

BEFORE HON'BLE NATIONAL GREEN TRIBUNAL, WESTERN ZONE
BENCH, AT PUNE

Original Application No. 222 of 2023 WZ.

Mrs. Mangal W/O Vishnu Bodkhe & 4 Ors. ----- } Applicants.

Vs

M/s. Matrix Life Science Pvt. Ltd. & 3 Ors.----- } Respondent

I, Manish Holkar, aged about 56 years, Occupation- Service, the Regional Officer , Chhatra[ati Sambhajinagar, Maharashtra Pollution Control Board (R.No.2) is filing this Affidavit on behalf of Committee constituted by Hon"ble NGT vide order dated 22/04/2024.

1. I say and submit that Hon'ble Tribunal vide order dated 22/04/2024 has constituted a committee comprising of one member each from i) The District Collector, Chh Sambhajinagar ii) The District Agriculture Officer, Chh Sambhajinagar iii) CPCB to assess the damage caused to the agriculture crops/lands of the applicants. The District Agricultural Officer, Aurangabad shall be the nodal agency for coordination and logistic support. It was further directed that The Committee shall visit the site and submit a factual and action taken report with regard to the violations, if any, and action taken thereon, within two month. The copy of order is marked as Annex-A1
2. I say and submit that The District Collector, Chh Sambhajinagar has constituted a committee for assessment of damage caused to the agricultural crops/land of the applicants where in District Superintendent of agriculture Officer was appointed as nodal agency.



- I say and submit that the Respondent No. 2 Board has submitted Final report of VNIT along with the analysis results of 23 nos of well water samples near Paithan MIDC to the Superintendent of Agriculture Officer (Nodal agency) vide email dated 6.6.2025 with a request to prepare comprehensive report about the assessment of the damage caused to the agricultural crops/land of the applicant in compliance of the order of this Hon'ble Tribunal dated 22.4.2025.
- I say and submit that Committee constituted by Hon'ble NGT vide order dated 22/04/2024 have submitted their comprehensive report about assessment of the damage caused to the agriculture crops/lands of the applicants vide email dated 02/08/2024. The copy of report along with email communication is collectively marked as Annex-A-2. The report prepared by Committee is submitted herewith for kind perusal & consideration of Hon'ble Tribunal.

Solemnly affirmed on this 4th Day of August 2025 at Chhatrapati Sambhajinagar.

For and on behalf of
Maharashtra Pollution Control Board (R.No.2)

Manish Holkar 04/08/2025

(Manish Holkar)

Regional Officer, Chh. Sambhajinagar

AFFIDAVIT

Solemnly affirmed before me by
 by Shri/Smt. Manish Holkar, Age: 56
 R/o CHHATRAPATI SAMBAHJINAGAR occ: service
 Tq: CSN Dist: CSN
 Who identified by _____
 Whom He/She is personally known.

Vidya Takalkar
 Adv. Vidya Takalkar
 Notary Govt. of India
 Pune Dist. Maharashtra

04 AUG 2025

BEFORE ME

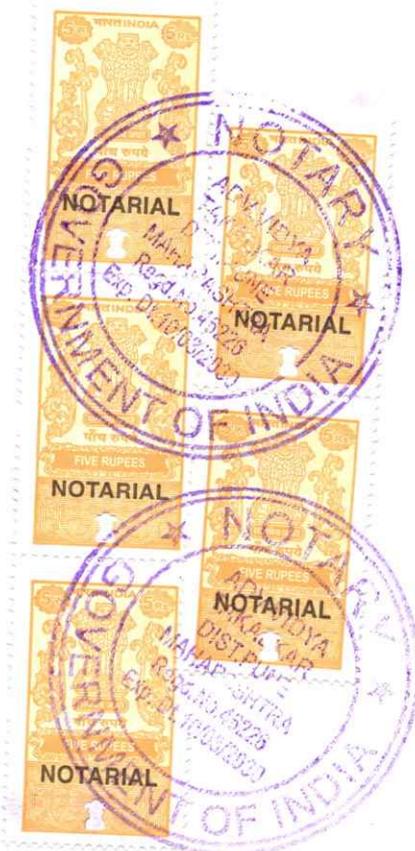
Vidya Takalkar 04/08/25

ADV. VIDYA TAKALKAR
 NOTARY GOVT. OF INDIA
 PUNE DIST. MAHARASHTRA
 REG.NO.46226

NOTED AND REGISTERED

SERIAL NUMBER.....1/25.....

Date.....04.08.2025.....



Item No.3

(Pune Bench)

**BEFORE THE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH, PUNE**

THROUGH PHYSICAL HEARING (WITH HYBRID OPTION)

Original Application No.222/2023(WZ)

Mrs. Mangal W/O Vishnu Bodkhe & 4 Ors.

.....Applicant(s)

Versus

M/s. Matrix Life Science Pvt. Ltd. & 3 Ors.

....Respondent(s)

Date of hearing: 22.04.2024

**CORAM: HON'BLE MR. JUSTICE DINESH KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. VIJAY KULKARNI, EXPERT MEMBER**

Applicant : Mr. Asim Sarode, Advocate

Respondent(s) : Mr. Sachin Gore, Advocate along-with
Mr. R. B. Mahabal, Advocate for R-1/PP
Ms. Manasi Joshi, Advocate for R-2/MPCB
Mr. Aniruddha Kulkarni, Advocate for R-3/CPCB
DSAO, Department of Agriculture, Aurangabad,
in-person for R-5

ORDER

1. By our previous order dated 11.03.2024, the applicants were directed to fill up Form No.II as prescribed under rules and pay adequate court fees, as the personal compensation was being prayed by the applicants. In this regard, an application dated 19.03.2024 has been filed from the side of learned counsel for applicants, which is found to be defective by the Registry. We direct the learned counsel for applicants to remove the defects forthwith and get the number allotted to this I.A.

2. Even though this I.A. is found to be defective, we are considering the same on merits. A copy of this I.A. has not been served upon all other parties. Therefore, we direct the learned counsel for applicants to serve a copy of the same upon all other parties through e-mail.

3. The main emphasis has been laid in this I.A. by the learned counsel for applicants that an amount of Rs.30,00,000/- (Rupees Thirty Lakhs) is being claimed by the applicants by way of personal compensation only on rough estimate because they are not experts and therefore, prayer is made in this I.A. that an Expert Committee be constituted to assess the damage caused to their agricultural crops and that an opinion from the District Soil Conservator be also taken in order to assess the quality of soil and damage caused to the crops.

4. Our attention is drawn by the learned counsel for applicants to the fact that he has already filled up Form No.II, which is annexed at page nos.149 to 162 of the paper book and that it is orally submitted that the court fees for the same has already been paid. But when we enquired from him as to where are the details of the same, he submits that on 04.12.2024, court fees has been deposited. We direct the Registry to verify about the same and submit a report in this regard.

5. We deem it appropriate to constitute a Committee, which assess the damage caused to the agricultural crops/lands of the applicants, comprising one Member each of:

- (i) The District Collector, Aurangabad;
- (ii) The District Agricultural Officer, Aurangabad; and
- (iii) The Central Pollution Control Board (CPCB).

6. The District Agricultural Officer, Aurangabad shall be the nodal agency for coordination and logistic support.

7. The Committee is directed to visit the site and submit a factual and action taken report with regard to the violations, if any, and action taken thereon, within two month.

8. The report in the matter be submitted by SPCB through e-filing by using portal of NGT in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

9. Applicants are directed to supply the required documents in support of the present Original Application and copy of the application to the Members of the Committee within three days from today.

10. A copy of this order be communicated to the above-mentioned Committee forth-with for compliance.

11. In response to our previous order, the respondent No.1 has filed reply affidavit dated 15.04.2024, the same is taken on record. Several photographs are also filed from the side of respondent No.1- Project Proponent, the same are taken on record.

12. It is submitted by the learned counsel for respondent No.1 that the applicants have deliberately impleaded the respondent No.1 in the array of parties in the present Original Application despite the respondent No.1 being a ZLD industry and there is no contamination being done from its side. It is also emphasized that the industry of respondent No.1 is located at a distance of 1500 mtrs., in view of which there is no likelihood of this industry causing any pollution to the lands/crops of the applicants. It is only due to vindictiveness and in order to harass the respondent No.1 that impleadment is made.

13. From the side of respondent No.2- MPCB, reply affidavit dated 19.04.2024 is filed, wherein our attention is drawn to para no.31 of this affidavit, annexed at page no.574 of the paper book, which is as follows:-

"31. I say and submit that as per the Respondent Board's Analysis Report of the well water of the Applicant No. 1 dated 09/5/2023 which is annexed as Annexure " H " to the O.A , it is submitted that

the parameter is compared with the Indian Standard (IS) Drinking water standard 10500/2012. The parameters such as TDS, chloride, Hardness (Calcium) Hardness Total. Sulphate, Conductivity and TFS found exceeding with the IS Drinking water standard 10500/2012. I say and submit that there are around 21 number of industries approximately in MIDC area of Paithan, Chh Sambhajinagar. Out of these 4 number of industries are achieving ZLD, 7 number of industries effluent is being sent Common Effluent Treatment Plant (CETP) Waluj, 6 number of industries using treated effluent for gardening, 2 number of industries having effluent nil and 2 number of industries are closed. Respondent No.1 being one of the industry operating in the said area, it can't be held solely responsible for the water pollution. I say that in view of pollution problems existing in the MIDC Paithan area, the Respondent Board has issued Work Order to Indian Institute of Technology, Powai, Mumbai vide letter dated 02-04-2024, for conducting Assessment of groundwater contamination and mitigation plan based on detailed assessment of contaminated ground water at Paithan MIDC area, Chhatrapati Sambhajinagar. The scope of work has been also defined and the time duration for the work order is also specified with methodology and deliverables. The Respondent Board will take reviews of the work progress on monthly basis. A copy of the said work order is enclosed herewith and marked as an Annexure "H".

14. From the above-mentioned para, it is clear that the Respondent Board has engaged the Indian Institute of Technology, Powai, Mumbai to assess the groundwater contamination and its source in the MIDC pipeline area. Annexure-H of this affidavit is a work order dated 02.04.2024 issued by the MPCB to the IIT, Powai, Mumbai, wherein cost of the project is stated to be Rs.52,50,000/- (Rupees Fifty five lakhs fifty thousands only) + GST as applicable and terms & conditions of the payment are also mentioned therein that 70% of the total cost will be paid in advance for acceptance of the work order and remaining 30% of the project cost will be paid on submission of the Final Report (Phase-I).

15. When we enquired from the learned counsel for respondent No.2-MPCB as to what works includes in the cost of this project, it is apprised by her that an assessment of the source of pollution would be done by the IIT, Powai and its remediation would also be suggested by it, for which the said amount is being charged.

16. We find some vagueness in the project cost because what we would like to have clarity about is that the IIT must conduct the identification of the industries, which are responsible for causing the contamination in MIDC Paithan area and that apportionment of the cost of study + remediation/mitigation measures by the industries should be suggested by the IIT, Powai, which may be levied/recovered from the concerned industries, so that the MPCB may carry out the remediation plan. Some timeline has to be also there, therefore, we direct that this project should be completed within a period of three months.

17. We may also make it clear that from the report, if the industries are identified, which are responsible for causing pollution, the said industries would be directed to be impleaded as respondents in the present Original Application by us at that stage.

18. We also make it clear that the IIT, Powai shall make visit of the spot in question in the month of May prior to the onset of monsoon.

Put up this matter for further consideration on 08.08.2024

Dinesh Kumar Singh, JM

Dr. Vijay Kulkarni, EM

April 22, 2024
Original Application No.222/2023(WZ)
P.Kr

Joint Committee Report

In The Matter of Original Application No. 222/2023(WZ) - Mrs. Mangal W /0 Vishnu Bodkhe & 4 Ors. Versus M/ s. Matrix Life Science Pvt. Ltd. & 3 Ors.

1.0 Hon'ble NGT vide its Order dated 22.04.2024 in the matter of Original Application No. 222/2023(WZ) - Mrs. Mangal W /0 Vishnu Bodkhe & 4 Ors. Versus M/ s. Matrix Life Science Pvt. Ltd. & 3 Ors, constituted a joint committee comprises one Member each of: The District Collector, Aurangabad; The District Agricultural Officer, Aurangabad; and The Central Pollution Control Board (CPCB). The operative part of the Hon'ble NGT order is as given below

.....5. We deem it appropriate to constitute a committee, which assess the damage caused to the agricultural crops/lands of the applicants, comprising one Member each of:

(i) The District Collector, Aurangabad;

(ii) The District Agricultural Officer, Aurangabad; and (

(iii) The Central Pollution Control Board (CPCB).

6. The District Agricultural Officer, Aurangabad shall be the nodal agency for coordination and logistic support.

7. The Committee is directed to visit the site and submit a factual and

8. The report in the matter be submitted by SPCB through e-filing by using portal of NGT in the form of searchable PDF /OCR Support PDF and not in the form of image PDF.

9. Applicants are directed to supply the required documents in support of the present Original Application and copy of the application to the Members of the Committee within three days from today.

