANNEXURE - I

### (A) NEAR MANPUR GATE

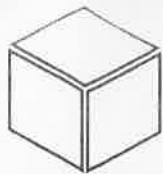
Month	PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>x</sub> µg/m <sup>3</sup>	O <sub>3</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	NH <sub>3</sub> µg/m <sup>3</sup>	C <sub>6</sub> H <sub>6</sub> µg/m <sup>3</sup>	Bap ng/m <sup>3</sup>	Ni ng/m <sup>3</sup>	Pb µg/m <sup>3</sup>	As ng/m <sup>3</sup>
OCTOBER-21	64.2	38.5	5.1	16	12.9	0.28	22.1	BDL	BDL	BDL	BDL	BDL
NOVEMBER-21	71.2	42.7	6.8	16.6	13.5	0.24	23.6	BDL	BDL	BDL	BDL	BDL
DECEMBER-21	56	29.9	5	14.1	11.6	0.3	BDL	BDL	BDL	BDL	BDL	BDL
JANUARY-22	53.9	27.4	5	12.4	11.6	0.29	BDL	BDL	BDL	BDL	BDL	BDL
FEBRUARY-22	62.3	37.4	5.3	13.5	11.9	0.25	BDL	BDL	BDL	BDL	BDL	BDL
MARCH-22	55.5	33.3	5.5	13.5	14.3	0.26	BDL	BDL	BDL	BDL	BDL	BDL
<b>Six Months Average</b>	60.5	34.9	5.5	14.4	12.6	0.27	22.9	BDL	BDL	BDL	BDL	BDL



*Manda*

*Puja Mohanty*





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### Laboratory Services

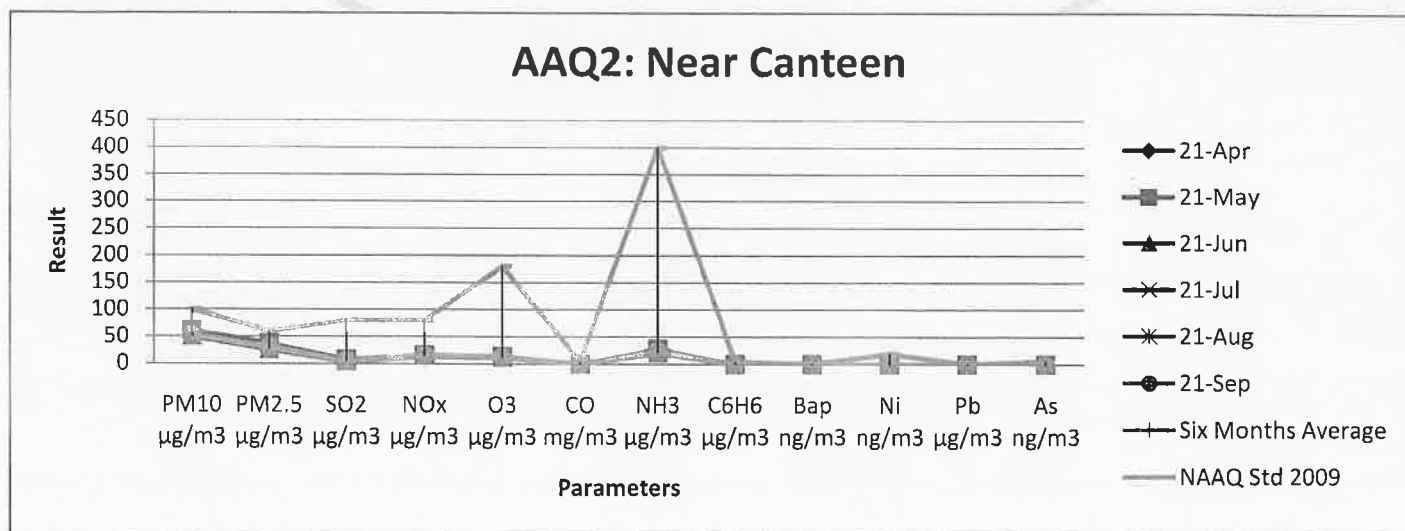
- Environment Lab
- Food Lab
- Material Lab
- Soil Lab
- Mineral Lab & Microbiology Lab

