

Your (**Environment Clearance**) application has been **Submitted** with following details

Proposal No	IA/OR/IND/59484/2016
Compliance ID	19991322
Compliance Number(For Tracking)	EC/M/COMPLIANCE/19991322/2024
Reporting Year	2024
Reporting Period	01 Jun(01 Oct - 31 Mar)
Submission Date	30-05-2024
IRO Name	ARTATRANA MISHRA
IRO Email	jhk109@ifs.nic.in
State	ODISHA
IRO Office Address	Integrated Regional Offices, Bhubaneswar
Note:- SMS and E-Mail has been sent to ARTATRANA MISHRA, ODISHA with Notification to Project Proponent.	

DDSP/MOEFCC/001/2024-033
May 28, 2024.

To,
The Addl. Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office (EZ),
A/3, Chandrasekharapur,
Bhubaneswar – 751 023.

Sub: **Submission of Six-Monthly Compliance Report of the Environmental Clearance for M/s Dalmia Cement Bharat Limited (Dalmia DSP Unit), At/Po. - Rajgangpur, Dist.- Sundargarh, Odisha for the period October-2023 to March-2024.**

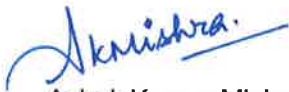
Ref: Environmental Clearance vide File No. J-11011/232/2016- 1A II (I) dated 16.02.2018.

Dear Sir,

With reference to above captioned subject matter, we are submitting herewith the six-monthly compliance report of the conditions laid down in above Environmental clearance for M/s Dalmia Cement Bharat Limited (Dalmia DSP Unit), At/Po. - Rajgangpur, Dist.- Sundargarh, Odisha for the period October-2023 to March-2024.

Thanking you,

Yours sincerely,
For **Dalmia Cement Bharat Limited**,



Ashok Kumar Mishra
Head - Environment

Encl: As above.

CC: 1. The Director, Impact Assessment Division, MoEF&CC, New Delhi.
2. The Member Secretary, CPCB, New Delhi.
3. The Member Secretary, OSPCB, Bhubaneswar, Odisha.

Half Yearly Compliance Report**2024****01 Jun(01 Oct - 31 Mar)****Acknowledgment**

Proposal Name	Proposed Cement Plant (Dalmia DSP Unit) - Clinker 3.0 MTPA, Cement 2.25 MTPA, WHRS (15 MW) and DG Set (1000 KVA) by Dalmia Cement Bharat Limited at Village & Tehsil - Rajgangpur, District - Sundargarh, Odisha.		
Name of Entity / Corporate Office	Dalmia Cement (Bharat) Limited		
Village(s)	N/A		
District	SUNDARGARH		
Proposal No.	IA/OR/IND/59484/2016	Category	Industrial Projects - 2
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	ODISHA	Entity's PAN	NA
MoEF File No.	J-11011/232/2016-IA.II (I)	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year	2024
Remarks (if any)	
Reporting Period	01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office	Dalmia Cement (Bharat) Limited	
	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Clinker	Tons per Annum (TPA)	31/03/2025	3000000	2589498	3000000
2	WHRB	MW	31/03/2025	15	75319	15

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Corporate Environmental Responsibility	1. An amount of Rs 46.00 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
PPs Submission: Being Complied The amount towards ESC is being utilized towards education, health, sanitation, infrastructure development, livelihood, and skill development of local community.		Date: 30/05/2024
2	GREENBELT	Green belt shall be developed in 12.95 Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. The plantation shall be completed within one year from the date of issue of EC. In addition to this 1500 additional plants shall be planted within the premises.
PPs Submission: Being Complied Green cover has been developed with native species plantation including Bamboo saplings for dust control. Around 14251 saplings have been planted in FY 2023-24. Gap filling is being done wherever required and steps are being taken to increase the survival rate beyond 90%.		Date: 30/05/2024
3	WASTE MANAGEMENT	4. Kitchen waste shall be composted or converted to biogas for further use.
PPs Submission: Complied Mechanical bio-digester is in place for converting kitchen waste into manure for further utilization in gardening and horticulture purposes.		Date: 30/05/2024
4	ENERGY PRESERVATION MEASURES	5. The project proponent shall adopt the slip power recovery system for energy conservation.
PPs Submission: Complied Slip power recovery system has been adopted for energy conservation.		Date: 30/05/2024
5	MISCELLANEOUS	Detailed study of the fauna in the study area shall be carried out within one year. If Schedule-I species are found, then conservation plan for Schedule-I species be prepared and implemented in consultation with state forest department. The PP shall provide necessary financial resources for implementation of the plan.
PPs Submission: Complied No Schedule I species have been found within the project area.		Date: 30/05/2024
6	WATER QUALITY MONITORING AND PRESERVATION	No ground water shall be used for plant & township
PPs Submission: Complied Ground water is not used for any purpose.		Date: 30/05/2024
7	MISCELLANEOUS	3. The Capital cost Rs. 95.00 Crores and annual recurring cost Rs.

		5.00 Crores towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
PPs Submission: Complied The capital cost of 95 Crores earmarked for environmental protection measures has been spent towards implementation of environment management plan. More than 5 Cr is being spent annually for environment management at plant site.		Date: 30/05/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	a) Adhere to “zero liquid discharge”;
PPs Submission: Being Complied Cement manufacturing being a dry process, no such effluent is generated There is a continuous recycling of cooling wastewater post treatment in a closed loop. No such discharge is envisaged.		Date: 30/05/2024
2	ENERGY PRESERVATION MEASURES	6 (b) make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker;
PPs Submission: Complied Efforts are being made to reduce the power consumption as per the stipulated norms. PSC – 43.6 KWh/ T PPC – 32.2 KWh/T Clinker – 44.4 KWh/T		Date: 30/05/2024
3	AIR QUALITY MONITORING AND PRESERVATION	c. Carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R.No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120 degree each; and
PPs Submission: Complied Continuous Ambient Air Quality Monitoring (CAAQM) System have been installed at four locations covering upwind and downwind directions. Online data is being continuously transmitted to Board server.		Date: 30/05/2024
4	AIR QUALITY MONITORING AND PRESERVATION	d. Submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
PPs Submission: Complied Six monthly compliance report along with monitoring results are submitted to MOEF&CC, CPCB and SPCB periodically. Monitoring Report attached.		Date: 30/05/2024
5	WATER QUALITY MONITORING AND PRESERVATION	b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
PPs Submission: Complied Six monthly compliance report along with monitoring results are submitted to statutory bodies periodically.		Date: 30/05/2024
6	AIR QUALITY	a) Provide appropriate Air Pollution Control (APC) system for all

	MONITORING AND PRESERVATION	the dust generating points including fugitive dust from all vulnerable sources;
PPs Submission: Complied Air Pollution Control (APC) system such as Bag filters have been installed at major dust generating points and are operating efficiently.		Date: 30/05/2024
7	AIR QUALITY MONITORING AND PRESERVATION	b) Design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/N m3.
PPs Submission: Complied Bag filters have been adequately sized to handle more than 100% gas flow from process and installed to control the PM emissions below 30 mg/Nm3.		Date: 30/05/2024
8	AIR QUALITY MONITORING AND PRESERVATION	c) Provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags:
PPs Submission: Complied All Primary Bag Houses/filters have been provided with leakage detection and mechanized cleaning facilities for better maintenance of bags		Date: 30/05/2024
9	AIR QUALITY MONITORING AND PRESERVATION	d) Provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;
PPs Submission: Complied CREP guidelines of CPCB w.r.t Cement Plant is being adhered to.		Date: 30/05/2024
10	AIR QUALITY MONITORING AND PRESERVATION	e) Provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
PPs Submission: Complied 3 nos. of small and 1 no. of truck mounted mechanized road sweepers have been deployed to clean plant roads, shop floors, roofs etc along with industrial vacuum cleaners at shop floor.		Date: 30/05/2024
11	AIR QUALITY MONITORING AND PRESERVATION	f) Recycle and reuse lime fines. coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration;
PPs Submission: Complied Lime and coal fines collected in the pollution control devices are recycled and reused back into the system.		Date: 30/05/2024
12	AIR QUALITY MONITORING AND PRESERVATION	g) Use leak proof trucks/dumpers for carrying coal and other raw materials and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;
PPs Submission: Complied Tarpaulin covered trucks are used for carrying coal and other raw materials. Closed bulkers are used for fly ash.		Date: 30/05/2024
13	AIR QUALITY MONITORING AND PRESERVATION	h) Provide wind shelter fence and chemical spraying on the raw material stock piles:

<p>PPs Submission: Complied Wind Shelter fence near raw material stockpiles have been provided to control the fugitive emissions.</p>		<p>Date: 30/05/2024</p>
14	AIR QUALITY MONITORING AND PRESERVATION	i) Provide Low NOx burners to control NOx emissions. Regular calibration of the instruments must be ensured. If needed. NOx will be controlled by using SCR/NSCR technologies:
<p>PPs Submission: Complied Low NOx burners have been installed to control NOx emissions within the prescribed standard.</p>		<p>Date: 30/05/2024</p>
15	AIR QUALITY MONITORING AND PRESERVATION	j) Have separate truck parking area and monitor vehicular emissions at regular interval.
<p>PPs Submission: Complied A separate designated truck parking area is in place and vehicular emissions are monitored on regular basis.</p>		<p>Date: 30/05/2024</p>
16	WATER QUALITY MONITORING AND PRESERVATION	b) Provide Sewage Treatment Plant for domestic wastewater
<p>PPs Submission: Complied Domestic wastewater is treated in Sewage Treatment Plant (STP).</p>		<p>Date: 30/05/2024</p>
17	WATER QUALITY MONITORING AND PRESERVATION	c) Provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
<p>PPs Submission: Complied Garland drains with collection pits have been provided at stockpile area to check water pollution due to surface run off.</p>		<p>Date: 30/05/2024</p>
18	WATER QUALITY MONITORING AND PRESERVATION	a) Practice rainwater harvesting to maximum possible extent;
<p>PPs Submission: Complied Rainwater harvesting system has been installed on office roof buildings. Surface run off is collected in earthen reservoir for further treatment and reuse.</p>		<p>Date: 30/05/2024</p>
19	WATER QUALITY MONITORING AND PRESERVATION	b) Provide water meters at the inlet to all unit processes in the cement plants:
<p>PPs Submission: Complied Water meters have been installed at all units.</p>		<p>Date: 30/05/2024</p>
20	WATER QUALITY MONITORING AND PRESERVATION	c) Make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
<p>PPs Submission: Complied Cement manufacturing being a dry process, water is recycled back into the system post treatment for cooling purpose and dust suppression.</p>		<p>Date: 30/05/2024</p>

21	ENERGY PRESERVATION MEASURES	6 (a) provide Waste heat recovery system for kiln and cooler;
PPs Submission: Complied 15 MW of Waste Heat Recovery System is in place for Kiln and cooler.		Date: 30/05/2024
22	AIR QUALITY MONITORING AND PRESERVATION	a. Install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 10th May, 2016 from time to time; S..O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;
PPs Submission: Complied Continuous Emission Monitoring System (CEMS) have been installed in all main stacks of our plant and are connected to the Board server.		Date: 30/05/2024
23	AIR QUALITY MONITORING AND PRESERVATION	b. Monitor fugitive emissions in the plant premises;
PPs Submission: Complied Fugitive emissions are being monitored within plant premises on a regular basis.		Date: 30/05/2024
24	Statutory compliance	25 (f) submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB:
PPs Submission: Complied Six monthly compliance reports including results of monitored data are submitted to the statutory bodies periodically.		Date: 30/05/2024
25	Statutory compliance	25 (g) submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules. 1986, as amended subsequently and put on the website of the company;
PPs Submission: Complied Environmental Statement in Form V has been submitted to OSPCCB on 23.09.2023. The same has been uploaded on company website as well.		Date: 30/05/2024
26	Statutory compliance	25 (h) inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.
PPs Submission: Complied Project was executed in October 2018. We have obtained consent to establish (CTE) & consent to operate (CTO) from State Pollution Control Board, Odisha for the commencement of operation since December 2019.		Date: 30/05/2024
27	MISCELLANEOUS	26. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
PPs Submission: Complied Noted and agreed.		Date: 30/05/2024

28	MISCELLANEOUS	27. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
PPs Submission: Complied Noted and will be complied.		Date: 30/05/2024
29	PUBLIC HEARING	28. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.
PPs Submission: Being Complied All commitments and recommendations made in the EIA/EMP report are being implemented.		Date: 30/05/2024
30	MISCELLANEOUS	29. The above conditions shall be enforced. inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act. 1974, the Air (Prevention & Control of Pollution) Act,1981. the Environment (Protection) Act. 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
PPs Submission: Complied Noted and agreed.		Date: 30/05/2024
31	MISCELLANEOUS	30. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act. 2010.
PPs Submission: Complied Noted and agreed.		Date: 30/05/2024
32	WATER QUALITY MONITORING AND PRESERVATION	2 (a) Install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August. 2014 and subsequent amendment dated 9th May, 2016 and 10th May 2016 as amended from time to time; S.O.3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time as amended from time to time;
PPs Submission: Complied Cement manufacturing being a dry process, no such effluent is generated There is a continuous recycling of cooling wastewater post treatment in a closed loop. No such discharge is envisaged.		Date: 30/05/2024
33	Human Health Environment	7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.
PPs Submission: Complied Limestone from the mines to the cement plant is transported through closed cross country belt conveyor system (CCBC).		Date: 30/05/2024
34	WASTE MANAGEMENT	8. Used refractories shall be recycled as far as possible.