10. A copy of this order be communicated to the above-mentioned Committee forth-with for compliance.

The copy of aforesaid order dated 22.04.2024 is attached as **Annexure-01**

2.0 In compliance with the aforesaid directives of the Hon'ble NGT, the following members have been nominated for the joint committee:

- 2.1 Shri. Deelip Swami, District Collector, Ch. Sambhajinagar
- 2.2 Shri Prakash R Deshmukh, Superintending Agricultural Officer, Ch. Sambhajinagar
- 2.3 Shri Rajendra D Patil, Scientist 'E' - Regional Directorate, Central Pollution Control Board (CPCB), Pune

In addition, the following additional members have been nominated by the District Collector to join the committee

- 2.4 Smt. Neelam Bafna, Sub Divisional Officer, Paithan
- 2.5 Shri. Jeevan Bedval, Sr. Geologist, CGWB, Ch. Sambhajinagar

2.6 Shri. Manish Holkar, Regional Officer, MPCB, Ch. Sambhajinagar

3.0 The committee visited the affected wells and agriculture area along with Shri Vishnu Bodkhe behalf of the Applicant on 14.06.2024.

3.1 Details of the well visited

	Location of the well	
Well of Shri. Mangal Vishnu Bodke (Gat No.226)Applicant	19°53'65.8" N	75°39'25.13" E
Well of Shri. Gopichand Harichchandra Bodkhe (Gat no.220)	19°32'11.32"N	75°23'33.31"E
Well of Shri. Vinod Babanrao Aadhav (Gat No.20)	19°54'01,25" N	75°39'58.73" E

3.2 The water in all the wells visited was yellowish in colour and had a mild foul smell.



3.3 The committee also interacted with a few farmers from the area. The following information was shared by the farmers from the affected region:

3.3.1 The well water is unfit for drinking and for consumption by animals due to its colour and odour.

3.3.2 Most farmers have made arrangements to draw water from the nearby Jayakwadi Dam for domestic and agricultural use.

3.3.3 The groundwater has exhibited a yellowish color and foul odor since last few years.

3.3.4 Agricultural crop yields have consistently declined due to groundwater and soil contamination.

3.3.5 The yield of the agriculture crops is constantly declined due to the ground water and soil contamination.

3.3.6 Agriculture is the sole source of livelihood for these families, which has been adversely affected due to the reduced crop yield, leading to economic distress.

4.0 One Kutcha drain originating from the MIDC is passing through these agricultural fields. MPCB mentioned that the said drain is kept for the discharge of rainwater runoff from the MIDC area. However, farmers claimed that the industrial effluent is frequently discharged through the MIDC Paithan drain. On the day of the visit also this drain was also carrying water.

5.0 Considering color and odor in the well water the committee was prima-facie ascertain about the contamination in the Ground Water (GW) of the area.

6.0 MPCB informed about the proposed in-depth GW monitoring of the affected area in compliance to the Hon'ble NGT directives. The committee requested MPCB to complete the assigned task and provide the GW monitoring report. Similarly, the Agriculture department was requested to collect the soil samples of the area and analysis to verify the contamination in the soil and its impact on the crop yield.

7.0 Accordingly, the team of district agriculture office has collected soil samples from 10 randomly selected locations on 01.08.2024 & 05.08.2024. These soil samples have been analysed for 16 parameters at Govt. Soil Testing Laboratory, Ch. Sambhajnagar that includes pH, EC, OC, N, P, K CaCO₃, Ca, Mg, Na, etc. The copy of the soil test report submitted by the District Soil Survey and Soil Testing Officer, Chhatrapati Sambhajnagar is attached as **Annexure - 02**

8.0 The parameter wise compiled information of the 10 soil analysis reports is as given below

Sr. No	Parameter	Unit	Conc found in Soil			Desired conc.	Remark
			Min	Max	Avg		
1	pH	-	8.16	8.71	8.373	6.5-7.5	Strong Alkali
2	EC	dS/m	0.44	1.06	0.803	0-1	General
3	Organic Carbon	%	0.17	0.43	0.28	0.40-0.60	Low
4	Nitrogen	Kg/ha	88.69	170.22	135.476	280-420	low
5	Phosphorus	Kg/ha	3.63	26.61	13.597	14-21	Medium
6	Potassium	Kg/ha	171.02	1324.85	528.281	150-200	High

7	Calcium Carbonate (CaCo3)	%	6.13	18.5	15.364	2.5-5.0	High limestone
8	Calcium	ppm%	4.77	13.68	9.65	4-9.99	Medium
9	Magnesium	ppm%	31.09	52.2	42.27	0.50-3.99	High
10	Sodium	ppm%	13.98	46.5	26.829	5-15	Medium
11	Moisture	%	4.47	4.78	4.636	11-29	Low
12	Water Holding Capacity	%	57.67	64.61	60.92	30-50	Medium
13	Bulk Density	g/cc	0.84	1.38	0.986	1.5-1.7	Medium
14	Specific Density	g/cc	1.07	2.14	1.417	2.5-2.75	Low
15	Porespace	%	5.23	42.7	25.42	45-60	Low
16	Volume expansion	%	15.51	25.22	20.913	20-30	Medium

9.0 Following are some of the findings made in the said report.

9.1 Soil is highly alkaline and free lime and calcium, magnesium, sodium are found in high amounts.

9.2 Some of these farmers also gave water samples for testing at the District Soil Survey and Soil Testing Laboratory, Krishi Vigyan Kendra, Paithan. When the said samples were tested, the water class was found to be C4S1 (Very high salinity & low sodicity hazards) and due to the said water class, when amount of salts in the soil goes beyond a certain limit (Electrical Conductivity in between 2.25 to 5 ds/m), the land becomes saline and its productivity rapidly decreases.

9.3 The increase in amount of salts hinders the absorption of nutrients required by the crops, which results in the crops drying out and not growing properly.

- 10.0 MPCB awarded work order for GW monitoring to Visvesvaraya National Institute of Technology (VNIT), Nagpur vide letter dated 01.07.2024. Vide this work order the institute was asked to complete the Project on '*Assessment of Ground Water Contamination and mitigation plan based on detailed assessment of contaminated ground water at Paithan MIDC area, Chhatrapati Sambhajinagar*' with time duration to complete the project within 60 working days from receipt of the work order and submit the final project report along with recommendations within 15 days from the date of completion of the whole project.
- 11.0 The VNIT collected GW samples from 22 existing dug wells and 1 borewell within an aerial distance of 3 KM from the boundary of MIDC on 06.01.2025 and these 23 GW samples have been analysed for 26 parameters. The analysis report submitted is without mentioning any unit of the concentration in the GW. The copy of the report is attached as **Annexure 03**. For a purpose of understanding the units which are commonly used to measure these parameters are considered for evaluation of this report.
- 12.0 MPCB vide dated 15.07.2025 forwarded the report prepared by VNIT to the committee. The joint committee conducted meeting through VC on 24.07.2025 with VNIT team and MPCB to discuss and

understand the project report submitted by the institute. The observations made are given below-

- 12.1 Samples are collected from 22 dug wells and 01 bore well. The VNIT has mentioned the map of the location from where the GW samples have been collected. However, depth of the dug wells and borewell is not mentioned in the report.
- 12.2 Two sampling locations are located in NW side of the MIDC area whereas the remaining 21 locations are located in E-SE side of the MIDC area which is seems to be impacted zone in this case. (Refer map given in the VNIT report). The samples are collected from dug wells from all these 21 locations. The two sampling locations (on NW side) which are on opposite side of the MIDC area w.r.t. impacted zone can be taken for reference GW quality of the area. Out of these two locations, one samples is collected from dug well and another is from bore well. Similarly, both the reference locations are situated in thick residential area whereas the dug wells in the impacted zones are mostly located in the agriculture field alongside one or two houses are located.
- 12.3 While comparing the GW data with acceptable limit for drinking water as per IS-10500:2012, it is evident that the GW quality is

not matching mostly for 8 major parameters - Chloride (as Cl), Nickel (as Ni), Total Dissolved Solids, Manganese (as Mn), Sulphate as SO₄, Ammonical Nitrogen (as NH₃-N), Mercury & Fecal Coliform (FC). Well-1 (well of the applicant) contains most unsuitable water for drinking purpose as it exceeds for 7 parameters, Well-7 exceeds for 6 parameters while seven other wells is not confirming for 5 parameters each. None of the monitored well contains water of acceptable drinking quality as per IS 10500:2012.

- 12.4 The presence of FC, which shows contamination due to domestic wastewater/sewage, is found in all the dug wells whereas the bore well situated in reference zone is free from FC contamination.
- 12.5 The presence of BOD (up to 36 mg/L) and COD (up to 137 mg/L) is reported in the GW through out the area i.e. in both reference and impacted zones.
- 12.6 Very high level of chlorides (up to 2315.94 mg/L) is found in the GW near MIDC area in the impacted zone.
- 12.7 Presence of Oil & Grease is also found in the GW near MIDC area in the impacted zone.

12.8 Presence of mercury in GW is another feature of the area which need further investigation and immediate attention.

12.9 The GW analysis results of some of the key parameters that includes 8 exceeding parameters w.r.t. BIS drinking water acceptable limit as per IS 10500: 2021 and other important parameters are compared to further evaluate the GW quality of the area. To understand the dynamics of the analytical results, the monitoring locations (21 dug wells) situated in impact zone are further categorised in 3 sub zones based on the distance at which they are located from the MIDC boundary.

Sub Zone No.	Approx. Distance from MIDC Boundary	No of dug wells	Dug well numbers
I	Up to 150 m	12	1,2,3,4,5,6,7,8,15, 16, 19,20
II	150-500 m	06	9,10,11,12,13,14
III	More than 1000 m	03	21,22,23

9 out of 12 dug wells in Sub Zone – I are located on the boundary of the MIDC towards the impacted area.

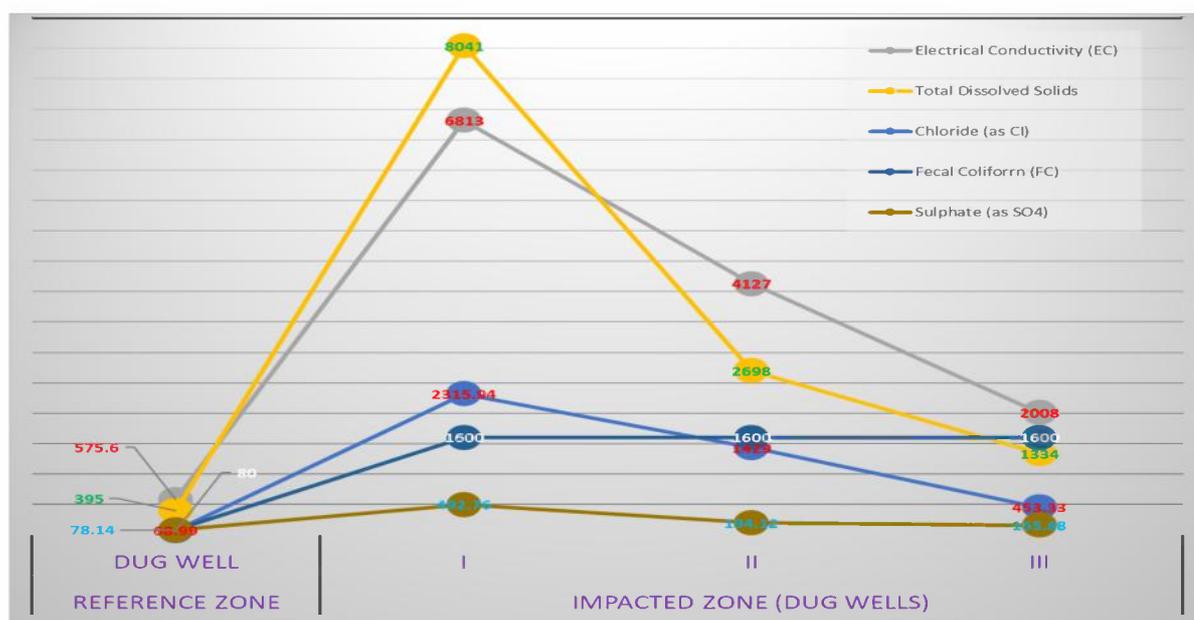
12.10 Following is the comparison of the maximum concentrations found in each zone for selected parameter

Parameter	Reference Zone		Impacted Area Sub Zone (Dug wells)		
	Bore well	Dug well	I	II	III
No of wells	01	01	12	06	03
pH	7.8	7.26	8.05	7.94	7.94
Electrical Conductivity (EC)	1030	575.6	6813	4127	2008