Ref : Envlab/22/R-2257

Date : 18.05.2022

## (B) NEAR CANTEEN

Month	PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>x</sub> µg/m <sup>3</sup>	O <sub>3</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	NH <sub>3</sub> µg/m <sup>3</sup>	C <sub>6</sub> H <sub>6</sub> µg/m <sup>3</sup>	Bap ng/m <sup>3</sup>	Ni ng/m <sup>3</sup>	Pb µg/m <sup>3</sup>	As ng/m <sup>3</sup>
OCTOBER-21	52	27.9	4.8	14.5	12.6	0.31	23.4	BDL	BDL	BDL	BDL	BDL
NOVEMBER-21	61.2	36.7	7.6	15.9	13.3	0.33	27.6	BDL	BDL	BDL	BDL	BDL
DECEMBER-21	50.4	26.6	4.9	15.9	12.7	0.27	21.7	BDL	BDL	BDL	BDL	BDL
JANUARY-22	49.9	26.5	4.7	15.8	12.7	0.28	21.4	BDL	BDL	BDL	BDL	BDL
FEBRUARY-22	52.6	31.5	5	16.7	13.9	0.31	22.24	BDL	BDL	BDL	BDL	BDL
MARCH-22	51.9	31.1	4.9	15.6	13.9	0.31	23.3	BDL	BDL	BDL	BDL	BDL
Six Months Average	53.0	30.1	5.3	15.7	13.2	0.30	23.3	BDL	BDL	BDL	BDL	BDL

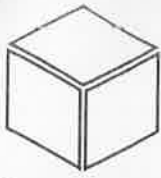


*M. Panda*

*Puja Mohanty*







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- &
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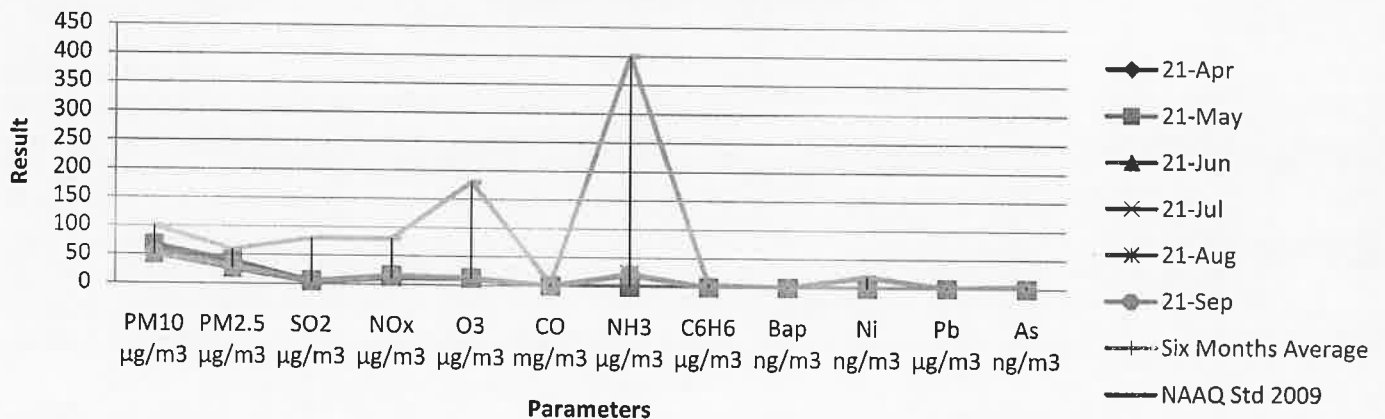
Ref : Envlab/22/R-2258

Date : 18.05.2022

## (C) NEAR RESERVER

Month	PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>x</sub> µg/m <sup>3</sup>	O <sub>3</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	NH <sub>3</sub> µg/m <sup>3</sup>	C <sub>6</sub> H <sub>6</sub> µg/m <sup>3</sup>	Bap ng/m <sup>3</sup>	Ni ng/m <sup>3</sup>	Pb µg/m <sup>3</sup>	As ng/m <sup>3</sup>
OCTOBER-21	58.2	30.8	5.2	14.1	12	0.31	BDL	BDL	BDL	BDL	BDL	BDL
NOVEMBER-21	67.9	40.7	5.9	16.2	13.3	0.4	BDL	BDL	BDL	BDL	BDL	BDL
DECEMBER-21	51.1	27.5	4.8	14.4	12.4	0.3	23.25	BDL	BDL	BDL	BDL	BDL
JANUARY-22	53.9	27.4	5	12.4	11.6	0.3	22.6	BDL	BDL	BDL	BDL	BDL
FEBRUARY-22	55.4	33.2	4.5	15.8	12.4	0.32	22.09	BDL	BDL	BDL	BDL	BDL
MARCH-22	52.8	31.7	5.5	15.6	12.3	0.28	22.3	BDL	BDL	BDL	BDL	BDL
<b>Six Months Average</b>	<b>56.6</b>	<b>31.9</b>	<b>5.2</b>	<b>14.8</b>	<b>12.3</b>	<b>0.32</b>	<b>22.6</b>	<b>56.6</b>	<b>31.9</b>	<b>5.2</b>	<b>14.8</b>	<b>12.3</b>

### AAQ3: Near Reserver



*M. Panda*

*Puja Mohanty*