<p>PPs Submission: Complied Used refractories are recycled to the maximum extent possible.</p>		<p>Date: 30/05/2024</p>
35	GREENBELT	9. The PP shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration including plantation.
<p>PPs Submission: Being Complied GHG emissions inventory for the plant has been prepared. a. Maximum co-processing of RDF as alternate fuel. b. Increase in solar power plant capacity. c. EV truck deployment for transportation of raw materials. d. Maximize transportation of cement and clinker through railway rakes. e. Increase in plantation and green cover.</p>		<p>Date: 30/05/2024</p>
36	Risk Mitigation and Disaster Management	10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
<p>PPs Submission: Complied Emergency Preparedness Plan based on HIRA and DMP is in place and mock drills are conducted periodically to ensure effectiveness of its implementation at site.</p>		<p>Date: 30/05/2024</p>
37	Human Health Environment	11. The PP shall Carry-out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
<p>PPs Submission: Complied PPEs have been made mandatory and heat stress analysis is being carried out for workmen working in high temperature zone.</p>		<p>Date: 30/05/2024</p>
38	Statutory compliance	12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
<p>PPs Submission: Complied Corporate Environment Policy is in place and is being adhered to. Any gaps in compliance of EC conditions are reviewed at Board of Directors level.</p>		<p>Date: 30/05/2024</p>
39	Corporate Environmental Responsibility	13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.
<p>PPs Submission: Complied All recommendations made in the CREP Charter w.r.t cement plants are being adhered to.</p>		<p>Date: 30/05/2024</p>
40	Statutory compliance	14. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
<p>PPs Submission: Complied An Environmental Cell with qualified personnel is in place with Head of Department directly reporting to the Unit Head.</p>		<p>Date: 30/05/2024</p>
41	Human Health Environment	15. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking. mobile toilets, mobile STP, Safe drinking water. medical health care. creche etc. The housing may be in the form of

		temporary structures to be removed after the completion of the project.	
PPs Submission: Complied Necessary basic infrastructure was provided to workers and labour during the construction phase.			Date: 30/05/2024
42	Statutory compliance	16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	
PPs Submission: Complied Noted and stipulations by SPCB and State Govt. are being adhered to from time to time.			Date: 30/05/2024
43	Statutory compliance	17. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	
PPs Submission: Complied Noted. No expansion/modification will be carried out without prior approval of Ministry.			Date: 30/05/2024
44	WASTE MANAGEMENT	18. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.	
PPs Submission: Complied Waste Oil, Grease and other Hazardous wastes are being handled and disposed off as per HOWM Rules 2016 and amendments thereof.			Date: 30/05/2024
45	Risk Mitigation and Disaster Management	19. The storage of NH ₃ and other hazardous chemicals at the site shall be as per the provisions of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended from time to time.	
PPs Submission: Complied Noted. NH ₃ and other Hazardous Chemicals are being stored properly in designated and earmarked areas.			Date: 30/05/2024
46	Noise Monitoring & Prevention	20. The ambient noise levels should conform to the standards prescribed under EPA Rules. 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.	
PPs Submission: Complied The ambient noise levels monitored conforms to the prescribed standard.			Date: 30/05/2024
47	Human Health Environment	21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	
PPs Submission: Complied The health surveillance of the workers is done periodically, and records are maintained for the same as per Factories Act.			Date: 30/05/2024
48	MISCELLANEOUS	22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.	
PPs Submission: Complied All environment protection measures and safeguards as mentioned in EIA/EMP report are being adhered to.			Date: 30/05/2024

49	Human Health Environment	23. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.
PPs Submission: Complied Ventilation system has been designed for adequate air changes in all tunnels, motor houses, cement bagging plants.		Date: 30/05/2024
50	WASTE MANAGEMENT	24. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each hop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated colored bins for value addition by promoting reuse of such wastes and for good housekeeping.
PPs Submission: Complied Wastes other than process wastes collected from shop floors are segregated and stored in color coded bins as a good housekeeping practice.		Date: 30/05/2024
51	Statutory compliance	25 (a) send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government:
PPs Submission: Complied Copies of the Environmental Clearance were submitted to heads of local bodies and relevant Govt. Offices.		Date: 30/05/2024
52	Statutory compliance	25 (b) put on the clearance letter on the web site of the company for access to the Public.
PPs Submission: Complied Environmental Clearance Letter has been uploaded and made available on company website.		Date: 30/05/2024
53	Statutory compliance	25 (c) inform the public through advertisement within seven days from the date of issue of the clearance letter. at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http://envfor.nic.in .
PPs Submission: Complied The grant of Environmental Clearance to the project was advertised in two local newspapers i.e. Odisha Today and Manthan dated 22.02.2018.		Date: 30/05/2024
54	Statutory compliance	25 (d) upload the status of compliance of the stipulated environment clearance conditions. including results of monitored data on their website and update the same periodically
PPs Submission: Complied Status on compliance of EC conditions along with results of monitored data is uploaded on our company website periodically.		Date: 30/05/2024
55	Statutory compliance	25 (e) monitor the criteria pollutants Level namely PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;

<p>PPs Submission: Complied Stack emissions as well as ambient air quality for sectoral parameters are monitored and results displayed in public through an online display board as well as uploaded on company website.</p>		<p>Date: 30/05/2024</p>
56	ENERGY PRESERVATION MEASURES	6 (c) provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights. parking around project area and maintain the same regularly;
<p>PPs Submission: Complied 1.73 MW of Solar power system has been installed in this plant.</p>		<p>Date: 30/05/2024</p>
57	ENERGY PRESERVATION MEASURES	6 (d) provide the project proponent for LED lights in their offices and residential areas:
<p>PPs Submission: Complied LED lights are used in offices as well as for streetlights within the residential areas.</p>		<p>Date: 30/05/2024</p>
58	ENERGY PRESERVATION MEASURES	6 (e) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards;
<p>PPs Submission: Complied Maximum utilization of fly ash as well as slag is done in the cement blend.</p>		<p>Date: 30/05/2024</p>
59	ENERGY PRESERVATION MEASURES	6 (f) maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
<p>PPs Submission: Complied Co-processing of Plastic & Hazardous wastes with maximum utilization of alternate fuels is done in the cement plant.</p>		<p>Date: 30/05/2024</p>
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		The detailed environment monitoring report for the period of October 2023 to March 2024 is attached.

ENVIRONMENTAL MONITORING REPORT

BASED ON DATA GENERATED

FROM

OCTOBER 2023 – MARCH 2024

FOR

DALMIA CEMENT BHARAT LIMITED

At/Po: RAJGANGPUR – 770017, District: SUNDARGARH, ODISHA



Prepared By:

Cleenviron Private Limited

D-124, KOELNAGAR, ROURKELA, ODISHA

Tele fax: 0661 – 2475746

Email: cleenviron@gmail.com

1. DATA ANALYSIS

1.1 Micro-meteorological Study:

1.1.1 Wind Speed & Wind Direction

During the entire period from 1st October to 31st March all total 4395 no. of data are recorded by the instrument and after interpretation of the collected data it was found that Calm condition prevailed over 6.81%, while considering the 24 hourly data. 6.32% calm condition prevailed from morning 6 hrs to 14hrs for the entire study period, 4.41% calm condition prevailed from 14hrs to 22hrs and 9.06% calm condition prevailed from 22hrs to 06hrs. The predominant wind directions were from SE with average wind speed 2.37 m/sec. The wind rose diagram for the entire study period are depicted on the **Figure No: 1.1, 1.2, 1.3 & 1.4.**

1.1.2 Temperature

The maximum & minimum temperature during the entire study period were divided in to three parts as the study period was covering post-monsoon, winter seasons and early summer season also. The Minimum temperature during the post-monsoon season was found to be 14.45°C and the Maximum temperature was found to be 36.24°C up to the end of 30th November.

The minimum and maximum temperature during the winter season i.e. from December to February was found to be 9.84°C and 33.56°C. During the month of March the minimum and maximum temperature was found to be 10.98°C and 37.45°C. **Table No 1.1** shows a summary of micro-meteorological data collected for the entire period.

1.1.3 Rainfall

The total rain fall from 1st October to 31st March was observed to be 248.8 mm. during the study period. A month wise rainfall data recorded at the site is depicted in **Table No 1.1.**

Table No: 1.1

A SUMMARY OF THE MICRO-METEOROLOGICAL DATA

Project Site : Lanjiberna Limestone & Dolomite Mines
Location : Magazine Hill Top

SI No	Parameters	From October – March 2024
1	Predominant Wind Direction	From South - East
2	Calm Condition %	6.81%
3	Average Wind Speed m/sec	2.37
4	Temperature °C	
	Post-monsoon Season	
	Minimum	14.45
	Maximum	36.24
	Winter Season	
	Minimum	9.84
	Maximum	33.56
	Early Summer Season	
	Minimum	10.98
	Maximum	37.45
5	Rain Fall in mm	
	October	82.2
	November	35.0
	December	47.6

SI No	Parameters	From October – March 2024
	January	14.8
	February	18.6
	March	50.6
	Total	248.8