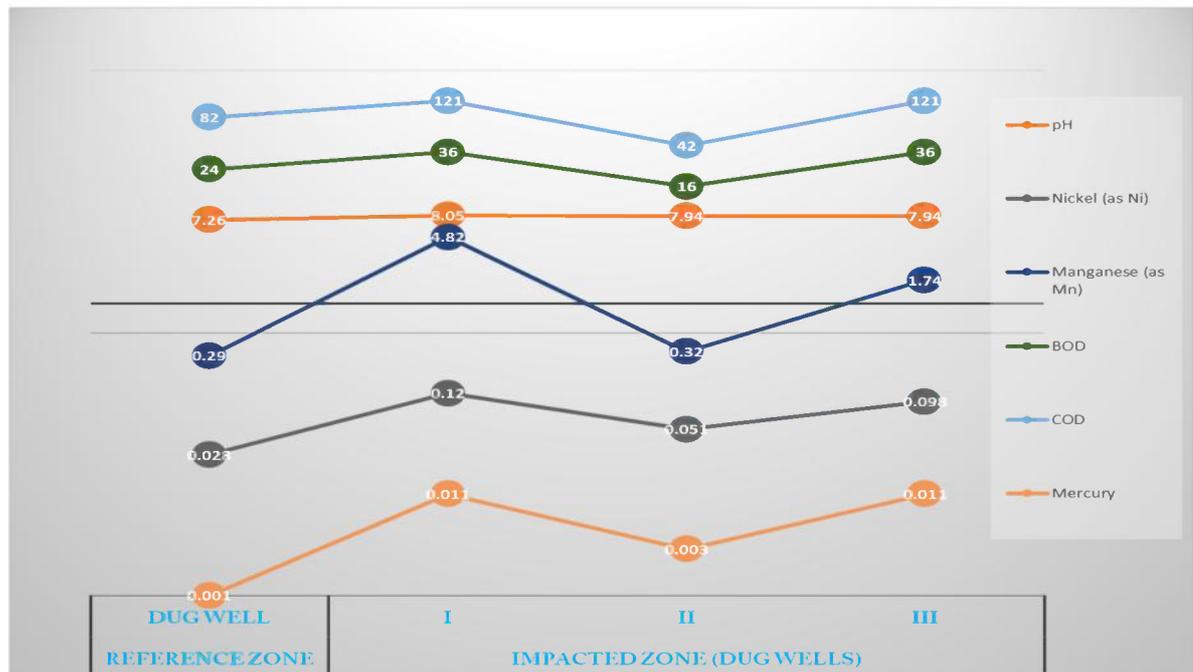
Parameter	Reference Zone		Impacted Area Sub Zone (Dug wells)		
	Bore well	Dug well	I	II	III
No of wells	01	01	12	06	03
Total Dissolved Solids	690	395	8041	2698	1334
Chloride (as Cl)	98.55	68.99	2315.94	1429.00	453.33
Ammonical Nitrogen as NH ₃ -N	<0.1	<0.1	5.25	<0.1	<0.1
Fecal Coliform (FC)	<2	80	1600	1600	1600
Oil & Grease	<5	<5	26	16	<5
Nickel (as Ni)	0.044	0.028	0.12	0.051	0.098
Sulphate (as SO ₄)	155.88	78.14	492.76	194.12	155.88
Manganese (as Mn)	0.30	0.29	4.82	0.32	1.74
BOD	36	24	36	16	36
COD	137	82	121	42	121
Mercury	0.003	0.001	0.011	0.003	0.011

(All values except pH, EC & FC are in mg/L. EC is in $\mu\text{S}/\text{cm}$ and FC is in MPN/100 ml)

12.11 Chart showing trend of Electrical Conductivity (EC), Total Dissolved Solids, Chloride (as Cl), Fecal Coliform (FC) & Sulphate (as SO₄) between dug well in reference zone with maximum concentrations found in dug wells in 3 sub zones of impacted area is as given.



12.12 Chart showing trend of pH, Nickel (as Ni), Manganese (as Mn), BOD, COD & Mercury between dug well in reference zone with maximum concentrations found in dug wells in 3 sub zones of impacted area is as given.



12.13 Now, the comparison between concentrations of selected parameter found in reference zone with average concentrations each sub zone of impacted area is as tabulated below

Parameter	Reference Area		Impacted area Sub Zones (Dug wells)		
	Bore well	Dug well	I	II	III
No of wells	01	01	12	06	03
pH	7.8	7.26	7.58	7.82	7.60
Electrical Conductivity	1030	575.6	3128.17	3312	1897.33
Total Dissolved Solids	690	395	2656.25	2172	1258
Chloride as Cl)	98.55	68.99	1043.00	1175	407.34
Ammonical Nitrogen as NH ₃ -N	<0.1	<0.1	0.45	<0.1	<0.1
Fecal Coliform	<2	80	1166.67	655	933.33
Oil & Grease	<5	<5	13.17	12.25	<5

Parameter	Reference Area		Impacted area Sub Zones (Dug wells)		
	Bore well	Dug well	I	II	III
No of wells	01	01	12	06	03
Nickel (as Ni)	0.044	0.028	0.05	0.04	0.07
Sulphate as SO ₄	155.88	78.14	162.15	176.72	144.61
Manganese (as Mn)	0.30	0.29	0.87	0.30	1.02
BOD	36	24	14.58	9.16	25.33
COD	137	82	5.58	25.5	87
Mercury	0.003	0.001	0.01	0.002	0.01

(All values except pH, EC & FC are in mg/L. EC is in $\mu\text{S}/\text{cm}$ and FC is in MPN/100 ml)

12.14 Considering above given tables and charts, following is summarized

12.14.1 Considering above tables, the impact of the MIDC area is clearly visible on the Ground Water quality. The GW quality is substantially deteriorated after MIDC area w.r.t. the reference water quality of the area and thereafter the concentrations of the pollutants is decreasing with distance due to the dilution in GW within passage of travel.

12.14.2 Generally, chloride not removed naturally from the groundwater without any specific treatment. Hence, behaviour of chloride concentration can be considered as one of the indicators of the inorganic contamination in GW. The chloride level in dug well is increased from 68.99 mg/L (in reference zone) to the 2315.94 mg/L after MIDC area

which get diluted to 453.33 mg/L at a distance of around 1 KM from MIDC area.

- 12.14.3 The presence of Ammonical Nitrogen (as $\text{NH}_3\text{-N}$) is found only at the periphery of the MIDC area which is another key parameter to assess the contamination due to the industrial area.
- 12.14.4 The steep increase in concentrations of Electrical Conductivity (EC), Total Dissolved Solids, Chloride (as Cl), Nickel (as Ni), Sulphate (as SO_4), Manganese (as Mn) is evident in the groundwater of the impacted area w.r.t. the groundwater in reference area.
- 12.14.5 Similarly, presence of the Fecal Coliform (FC) can be taken as the key indicator to trace the contamination due to the discharge of sewage and septic flow. The dug well in a reference zone is surrounded by the thick populations contains FC to the range of 80 MPN/100 ml. This concentration steeply increased to 1600 MPN/100 ml in the dug wells situated immediately after MIDC area and that contamination even carries up to the distance of 1 KM from the MIDC area.

12.14.6 Presence of the color and Oil & Grease found only in the water samples collected near MIDC area. Color is present in 2 GW samples (in Sub Zone-I), whereas oil and grease is present in 10 out of 18 samples collected in Sub Zone I & II of the impacted area.

12.14.7 The BOD/COD ratio reflects the biodegradability of pollutants in water and can be considered as a key indicator to evaluate source of the pollutants. In the groundwater of the area, BOD/COD ratio is found as 0.3 in 22 wells and it is 1.0 in Well No. 14.

BOD/COD ratio above 0.5 Indicates a high proportion of biodegradable organic matter and that generally reflects contamination due to sewage. Whereas, BOD/COD ratio equal to or below 0.3 is considered as Indicates a high proportion of non-biodegradable or slowly degradable organic matter.

In this case, out of 23 GW samples, 22 having BOD/COD ration around 0.3, which clearly indicates about the contamination due to discharges /disposal of industrial effluents, waste, leachates in the past.

13.0 The evaluation of the groundwater monitoring report submitted by VNIT indicates about contamination in the groundwater due to the industries situated in the MIDC Paithan area. Further, it is evident that both industrial and domestic effluents generated from the industrial area contribute to the contamination of the GW in this area. The concentrations of the pollutants get diluted with passage of travel away from the MIDC boundary. These findings are also matching with the physical/visual observation made by the joint committee during the visit of the site.

14.0 District Collector, Chhatrapati Sambhajinagar constituted a subcommittee on 15/07/2025 comprising of the District Superintendent Agriculture Officer, Sub-Divisional Agriculture Officer, District Soil Survey and Soil Testing Officer, Soil and Water Testing Specialist of the Krishi Vidnyan Kendra (KVK) , Taluka Agriculture Officer, Paithan, Circle Agriculture Officer, Deputy Agriculture Officer and Assistant Agriculture Officer, asked to visit the site and submit their views on the impact on crop growth and production based on the report submitted by VNIT Nagpur. The said committee, interacted with 10 randomly selected farmers from seven villages situated in this area namely Mudhalwadi, Wahegav, Narayangav Katpur, Pimpalwadi Pirachi, Pachalgav, and Diyanatpur

during their field inspection on 18/07/2025. The copy of the report is attached for the reference at **Annexure 04**. The following are some of the key findings made by this committee

14.1 In Mudhalwadi Wahegav and Narayangav village, mainly sugarcane, cotton, Pigeon pea and maize were found to be affected impacted groundwater and there is a possibility of a 25-40 % reduction in the productivity of these fields.

14.1.1 The observed side effects include reduced shoot emergence in sugarcane, as well as diminished growth in cotton, pigeon pea (tur), and maize. The side effects on onions in the aforementioned agricultural fields include reduced leaf count, reduced plant height, smaller bulb size, and shorter storage life. Similarly, the side effects on Mosambi include reduced growth, premature fruit drop, and leaf yellowing, which collectively restrict the cultivation of traditional crops such as onion and Mosambi.

14.1.2 Some of the farmers source water from dams or other farmers in unaffected areas due to well water contamination. Discussions with farmers indicate that the aforementioned side effects, combined with continuous

cultivation of the same crops, have led to a consistent decline in soil productivity over the past 4–5 years.

14.2 Crop conditions in Katpur, Pimpalwadi, Pirachi, Pachalgaon, Diyanatpur, and Dalwadi were inspected, and no adverse impact on productivity was observed.

14.3 According to VNIT's findings, water samples contained high levels of arsenic, cadmium, mercury, and nickel. Soil analysis by the District Soil Survey and Soil Testing Officer revealed high alkalinity in affected agriculture area due to presence of free lime, calcium, magnesium, sodium, and sulfur content. The water, classified as C4S1, contributes to soil alkalinity when salt accumulation exceeds certain levels. This increased soil salinity has been exacerbated by contaminated water, hindering the absorption of nutrients required by the crops, which results in the crops drying out and not growing properly.

15.0 Thus, the said committee concluded that contaminated groundwater has degraded soil quality in the affected area, potentially reducing crop production by 25–40% compared to unaffected regions.

16.0 During the VC on 24.07.2025, the committee requested the District Superintendent Agriculture Officer to provide per per-hectare loss of each of the crops along with the Minimum Support Price (MSP).

Accordingly, the details provided vide letter dated 24.07.2025 is placed at **Annexure 05**. The provided details can be further used to calculate the cost of the loss of crop of the farmers situated in the impacted area of Mudhalwadi, Wahegav and Narayangav village to finalise the compensation against loss of crops due to groundwater contamination.

- 17.0 It is mentioned in the MPCB affidavit dated 19.04.2024, there are around 21 number of industries in MIDC area of Paithan. And as per present information provided by the MPCB, total 24 industries are located in the MIDC Paithan. The details of these industries is as given below

		No. of industries categorised under		Total
		Red	Orange	
Scale of industrie	Large	06	01	07
	Midium	01	--	01
	Small	13	02	15
Total		20	03	23

As per MPCB, one unit is closed and its Category has not mentioned.

As per this data most of the units located in MIDC Paithan are falls in the 'Red Category' which means these units have high potential for generation of environmental pollution.

- 18.0 The information related to sector-wise bifurcation of the industries in MIDC Paithan and the details of the industrial effluent and sewage generated by them along with details of the ETPs & STPs installed by them and mode of disposal after treatment is awaited from MPCB.
- 19.0 MPCB shared Summary of Survey of 20 industries located in MIDC Paithan area carried out during 04.12.2023 to 13.12.2023 due to complaints received about water pollution problems from industries located in MIDC Paithan area. (**Annexure 06**) As per the shared summary, MPCB has initiated action against 8 units based on the outcome of the survey. The name of the respondent industry is not among these 8 units. However, as per the MPCB analysis report of STP dated 05.12.2023 attached in the Affidavit dated 19.04.2024 filed by MPCB, the unit is non-complainant w.r.t. prescribed BOD limit for STP. Thus, in total 9 units out of 20 surveyed unit are found non-complying. Even 04 units among the non-complying list were in operation without valid consent during the survey of MPCB.
- 20.0 M/s. Matrix Life Sciences Pvt. Ltd., the respondent industry in the present case, is located at Plot No. D-8, MIDC Paithan. The unit is large scale red category unit involved in manufacturing of 19 various chemical products.

- 20.1 During visit of the committee on 14.06.2024, the respondent industry was found operating without valid Consents to operate (CTO) from MPCB. It was informed that the validity of the last consent was upto 31.05.2024 and the unit had applied for renewal.
- 20.2 The earlier consent was valid up to 31/05/2024 whereas the next consent was issued on 13/08/2024 with validity up to 31/05/2029.
- 20.3 The unit has obtained Environmental Clearance (EC) on 17.05.2019 (**Annexure 07**) for expansion of production of Organic Chemicals from MoEF&CC. The following condition is prescribed for effluent treatment in the EC. *Industrial effluent of 91.5 cum/day will be treated through Effluent Treatment Plant. Domestic effluent will be taken to STP for treatment. High COD effluent will be treated in solvent stripper, MEE and ATFD and treated water will be recycled in the process and for green belt development.*
- There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.*
- 20.4 Further based on the EC, the unit had obtained Consent to Establish (CTE) for expansion in RED category on 24.09.2019

(Annexure 08). The following is mentioned about effluent treatment in the CTE. *As per your application, you have proposed to expand the capacity of existing 60 CMD Effluent Treatment Plant (ETP) to 120 CMD, consisting of Primary and secondary treatment systems followed by Solvent Stripper and ATFD for achieving Zero Liquid Discharge (ZLD).*

Treated effluent shall be 100 % recycled/reuse in the manufacturing process. There shall not be any discharge outside the factory premises/CETP.

20.5 In the present Consent to Operate (CTO) issued on 13/08/2024 (Annexure 09), following is mentioned about effluent treatment.

As per your application, you have provided Effluent Treatment Plant (ETP) of designed capacity of 160.00 CMD consisting of Primary (Collection tank, Neutralization tank, Equalization tank, Flash mixer, Primary Clarifier/Primary Settling Tank), Secondary (Activated sludge process, Anaerobic digester), Tertiary (Pressure sand filter, Activated carbon filter), Advanced treatment (Reverse osmosis, Stripper, ATFD) for the treatment of 89.2 CMD of trade effluent.

The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent and recycle the entire treated effluent

into the process for various purposes such as for cooling, process & scrubbing with metering system so as to achieve Zero Liquid Discharge. There shall be no discharge on land or outside factory premises.

20.6 Thus, the requirement of MEE mentioned in the EC is not prescribed in CTE or CTO issued by the MPCB. Similarly, the condition imposed in CTE for 100 % recycled/reuse of the treated effluent in the manufacturing process is also amended in CTO and permission for utilising treated effluent in process for utilities such as for cooling, scrubbing is also allowed in addition to use in process.

20.7 As informed by the industry during visit of the committee, the effluent is firstly taken to solvent stripper of 600 kg/hr capacity, and thereafter wastewater is taken to anaerobic tank followed by primary settling, aeration tank, secondary settling. The treated effluent from secondary settling is passed through sand & carbon filter and two stage RO system. The RO permeate is reused for utilities such as for cooling, process & scrubbing. The RO reject is charged into ATFD and residue is sent to Common Hazardous Waste Treatment and disposal facility. The unit claimed that it operates at less than 30% of the production

capacity specified in its EC, resulting in effluent generation below 30 KLD against permitted 89.2 KLD. And hence, the unit has not yet installed a MEE.

20.8 On 02.02.2021, issued a warning notice (**Annexure 10**) to the unit for not installing an ATFD for wastewater treatment & disposal and using RO reject for Ash spraying. The unit has obtained EC & CTE in 2019, with condition to achieve ZLD by installing solvent stripper, MEE & ATFD. The illegal discharge of RO reject, a highly concentrated effluent, could have caused significant environmental damage to surrounding water and soil resources.

20.9 As per the details attached in the MPCB affidavit, the unit was visited by MPCB on 12.07.2023 and 05.12.2023 (**Annexure 11**). During both the visit, the sample of the STP collected was not complying the consented standard for BOD.

20.10 It is reflected from the records of MPCB made available before the Committee, the respondent industry found violated the conditions prescribed for trade effluent and sewage management. The mismanagement of highly concentrated RO reject possessed potential high risk of contamination of the groundwater.

21.0 Findings and Conclusion

21.1 During site visit of the Committee, the water in all the visited wells was yellowish in colour and had a mild foul smell which prima-facie indicate about the contamination in the Ground Water (GW) of the area.

21.2 After making an in-depth appraisal of the VNIT report on '*Assessment of Ground Water Contamination and mitigation plan based on detailed assessment of contaminated ground water at Paithan MIDC area, Chhatrapati Sambhajnagar*', the committee is of the opinion that the industrial effluent and sewage generated from the industries located in MIDC Paithan are the main reason for depleting ground water quality of the area.

21.3 As per the reports of the District Agriculture Office, the contaminated ground water is main reason for soil contamination of the agriculture fields and that decrease in the crop yield mainly during last 4-5 years.

21.4 Hence, the committee is of the opinion to calculate compensation for crop loss of the Farmers located in impacted area of Mudhalwadi, Wahegav and Narayangav villages. The crop wise per hectare cost suggested by District Agriculture Office vide letter dated 24.07.2025 can be considered as a reference document for computation of compensation. The district agriculture office may be asked to calculate said compensation for crop loss of the Farmers.

21.5 The committee suggest following measure to deal with ground water contamination in the area

21.5.1 Performance Evaluation and adequacy reports for ZLD System installed by the industries shall be carried out by third party reputed technical institute based on which MPCB shall take appropriate action.

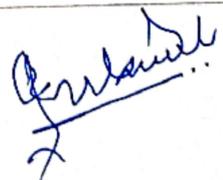
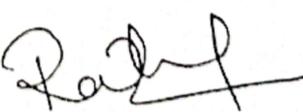
21.5.2 The units located in MIDC Paithan area may be kept under continuous vigilance to eliminate further contamination in the ground water and stringent action may be initiated against the non-complying industries. In addition to this

environmental compensation may be imposed on the respondent industry for not having treatment as per Consent/EC and handling the RO reject in illegal manner without installing the treatment units mentioned in EC/CTE/CTO.

21.5.3 The in-depth scientific study may be carried out through the expert technical institute in the field of ground water management under the supervision of CGWA/CGWB to identify the horizontal and vertical propagation of the contaminants in the groundwater of the area and also to identify the other possible sectors of the industries responsible for the contamination.

21.5.4 Based on findings of this in-depth study, the scientific remediation plan may be prepared and implemented in time frame manner through Reference Organisations as per the provisions of Environment Protection (Management of Contaminated Sites) Rules, 2025.

21.6 Compensation should be imposed on non-compliant units, including the respondent industry, for past environmental violations, in accordance with the methodologies prepared by the Central Pollution Control Board (CPCB). The recovered amount should be allocated as interim compensation for crop losses and to initiate remediation activities. After evaluating the total cost of groundwater remediation, corresponding costs should be recovered from the responsible industries.

Name and Designation of the officers	Signature
Smt. Neelam Bafna, Sub Divisional Officer, Paithan (Representative of District Collector, Ch. Sambhajinagar)	
Shri Prakash R Deshmukh, District Superintending Agricultural Officer, Ch.Sambhajinagar	
Shri Rajendra D Patil, Scientist 'E' Regional Directorate, Central Pollution Control Board (CPCB), Pune	

List of Annexures

Annexure No.	Description	No of Pages
01	Hon'ble NGT Order dated 22.04.2024 in the matter of Original Application No. 222/2023(WZ)	30-34
02	Soil test reports (10 samples) by District Soil Survey and Soil Testing Officer	35-44
03	VNIT Groundwater Monitoring Report (23 samples with 26 parameters)	45-77
04	Copy of the report of a subcommittee constituted on 15/07/2025 by District Collector, Chhatrapati Sambhajnagar	78-84
05	Crop-wise per hectare economic loss with MSP details from District Agriculture Office	85
06	Summary of Survey of 20 industries located in MIDC Paithan area carried out during 04.12.2023 to 13.12.2023 as provided by MPCB	86-95
07	Environmental Clearance (EC) dated 17.05.2019 issued to the respondent industry	96-101
08	Consent to Establish (CTE) for expansion in RED category dated 24.09.2019 issued to the respondent industry	102-110
09	Consent to Operate (CTO) issued on 13/08/2024 to the respondent industry	111-121
10	Warning Notice dated 02.02.2021 issued by MPCB to the respondent industry	122
11	MPCB analysis of the STP dated 12.07.2023 and 05.12.2023	123-124

Item No.3

(Pune Bench)

**BEFORE THE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH, PUNE**

THROUGH PHYSICAL HEARING (WITH HYBRID OPTION)

Original Application No.222/2023(WZ)

Mrs. Mangal W/O Vishnu Bodkhe & 4 Ors.

.....Applicant(s)

Versus

M/s. Matrix Life Science Pvt. Ltd. & 3 Ors.

....Respondent(s)

Date of hearing: 22.04.2024

**CORAM: HON'BLE MR. JUSTICE DINESH KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. VIJAY KULKARNI, EXPERT MEMBER**

Applicant : Mr. Asim Sarode, Advocate

Respondent(s) : Mr. Sachin Gore, Advocate along-with
Mr. R. B. Mahabal, Advocate for R-1/PP
Ms. Manasi Joshi, Advocate for R-2/MPCB
Mr. Aniruddha Kulkarni, Advocate for R-3/CPCB
DSAO, Department of Agriculture, Aurangabad,
in-person for R-5

ORDER

1. By our previous order dated 11.03.2024, the applicants were directed to fill up Form No.II as prescribed under rules and pay adequate court fees, as the personal compensation was being prayed by the applicants. In this regard, an application dated 19.03.2024 has been filed from the side of learned counsel for applicants, which is found to be defective by the Registry. We direct the learned counsel for applicants to remove the defects forthwith and get the number allotted to this I.A.

2. Even though this I.A. is found to be defective, we are considering the same on merits. A copy of this I.A. has not been served upon all other parties. Therefore, we direct the learned counsel for applicants to serve a copy of the same upon all other parties through e-mail.

3. The main emphasis has been laid in this I.A. by the learned counsel for applicants that an amount of Rs.30,00,000/- (Rupees Thirty Lakhs) is being claimed by the applicants by way of personal compensation only on rough estimate because they are not experts and therefore, prayer is made in this I.A. that an Expert Committee be constituted to assess the damage caused to their agricultural crops and that an opinion from the District Soil Conservator be also taken in order to assess the quality of soil and damage caused to the crops.

4. Our attention is drawn by the learned counsel for applicants to the fact that he has already filled up Form No.II, which is annexed at page nos.149 to 162 of the paper book and that it is orally submitted that the court fees for the same has already been paid. But when we enquired from him as to where are the details of the same, he submits that on 04.12.2024, court fees has been deposited. We direct the Registry to verify about the same and submit a report in this regard.

5. We deem it appropriate to constitute a Committee, which assess the damage caused to the agricultural crops/lands of the applicants, comprising one Member each of:

- (i) The District Collector, Aurangabad;
- (ii) The District Agricultural Officer, Aurangabad; and
- (iii) The Central Pollution Control Board (CPCB).

6. The District Agricultural Officer, Aurangabad shall be the nodal agency for coordination and logistic support.

7. The Committee is directed to visit the site and submit a factual and action taken report with regard to the violations, if any, and action taken thereon, within two month.

8. The report in the matter be submitted by SPCB through e-filing by using portal of NGT in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

9. Applicants are directed to supply the required documents in support of the present Original Application and copy of the application to the Members of the Committee within three days from today.

10. A copy of this order be communicated to the above-mentioned Committee forth-with for compliance.

11. In response to our previous order, the respondent No.1 has filed reply affidavit dated 15.04.2024, the same is taken on record. Several photographs are also filed from the side of respondent No.1- Project Proponent, the same are taken on record.

12. It is submitted by the learned counsel for respondent No.1 that the applicants have deliberately impleaded the respondent No.1 in the array of parties in the present Original Application despite the respondent No.1 being a ZLD industry and there is no contamination being done from its side. It is also emphasized that the industry of respondent No.1 is located at a distance of 1500 mtrs., in view of which there is no likelihood of this industry causing any pollution to the lands/crops of the applicants. It is only due to vindictiveness and in order to harass the respondent No.1 that impleadment is made.

13. From the side of respondent No.2- MPCB, reply affidavit dated 19.04.2024 is filed, wherein our attention is drawn to para no.31 of this affidavit, annexed at page no.574 of the paper book, which is as follows:-

"31. I say and submit that as per the Respondent Board's Analysis Report of the well water of the Applicant No. 1 dated 09/5/2023 which is annexed as Annexure " H " to the O.A , it is submitted that

the parameter is compared with the Indian Standard (IS) Drinking water standard 10500/2012. The parameters such as TDS, chloride, Hardness (Calcium) Hardness Total. Sulphate, Conductivity and TFS found exceeding with the IS Drinking water standard 10500/2012. I say and submit that there are around 21 number of industries approximately in MIDC area of Paithan, Chh Sambhajinagar. Out of these 4 number of industries are achieving ZLD, 7 number of industries effluent is being sent Common Effluent Treatment Plant (CETP) Waluj, 6 number of industries using treated effluent for gardening, 2 number of industries having effluent nil and 2 number of industries are closed. Respondent No.1 being one of the industry operating in the said area, it can't be held solely responsible for the water pollution. I say that in view of pollution problems existing in the MIDC Paithan area, the Respondent Board has issued Work Order to Indian Institute of Technology, Powai, Mumbai vide letter dated 02-04-2024, for conducting Assessment of groundwater contamination and mitigation plan based on detailed assessment of contaminated ground water at Paithan MIDC area, Chhatrapati Sambhajinagar. The scope of work has been also defined and the time duration for the work order is also specified with methodology and deliverables. The Respondent Board will take reviews of the work progress on monthly basis. A copy of the said work order is enclosed herewith and marked as an Annexure "H".

14. From the above-mentioned para, it is clear that the Respondent Board has engaged the Indian Institute of Technology, Powai, Mumbai to assess the groundwater contamination and its source in the MIDC pipeline area. Annexure-H of this affidavit is a work order dated 02.04.2024 issued by the MPCB to the IIT, Powai, Mumbai, wherein cost of the project is stated to be Rs.52,50,000/- (Rupees Fifty five lakhs fifty thousands only) + GST as applicable and terms & conditions of the payment are also mentioned therein that 70% of the total cost will be paid in advance for acceptance of the work order and remaining 30% of the project cost will be paid on submission of the Final Report (Phase-I).