Figure No: 1.2 Wind Rose Diagram for 24 Hours

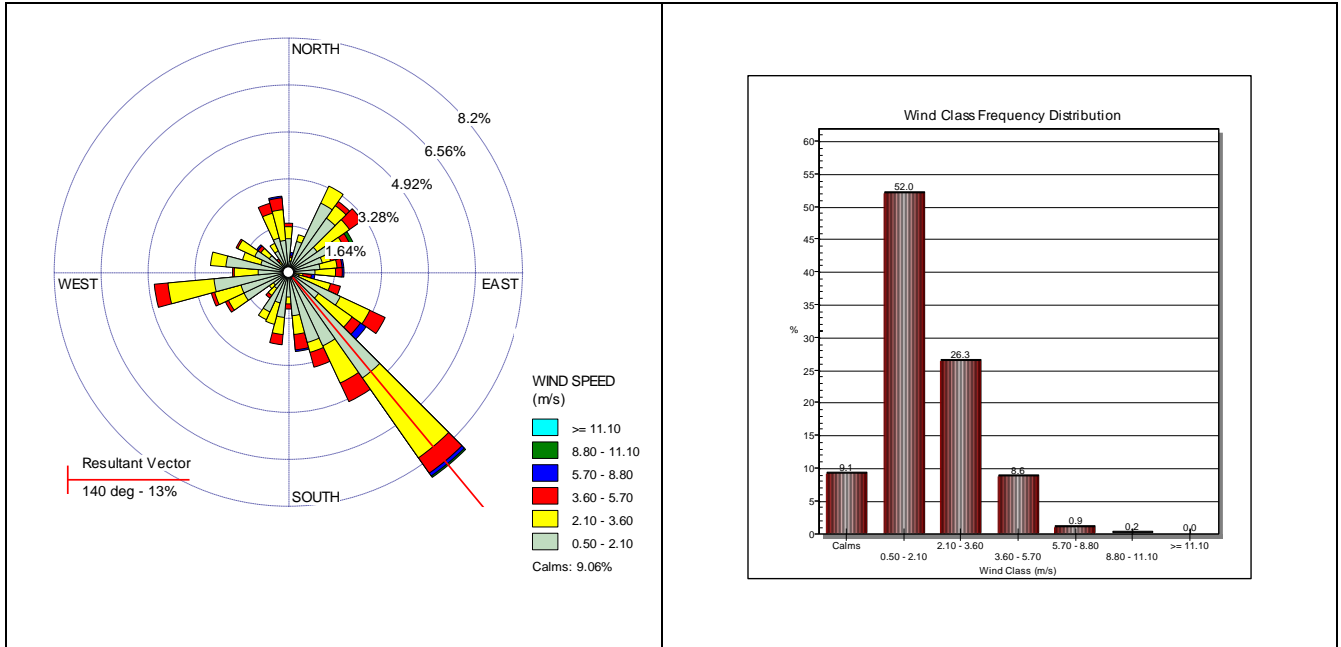


Figure No: 1.2 Wind Rose Diagram from 06 – 14 Hours

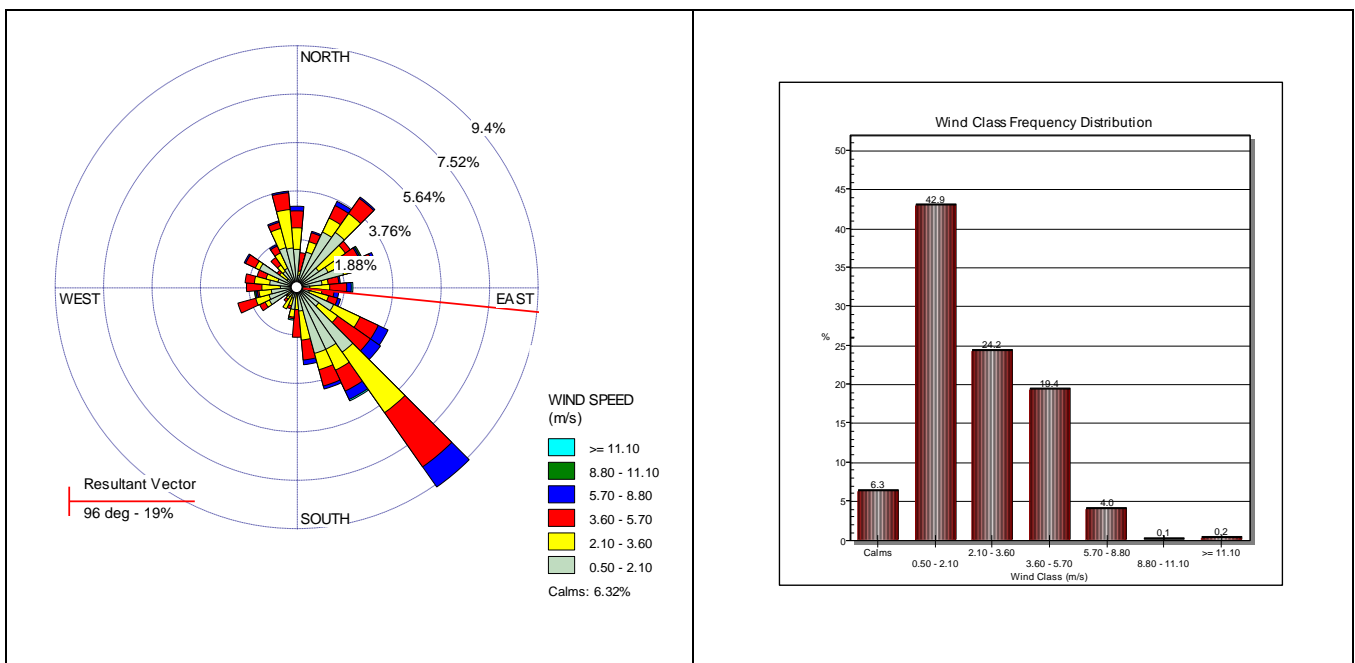


Figure No: 1.3 Wind Rose Diagram from 14 – 22 Hours

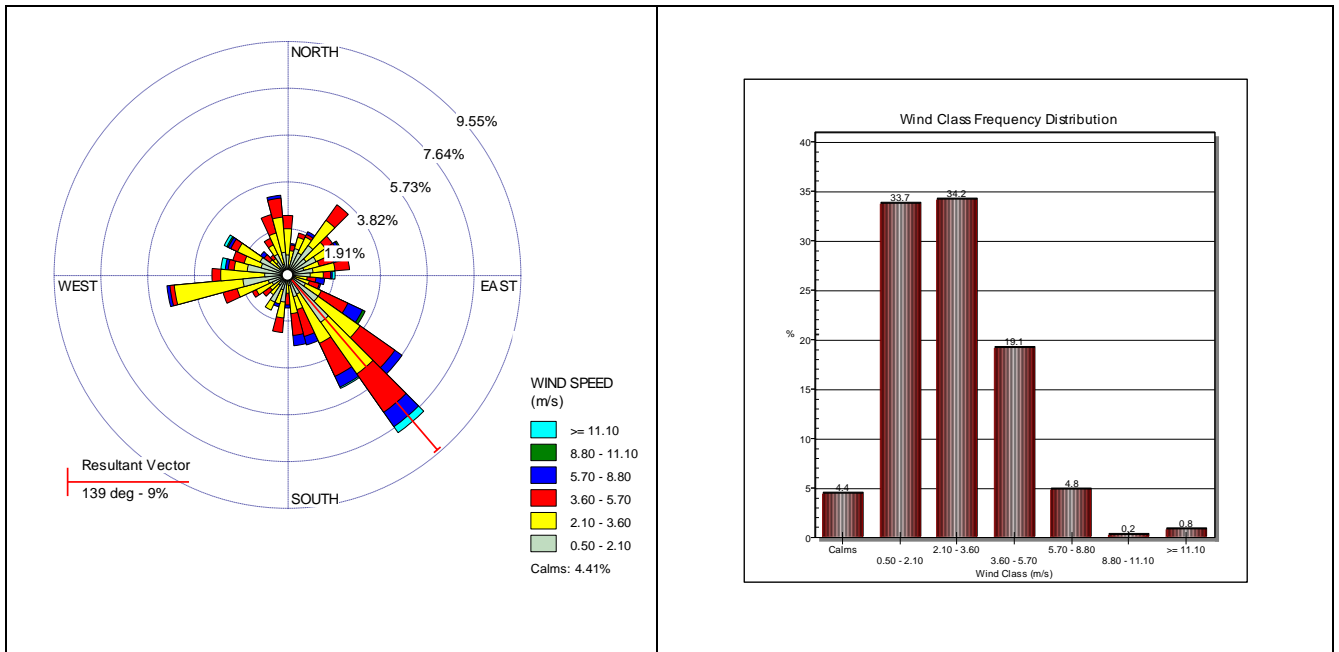


Figure No: 1.4 Wind Rose Diagram from 22 – 06 Hours

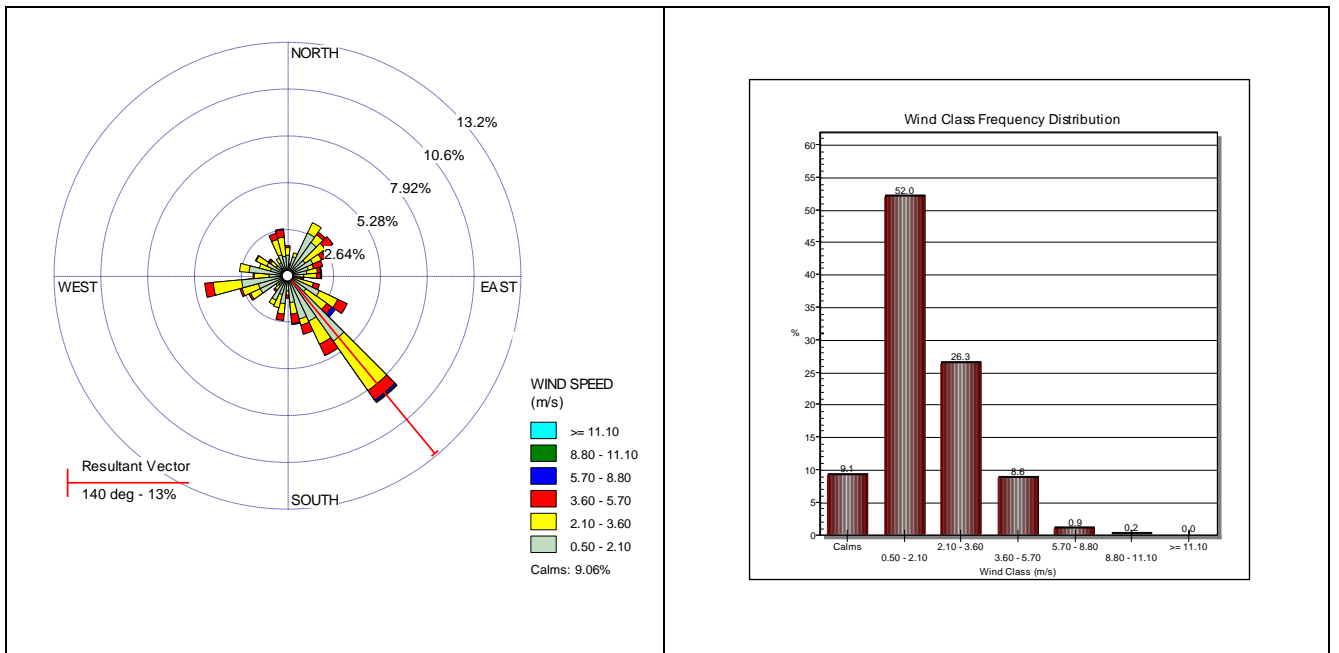


Table No: 1

AMBIENT AIR QUALITY DATA
 From 01.10.2023 to 31.03.2024
Station: A-1 (Konark Vihar Area)

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
October	10	23	04	15	< 0.1
	11	33	08	21	< 0.1
	27	69	09	21	< 0.1
	21	62	12	31	< 0.1
	22	73	07	30	< 0.1
	23	68	07	30	< 0.1
	29	70	06	21	< 0.1
	26	74	06	17	< 0.1
	19	55	06	22	< 0.1
November	21	62	06	20	< 0.1
	23	66	06	18	< 0.1
	23	63	< 3	12	< 0.1
	22	69	06	18	< 0.1
	24	68	04	14	< 0.1
	20	60	03	17	< 0.1
	25	70	05	17	< 0.1
	26	73	08	16	< 0.1
December	17	49	07	27	< 0.1
	16	40	04	22	< 0.1
	20	62	07	23	< 0.1
	24	75	06	20	< 0.1
	26	72	04	15	< 0.1
	24	71	04	24	< 0.1
	20	67	06	23	< 0.1
	22	70	05	25	< 0.1
January	19	55	08	25	< 0.1
	28	76	04	16	< 0.1
	24	69	06	29	< 0.1
	26	72	05	20	< 0.1
	22	63	03	31	< 0.1
	24	70	07	14	< 0.1
	23	65	04	12	< 0.1
	21	62	08	25	< 0.1
February	20	58	05	22	< 0.1
	23	66	06	19	< 0.1
	26	69	04	13	< 0.1
	24	73	07	28	< 0.1
	23	67	06	30	< 0.1
	22	64	08	22	< 0.1
	20	62	05	24	< 0.1
	25	72	03	25	< 0.1
27	71	09	29	< 0.1	
21	60	06	26	< 0.1	

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
March	34	84	05	17	< 0.1
	24	70	05	32	< 0.1
	26	73	06	25	< 0.1
	27	75	06	20	< 0.1
	24	70	06	21	< 0.1
	23	67	03	12	< 0.1
	13	38	09	29	< 0.1
	25	72	04	22	< 0.1
	28	76	07	28	< 0.1

Table No: 2

AMBIENT AIR QUALITY DATA
From 01.10.2023 to 31.03.2024
Station: A-2 (General Store Area, Line – 1)

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
October	12	30	09	22	< 0.1
	24	69	07	20	< 0.1
	22	67	11	39	< 0.1
	28	76	04	22	< 0.1
	28	79	06	21	< 0.1
	27	77	04	18	< 0.1
	25	76	07	35	< 0.1
	22	67	09	30	< 0.1
	28	77	06	26	< 0.1
November	24	70	04	16	< 0.1
	23	68	08	20	< 0.1
	24	70	04	22	< 0.1
	26	75	08	21	< 0.1
	26	70	04	16	< 0.1
	27	73	06	23	< 0.1
	25	72	05	24	< 0.1
	22	60	03	18	< 0.1
December	19	60	07	29	< 0.1
	25	72	05	20	< 0.1
	23	67	08	28	< 0.1
	24	70	03	11	< 0.1
	23	70	07	24	< 0.1
	21	67	07	22	< 0.1
	26	71	06	23	< 0.1
	20	62	07	25	< 0.1
	22	63	04	25	< 0.1
January	22	62	03	20	< 0.1
	26	70	06	16	< 0.1
	25	72	04	28	< 0.1
	23	67	06	32	< 0.1
	24	73	05	18	< 0.1

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	26	75	08	13	< 0.1
	26	74	09	29	< 0.1
	24	69	05	21	< 0.1
	25	71	07	23	< 0.1
February	26	70	05	17	< 0.1
	21	68	04	24	< 0.1
	19	58	07	21	< 0.1
	25	73	08	29	< 0.1
	23	71	06	35	< 0.1
	27	75	09	28	< 0.1
	22	62	09	30	< 0.1
March	24	73	03	23	< 0.1
	26	71	03	20	< 0.1
	24	70	08	26	< 0.1
	20	62	04	22	< 0.1
	19	56	04	15	< 0.1
	22	68	03	10	< 0.1
	13	37	06	27	< 0.1
	19	63	07	24	< 0.1
21	65	05	29	< 0.1	
25	74	09	33	< 0.1	

Table No: 3

AMBIENT AIR QUALITY DATA
From 01.10.2023 to 31.03.2024
Station: A-3 (Material Gate, DSP Unit)

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
October	13	38	03	28	< 0.1
	23	64	03	19	< 0.1
	22	71	10	30	< 0.1
	32	81	08	29	< 0.1
	24	68	05	18	< 0.1
	23	70	06	29	< 0.1
	25	79	05	23	< 0.1
	29	82	05	16	< 0.1
	17	52	04	16	< 0.1
November	23	66	05	16	< 0.1
	25	71	08	25	< 0.1
	28	82	05	07	< 0.1
	20	63	05	30	< 0.1
	26	75	07	22	< 0.1
	21	65	05	28	< 0.1
	24	68	06	23	< 0.1
24	69	09	24	< 0.1	
December	17	54	08	27	< 0.1
	27	76	08	22	< 0.1