15. When we enquired from the learned counsel for respondent No.2-MPCB as to what works includes in the cost of this project, it is apprised by her that an assessment of the source of pollution would be done by the IIT, Powai and its remediation would also be suggested by it, for which the said amount is being charged.

16. We find some vagueness in the project cost because what we would like to have clarity about is that the IIT must conduct the identification of the industries, which are responsible for causing the contamination in MIDC Paithan area and that apportionment of the cost of study + remediation/mitigation measures by the industries should be suggested by the IIT, Powai, which may be levied/recovered from the concerned industries, so that the MPCB may carry out the remediation plan. Some timeline has to be also there, therefore, we direct that this project should be completed within a period of three months.

17. We may also make it clear that from the report, if the industries are identified, which are responsible for causing pollution, the said industries would be directed to be impleaded as respondents in the present Original Application by us at that stage.

18. We also make it clear that the IIT, Powai shall make visit of the spot in question in the month of May prior to the onset of monsoon.

Put up this matter for further consideration on 08.08.2024

Dinesh Kumar Singh, JM

Dr. Vijay Kulkarni, EM

April 22, 2024
Original Application No.222/2023(WZ)
P.Kr

688

महाराष्ट्र शासन

ANNEXURE - A - 1
कृषि विभाग

Annexure 02

जमीन आरोग्य पत्रिका (सुपि.पातळी)

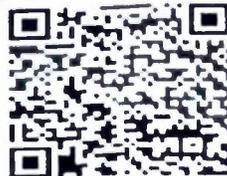
नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	2719092448100222
प्रयोगशाळा नमूना क्रमांक	2715P202400088001	गांव	मुधाळवाडी
शेतक-याचे नाव	मंगल विष्णू बोडखे	तालुका	पैठण
सर्व्हे गट क्रमांक	222	जिल्हा	औरंगाबाद
	भ्रमणध्वनी	0	

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	साम् (pH)	सामु	6.5-7.5	8.33	तीव्र अल्कली
2	क्षारता (EC)	(मिसा/सेंमी)	0-1	0.93	साधारण
3	संद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.30	कमी
4	नत्र (N)	(किलो/हे)	280-420	128.83	अत्यंत कमी
5	स्फुरद (P)	(किलो/हे)	14-21	13.55	कमी
6	पालाश (K)	(किलो/हे)	150-200	418.32	अत्यंत भरपूर
7	मूक चूना (CaCO ₃)	(टक्के)	2.5-5.0	17.38	अत्यंत जास्त चूनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	10.59	जास्त
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	44.49	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	46.50	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.70	-
12	जलधारणा शक्ति (WHC)	(टक्के)		58.01	-
13	आभासी घनता (AD)	(ग्रॅम/सीसी)		1.02	-
14	विशिष्ट घनता (SD)	(ग्रॅम/सीसी)		1.55	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		35.26	-
16	आकारमानातील वाढ (VEP)	(टक्के)		19.74	-

टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.

2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक अॅप मधील खत गणकयंत्राचा वापर करावा.

जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
शहानुरमिया दर्गा उस्मानपूरा, औरंगाबाद
1-Aug-2024



जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	2719092448100195
प्रयोगशाळा नमूना क्रमांक	2715P202400088005	गांव	मुधालवाडी
शेतक-याचे नाव	रघुनाथ सटवाजी सोनवणे	तालुका	पैठण
सर्व्हे / गट क्रमांक	196	जिल्हा	औरंगाबाद
	क्षमणधवनी	0	

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	साम् (pH)	सामु	6.5-7.5	8.28	मध्यम अन्नकमी
2	क्षारता (EC)	(गिसा/सेमी)	0-1	0.76	साधारण
3	सॅद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.28	कमी
4	नत्र (N)	(किलो/हे)	280-420	88.69	प्रत्यंत कमी
5	स्फुरद (P)	(किलो/हे)	14-21	17.18	मध्यम
6	पालाश (K)	(किलो/हे)	150-200	255.47	भरपूर
7	मूक घना (CaCO ₃)	(टक्के)	2.5-5.0	6.13	जास्त घूनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	10.50	जास्त
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	52.20	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	17.28	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.60	-
12	जलधारणा शक्ति (WHC)	(टक्के)		64.61	-
13	आभासी घनता (AD)	(ग्रॅम/सीसी)		0.95	-
14	विशिष्ट घनता (SD)	(ग्रॅम/सीसी)		1.40	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		15.38	-
16	आकारमानातील वाढ (VEP)	(टक्के)		19.23	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.
2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक अॅप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
शाहानूरमिया दर्गा उस्मानपूरा, औरंगाबाद
5-Aug-2024

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महाराष्ट्र शासन



कृषि विभाग

जमीन आरोग्य पत्रिका (सुपि.पातळी)

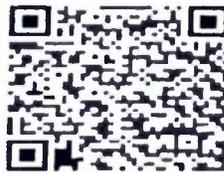
नमूना प्रकार विशेष जमीन आरोग्य पत्रिका क्रमांक 2719092448100216
 प्रयोगशाळा नमूना क्रमांक 2715P202400088006 गांव मुधाळवाडी
 शेतक-याचे नाव राजू रामनाथ बोडखे तालुका पैठण
 सर्व्हे 1 गट क्रमांक 216 भ्रमणध्वनी 0 जिल्हा औरंगाबाद

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	साम् (pH)	सामु	6.5-7.5	8.16	मध्यम अल्कली
2	क्षारता (EC)	(मिसा/सेंमी)	0-1	0.78	साधारण
3	सॅद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.21	कमी
4	नत्र (N)	(किलो/हे)	280-420	130.08	अत्यंत कमी
5	स्फुरद (P)	(किलो/हे)	14-21	18.87	मध्यम
6	पालाश (K)	(किलो/हे)	150-200	525.17	अत्यंत भरपूर
7	मृक्त चूना (CaCO ₃)	(टक्के)	2.5-5.0	14.75	अत्यंत जास्त चूनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	13.68	जास्त
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	41.74	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	38.29	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.47	-
12	जलधारणा शक्ति (WHC)	(टक्के)		63.83	-
13	आभासी घनता (AD)	(गॅम/सीसी)		0.88	-
14	विशिष्ट घनता (SD)	(गॅम/सीसी)		1.18	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		10.52	-
16	आकारमानातील वाढ (VEP)	(टक्के)		25.22	-

टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.

2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक अॅप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
 शहानुरमिया दर्गा उस्मानपुरा, औरंगाबाद

1-Aug-2024

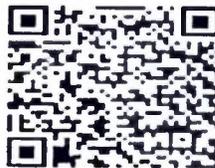
जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	2719092448100222
प्रयोगशाळा नमूना क्रमांक	2715P202400088002	गांव	मुधाळवाडी
शेतक-याचे नाव	भगवान आसाराम बोडखे	तालुका	पैठण
सर्व्हे गट क्रमांक	222	जिल्हा	औरंगाबाद
	भ्रमणध्वनी	0	

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	साम् (pH)	सामु	6.5-7.5	8.24	मध्यम अल्कली
2	क्षारता (EC)	(मिसा/सेंमी)	0-1	1.06	पिक उगवणीस हानिकारक
3	संद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.28	कमी
4	नत्र (N)	(किलो/हे)	280-420	120.05	अत्यंत कमी
5	स्फुरद (P)	(किलो/हे)	14-21	8.71	कमी
6	पालाश (K)	(किलो/हे)	150-200	347.09	अत्यंत भरपूर
7	मूक्त चूना (CaCO ₃)	(टक्के)	2.5-5.0	14.75	अत्यंत जास्त चूनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	9.18	मध्यम
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	42.21	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	41.28	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.67	-
12	जलधारणा शक्ति (WHC)	(टक्के)		59.92	-
13	आभासी घनता (AD)	(ग्रॅम/सीसी)		0.92	-
14	विशिष्ट घनता (SD)	(ग्रॅम/सीसी)		1.41	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		32.84	-
16	आकारमानातील वाढ (VEP)	(टक्के)		15.51	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.
2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक अॅप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
शहानुरमिया दर्गा उस्मानपुरा, औरंगाबाद
1-Aug-2024

699

महाराष्ट्र शासन



कृषि विभाग

जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	271909244810007
प्रयोगशाळा नमूना क्रमांक	2715P202400088003	गांव	मुधाळवाडी
शेतक-याचे नाव	विनोद बबनराव आढाव	तालुका	पैठण
सटर्ह 1 गट क्रमांक	07	जिल्हा	औरंगाबाद
		धमणधवनी	0

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	सामू (pH)	सामू	6.5-7.5	8.49	तीव्र अल्कली
2	क्षारता (EC)	(मिसा/सेमी)	0-1	0.78	साधारण
3	संद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.30	कमी
4	नत्र (N)	(किलो/हे)	280-420	132.59	अत्यंत कमी
5	स्फुरद (P)	(किलो/हे)	14-21	7.26	कमी
6	पालाश (K)	(किलो/हे)	150-200	288.51	भरपूर
7	मूक्त घना (CaCO ₃)	(टक्के)	2.5-5.0	16.25	अत्यंत जास्त घनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	8.50	मध्यम
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	44.60	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	17.39	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.63	-
12	जलधारणा शक्ति (WHC)	(टक्के)		59.50	-
13	आभासी घनता (AD)	(गॅम/सीसी)		1.07	-
14	विशिष्ट घनता (SD)	(गॅम/सीसी)		1.77	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		42.70	-
16	आकारमानातील वाढ (VEP)	(टक्के)		21.90	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी घालणार नाही.
2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक ऑप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
शाहानूरमिया दर्गा उस्मानपूरा, औरंगाबाद
1-Aug-2024



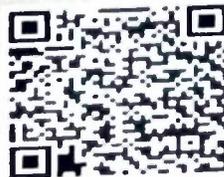
जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	271909244810020
प्रयोगशाळा नमूना क्रमांक	2715P202400088004	गांव	मुधाळवाडी
शेतक-याचे नाव	आनोद बबनराव आढाव	तालुका	पैठण
सर्व्हे गट क्रमांक	20	जिल्हा	औरंगाबाद
	भ्रमणध्वनी	0	

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	साम् (pH)	साम्	6.5-7.5	8.43	तीव्र अल्कली
2	क्षारता (EC)	(मिसा/सेमी)	0-1	0.77	साधारण
3	सेंद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.32	कमी
4	नत्र (N)	(किलो/हे)	280-420	150.15	कमी
5	स्फुरद (P)	(किलो/हे)	14-21	3.63	अत्यंत कमी
6	पालाश (K)	(किलो/हे)	150-200	171.02	मध्यम
7	मूक्त चूना (CaCO ₃)	(टक्के)	2.5-5.0	16.13	अत्यंत जास्त चूनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	10.23	जास्त
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	39.75	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	17.42	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.78	-
12	जलधारणा शक्ति (WHC)	(टक्के)		57.67	-
13	आभासी घनता (AD)	(ग्रॅम/सीसी)		1.38	-
14	विशिष्ट घनता (SD)	(ग्रॅम/सीसी)		2.14	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		27.34	-
16	आकारमानातील वाढ (VEP)	(टक्के)		20.92	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.
2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक अॅप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
शहानूरमिया दर्गा उस्मानपूरा, औरंगाबाद
5-Aug-2024



जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार विशेष
 प्रयोगशाळा नमूना क्रमांक 2715P202400089001
 शेतक-याचे नाव रामनाथ सुखदेव सोनवणे
 सर्व्हे \ गट क्रमांक 250

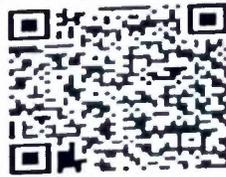
भ्रमणध्वनी 0

जमीन आरोग्य पत्रिका क्रमांक 2719092440400250
 गांव वहेगाव
 तालुका पैठण
 जिल्हा औरंगाबाद

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	साम् (pH)	सामु	6.5-7.5	8.39	तीव्र अल्कली
2	क्षारता (EC)	(मिसा/सेंमी)	0-1	0.94	साधारण
3	सॅद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.21	कमी
4	नत्र (N)	(किलो/हे)	280-420	152.66	कमी
5	स्फुरद (P)	(किलो/हे)	14-21	12.34	कमी
6	पालाश (K)	(किलो/हे)	150-200	1,324.85	अत्यंत भरपूर
7	मूक्त चूना (CaCO ₃)	(टक्के)	2.5-5.0	17.50	अत्यंत जास्त चुनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	13.14	जास्त
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	31.09	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	27.19	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.65	-
12	जलधारणा शक्ति (WHC)	(टक्के)		62.56	-
13	आभासी घनता (AD)	(गॅम/सीसी)		0.88	-
14	विशिष्ट घनता (SD)	(गॅम/सीसी)		1.25	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		29.76	-
16	आकारमानातील वाढ (VEP)	(टक्के)		22.14	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.
 2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक ऑप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मूद सर्वेक्षण व मूद चाचणी अधिकारी
 शहानुरमिया दर्गा उस्मानपुरा, औरंगाबाद
 1-Aug-2024



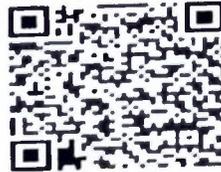
जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	271909244040073
प्रयोगशाळा नमूना क्रमांक	2715P202400089002	गांव	वहेगाव
शेतक-याचे नाव	राहीबाई किसन जाधव	तालुका	पैठण
सर्व्हे \ गट क्रमांक	73	जिल्हा	औरंगाबाद
		भ्रमणध्वनी	0

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	सामू (pH)	सामू	6.5-7.5	8.37	तीव्र अल्कली
2	क्षारता (EC)	(मिसा/सेंमी)	0-1	0.70	साधारण
3	सॅद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.17	अत्यंत कमी
4	नत्र (N)	(किलो/हे)	280-420	138.86	अत्यंत कमी
5	स्फुरद (P)	(किलो/हे)	14-21	17.18	मध्यम
6	पालाश (K)	(किलो/हे)	150-200	738.75	अत्यंत भरपूर
7	मूक्त चूना (CaCO ₃)	(टक्के)	2.5-5.0	18.50	अत्यंत जास्त चूनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	8.09	मध्यम
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	34.81	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	29.22	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.54	-
12	जलधारणा शक्ति (WHC)	(टक्के)		60.84	-
13	आभासी घनता (AD)	(ग्रॅम/सीसी)		0.84	-
14	विशिष्ट घनता (SD)	(ग्रॅम/सीसी)		1.07	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		29.74	-
16	आकारमानातील वाढ (VEP)	(टक्के)		23.87	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.
2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक अॅप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
शहानुरमिया दर्गा उस्मानपुरा, औरंगाबाद
1-Aug-2024



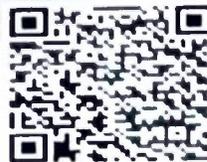
जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	2719092440400281
प्रयोगशाळा नमूना क्रमांक	2715P202400089003	गांव	वहेगाव
शेतकऱ्याचे नाव	संजीवन विनायकराव रोडे	तालुका	पैठण
सर्व्हे गट क्रमांक	281	जिल्हा	औरंगाबाद
	क्षमणध्वनी	0	

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	सामू (pH)	सामू	6.5-7.5	8.71	तीव्र अल्कली
2	क्षारता (EC)	(मिसा/सेमी)	0-1	0.44	साधारण
3	सॅन्ड्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.30	कमी
4	नत्र (N)	(किलो/हे)	280-420	170.22	कमी
5	स्फुरद (P)	(किलो/हे)	14-21	10.64	कमी
6	पालाश (K)	(किलो/हे)	150-200	229.82	साधारण भरपूर
7	मूक घना (CaCO ₃)	(टक्के)	2.5-5.0	18.00	अत्यंत जास्त घनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	7.82	मध्यम
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	46.64	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	19.74	जास्त
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.66	-
12	जलधारणा शक्ति (WHC)	(टक्के)		59.03	-
13	आभासी घनता (AD)	(ग्रॅम/सीसी)		1.00	-
14	विशिष्ट घनता (SD)	(ग्रॅम/सीसी)		1.41	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		25.40	-
16	आकारमानातील वाढ (VEP)	(टक्के)		21.95	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.
2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक ॲप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद घाघणी अधिकारी
शाहानुरमिया दर्गा उस्मानपूरा, औरंगाबाद
1-Aug-2024

जमीन आरोग्य पत्रिका (सुपि.पातळी)

नमूना प्रकार	विशेष	जमीन आरोग्य पत्रिका क्रमांक	2719092440400280
प्रयोगशाळा नमूना क्रमांक	2715P202400089004	गांव	वहेगाव
शेतक-याचे नाव	राजेंद्र मधुकरराव रोडे	तालुका	पैठण
सर्व्हे गट क्रमांक	280	जिल्हा	औरंगाबाद
	भ्रमणध्वनी	0	

तपासणी अहवाल

अ.क्र.	माती परीक्षणातील गणधर्म	एकक	योग्य प्रमाण	परीक्षणातील मिळालेले प्रमाण	प्रमाणाचे विश्लेषण
1	साम् (pH)	सामु	6.5-7.5	8.33	तीव्र अल्कली
2	क्षारता (EC)	(मिसा/सेंमी)	0-1	0.87	साधारण
3	संद्रिय कार्बन (OC)	(टक्के)	0.40-0.60	0.43	मध्यम
4	नत्र (N)	(किलो/हे)	280-420	142.63	कमी
5	स्फुरद (P)	(किलो/हे)	14-21	26.61	साधारण भरपूर
6	पालाश (K)	(किलो/हे)	150-200	983.81	अत्यंत भरपूर
7	मूक्त चूना (CaCO ₃)	(टक्के)	2.5-5.0	14.25	अत्यंत जास्त चूनखडी
8	कॅल्शियम (Ca)	(मिलीई %)	4-9.99	4.77	मध्यम
9	मॅग्नेशियम (Mg)	(मिलीई %)	0.50-3.99	49.77	जास्त
10	सोडियम (Na)	(मिलीई %)	5-15	13.98	मध्यम
11	आर्द्रतेचे प्रमाण (Moisture)	(टक्के)		4.66	-
12	जलधारणा शक्ति (WHC)	(टक्के)		63.23	-
13	आभासी घनता (AD)	(ग्रॅम/सीसी)		0.92	-
14	विशिष्ट घनता (SD)	(ग्रॅम/सीसी)		1.29	-
15	सच्छिद्रतेचे प्रमाण (PS)	(टक्के)		5.13	-
16	आकारमानातील वाढ (VEP)	(टक्के)		18.65	-

- टिप - 1. सदरचा अहवाल कोर्टाच्या कामासाठी चालणार नाही.
2. विविध खतांचे संयोजन परिगणनेसाठी कृषिक अॅप मधील खत गणकयंत्राचा वापर करावा.



जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी
शहानुरमिया दर्गा उस्मानपूरा, औरंगाबाद
5-Aug-2024

MAHARASHTRA POLLUTION CONTROL BOARD		
Tel.No. (0240) 29930004	 "Your Service is our Duty"	
Visit us at www.mpcb.gov.in		
E-mail: roaurangabad@mpcb.gov.in		
		Regional Office, Paryavaran Bhavan, A-4/1, MIDC Area, Chikalthana, Behind Daynik Lokpatra, Near Seth Nandlal Dhoot Hospital, Jalna Road, Chh.Sambhajinagar-431 210.

MPCB/ROChh.S./ 1299/2025

Date: - 15/07/2025

To.

The Superintendent of Agriculture Officer,
Chhatrapati Sambhajinagar.

Sub: - VNIT final report of MIDC Paithan in Compliance of Hon'ble NGT Order dt. 22.04.2024 in OA No 222 of 2023 filed by Mangal Vishnu Bodke and others Vs M/s. Matrix Life Science Pvt. Ltd. and others before Hon'ble NGT, Pune.

Ref: - i) Hon'ble NGT Order dated 22.04.2024 & 18.06.2025.
ii) Letter of Hon'ble District Collector, Chhatrapati Sambhajinagar dated 10.06.2024.
iii) E-mail from Agriculture Department dated 19/06/2025.
iv) Work Order issued to VNIT for study of ground water contamination in Paithan dtd. 01.07.2024.
iv) Email of SRO, Chhatrapati Sambhajinagar dated 06.06.2025.
v) Letter to Superintendent of Agriculture Officer dtd.10.07.2025.

Respected Sir,

With respect to your e-mail / letter dtd. 19/06/2025, you have instructed MPCB to collect 25 nos. of well sample and 10 nos. of soil sample to District Soil Survey and Soil Testing Officer from affected area near Paithan MIDC and submit detail report to prepare final joint committee report about assessment of damage caused to agricultural crops & land as directed by the Hon'ble NGT in OA No 222 of 2023.

Accordingly work order was issued to VNIT for "Assessment of ground water contamination and mitigation plan based on detailed assessment contaminated ground water at Paithan MIDC area" on dtd. - 01/07/2024 (Copy attached).

VNIT has submitted their final report dtd. 23/04/2025 along with results of 23 nos. of well samples near Paithan MIDC (Copy attached), this final report was communicated by SRO, Chhatrapati Sambhajinagar on dtd. 06/06/2025 through e-mail. Once again the final report of VNIT is submitted to your good office for preparation of comprehensive report about assessment of the damage caused to the agricultural crops/land of the applicants in compliance of the order issued by the Hon'ble NGT dated 22.4.2024.

In view of the above, you are requested to prepare final joint committee report about assessment of damage caused to agricultural crops & land as directed by the Hon'ble NGT.

The report prepared by Joint Committee needs to be submitted to Hon'ble NGT & next date of hearing scheduled on Aug 5, 2025.

Please treat this as most urgent.

जिल्हा अधीक्षक कृषी अधिकारी
छत्रपती संभाजीनगर
आवक क्रमांक.....
दिनांक. 16/07/25.....
शाखा.....
अधिकारी/सहायक/अ.अ.

copy submitted for favour of information to: -

Hon'ble District Collector, Chhatrapati Sambhajinagar - for information.

Copy to: -

Sub- Regional Officer, Chhatrapati Sambhajinagar- for necessary follow- up with respective offices for submission of report from nodal agency.


(Manish Holkar)
Regional Officer,
Chhatrapati Sambhajinagar.

MAHARASHTRA POLLUTION CONTROL BOARD

Tel.: 24010437/24020781/24014701

Fax : 24024068 / 24044531

Website : www.mpcb.gov.in

E-mail : jdair@mpcb.gov.in



Kalpataru Point, 2nd - 4th Floor,

Opp. PVR Cinema,

Near Sion Circle, Sion (E),

Mumbai - 400.022.

No. BO/JD(APC)/TB/B- 0037

Date: - 01/07/2024

To,
Director,

Visvesvaraya National Institute of Technology,

S Ambazari Road, Ambazari, Nagpur - 440010

Sub - Work order for -

- 1) Assessment of Ground Water Contamination and mitigation plan based on detailed assessment of contaminated ground water at Painthan MIDC area, Chhatrapati Sambhajanagar.
- 2) Preparation of Action plan for restoration of Environment for Padmavati Associates - Pristine Prism and Pristine Royale and Pristine Privilege, Sr. No. 6/2,7 and Sf. No.6/5 CTS No. 2560(pt), Vill- Aundh, Dist-Pune.
- 3) Preparation of Action Plan for restoration of Environment in connection with the Goel Ganga Bibwewadi Project, S. No. 578/2. Bibewadi, Pune.

Ref - 1) Order passed by Hon'ble NGT in OA No. 222/2023 (WZ on 23/04/2024)

2) Order passed by Hon'ble NGT in OA No. 198/2023 (WZ on 29/11/2023)

3) Order passed by Hon'ble NGT in OA No. 32/2020 (WZ on 22/09/2023)

4) This office letter dated 13/05/2024 regarding inviting proposals.

5) Your proposal dated 30/05/2024.

6) Meeting held on 24/06/2024.

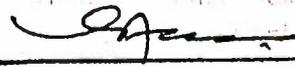
Sir,

In accordance to the above referred subject and orders passed by Hon'ble NGT vide above ref. no. 1 to 3 Board has invited proposals for Assessment of Ground Water Contamination and mitigation plan and Preparation of Action Plan for restoration of Environment. Accordingly, MPC Board has received your proposal dated 30/05/2024 vide ref no.5 followed by presentation held on 24/06/2024. Further, MPC Board has decided to award works for Assessment of Ground Water Contamination and mitigation plan and Preparation of Action Plan for restoration of Environment to your organization with following Objectives, Scope of Work and Deliverables with payment terms and conditions:-

1. Project assessment of Ground Water Contamination and mitigation plan based on detailed assessment of contaminated ground water at Painthan MIDC area, Chhatrapati Sambhajanagar.

A. Objectives:

- Assessment of Groundwater Contamination and mitigation plan based on the detailed assessment of the ground water at Paithan MIDC area, Chhatrapati Sambhaji Nagar.


01/07/24

B. Scope of work:

- Detailed survey of the study area.
- Study of contaminated from last Three-decade Land use and Land cover.
- GIS mapping of the study area (focus shall be on all possible sources)
- Topographical study of the project area.
- Detailed assessment of the groundwater contamination.
- Assessment of soil, groundwater, surface water, crop, and animal Scat. Short term mitigation plan based on the finding of Phase-1.
- Report submission.

C. Project Duration:

- The time duration of the project shall be 60 working days from receipt of the work order.
- Final report along with recommendations shall be submitted within 15 days from the date of completion of the whole project.

D. Methodology:

- Study area identification and source identification.
- Land Use and Land cover study of last three decades to understand the change of land use practices in the last three decades. Topographical study of the defined area.
- Assessment of groundwater, surface water, crops, soil, and animal scat. Sample shall be collected from the study area to check level of contamination, if any, through physicochemical and metal analysis.
- Water sample collection and analysis: Water samples shall be collected from monitoring wells to check the level of contamination, if any, through physicochemical and metal analysis.

E. Deliverables:

- Detailed project report titled "Assessment of Groundwater Contamination and mitigation plan for the contaminated ground water at Paithan MIDC area" based on Phase-I studies.

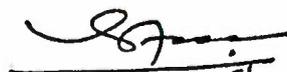
F. Support from MPC Board:

- Representative from MPCB for guidance and technical co-ordination. MPCB shall take the review of the work progress on monthly basis.