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	23	66	06	20	< 0.1
	27	79	08	22	< 0.1
	23	61	07	26	< 0.1
	24	71	05	24	< 0.1
	28	77	09	23	< 0.1
	25	73	10	25	< 0.1
	26	70	04	15	< 0.1
January	25	72	06	21	< 0.1
	29	82	04	16	< 0.1
	27	77	03	21	< 0.1
	28	80	07	24	< 0.1
	27	78	08	21	< 0.1
	27	79	06	23	< 0.1
	28	80	10	32	< 0.1
February	26	75	07	19	< 0.1
	28	81	05	20	< 0.1
	29	80	10	31	< 0.1
	28	84	09	34	< 0.1
	27	72	08	20	< 0.1
	24	70	11	26	< 0.1
	26	74	06	22	< 0.1
March	25	71	05	25	< 0.1
	25	72	06	20	< 0.1
	23	68	04	23	< 0.1
	28	79	03	19	< 0.1
	27	77	04	22	< 0.1
	23	67	06	20	< 0.1
	25	71	03	22	< 0.1
25	72	05	18	< 0.1	
	29	80	07	25	< 0.1
	25	73	06	20	< 0.1
	26	78	08	24	< 0.1
	24	75	09	20	< 0.1

Table No: 4

AMBIENT AIR QUALITY DATA
From 01.10.2023 to 31.03.2024
Station: A-4 (Near Refractory Main Gate)

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
October	16	43	05	20	< 0.1
	22	68	04	16	< 0.1
	28	80	06	24	< 0.1
	28	79	06	19	< 0.1
	26	78	04	29	< 0.1
	25	72	07	22	< 0.1
	25	69	03	11	< 0.1

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	24	71	04	16	< 0.1
	26	78	07	32	< 0.1
November	24	67	06	22	< 0.1
	24	72	07	21	< 0.1
	25	73	06	20	< 0.1
	24	68	04	22	< 0.1
	23	63	08	29	< 0.1
	24	78	04	14	< 0.1
	26	75	09	24	< 0.1
	25	70	03	24	< 0.1
December	16	51	05	18	< 0.1
	28	73	04	26	< 0.1
	25	70	08	28	< 0.1
	23	70	05	31	< 0.1
	16	50	04	16	< 0.1
	22	69	03	21	< 0.1
	25	70	05	23	< 0.1
	20	62	06	22	< 0.1
	21	64	07	24	< 0.1
January	23	67	07	20	< 0.1
	27	75	08	26	< 0.1
	26	74	04	35	< 0.1
	22	60	03	28	< 0.1
	24	70	07	17	< 0.1
	23	66	05	17	< 0.1
	24	68	06	21	< 0.1
	25	71	07	23	< 0.1
	24	72	05	27	< 0.1
February	26	75	07	24	< 0.1
	23	68	06	27	< 0.1
	25	69	03	11	< 0.1
	22	65	04	20	< 0.1
	24	71	05	22	< 0.1
	27	76	08	25	< 0.1
	21	68	06	23	< 0.1
	28	74	04	21	< 0.1
March	28	78	06	18	< 0.1
	29	82	05	30	< 0.1
	26	74	08	36	< 0.1
	27	77	04	18	< 0.1
	21	64	04	14	< 0.1
	26	70	08	11	< 0.1
	23	65	07	25	< 0.1
	25	72	03	28	< 0.1
	22	68	06	22	< 0.1

Table No: 5

AMBIENT AIR QUALITY DATA
 From 01.10.2023 to 29.02.2024
Station: A-5 (Pay Loader Garage Area, Line – 1)

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
October	13	40	08	33	< 0.1
	25	75	05	19	< 0.1
	29	78	06	32	< 0.1
	16	49	06	24	< 0.1
	16	55	03	16	< 0.1
	27	73	05	14	< 0.1
	29	78	07	12	< 0.1
	18	62	03	10	< 0.1
	22	68	05	27	< 0.1
November	22	64	07	14	< 0.1
	22	65	03	25	< 0.1
	26	74	03	29	< 0.1
	21	67	05	22	< 0.1
	24	71	09	30	< 0.1
	28	76	04	23	< 0.1
	23	68	06	26	< 0.1
	25	72	06	15	< 0.1
December	23	67	06	15	< 0.1
	22	68	05	18	< 0.1
	29	79	09	27	< 0.1
	22	63	11	33	< 0.1
	22	68	08	28	< 0.1
	25	73	06	22	< 0.1
	26	75	07	24	< 0.1
	24	72	10	20	< 0.1
	24	72	04	23	< 0.1
January	24	68	02	15	< 0.1
	28	79	05	20	< 0.1
	27	77	06	25	< 0.1
	25	71	07	21	< 0.1
	25	70	04	18	< 0.1
	26	76	03	12	< 0.1
	27	80	09	28	< 0.1
	24	69	05	17	< 0.1
	26	75	07	25	< 0.1
February	26	77	07	26	< 0.1
	25	72	06	31	< 0.1
	22	68	05	27	< 0.1
	20	62	08	24	< 0.1
	27	71	08	26	< 0.1
	23	70	04	28	< 0.1
	24	70	07	31	< 0.1
	25	74	03	16	< 0.1

Table No: 6

AMBIENT AIR QUALITY DATA
 From 01.03.2023 to 31.03.2024
Station: A-5 (B. G Loco Gate, Line – 1)

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
March	25	73	03	13	< 0.1
	28	79	06	29	< 0.1
	26	76	03	24	< 0.1
	26	71	07	21	< 0.1
	23	75	08	23	< 0.1
	24	77	09	31	< 0.1
	28	78	07	23	< 0.1
	27	74	05	25	< 0.1
	27	74	05	26	< 0.1

Table No: 7

AMBIENT AIR QUALITY DATA
 From 01.10.2023 to 31.03.2024
Station: A-6 (Workshop Area, Line – 2)

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
October	13	37	06	28	< 0.1
	16	46	06	23	< 0.1
	23	65	08	26	< 0.1
	24	75	08	25	< 0.1
	11	32	04	23	< 0.1
	28	87	08	16	< 0.1
	27	86	04	18	< 0.1
	27	77	05	22	< 0.1
	22	66	03	09	< 0.1
November	22	65	07	24	< 0.1
	25	70	08	27	< 0.1
	24	72	04	32	< 0.1
	21	62	03	27	< 0.1
	23	71	08	26	< 0.1
	15	48	10	25	< 0.1
	26	73	05	28	< 0.1
	20	60	06	22	< 0.1
December	26	78	07	26	< 0.1
	20	62	06	26	< 0.1
	22	68	04	20	< 0.1
	24	78	08	27	< 0.1
	22	67	05	19	< 0.1
	26	74	04	22	< 0.1
	22	68	05	22	< 0.1
	23	70	09	23	< 0.1
	25	72	03	20	< 0.1

Months	PM2.5 µg/m ³	PM10 µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
January	17	48	06	23	< 0.1
	22	62	05	19	< 0.1
	27	74	05	19	< 0.1
	25	71	04	21	< 0.1
	18	51	06	18	< 0.1
	22	65	08	18	< 0.1
	20	58	03	15	< 0.1
	22	63	07	22	< 0.1
	25	72	04	20	< 0.1
February	21	65	07	25	< 0.1
	22	68	04	22	< 0.1
	24	74	08	25	< 0.1
	18	56	07	20	< 0.1
	19	59	06	23	< 0.1
	20	61	05	21	< 0.1
	23	68	11	35	< 0.1
	25	72	09	29	< 0.1
March	23	60	04	15	< 0.1
	24	69	03	13	< 0.1
	23	66	05	29	< 0.1
	21	60	06	23	< 0.1
	20	63	05	19	< 0.1
	18	54	06	19	< 0.1
	27	78	03	10	< 0.1
	22	68	04	12	< 0.1
	25	74	07	20	< 0.1

Table No 8:

STACK EMISSION MONITORING RESULTS

Months	Location of sampling	PM mg/Nm ³	SO ₂ mg/Nm ³	NO ₂ mg/Nm ³	Hg mg/Nm ³
October	Coal Mill – 1 Bag Filter	23	-	-	-
	Cooler ESP – 1	19	-	-	-
	CVRM – 1 Bag Filter	09	-	-	-
	CVRM – 2 Bag Filter	07	-	-	-
	CVRM – 3 Bag Filter	08	-	-	-
	Coal Mill – 2 Bag Filter	16	-	-	-
	Cooler ESP – 2	05	-	-	-
	Kiln & VRM ESP – 1	14	43.59	213.49	-
	Kiln & VRM – 2 RABH	13	38.80	211.3	-
	Boiler 1 & 2 ESP Stack	23	339.41	231.88	< 0.02
	Clinker Cooler Attached To ESP(DSP Unit)	12	-	-	-
	Coal Mill Attached To Bag Filter(DSP Unit)	06	-	-	-
	Kiln & Raw Mill RABH (DSP Unit)	05	53.86	204.15	-
November	Coal Mill – 1 Bag Filter	14	-	-	-
	Cooler ESP – 1	09	-	-	-
	CVRM – 1 Bag Filter	06	-	-	-
	CVRM – 2 Bag Filter	05	-	-	-

Months	Location of sampling	PM mg/Nm ³	SO ₂ mg/Nm ³	NO ₂ mg/Nm ³	Hg mg/Nm ³
	CVRM – 3 Bag Filter	22	-	-	-
	Coal Mill – 2 Bag Filter	24	-	-	-
	Cooler ESP – 2	06	-	-	-
	Kiln & VRM ESP – 1	13	18.22	248.04	-
	Kiln & VRM – 2 RABH	05	25.95	214.29	-
	Boiler 1 & 2 ESP Stack	13	410.94	212.56	< 0.02
	Clinker Cooler Attached To ESP(DSP Unit)	28	-	-	-
	Coal Mill Attached To Bag Filter(DSP Unit)	07	-	-	-
	Kiln & Raw Mill RABH (DSP Unit)	10	74.35	204.04	-
December	CVRM – 1 Bag Filter	08	-	-	-
	CVRM – 2 Bag Filter	06	-	-	-
	CVRM – 3 Bag Filter	07	-	-	-
	Coal Mill – 2 Bag Filter	11	-	-	-
	Cooler ESP – 2	14	-	-	-
	Kiln & VRM – 2 RABH	12	42.06	134.64	-
	Boiler 1 & 2 ESP Stack	24	326.56	241.57	< 0.02
	Clinker Cooler Attached To ESP(DSP Unit)	26	-	-	-
	Coal Mill Attached To Bag Filter(DSP Unit)	09	-	-	-
Kiln & Raw Mill RABH (DSP Unit)	11	67.66	230.99	-	
January	Coal Mill – 1 Bag Filter	23	-	-	-
	Cooler ESP – 1	19	-	-	-
	CVRM – 1 Bag Filter	09	-	-	-
	CVRM – 2 Bag Filter	07	-	-	-
	CVRM – 3 Bag Filter	08	-	-	-
	Coal Mill – 2 Bag Filter	16	-	-	-
	Cooler ESP – 2	05	-	-	-
	Kiln & VRM ESP – 1	14	43.59	213.49	-
	Kiln & VRM – 2 RABH	13	38.80	211.3	-
	Boiler 1 & 2 ESP Stack	23	339.41	231.88	< 0.02
	Clinker Cooler Attached To ESP(DSP Unit)	12	-	-	-
	Coal Mill Attached To Bag Filter(DSP Unit)	06	-	-	-
Kiln & Raw Mill RABH (DSP Unit)	05	53.86	204.15	-	
February	Coal Mill – 1 Bag Filter	13	-	-	-
	Cooler ESP – 1	16	-	-	-
	CVRM – 1 Bag Filter	08	-	-	-
	CVRM – 2 Bag Filter	06	-	-	-
	CVRM – 3 Bag Filter	09	-	-	-
	Coal Mill – 2 Bag Filter	19	-	-	-
	Cooler ESP – 2	17	-	-	-
	Kiln & VRM ESP – 1	10	24.79	-	-
	Kiln & VRM – 2 RABH	13	27.44	-	-
	Boiler 1 & 2 ESP Stack	36	385.58	214.25	<0.02
	Clinker Cooler Attached To ESP(DSP Unit)	11	-	-	-
	Coal Mill Attached To Bag Filter(DSP Unit)	09	-	-	-
Kiln & Raw Mill RABH (DSP Unit)	08	61.66	204.81	-	
March	Coal Mill – 1 Bag Filter	15	-	-	-
	Cooler ESP – 1	23	-	-	-
	CVRM – 1 Bag Filter	07	-	-	-
	CVRM – 2 Bag Filter	17	-	-	-

Months	Location of sampling	PM mg/Nm ³	SO ₂ mg/Nm ³	NO ₂ mg/Nm ³	Hg mg/Nm ³
	CVRM – 3 Bag Filter	13	-	-	-
	Coal Mill – 2 Bag Filter	14	-	-	-
	Cooler ESP – 2	18	-	-	-
	Kiln & VRM ESP – 1	05	22.22	218.66	-
	Kiln & VRM – 2 RABH	08	14.52	188.55	-
	Boiler 1 & 2 ESP Stack	37	308.71	248.77	< 0.02
	Clinker Cooler Attached To ESP(DSP Unit)	13	-	-	-
	Coal Mill Attached To Bag Filter(DSP Unit)	06	-	-	-
	Kiln & Raw Mill RABH (DSP Unit)	07	24.04	158.34	-

Table No 9:
GROUND WATER QUALITY RESULT FOR THE MONTH OF OCTOBER 2023

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL DailyMarket	Tube Well Village Rani Bandha		
1	Turbidity	3.9	4.6	5.0	0.70	2.1	NTU	5.0
2	pH Value	6.76	6.66	6.69	6.84	6.35	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	452	184	320	376	308	mg/l	600
4	Iron (as Fe)	0.22	0.12	0.26	0.26	0.10	mg/l	0.3
5	Chlorides (as Cl)	78.84	16.75	50.26	47.30	54.20	mg/l	1000
6	Total Dissolved Solids	540	219	471	495	406	mg/l	2000
7	Electrical Conductivity	900	370	759	788	675	µS/cm	-
8	Calcium (as Ca)	92.99	57.72	80.16	97.79	70.54	mg/l	200
9	Magnesium (as Mg)	53.46	9.72	29.16	32.08	32.08	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	86.03	19.66	89.54	87.50	58.67	mg/l	400
13	Total Nitrate (as NO ₃)	8.75	3.93	3.58	5.49	6.11	mg/l	45
14	Total Alkalinity (as CaCO ₃)	200	120	180	200	160	mg/l	600
15	Acidity	14	14	2.0	14	26	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	17.18	17.54	33.92	23.19	22.06	mg/l	-
18	Potassium (as K)	1.25	2.47	1.15	0.79	1.52	mg/l	-
19	Fluoride (as F)	1.0	0.90	1.0	0.90	0.50	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	20.5	30.4	30.5	30.5	30.5	°C	-
32	Residual Free Chlorine	0.24	0.22	0.16	0.24	0.11	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 10:

GROUND WATER QUALITY RESULT FOR THE MONTH OF NOVEMBER 2023

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL Daily Market Gate	Tube Well Village Ranibandha		
1	Turbidity	3.5	0.2	4.4	0.1	0.1	NTU	5.0
2	pH Value	6.59	6.54	6.61	6.81	6.58	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	580	412	308	380	156	mg/l	600
4	Iron (as Fe)	0.28	0.19	0.29	0.27	0.11	mg/l	0.3
5	Chlorides (as Cl)	278.91	61.10	40.40	54.20	34.49	mg/l	1000
6	Total Dissolved Solids	996	496	402	478	207	mg/l	2000
7	Electrical Conductivity	1629	827	647	772	344	µS/cm	-
8	Calcium (as Ca)	176.35	115.43	76.95	96.19	51.30	mg/l	200
9	Magnesium (as Mg)	34.02	30.13	28.19	34.02	6.80	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	141.17	38.13	52.34	100.47	18.68	mg/l	400
13	Total Nitrate (as NO ₃)	157.8	53.48	28.73	14.85	6.23	mg/l	45
14	Total Alkalinity (as CaCO ₃)	148	172	148	240	80	mg/l	600
15	Acidity	30	16	24	20	24	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	39.83	22.12	23.99	19.46	7.96	mg/l	-
18	Potassium (as K)	1.73	2.31	1.33	0.72	0.74	mg/l	-
19	Fluoride (as F)	1.0	0.9	1.0	0.9	0.4	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	27.3	27.2	27.2	27.2	27.3	°C	-
32	Residual Free Chlorine	0.24	0.16	0.26	0.23	0.22	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 11:

GROUND WATER QUALITY RESULT FOR THE MONTH OF DECEMBER 2023

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL Daily Market Gate	Tube Well Village Ranibandha		
1	Turbidity	3.7	2.5	4.9	0.60	1.9	NTU	5.0
2	pH Value	6.62	6.67	6.52	6.93	6.94	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	580	540	316	368	340	mg/l	600
4	Iron (as Fe)	0.10	0.18	0.10	0.19	0.21	mg/l	0.3
5	Chlorides (as Cl)	261.92	260.92	40.98	55.98	49.98	mg/l	1000
6	Total Dissolved Solids	1030	991	436	534	424	mg/l	2000
7	Electrical Conductivity	1700	1625	702	853	677	µS/cm	-
8	Calcium (as Ca)	181.16	187.57	91.38	125.05	81.76	mg/l	200
9	Magnesium (as Mg)	31.10	17.49	21.38	13.61	33.05	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	140.0	133.53	53.77	84.04	40.21	mg/l	400

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL Daily Market Gate	Tube Well Village Ranibandha		
13	Total Nitrate (as NO ₃)	40.24	30.14	5.43	25.95	10.87	mg/l	45
14	Total Alkalinity (as CaCO ₃)	320	308	196	200	204	mg/l	600
15	Acidity	48	46	26	26	16	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	48.42	48.61	29.17	26.82	8.55	mg/l	-
18	Potassium (as K)	3.10	3.08	2.59	0.95	4.13	mg/l	-
19	Fluoride (as F)	0.90	0.60	1.0	1.0	0.8	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	21.8	23.2	23.1	21.8	21.8	°C	-
32	Residual Free Chlorine	0.29	0.18	0.24	0.18	0.20	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 12:
GROUND WATER QUALITY RESULT FOR THE MONTH OF JANUARY 2024

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL Daily Market Gate	Tube Well Village Ranibandha		
1	Turbidity	3.4	3.1	4.6	0.5	0.4	NTU	5.0
2	pH Value	6.59	6.65	6.68	6.86	6.59	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	536	176.70	313.25	392	208.83	mg/l	600
4	Iron (as Fe)	0.12	0.10	0.46	0.19	0.24	mg/l	0.3
5	Chlorides (as Cl)	203.94	11.99	35.98	52.98	32.99	mg/l	1000
6	Total Dissolved Solids	909	215	432	511	252	mg/l	2000
7	Electrical Conductivity	1442	341	680	810	393	µS/cm	-
8	Calcium (as Ca)	193.15	46.68	75.65	117.03	51.51	mg/l	200
9	Magnesium (as Mg)	13.60	14.64	30.25	24.3	19.52	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	157.62	13.46	66.05	93.16	21.87	mg/l	400
13	Total Nitrate (as NO ₃)	41.11	3.93	5.49	0.19	2.23	mg/l	45
14	Total Alkalinity (as CaCO ₃)	252	132	180	164	108	mg/l	600
15	Acidity	36	10	12	16	16	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	39.49	9.12	37.49	32.31	13.54	mg/l	-
18	Potassium (as K)	2.37	2.17	2.36	1.14	1.18	mg/l	-
19	Fluoride (as F)	0.9	0.8	1.0	1.0	0.4	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	22.3	22.3	22.2	22.2	22.2	°C	-
32	Residual Free Chlorine	0.26	0.24	0.29	0.20	0.19	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 13:

GROUND WATER QUALITY RESULT FOR THE MONTH OF FEBRUARY 2024

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL Daily Market Gate	Tube Well Village Ranibandha		
1	Turbidity	3.6	2.4	5.8	0.5	1.9	NTU	5.0
2	pH Value	6.63	6.72	6.69	6.91	6.44	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	393.57	305.22	273.08	397.58	317.26	mg/l	600
4	Iron (as Fe)	0.20	0.14	0.10	0.20	0.22	mg/l	0.3
5	Chlorides (as Cl)	252.92	116.96	45.98	54.98	56.98	mg/l	1000
6	Total Dissolved Solids	941	732	433	530	430	mg/l	2000
7	Electrical Conductivity	1429	11.86	680	842	666	µS/cm	-
8	Calcium (as Ca)	90.13	99.79	70.82	127.16	70.82	mg/l	200
9	Magnesium (as Mg)	40.99	13.66	23.42	19.52	34.15	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	138.95	129.33	61.25	85.36	57.74	mg/l	400
13	Total Nitrate (as NO ₃)	41.6	25.95	4.43	15.46	3.11	mg/l	45
14	Total Alkalinity (as CaCO ₃)	308	332	196	200	184	mg/l	600
15	Acidity	32	64	30	26	24	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	42.65	39.41	27.85	24.72	19.88	mg/l	-
18	Potassium (as K)	2.79	1.25	2.20	1.27	2.58	mg/l	-
19	Fluoride (as F)	1.0	0.6	0.9	1.0	0.8	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	24.7	24.6	24.3	24.7	24.3	°C	-
32	Residual Free Chlorine	0.26	0.18	0.21	0.19	0.20	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 14:

GROUND WATER QUALITY RESULT FOR THE MONTH OF MARCH 2024

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL Daily Market Gate	Tube Well Village Ranibandha		
1	Turbidity	2.8	2.4	4.1	0.40	0.60	NTU	5.0
2	pH Value	7.36	6.84	6.56	6.78	6.59	-	6.5 – 8.5

SI No	Parameter	Results Obtained					Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Tube Well Village Liploi	Tube Well Village Surudihi	Tube Well IT Colony	Tube Well OCL Daily Market Gate	Tube Well Village Ranibandha		
3	Total Hardness (as CaCO ₃)	420.24	187.68	297.84	350.88	208.08	mg/l	600
4	Iron (as Fe)	0.22	0.12	0.26	0.27	0.11	mg/l	0.3
5	Chlorides (as Cl)	79.83	13.79	35.48	56.17	35.48	mg/l	1000
6	Total Dissolved Solids	565	221	420	498	243	mg/l	2000
7	Electrical Conductivity	897	356	655	788	385	µS/cm	-
8	Calcium (as Ca)	81.76	55.60	65.41	109.59	42.52	mg/l	200
9	Magnesium (as Mg)	52.55	11.89	32.72	18.54	24.79	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	102.40	5.01	52.51	84.73	10.86	mg/l	400
13	Total Nitrate (as NO ₃)	35.44	3.86	2.29	10.85	6.23	mg/l	45
14	Total Alkalinity (as CaCO ₃)	196	144	200	192	136	mg/l	600
15	Acidity	20	16	32	24	20	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	14.40	5.12	27.17	22.96	9.01	mg/l	-
18	Potassium (as K)	2.49	2.45	12.88	1.34	1.46	mg/l	-
19	Fluoride (as F)	1.0	0.90	0.50	0.80	0.40	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	27.3	24.6	27.2	27.4	27.3	°C	-
32	Residual Free Chlorine	0.27	0.18	0.22	0.23	0.22	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 15:
DRINKING WATER QUALITY RESULT FOR THE MONTH OF OCTOBER 2023

SI No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		General Office Ground Floor drinking water	Atithi Niwas drinking Water (L – 2)	Drinking Water Near KHD Section Office (L – 1)	Drinking Water Near Cooler (Line – 1)	Drinking Water Point VRM Area (Line – 2)	Drinking Water Point General Store		
1	Turbidity	0.40	0.20	1.0	1.90	0.60	0.20	NTU	5.0
2	pH Value	7.45	7.58	7.52	7.61	7.72	7.82	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	136	128	128	140	128	140	mg/l	600
4	Iron (as Fe)	0.29	0.22	0.22	0.20	0.24	0.29	mg/l	0.3
5	Chlorides (as Cl)	11.83	11.83	11.83	12.81	11.83	9.86	mg/l	1000
6	Total Dissolved Solids	165	162	161	163	169	165	mg/l	2000
7	Electrical Conductivity	275	279	281	278	277	281	µS/cm	-
8	Calcium (as Ca)	40.08	35.27	40.08	22.44	35.27	40.08	mg/l	200
9	Magnesium (as Mg)	8.75	9.72	6.80	20.41	9.72	9.72	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	< 0.50	15.15	12.83	15.19	3.45	9.43	mg/l	400
13	Total Nitrate (as NO ₃)	4.91	2.43	2.20	2.24	< 2.20	< 2.20	mg/l	45
14	Total Alkalinity (as CaCO ₃)	104	88	84	92	120	96	mg/l	600
15	Acidity	04	02	02	04	2.0	04	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	7.50	7.48	7.63	7.15	7.30	7.52	mg/l	-
18	Potassium (as K)	1.27	1.22	1.18	1.17	1.19	1.19	mg/l	-
19	Fluoride (as F)	0.60	0.70	0.70	0.40	0.50	0.90	mg/l	1.5

Sl No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		General Office Ground Floor drinking water	Atithi Niwas drinking Water (L – 2)	Drinking Water Near KHD Section Office (L – 1)	Drinking Water Near Cooler (Line – 1)	Drinking Water Point VRM Area (Line – 2)	Drinking Water Point General Store		
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	26.8	26.4	26.4	26.7	27.0	26.2	°C	-
32	Residual Free Chlorine	0.18	0.22	0.11	0.08	0.11	0.20	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 16:

DRINKING WATER QUALITY RESULT FOR THE MONTH OF NOVEMBER 2023

Sl No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		CCR Ground Floor Canteen Drinking Water(L – 1)	CCR First Floor Pantry Drinking Water (L – 2)	HR Office Drinking water Point	General Store Drinking Water Point (Line – 1)	General Office 2nd Floor Drinking Water point	CCR First Floor Pantry Drinking Water (L – 3)		
1	Turbidity	0.1	0.1	0.1	0.1	0.1	1.3	NTU	5.0
2	pH Value	7.63	7.86	7.92	7.88	7.99	7.93	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	200	192	204	200	188	192	mg/l	600
4	Iron (as Fe)	0.28	0.29	0.29	0.29	0.11	0.26	mg/l	0.3
5	Chlorides (as Cl)	17.99	16.99	16.99	16.99	17.99	17.99	mg/l	1000
6	Total Dissolved Solids	218	242	220	224	220	219	mg/l	2000
7	Electrical Conductivity	376	380	382	376	380	377	µS/cm	-
8	Calcium (as Ca)	44.88	43.28	35.27	35.27	36.87	51.30	mg/l	200
9	Magnesium (as Mg)	21.38	20.41	28.19	27.22	23.33	15.55	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	< 0.50	21.21	29.25	23.09	20.13	21.15	mg/l	400
13	Total Nitrate (as NO ₃)	3.27	3.05	< 2.20	< 2.20	< 2.20	< 2.20	mg/l	45
14	Total Alkalinity (as CaCO ₃)	100	140	100	108	120	108	mg/l	600
15	Acidity	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	9.89	9.36	9.68	9.92	10.33	9.88	mg/l	-
18	Potassium (as K)	1.66	1.61	1.66	1.71	1.69	1.68	mg/l	-
19	Fluoride (as F)	0.6	0.5	0.9	0.11	0.3	0.8	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	27.3	27.3	27.3	27.2	27.2	27.2	°C	-
32	Residual Free Chlorine	0.11	0.12	0.12	0.11	0.10	0.13	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 17:

DRINKING WATER QUALITY RESULT FOR THE MONTH OF DECEMBER 2023

SI No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Central Workshop Drinking Water Point (L - 1)	Near Clinker Silo Drinking Water Point (L - 1)	CPP Canteen Drinking Water Point(L - 2)	Workshop Drinking Water Point (Line - 2)	Near Coal Mill Drinking Water Point (L - 3)	General Store Drinking Water Point (L - 3)		
1	Turbidity	0.50	0.90	1.8	1.0	0.40	0.90	NTU	5.0
2	pH Value	8.12	8.13	8.16	8.11	8.07	8.15	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	208	208	208	208	204	216	mg/l	600
4	Iron (as Fe)	0.20	0.29	0.22	0.25	0.29	0.22	mg/l	0.3
5	Chlorides (as Cl)	18.99	20.99	19.99	19.99	20.99	19.99	mg/l	1000
6	Total Dissolved Solids	269	273	263	264	260	270	mg/l	2000
7	Electrical Conductivity	434	436	422	419	430	429	µS/cm	-
8	Calcium (as Ca)	40.08	52.91	44.89	36.87	51.30	36.87	mg/l	200
9	Magnesium (as Mg)	26.24	18.47	23.33	28.19	18.45	30.13	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	19.98	16.59	15.77	17.29	17.46	19.70	mg/l	400
13	Total Nitrate (as NO ₃)	3.35	3.62	2.87	2.96	4.15	4.95	mg/l	45
14	Total Alkalinity (as CaCO ₃)	172	168	160	164	148	164	mg/l	600
15	Acidity	< 2.0	< 2.0	< 2.0	6.0	< 2.0	< 2.0	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	11.67	11.84	11.38	12.11	11.52	11.45	mg/l	-
18	Potassium (as K)	3.50	3.55	3.66	3.78	3.57	3.60	mg/l	-
19	Fluoride (as F)	0.80	0.70	0.90	0.90	0.70	0.50	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	23.2	23.3	23.0	23.0	23.3	23.3	°C	-
32	Residual Free Chlorine	0.09	0.11	0.13	0.11	0.15	0.10	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 18:

DRINKING WATER QUALITY RESULT FOR THE MONTH OF JANUARY 2024

SI No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Near AFR Drinking Water Point (L - 2)	Colony Drinking Water Point	Guest House Canteen Drinking Water Point	Near CVRM - 2 Drinking Water Point (Line - 1)	Near Main Gate Canteen Drinking Water Point (Line - 2)	Near Cooler Drinking Water Point(L - 3)		
1	Turbidity	0.1	0.1	2.9	0.1	0.9	1.6	NTU	5.0
2	pH Value	7.48	7.91	7.97	7.96	7.87	7.92	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	212.85	220.88	216.86	228.91	204.82	220.88	mg/l	600
4	Iron (as Fe)	0.19	0.03	0.28	0.26	0.29	0.29	mg/l	0.3
5	Chlorides (as Cl)	15.99	21.99	17.99	17.99	17.99	17.99	mg/l	1000
6	Total Dissolved Solids	272	282	278	269	275	278	mg/l	2000
7	Electrical Conductivity	431	441	440	430	436	439	µS/cm	-
8	Calcium (as Ca)	51.51	48.28	33.80	41.85	49.89	43.45	mg/l	200
9	Magnesium (as Mg)	20.49	24.39	32.20	30.25	19.52	27.33	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5

Sl No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Near AFR Drinking Water Point (L - 2)	Colony Drinking Water Point	Guest House Canteen Drinking Water Point	Near CVRM - 2 Drinking Water Point (Line - 1)	Near Main Gate Canteen Drinking Water Point (Line - 2)	Near Cooler Drinking Water Point(L - 3)		
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	24.06	24.06	23.54	18.83	21.04	23.32	mg/l	400
13	Total Nitrate (as NO ₃)	3.05	2.31	5.70	2.46	4.66	< 2.20	mg/l	45
14	Total Alkalinity (as CaCO ₃)	152	164	164	156	164	172	mg/l	600
15	Acidity	8.0	< 2.0	< 2.0	< 2.0	10	< 2.0	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	15.85	16.35	16.55	16.47	16.42	16.72	mg/l	-
18	Potassium (as K)	3.34	3.41	3.39	3.42	3.41	3.37	mg/l	-
19	Fluoride (as F)	0.5	0.6	0.6	0.8	1.0	0.70	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	22.1	22.2	22.2	22.2	22.2	22.2	°C	-
32	Residual Free Chlorine	0.12	0.09	0.09	0.15	0.13	0.19	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 19:

DRINKING WATER QUALITY RESULT FOR THE MONTH OF FEBRUARY 2024

Sl No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Spandan Dispensary Drinking Water Point	Drinking Water point General Office Ground Floor	Near Workers' Canteen Drinking Water Point (Line - 2)	Near Clay Gate Drinking Water Point(Line - 1)	Drinking Water point Near KHD section Office (Line - 1)	Near Workers' Canteen Drinking Water Point (DSP Unit)		
1	Turbidity	0.1	0.1	0.1	0.1	0.1	0.90	NTU	5.0
2	pH Value	7.76	7.92	7.87	8.05	7.90	7.96	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	216.86	216.86	216.86	216.86	204.82	224.89	mg/l	600
4	Iron (as Fe)	0.28	0.11	0.10	0.14	0.16	0.29	mg/l	0.3
5	Chlorides (as Cl)	27.99	24.99	26.99	28.99	24.99	24.99	mg/l	1000
6	Total Dissolved Solids	278	268	268	277	272	272	mg/l	2000
7	Electrical Conductivity	435	426	424	440	429	429	µS/cm	-
8	Calcium (as Ca)	54.73	46.68	40.24	43.45	35.41	53.12	mg/l	200
9	Magnesium (as Mg)	19.52	24.39	28.29	26.35	28.30	22.44	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	17.36	16.81	16.47	16.36	15.68	14.11	mg/l	400
13	Total Nitrate (as NO ₃)	< 2.20	< 2.20	< 2.20	< 2.20	3.24	3.19	mg/l	45
14	Total Alkalinity (as CaCO ₃)	140	136	180	184	176	164	mg/l	600
15	Acidity	6.0	< 2.0	< 2.0	< 2.0	6.0	8.0	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	12.67	12.20	12.18	13.36	12.11	12.35	mg/l	-
18	Potassium (as K)	3.43	3.43	3.41	3.48	3.38	3.45	mg/l	-
19	Fluoride (as F)	0.7	0.2	0.3	0.6	0.7	0.90	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	ND	mg/l	0.02

Sl No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Spandan Dispensary Drinking Water Point	Drinking Water point General Office Ground Floor	Near Workers' Canteen Drinking Water Point (Line - 2)	Near Clay Gate Drinking Water Point (Line - 1)	Drinking Water point Near KHD section Office (Line - 1)	Near Workers' Canteen Drinking Water Point (DSP Unit)		
26	Zinc (as Zn)	ND	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	24.3	24.3	24.3	24.3	24.3	24.2	°C	-
32	Residual Free Chlorine	0.19	0.20	0.18	0.24	0.11	0.10	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 20:

DRINKING WATER QUALITY RESULT FOR THE MONTH OF MARCH 2024

Sl No	Parameter	Results Obtained						Unit	Permissible Limit in absence of Alternate Source as per IS 10500: 2012
		Near Main Gate Drinking Water Point (Line - 1)	Drinking Water point CPP Office Pantry Room (Line - 2)	Drinking Water Point Near KHD Workers' Canteen (Line - 1)	Drinking Water Point near Cooler Area (Line - 2)	Drinking Water Point Near New Weigh Bridge (Dsp Unit)	Drinking Water Point Near Coal Mill (DSP Unit)		
1	Turbidity	0.70	0.30	0.10	1.0	0.90	0.30	NTU	5.0
2	pH Value	7.69	7.80	7.72	7.76	7.79	7.82	-	6.5 – 8.5
3	Total Hardness (as CaCO ₃)	212.16	199.92	220.32	199.92	199.92	195.84	mg/l	600
4	Iron (as Fe)	0.29	0.18	0.14	0.20	0.22	0.28	mg/l	0.3
5	Chlorides (as Cl)	23.65	22.66	36.46	23.65	24.64	22.66	mg/l	1000
6	Total Dissolved Solids	269	265	294	264	272	262	mg/l	2000
7	Electrical Conductivity	424	420	461	419	428	412	µS/cm	-
8	Calcium (as Ca)	44.15	44.15	39.25	32.71	34.34	35.98	mg/l	200
9	Magnesium (as Mg)	24.78	21.81	29.74	28.75	27.76	25.77	mg/l	100
10	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
11	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.3
12	Sulfate (as SO ₄)	14.96	13.26	14.61	12.55	13.71	11.66	mg/l	400
13	Total Nitrate (as NO ₃)	4.66	< 2.20	3.39	2.93	2.93	4.15	mg/l	45
14	Total Alkalinity (as CaCO ₃)	164	168	176	164	168	168	mg/l	600
15	Acidity	8.0	< 2.0	< 2.0	< 2.0	< 2.0	8.0	mg/l	-
16	Sulphide (as H ₂ S)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	0.05
17	Sodium (as Na)	11.14	10.31	10.98	10.63	10.47	10.42	mg/l	-
18	Potassium (as K)	9.81	6.87	5.04	6.88	6.87	4.84	mg/l	-
19	Fluoride (as F)	0.80	0.70	0.60	0.60	0.40	0.80	mg/l	1.5
20	Cadmium (as Cd)	ND	ND	ND	ND	ND	ND	mg/l	0.003
21	Lead (as Pb)	ND	ND	ND	ND	ND	ND	mg/l	0.01
22	Arsenic (as As)	ND	ND	ND	ND	ND	ND	mg/l	0.05
23	Mercury (as Hg)	ND	ND	ND	ND	ND	ND	mg/l	0.001
24	Selenium (as Se)	ND	ND	ND	ND	ND	ND	mg/l	0.01
25	Nickel (as Ni)	ND	ND	ND	ND	ND	ND	mg/l	0.02
26	Zinc (as Zn)	ND	ND	ND	ND	ND	ND	mg/l	15.0
27	Total Chromium (as Cr)	ND	ND	ND	ND	ND	ND	mg/l	0.05
28	Colour	< 5	< 5	< 5	< 5	< 5	< 5	Hazen	15
29	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
30	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	-	Agreeable
31	Temperature	27.3	27.4	27.3	27.2	27.3	27.2	°C	-
32	Residual Free Chlorine	0.14	0.10	0.12	0.20	0.11	0.16	mg/l	1.0 (min)
33	Total Bacterial Count	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent
34	E coli	Absent	Absent	Absent	Absent	Absent	Absent	Nos/100ml	Absent

Table No 21:

SURFACE WATER QUALITY RESULT FOR THE MONTH OF OCTOBER 2023

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
1	pH Value	7.10	7.34	7.29	7.52	-	6.5 – 8.5
2	Electrical Conductivity	312	365	434	350	µS/cm	-
3	Total Dissolved Solids	187	215	256	207	mg/l	1500
4	Total Hardness (as CaCO ₃)	128	156	172	168	mg/l	-
5	Chlorides (as Cl)	10.84	14.78	24.64	13.79	mg/l	600
6	Sulfate (as SO ₄)	11.06	21.54	32.37	14.32	mg/l	400
7	Total Nitrate (as NO ₃)	< 2.20	3.20	< 2.20	2.70	mg/l	50
8	Fluoride (as F)	0.40	1.0	0.90	0.80	mg/l	1.5
9	Calcium (as Ca)	38.47	43.29	44.89	43.29	mg/l	-
10	Magnesium (as Mg)	7.78	11.66	14.58	14.58	mg/l	-
11	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
12	Iron (as Fe)	0.39	0.59	0.46	0.11	mg/l	50
13	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	-
14	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15
15	Total Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.2
16	Mercury (as Hg)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	-
17	Lead (as Pb)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
18	Cadmium (as Cd)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.01
19	Hex. Chromium (as Cr ⁶⁺)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
20	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
21	Colour	< 5	< 5	< 5	< 5	Hazen	300
22	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	-
23	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	-
24	Dissolved Oxygen (Min.)	6.3	6.1	6.4	6.4	mg/l	4
25	BOD 5 days at 20°C	01	03	02	02	mg/l	3
26	Oil & Grease	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
27	Free Carbon Dioxide (as CO ₂)	3.52	3.52	7.04	3.52	mg/l	-
28	Free Ammonia (as NH ₃)	< 0.012	< 0.012	< 0.012	< 0.012	mg/l	-
29	Cyanide (as CN)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
30	Phenolic Compounds (as C ₆ H ₅ OH)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.005
31	Anionic Detergents (as MBAS)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.0
32	Total Coliforms	10	1000	1000	10	Nos/100ml	5000