G. Payment Terms

Sr. No.	Expenditure Head	Amount
1	Professional Charges	9,00,000/-
2	Cost for traveling for site visit boarding, lodging, transportation, sample analysis, consumable, report preparation, drafting etc.	5,00,000/-
	Total Cost	14,00,000/-
	Tax as applicable (GST 18%)	2,52,000/-
	Cost payable	16,52,000/-

- 50% alongwith work order
- 30% on submission of Interim Report
- 20% on submission of Final Report


1/1/24

2. Proposal for Preparation of Action plan for restoration of Environment for Padmavati Associates – Pristine Prism and Pristine Royale and Pristine Privilege, Sr. No. 6/2,7 and Sr. No.6/5 CTS No. 2560(pt), Vill- Aundh, Dist-Pune.

A. Objectives:

- Restoration of Environment by Preparing an Appropriate Environmental Action Plan.

B. Scope & Methodology of the study:

- Site visit and survey for assessment of environmental loss with respect all the possible environmental and ecological factors.
- Assessment of best possible activities for restoration of air, water, soil, noise, ecology and waste environment and health.
- Restoration plan for all the environmental and ecological factors.

C. Project Duration

- The timeline for this study shall be 60 working days from date of receipt of the work order. Final report along with recommendations shall be submitted within 15 days from the date of completion of the whole project.

D. Deliverable:

- Detailed Project Report consists of Study of Environmental Damages and Adequacy of Pollution Control Equipment's and Suitable recommendations.

E. Inputs from MPC Board:

- Authority / Permission letter shall be provided for site survey and monitoring instruments.

F. Payment terms

Sr. No.	Expenditure Head	Amount
1	Professional Charges	7,20,000/-
2	Cost for traveling for site visit boarding, lodging, transportation, sample analysis, consumable, report preparation, drafting etc	4,80,000/-
	Total Cost	12,00,000/-
	Tax as applicable (GST 18%)	2,16,000/-
	Cost payable	14,16,000/-

- 50% alongwith work order
- 30% on submission of Interim Report
- 20% on submission of Final Report


01/07/24

3. Proposal for preparation of Action Plan for restoration of Environment In connection with the Goel Ganga Bibvewadi Project, S. No. 578/2. Bibewadi, Pune.

A. Objectives:

- Preparation of Action Plan for Restoration of Environment In connection with the Goyal Ganga Bibvewadi Project.

B. Scope & Methodology of the study:

- Site visit and survey for assessment of environmental loss with respect all the possible environmental and ecological factors.
- Assessment of best possible activities for restoration of air, water, soil, noise, ecology and waste environment and health.
- Restoration plan for all the environmental and ecological factors.

C. Project Duration

- The timeline for this study shall be 60 working days from the date of receipt of the work order. Final report along with recommendations shall be submitted within 15 days from the date of completion of the whole project.

D. Deliverable:

- Detailed Project Report consists of Study of Environmental Damages and Adequacy of Pollution Control Equipment's and Suitable recommendations.

E. Inputs from MPC Board:

- Authority / Permission letter shall be provided for site survey and monitoring instruments.

F. Payment Terms:-

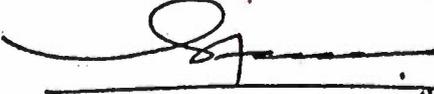
Sr. No.	Expenditure Head	Amount
1	Professional Charges	7,20,000/-
2	Cost for traveling for site visit boarding, lodging, transportation, sample analysis, consumable, report preparation, drafting etc	4,80,000/-
	Total Cost	12,00,000/-
	Tax as applicable (GST 18%)	2,16,000/-
	Cost payable	14,16,000/-

- 50% alongwith work order
- 30% on submission of Interim Report
- 20% on submission of Final Report


01/11/24

In view of above, you are hereby requested to start the work on issuance of this work order and submit report after completion of work in timely manner.

This is issued with the approval of the Competent Authority of the Board.


(Dr. V.M. Motghare) ०६/१२/२४
Joint Director (Air Pollution Control)

Copy for necessary action:-

1. Chief Account Officer, MPC Board, Mumbai – you are directed to release payment in favor of M/s. VNT, Nagpur.
2. PSO/RO Aurangabad/RO Pune/ SRO Aurangabad/SRO Pune-I/II/ SSO Central Lab/SSO Aurangabad/Pune—They are directed to assist the VNIT, Nagpur team during the studies carried out in the field.



NO.: CIVIL/CEC-1066/DHL-77 (1)

April 23, 2025

Assessment of Ground Water Contamination and mitigation plan based on detailed assessment of contaminated ground water at Paithan MIDC area, Chhatrapati Sambhajnagar.

Prepared by:

Dr. Karthik Balasundaram

Dr. Ashwini B. Mirajkar

Dr. Dilip H. Lataye

**Department of Civil Engineering
Visvesvaraya National Institute of Technology, Nagpur**

Submitted to:

Maharashtra Pollution Control Board (MPCB)

Mumbai

1. Introduction

1.1. Background

Maharashtra Pollution Control Board (MPCB) through letter No. BO/JD(APC)/TB/B-0037 dated 1st July 2024 had issued workorder to VNIT Nagpur for preparation of **“Assessment of Ground Water Contamination and mitigation plan based on detailed assessment of contaminated ground water at Painthan MIDC area, Chhatrapati Sambhajnagar.”**

This document constitutes the detailed report on the environmental damages and suitable recommendations.

1.2. Scope of work

- Detailed survey of the study area.
- Three-decade Land use, Land cover study.
- GIS mapping of the study area.
- Topographical study of the project area.
- Detailed assessment of the groundwater contamination.
- Report submission.

1.3. Methodology

Dr. Dilip H. Lataye, Professor, Dr. Ashwini B. Mirajkar, Associate Professor and Dr. Karthik Balasundaram, Assistant Professor, from Department of Civil Engineering, VNIT Nagpur visited the site MIDC Paithan along with MPCB officials on 24th August 2024 and 6th January 2025. The property is an industrial area with predominantly pharmaceutical companies. The methodology to assess the environmental damage involved the following:

1. Visual inspection was carried out throughout the site for assessment of environmental loss with respect to all the possible environmental and ecological factors.
2. Desk based review of documents to check for the various compliances and to evaluate the historic data.
3. Collection of ground water samples from wells and other water bodies within aerial distance of 3 km from MIDC Paithan boundary.
4. Testing of the water samples for the following parameters at an NABL lab:
 - 4.1. Physical Characteristics: pH, colour, oil and grease, total solids, total dissolved solids, electrical conductivity



2. Project Site Details

Name of Site	MIDC Paithan
Location	Taluka: Paithan District: Chatrapati Sambhaji Nagar State: Maharashtra
Coordinates	19°33'25"N & 19°31'45"N latitude & 75°22'45" E & 75°23'15" E
Area	285 Ha
Eco-sensitive areas	Jaikwadi Bird Sanctuary and Jaikwadi Dam (<3km from the southern boundary)
Current land use	Industrial/Commercial
No of industries (at present)	24

2.1.Site Topography

The topographic survey included picking up of all details and features as existing on ground within the MIDC boundary. The survey was carried out using latest survey instruments having required precision with computerized data capture facility like Total Station and Auto Levels. All data related to topography and features of the ground were recorded using on board data loggers.

The site is a flat terrain with the ground sloping from east to west. The highest elevation is 401.75m towards the North eastern side and the lowest elevation observed is 389.25 towards the south western side of the site. No major landforms are present within the site area. The state highway 752E runs along the eastern boundary of the MIDC.

The Jaikwadi dam and Jaikwadi bird sanctuary are located within an aerial distance of 3 km from the east and south boundary of the MIDC.



3. Land Use and Land Cover (LULC) Change Analysis (1996-2023)

3.1. Data Overview

The study considers five major LULC classes:

- Waterbody
- Agriculture Land
- Bare Land
- Tree/Forest
- Urban Settlement

Data was collected for 1996, 2003, 2011, 2017, 2020, and 2023, providing a comprehensive view of changes over time.

3.2. Analysis Approach

The land use and land cover classes were identified and their areal extent were listed in Table 1. Changes in various land use and land cover classes were analyzed, their trend was constructed, their percentage changes were evaluated and finally, their comparative analysis was reported in the result section. **Figure 1** and **Figure 2** shows the land use and land cover maps for various years.

Table 1. Various land use and land cover classes and their areal coverage in square kilometers.

Sr. No.	LULC Classes	Y1996	Y2003	Y2011	Y2017	Y2020	Y2023
1	Waterbody	0	0	0.31	0.41	0.53	0.22
2	Agriculture Land	9.88	10.68	10.39	11.64	11.32	11.31
3	Bare Land	0.22	0.24	0.23	0	0	0
4	Tree/Forest	3.14	2.39	1.89	0.6	0.01	0.01
5	Urban Settlement	2.85	2.78	3.29	3.99	4.24	4.58



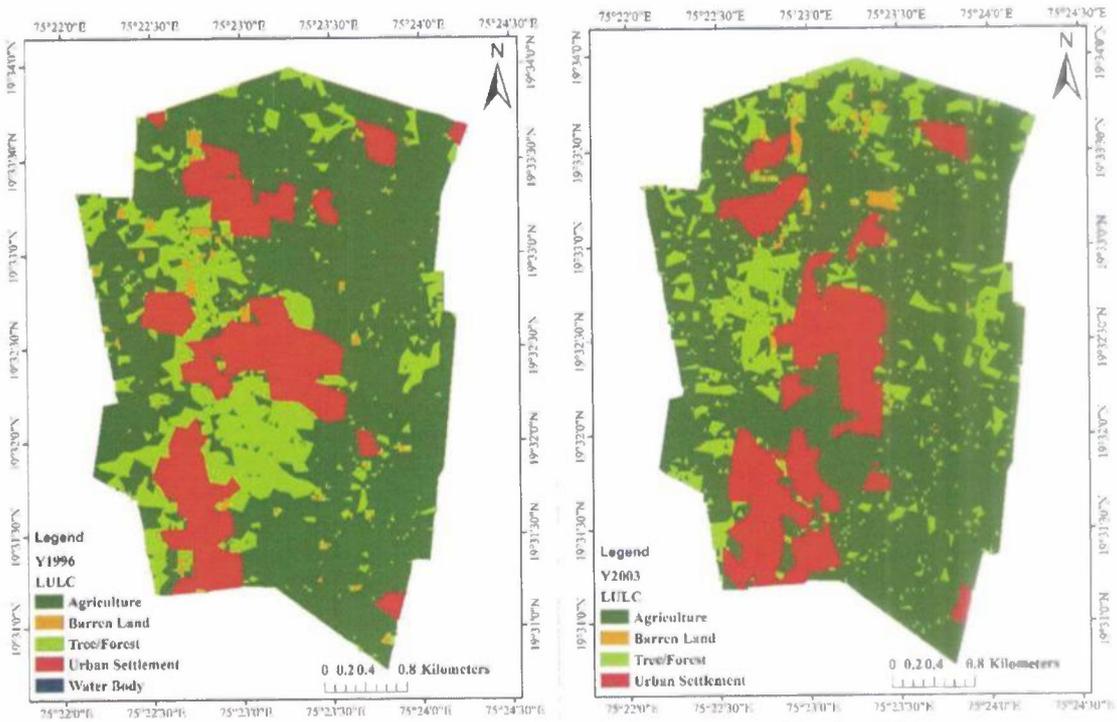
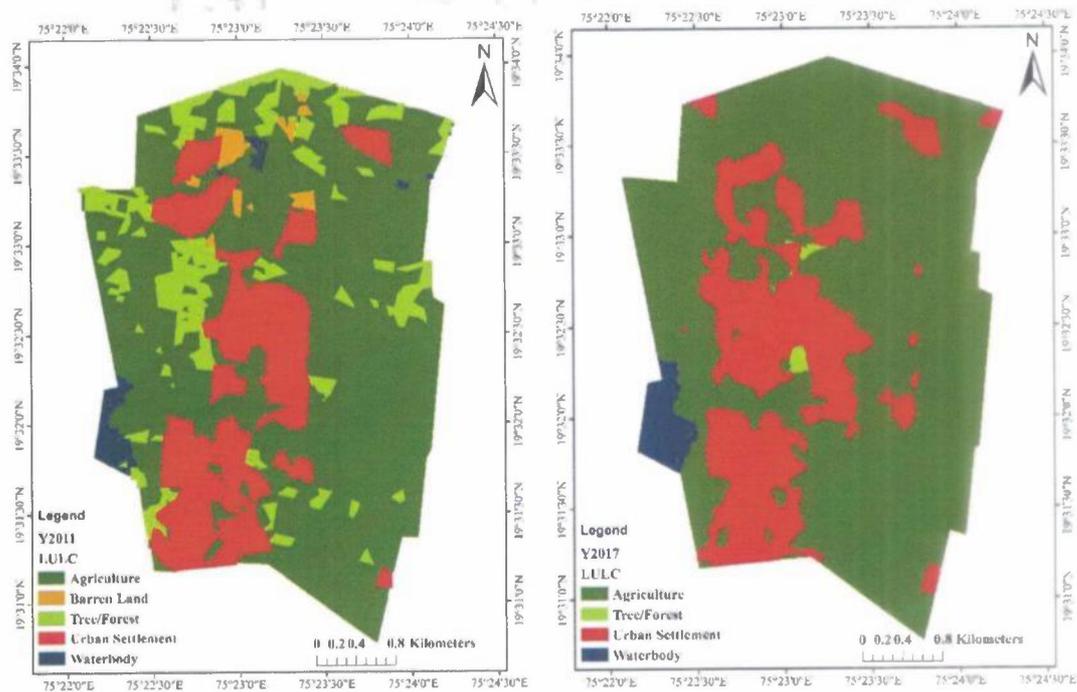


Figure1. Land use and land cover map of 1996 and 2003.