Table No 22:

SURFACE WATER QUALITY RESULT FOR THE MONTH OF NOVEMBER 2023

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
1	pH Value	7.36	7.45	7.21	7.34	-	6.5 – 8.5
2	Electrical Conductivity	401	406	514	405	µS/cm	-
3	Total Dissolved Solids	241	245	309	243	mg/l	1500
4	Total Hardness (as CaCO ₃)	172	184	232	200	mg/l	-
5	Chlorides (as Cl)	18.99	23.99	32.99	18.72	mg/l	600
6	Sulfate (as SO ₄)	23.61	28.39	41.41	24.93	mg/l	400
7	Total Nitrate (as NO ₃)	6.23	< 2.20	6.76	2.69	mg/l	50
8	Fluoride (as F)	0.8	1.0	0.9	0.8	mg/l	1.5
9	Calcium (as Ca)	40.08	49.69	62.53	40.08	mg/l	-
10	Magnesium (as Mg)	17.49	14.58	18.45	24.3	mg/l	-
11	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
12	Iron (as Fe)	0.42	0.51	0.52	0.16	mg/l	50

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
13	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	-
14	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15
15	Total Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.2
16	Mercury (as Hg)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	-
17	Lead (as Pb)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
18	Cadmium (as Cd)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.01
19	Hex. Chromium (as Cr ⁶⁺)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
20	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
21	Colour	< 5	< 5	< 5	< 5	Hazen	300
22	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	-
23	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	-
24	Dissolved Oxygen (Min.)	6.3	6.3	6.4	6.4	mg/l	4
25	BOD 5 days at 20°C	03	4.0	02	2.0	mg/l	3
26	Oil & Grease	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
27	Free Carbon Dioxide (as CO ₂)	7.04	7.04	7.04	7.04	mg/l	-
28	Free Ammonia (as NH ₃)	< 0.012	< 0.012	< 0.012	< 0.012	mg/l	-
29	Cyanide (as CN)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
30	Phenolic Compounds (as C ₆ H ₅ OH)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.005
31	Anionic Detergents (as MBAS)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.0
32	Total Coliforms	10	1000	1000	10	Nos/100ml	5000

Table No 23:

SURFACE WATER QUALITY RESULT FOR THE MONTH OF DECEMBER 2023

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
1	pH Value	7.46	7.54	7.53	7.80	-	6.5 – 8.5
2	Electrical Conductivity	406	465	470	385	µS/cm	-
3	Total Dissolved Solids	244	279	282	231	mg/l	1500
4	Total Hardness (as CaCO ₃)	164	184	188	172	mg/l	-
5	Chlorides (as Cl)	16.99	24.99	24.99	17.99	mg/l	600
6	Sulfate (as SO ₄)	27.70	35.17	32.88	23.78	mg/l	400
7	Total Nitrate (as NO ₃)	< 2.20	2.76	3.01	2.69	mg/l	50
8	Fluoride (as F)	0.80	0.90	0.90	0.70	mg/l	1.5
9	Calcium (as Ca)	46.49	41.68	46.49	48.09	mg/l	-
10	Magnesium (as Mg)	11.66	19.44	17.49	12.64	mg/l	-
11	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
12	Iron (as Fe)	0.46	0.51	0.49	0.14	mg/l	50
13	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	-
14	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15
15	Total Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.2
16	Mercury (as Hg)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	-
17	Lead (as Pb)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
18	Cadmium (as Cd)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.01
19	Hex. Chromium (as Cr ⁶⁺)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
20	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
21	Colour	< 5	< 5	< 5	< 5	Hazen	300
22	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	-
23	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	-
24	Dissolved Oxygen (Min.)	6.3	6.2	6.2	6.3	mg/l	4
25	BOD 5 days at 20°C	01	02	02	01	mg/l	3
26	Oil & Grease	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
27	Free Carbon Dioxide (as CO ₂)	7.04	8.8	10.56	5.28	mg/l	-
28	Free Ammonia (as NH ₃)	< 0.012	< 0.012	< 0.012	< 0.012	mg/l	-
29	Cyanide (as CN)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05

SI	Parameter	Results Obtained				Unit	Surface Water
30	Phenolic Compounds (as C ₆ H ₅ OH)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.005
31	Anionic Detergents (as MBAS)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.0
32	Total Coliforms	10	1000	1000	10	Nos/100ml	5000

Table No 24:

SURFACE WATER QUALITY RESULT FOR THE MONTH OF JANUARY 2024

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
1	pH Value	7.60	7.68	7.35	7.78	-	6.5 – 8.5
2	Electrical Conductivity	597	643	752	515	µS/cm	-
3	Total Dissolved Solids	359	386	451	309	mg/l	1500
4	Total Hardness (as CaCO ₃)	220.88	273.09	281.12	240.96	mg/l	-
5	Chlorides (as Cl)	33.99	41.99	52.98	24.99	mg/l	600
6	Sulfate (as SO ₄)	32.35	41.19	56.94	24.79	mg/l	400
7	Total Nitrate (as NO ₃)	3.11	3.01	2.98	2.76	mg/l	50
8	Fluoride (as F)	0.8	0.9	0.9	0.7	mg/l	1.5
9	Calcium (as Ca)	45.06	45.06	51.51	69.21	mg/l	-
10	Magnesium (as Mg)	26.35	39.04	37.08	16.59	mg/l	-
11	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
12	Iron (as Fe)	0.48	0.59	0.49	0.44	mg/l	50
13	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	-
14	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15
15	Total Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.2
16	Mercury (as Hg)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	-
17	Lead (as Pb)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
18	Cadmium (as Cd)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.01
19	Hex. Chromium (as Cr ⁺⁶)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
20	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
21	Colour	< 5	< 5	< 5	< 5	Hazen	300
22	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	-
23	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	-
24	Dissolved Oxygen (Min.)	6.3	6.1	6.3	6.2	mg/l	4
25	BOD 5 days at 20°C	01	03	02	01	mg/l	3
26	Oil & Grease	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
27	Free Carbon Dioxide (as CO ₂)	7.04	10.56	12.32	< 1.0	mg/l	-
28	Free Ammonia (as NH ₃)	< 0.012	< 0.012	< 0.012	< 0.012	mg/l	-
29	Cyanide (as CN)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
30	Phenolic Compounds (as C ₆ H ₅ OH)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.005
31	Anionic Detergents (as MBAS)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.0
32	Total Coliforms	Absent	1000	1000	Absent	Nos/100ml	5000

Table No 25:

SURFACE WATER QUALITY RESULT FOR THE MONTH OF FEBRUARY 2024

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
1	pH Value	7.39	7.69	7.64	7.82	-	6.5 – 8.5
2	Electrical Conductivity	610	676	691	492	µS/cm	-
3	Total Dissolved Solids	366	406	415	295	mg/l	1500
4	Total Hardness (as CaCO ₃)	257.02	269.07	317.26	244.97	mg/l	-
5	Chlorides (as Cl)	34.99	50.98	49.98	25.99	mg/l	600
6	Sulfate (as SO ₄)	30.77	39.97	37.73	16.76	mg/l	400

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
7	Total Nitrate (as NO ₃)	< 2.20	2.46	3.01	2.69	mg/l	50
8	Fluoride (as F)	0.9	0.9	0.8	0.7	mg/l	1.5
9	Calcium (as Ca)	74.04	64.38	80.48	54.73	mg/l	-
10	Magnesium (as Mg)	17.56	26.35	28.29	26.35	mg/l	-
11	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
12	Iron (as Fe)	0.52	0.51	0.48	0.14	mg/l	50
13	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	-
14	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15
15	Total Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.2
16	Mercury (as Hg)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	-
17	Lead (as Pb)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
18	Cadmium (as Cd)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.01
19	Hex. Chromium (as Cr ⁺⁶)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
20	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
21	Colour	< 5	< 5	< 5	< 5	Hazen	300
22	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	-
23	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	-
24	Dissolved Oxygen (Min.)	6.3	6.2	6.3	6.3	mg/l	4
25	BOD 5 days at 20°C	02	02	02	02	mg/l	3
26	Oil & Grease	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
27	Free Carbon Dioxide (as CO ₂)	14.08	8.8	10.56	7.04	mg/l	-
28	Free Ammonia (as NH ₃)	< 0.012	< 0.012	< 0.012	< 0.012	mg/l	-
29	Cyanide (as CN)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
30	Phenolic Compounds (as C ₆ H ₅ OH)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.005
31	Anionic Detergents (as MBAS)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.0
32	Total Coliforms	Absent	Absent	Absent	Absent	Nos/100ml	5000

Table No 26:

SURFACE WATER QUALITY RESULT FOR THE MONTH OF MARCH 2024

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
1	pH Value	7.53	7.46	6.61	7.60	-	6.5 – 8.5
2	Electrical Conductivity	675	682	830	425	µS/cm	-
3	Total Dissolved Solids	405	410	515	255	mg/l	1500
4	Total Hardness (as CaCO ₃)	281.82	277.44	314.16	199.92	mg/l	-
5	Chlorides (as Cl)	49.28	49.28	62.08	21.68	mg/l	600
6	Sulfate (as SO ₄)	30.52	31.62	47.25	10.75	mg/l	400
7	Total Nitrate (as NO ₃)	< 2.20	2.39	2.46	2.69	mg/l	50
8	Fluoride (as F)	0.50	0.60	0.50	0.40	mg/l	1.5
9	Calcium (as Ca)	67.05	50.69	53.96	40.88	mg/l	-
10	Magnesium (as Mg)	30.73	36.68	43.62	23.79	mg/l	-
11	Copper (as Cu)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	1.5
12	Iron (as Fe)	0.20	0.22	0.36	0.19	mg/l	50
13	Manganese (as Mn)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	-
14	Zinc (as Zn)	< 0.02	< 0.02	< 0.02	< 0.02	mg/l	15
15	Total Arsenic (as As)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.2
16	Mercury (as Hg)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	-
17	Lead (as Pb)	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
18	Cadmium (as Cd)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	0.01
19	Hex. Chromium (as Cr ⁺⁶)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
20	Selenium (as Se)	< 0.01	< 0.01	< 0.01	< 0.01	mg/l	0.05
21	Colour	< 5	< 5	< 5	< 5	Hazen	300
22	Odour	Agreeable	Agreeable	Agreeable	Agreeable	-	-

SI No	Parameter	Results Obtained				Unit	Surface Water Quality Standard as per IS: 2296 (Class C)
		Liploi Nadi Upstream (Shirdi Sai Temple)	Liploi Nadi (Municipality Dump Yard)	Liploi Nadi Downstream (Poda Nadi)	Amaghat Nadi		
23	Taste	Agreeable	Agreeable	Agreeable	Agreeable	-	-
24	Dissolved Oxygen (Min.)	6.2	6.1	6.1	6.3	mg/l	4
25	BOD 5 days at 20°C	01	02	02	01	mg/l	3
26	Oil & Grease	< 0.10	< 0.10	< 0.10	< 0.10	mg/l	0.1
27	Free Carbon Dioxide (as CO ₂)	7.04	10.56	10.56	8.80	mg/l	-
28	Free Ammonia (as NH ₃)	< 0.012	< 0.012	< 0.012	< 0.012	mg/l	-
29	Cyanide (as CN)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.05
30	Phenolic Compounds (as C ₆ H ₅ OH)	< 0.002	< 0.002	< 0.002	< 0.002	mg/l	0.005
31	Anionic Detergents (as MBAS)	< 0.05	< 0.05	< 0.05	< 0.05	mg/l	1.0
32	Total Coliforms	Absent	Absent	Absent	Absent	Nos/100ml	5000

Table No 27:

27.1 EFFLUENT WATER QUALITY RESULT OF ETP INLET

SI No	Parameters	Results Obtained						Unit
		OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	
1	pH Value	7.17	7.19	8.18	7.25	7.95	7.33	-
2.	Total Suspended Solids	26.1	386.9	4.2	20.8	4.0	279.3	mg/l
3.	Oil & Grease	2.6	2.2	2.2	2.2	2.2	2.4	mg/l
4.	BOD 5days at 20°C	140	120	115	120	110	80	mg/l
5.	COD	430.16	365.10	340.10	365.60	360.26	250.21	mg/l

27.2 EFFLUENT WATER QUALITY RESULT OF ETP OUTLET

SI No	Parameters	Results Obtained						Permissible Limit as per CTO Conditions	Unit
		OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH		
1	pH Value	7.05	7.10	7.96	7.34	7.89	7.30	5.5 – 9.0	-
2.	Total Suspended Solids	15.8	< 2.5	< 2.5	6.3	2.6	< 2.5	100	mg/l
3.	Oil & Grease	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	10	mg/l
4.	BOD 5days at 20°C	80	50	52	50	50	05	-	mg/l
5.	COD	245.60	155.16	150.16	159.80	165.26	20.261	-	mg/l

Table No 28 :

EFFLUENT WATER QUALITY RESULT OF STP OUTLET

SI No	Parameters	Results Obtained						Permissible Limit as per CTO Conditions	Unit
		OCT	NOV	DEC	JAN	FEB	MAR		
1	pH Value	7.31	7.48	7.48	7.39	7.51	7.45	6.5 – 9.0	-
2.	Total Suspended Solids	3.0	18.5	16.0	12.4	< 2.5	9.3	100	mg/l
3.	BOD 5days at 20°C	11	10	10	13	12	12	30	mg/l
4.	Fecal Coliform	100	100	100	100	100	37.260	1000	mg/l
5.	COD	35.16	32.160	30.15	40.160	38.160	100	-	mg/l

Table No 29:

EFFLUENT WATER QUALITY RESULT OF STP OUTLET DSP UNIT

SI No	Parameters	Results Obtained						Permissible Limit as per CTO Conditions	Unit
		OCT	NOV	DEC	JAN	FEB	MAR		
1	pH Value	7.25	7.51	7.30	7.18	7.26	7.40	6.5 – 9.0	-
2.	Total Suspended Solids	12.2	< 2.5	14.4	19.3	14.2	5.8	100	mg/l
3.	BOD 5days at 20°C	17	08	12	18	10	06	30	mg/l
4.	COD	54.12	26.160	40.16	55.160	35.36	19.160	-	mg/l
5.	Fecal Coliform	100	100	100	100	100	100	1000	mg/l

Table No 30:

SOIL QUALITY RESULT FOR THE MONTH OF OCTOBER 2023

Sl. No.	Parameter	Unit	Konark Vihar Colony Area	In Front Of HR Office (Line – 1)	132 kv Station Area (Line – 2)	Line – 3 AFR Area (Near CAAQMS)
1.	Colour	-	Brownish	Greyish	Greyish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Sandy Clay Loam	Silty Clay Loam	Silty Clay Loam	Silty Loam
4.	Bulk Density	gm/cm ³	1.6	1.8	1.5	1.4
5.	pH (1:2 Suspension)	-	7.85	8.09	7.89	7.82
6.	Iron	mg/kg	4.24	4.88	3.46	4.86
7.	Calcium	mg/kg	174	179	193	156
8.	Available Potassium (as K ₂ O)	Kg/ha	470.88	479.16	427.8	297.0
9.	Organic Carbon	%	0.95	1.98	1.65	0.68
10.	Available Nitrogen (as N)	Kg/ha	50.176	62.72	50.17	50.176
11.	Manganese	mg/kg	7.82	7.95	8.25	5.85
12.	Infiltration Rate	cm/hr	5.85	4.65	4.82	5.22
13.	Porosity	mg/m ³	0.22	0.20	0.22	0.13
14.	Moisture Content	%	18.42	16.56	19.82	17.86
16.	Chloride	mg/kg	0.24	0.18	0.22	0.18
17.	Sulphate	mg/kg	0.65	0.58	0.54	0.62

Table No 31:

SOIL QUALITY RESULT FOR THE MONTH OF NOVEMBER 2023

Sl. No.	Parameter	Unit	Guest House Area	Tuck Parking Area(Line -2)	ETP Area	Near New Weigh Bridge
1.	Colour	-	Brownish	Greyish	Reddish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Silty Clay Loam	Silty Clay Loam	Sandy Clay Loam	Silty Loam
4.	Bulk Density	gm/cm ³	1.3	1.2	1.3	1.4
5.	pH (1:2 Suspension)	-	7.45	8.02	7.91	8.05
6.	Iron	mg/kg	4.8	5.21	6.05	4.86
7.	Calcium	mg/kg	168	172	179	156
8.	Available Potassium (as K ₂ O)	Kg/ha	426.24	289.44	348.96	313.68
9.	Organic Carbon	%	1.3	1.01	0.88	0.8
10.	Available Nitrogen (as N)	Kg/ha	62.72	112.9	62.72	137.98
11.	Manganese	mg/kg	9.61	9.23	9.76	5.85
12.	Infiltration Rate	cm/hr	6.54	4.26	4.77	5.22
13.	Porosity	mg/m ³	0.1956	0.2008	0.2122	0.13

Sl. No.	Parameter	Unit	Guest House Area	Tuck Parking Area(Line -2)	ETP Area	Near New Weigh Bridge
14.	Moisture Content	%	21.26	22.57	22.84	17.86
16.	Chloride	mg/kg	0.13	0.18	0.10	0.18
17.	Sulphate	mg/kg	0.62	0.54	0.48	0.62

Table No 32:

SOIL QUALITY RESULT FOR THE MONTH OF DECEMBER 2023

Sl. No.	Parameter	Unit	Line 1 AFR Area	Khandakavya Garden	Water Harvesting pond Line – 2	Near Liquid AFR Area(DSP Unit)
1.	Colour	-	Brownish	Greyish	Reddish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Silty Clay Loam	Silty Clay Loam	Sandy Clay Loam	Silty Loam
4.	Bulk Density	gm/cm ³	1.20	1.3	1.4	1.42
5.	pH (1:2 Suspension)	-	8.45	8.13	8.29	8.76
6.	Iron	mg/kg	3.88	4.18	5.27	5.08
7.	Calcium	mg/kg	194	222	198	188
8.	Available Potassium (as K ₂ O)	Kg/ha	124.44	273.72	363	182.88
9.	Organic Carbon	%	0.69	< 0.5	1.13	0.65
10.	Available Nitrogen (as N)	Kg/ha	100.35	150.53	175.62	125.44
11.	Manganese	mg/kg	10.04	9.43	10.22	9.02
12.	Infiltration Rate	cm/hr	5.84	6.15	3.42	9.64
13.	Porosity	mg/m ³	0.1992	0.2415	0.2210	0.1785
14.	Moisture Content	%	14.54	15.78	18.34	32.0
16.	Chloride	mg/kg	0.17	0.21	0.13	0.18
17.	Sulphate	mg/kg	0.84	0.68	0.41	0.76

Table No 33:

SOIL QUALITY RESULT FOR THE MONTH OF JANUARY 2024

Sl. No.	Parameter	Unit	STP AREA LINE – 2	KONARK VIHAR	HR OFFICE LINE – 1	AFR AREA (DSP UNIT)
1.	Colour	-	Greyish	Greyish	Greyish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Sandy Clay Loam	Silty Clay Loam	Silty Clay Loam	Silty Loam
4.	Bulk Density	gm/cm ³	1.2	1.5	1.4	1.4
5.	pH (1:2 Suspension)	-	8.14	8.21	8.06	8.42
6.	Iron	mg/kg	4.8	5.21	6.05	7.02
7.	Calcium	mg/kg	169	170	163	157
8.	Available Potassium (as K ₂ O)	Kg/ha	582.24	310.76	186.24	143.4
9.	Organic Carbon	%	1.18	1.23	0.59	0.81
10.	Available Nitrogen (as N)	Kg/ha	188.16	75.26	75.26	75.26
11.	Manganese	mg/kg	9.61	9.23	9.76	5.02
12.	Infiltration Rate	cm/hr	6.54	4.26	4.77	7.39
13.	Porosity	mg/m ³	0.1857	0.1922	0.2004	0.1287
14.	Moisture Content	%	21.26	22.57	22.84	20.74
16.	Chloride	mg/kg	0.18	0.16	0.23	0.26
17.	Sulphate	mg/kg	0.62	0.71	0.8	0.67

Table No 34:**SOIL QUALITY RESULT FOR THE MONTH OF FEBRUARY 2024**

Sl. No.	Parameter	Unit	Inside Store Yard (Line – 1)	AFR Area (Line – 2)	Kiskindhaban Area	New Weigh Bridge(DSP Unit)
1.	Colour	-	Greyish	Greyish	Greyish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Sandy Clay Loam	Silty Clay Loam	Silty Clay Loam	Silty Loam
4.	Bulk Density	gm/cm ³	1.4	1.4	1.3	1.8
5.	pH (1:2 Suspension)	-	7.60	8.50	7.30	7.90
6.	Iron	mg/kg	3.9	6.13	5.4	6.82
7.	Calcium	mg/kg	178	184	172	174
8.	Available Potassium (as K ₂ O)	Kg/ha	318	310.76	350.4	133.2
9.	Organic Carbon	%	3.27	0.94	1.90	< 0.50
10.	Available Nitrogen (as N)	Kg/ha	112.89	87.81	213.24	12.54
11.	Manganese	mg/kg	8.61	8.63	8.74	5.02
12.	Infiltration Rate	cm/hr	6.54	4.26	4.77	7.39
13.	Porosity	mg/m ³	0.2015	0.1978	0.21	0.1350
14.	Moisture Content	%	22.77	21.24	20.87	22.7
16.	Chloride	mg/kg	0.14	0.19	0.27	0.25
17.	Sulphate	mg/kg	0.58	0.61	0.79	0.77

Table No 35:**SOIL QUALITY RESULT FOR THE MONTH OF MARCH 2024**

Sl. No.	Parameter	Unit	HR Office	Guest House	132 KVA Station	AFR Line – 3
1.	Colour	-	Greyish	Greyish	Greyish	Greyish
2.	Type of Soil	-	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil	Fine Grained Soil
3.	Texture	-	Sandy Clay Loam	Silty Clay Loam	Silty Clay Loam	Silty Loam
4.	Bulk Density	gm/cm ³	1.6	1.7	1.5	1.9
5.	pH (1:2 Suspension)	-	8.08	7.40	8.01	8.30
6.	Iron	mg/kg	5.2	5.4	6.1	5.92
7.	Calcium	mg/kg	182	176	187	168
8.	Available Potassium (as K ₂ O)	Kg/ha	542.88	629.88	577.08	329.16
9.	Organic Carbon	%	0.79	1.52	1.98	< 0.50
10.	Available Nitrogen (as N)	Kg/ha	112.9	75.26	62.72	125.44
11.	Manganese	mg/kg	9.41	9.1	9.24	5.02
12.	Infiltration Rate	cm/hr	9.44	6.23	7.77	9.39
13.	Porosity	mg/m ³	0.25	0.198	0.21	0.192
14.	Moisture Content	%	18.62	17.24	16.8	18.9
16.	Chloride	mg/kg	0.14	0.21	0.22	0.35
17.	Sulphate	mg/kg	0.48	0.52	0.48	0.82

Table No: 36:**NOISE LEVEL MONITORING DATA**

From 01.10.2023 to 31.03.2024

Month	Location	L _{eq} dB(A) Day Time	L _{eq} dB(A) Night Time
Oct	Main gate Near Canteen (Line – 1)	56.3	54.1
	Payloader Garage (Line – 1)	61.3	57.0
	Guest House Area	57.2	53.1
	CCR Building(Line – 2)	72.5	72.3

Month	Location	L _{eq} dB(A) Day Time	L _{eq} dB(A) Night Time
	Konark Vihar	52.8	58.0
	Atithi Niwas	64.2	63.7
	STP Area(DSP Unit)	57.2	58.2
	AFR Area(DSP Unit)	56.8	45.7
Nov	Workshop Area(Line – 2)	61.5	61.1
	Lime Stone Transfer Point(Line – 2)	69.0	69.3
	Guest House Area	51.2	43.8
	Konark Vihar	49.2	43.8
	General Store (Line – 1)	63.9	63.7
	Refractory Main Gate	62.6	65.3
	Project Area(DSP Unit)	57.7	57.0
	Store Area(DSP Unit)	60.3	57.3
Dec	Main gate Near Canteen (Line – 1)	51.0	40.0
	Payloader Garage (Line – 1)	63.1	58.3
	Guest House Area	51.4	47.3
	Konark Vihar	46.1	37.1
	CCR Building(Line – 2)	71.4	71.1
	CPP Area(Line – 2)	59.2	57.8
	STP Area (DSP Unit)	68.2	65.7
	Near AFR Storage Area (DSP Unit)	67.5	65.4
Jan	Refractory Main Gate	66.3	67.5
	General Store (Line – 1)	62.7	62.0
	Guest House Area	54.0	43.8
	Konark Vihar	40.6	33.9
	Engineering Hostel	55.9	47.6
	Workshop Area(Line 2)	58.7	58.3
	Project Gate(DSP unit)	55.6	55.3
	General Store Area(DSP Unit)	61.1	59.2
Feb	CCR Building(Line – 2)	70.6	65.5
	CPP Area(Line – 2)	59.7	57.4
	Guest House Area	51.1	40.0
	Konark Vihar	43.1	38.0
	Main gate Near Canteen (Line – 1)	56.3	54.1
	Payloader Garage (Line – 1)	63.3	61.2
	STP Area (DSP Unit)	57.2	56.3
	Near AFR Storage Area (DSP Unit)	67.0	55.9
Mar	Work Shop (Line – 2)	59.8	57.9
	Engineering Hostel	57.3	53.4
	Guest House Area	56.3	49.7
	Konark Vihar Area	47.7	41.4
	General Store Area(Line 1)	66.6	66.5
	Refractory Main Gate Area	62.2	60.9
	General Store (DSP Unit)	50.9	45.7
	Project Gate (DSP Unit)	58.8	56.7