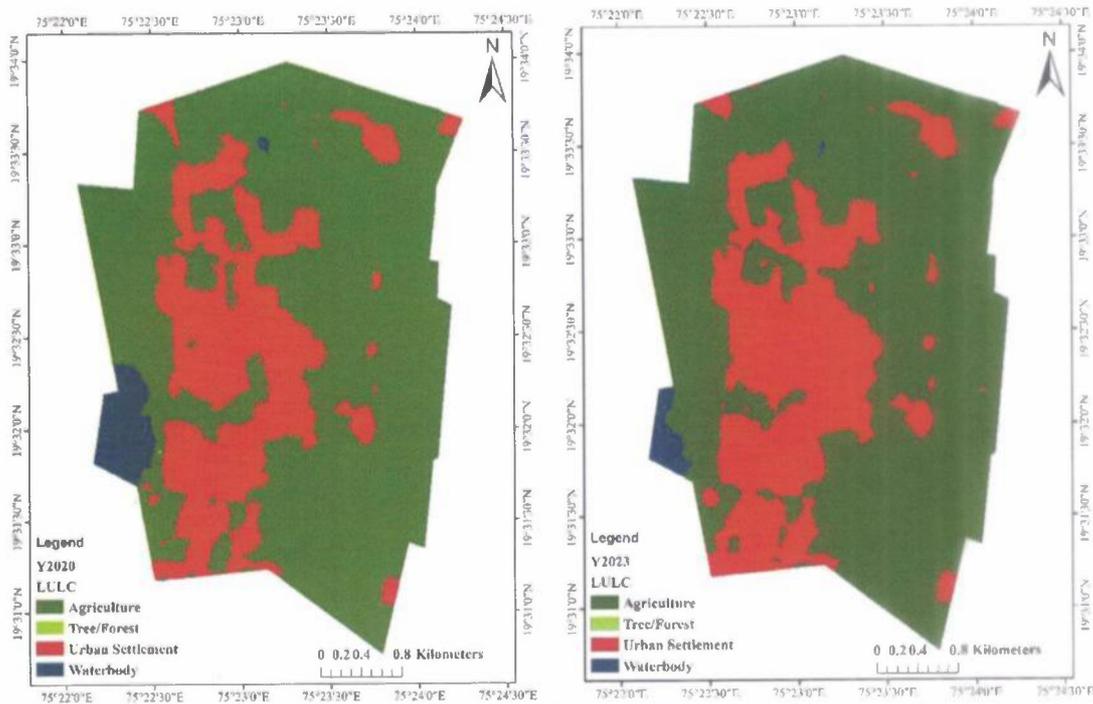


Figure 2. Land use and land cover map of 2011, 2017, 2020 and 2023.

Figure 1&2 show the spatial coverage of various LULC classes from 1996 to 2023. Noticeable changes can be observed in agricultural land, bare land, and waterbodies, which faced substantial changes during the study period.

3.3. Trend Analysis

Figure 3 shows changes in the spatial extent of different land use and land cover categories. Important changes in different land use and land cover classes are summarized as below:

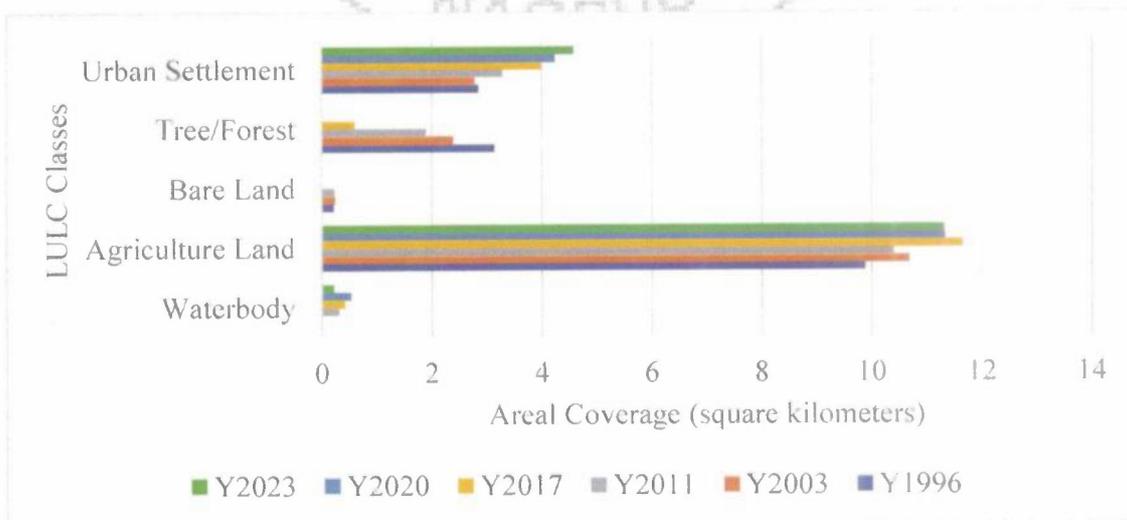


Figure 3. Graphical representation of areal extent of different land use and land cover classes in different years.



Below are the variations in the different land use land covers expressed in square kms.

3.1 Agriculture Land

- Increased from **9.88 in 1996 to 11.3 in 2023**.
- Steady rise observed, with a peak in **2017 at 11.64**.

3.2 Bare Land

- Declined from **0.22 in 1996 to 0 by 2017**, remaining absent afterward.
- Indicates a complete transformation or repurposing of bare land.

3.3 Tree/Forest

- Sharp decline from **3.14 in 1996 to 0.0001 in 2023**.
- Notable decrease between **2017 and 2020 (99.94% reduction)**.

3.4 Urban Settlement

- Increased from **2.85 in 1996 to 4.58 in 2023**.
- Continuous growth, especially between **2011 and 2023**.

3.5 Waterbody

- Grew from **0.0001 in 1996 to 0.53 in 2020**, showing expansion of waterbodies.
- Slight decline to **0.22 in 2023**, possibly due to reclassification, land repurposing, or the time of satellite imagery obtained.

4. Percentage Change Analysis

- **Waterbody:** Waterbody appeared in the study area in 2011. Then, it increased nearly 70.96% from 2011 to 2020, and then slightly declined.
- **Agriculture Land:** It faced a 14.47% increase from 1996 to 2023 continuously.
- **Bare Land:** This class was present till 2011, then it almost disappeared.
- **Tree/Forest:** This LULC class also faced continuous and rapid reduction, and it vanished nearly 99.99% during the study period.
- **Urban Settlement:** This LULC class shows a continuous increase during the study period. Overall, it nearly doubled in the year 2023 (reportedly found to be increased by 60.70%)

5. Comparative Analysis (1996 vs. 2023)

- Waterbody increased by 0.22 square kilometres.
- Agriculture Land increased by 14.47%.
- Bare Land nearly vanished.
- Tree/Forest also nearly disappeared, acquiring only 100 square meters.



4.2. Chemical Characteristics: Chlorides, sulphates, COD, ammonical nitrogen, TKN, nitrates, total phosphorus, and tannin.

4.3. Phenolic compounds.

4.4. Metals: Cu, Ag, Fe, Cd, Pb, Hg, Ni, Zn, As, Mn, total chromium, Se

4.5. Biological Characteristics: BOD, fecal coliforms

5. For Land Use and Land Cover study:

5.1. Landsat 8 satellite images for the years 1996, 2003, and 2011 (30m resolution) were obtained from the USGS Earth Explorer website. The satellite images were pre-processed and clipped to the study area using ArcGIS 10.5. A supervised classification method was used to identify five land use and land cover classes. The maximum likelihood classifier technique was employed to attain 80% classification accuracy.

5.2. Sentinel 2 satellite land use and land cover product from 2014-2023 (10m resolution) were downloaded from the Environmental Systems Research Institute (the ESRI website: <https://livingatlas.arcgis.com/landcoverexplorer/#mapCenter=-117.20000%2C34.06000%2C11&mode=step&timeExtent=2017%2C2023&year=2023>). The land use and land cover classes were reclassified into five categories to understand the historical changes in land use and land cover classes.



- Urban Settlement grew by 60.70%, indicating urban growth and land conversion into paved surfaces.

6. Conclusion

The analysis highlights significant changes in land cover over the past 27 years. The most notable observations include the disappearance of bare land and tree/forest land, the expansion of agricultural land and increasing urban settlement growth. These trends may be linked to environmental policies, urban development, and climate change factors.

Further research is recommended to assess the underlying causes and implications of these shifts, particularly the decline of bare land and urban settlement fluctuations.



4. Ground water contamination Analysis

4.1. Sample collection and Analysis

Water samples were collected from 22 existing dug wells and 1 borewell within an aerial distance of 3km from the boundary of MIDC. The map with well location and the well coordinates is given in Annexure-1 and Annexure 1A respectively. Water samples from the well number 18 and borewell number 17 are considered as baseline samples. The photographs of the wells along with GPS location are given in Annexure-2. The sample were analysed for various parameters. The results are mentioned in Annexure-3.

4.2. Spatial distribution of contaminants

The spatial distribution of compounds detected above the IS limits were analysed using the Inverse Distance Weighted (IDW) interpolation method in ArcGIS 10.5. IDW interpolation estimates values for unsampled locations by assigning weights based on the inverse of the distance between sample points. This approach assumes that nearby points have a greater influence on the estimated value than those farther away (Shepard, 1968). This technique is widely used in environmental studies, hydrology, and soil science due to its simplicity and effectiveness in handling spatial data with irregular sampling distributions (Johnston et al., 2001).

The IDW method in ArcGIS applies the following equation to interpolate values at unsampled locations:

$$Z(x) = \frac{\sum_{i=1}^n \frac{Z_i}{d(x, x_i)^p}}{\sum_{i=1}^n \frac{1}{d(x, x_i)^p}}$$

In the IDW interpolation equation, $z(x)$ represents the estimated value at the target location x , while Z_i denotes the observed value at a given sampling site i . The term $d(x, x_i)$ signifies the distance between the target location x and the sampling point i . The parameter p is the power coefficient, which determines the influence of each sample point based on its distance from the target location.



IDW calculates the weighted average of observed values, where weights are assigned inversely proportional to the distance raised to the power p . By default, IDW interpolation in ArcGIS Pro applies a power value of $p=2$, which is commonly used in spatial analysis due to its balanced emphasis on both nearby and distant points (Johnston et al., 2001).

The following parameters were found above the prescribed limits as per IS10500:2012: *Arsenic, Cadmium, Chloride, Faecal Coliform, Manganese, Mercury, Nickel and TDS*. The spatial mapping of the pollutant concentration is shown in Annexure-4.

4.3.Observations

Based on the results the following observations can be made:

1. The baseline concentrations of the metals Arsenic, Cadmium, Manganese, Mercury and Nickel are higher than the permissible limit. The presence of these metals may be due to natural geogenic sources. The application of metal rich pesticide, herbicides and fungicides in the agricultural fields also serves as a potential metal source in the groundwater. Since the study area lies in an agricultural belt, the large-scale use of fertilizers and fungicides in the cultivated fields is common. As can be seen from the photographs, all the wells are open dug wells without any protection. Therefore, the possibility of these metals entering into dug wells through surface run-off cannot be ruled out.
2. Most of the groundwater samples show high level of faecal coliform concentration. This indicates that the well water has been contaminated by animal and human waste.
3. Most of the well water has high concentration of chlorides and TDS. Discharge from septic systems may contribute to elevated chloride levels in the well water. Further, as seen from the map, the high levels of chloride are found in the vicinity of the MIDC boundary. Thus, there is a possibility that the elevated chloride levels may also be due to industrial activities, particularly those involving chemical processes, can release chloride-containing wastewater.



5. Conclusions

A team from VNIT Nagpur comprising Dr. Dilip H. Lataye, Professor, Dr. Ashwini B. Mirajkar, Associate Professor and Dr. Karthik Balasundaram, Assistant Professor, from Department of Civil Engineering visited the site MIDC Paithan along with MPCB officials on 24th August 2024 and 6th January 2025. Based on the observations the following conclusions can be made:

1. There have been significant changes in land cover over the past 27 years.
2. The change in land use may be linked to environmental policies, urban development, and climate change factors.
3. Further in-depth study is recommended to assess the underlying causes and implications of these shifts, particularly the decline of bare land and urban settlement fluctuations.
4. Most of the dug wells do not meet the required standards for the sanitation and protection. The wells do not have boundary walls to prevent surface run-off and other organic matter from mixing with the well water.
5. The groundwater in the vicinity of the site contains high concentrations of Arsenic, Cadmium, Manganese, Mercury and Nickel. The elevated concentrations could be due to natural geogenic origin or mixing of agricultural run-off and industrial wastewater with well water.
6. The well waters contain significant concentration of faecal coliforms. This indicates that human and animal waste is getting mixed with well water. This also highlights the poor sanitation aspects of the wells.
7. Most of the well water has high concentration of chlorides and TDS. The high levels of chloride are found in the vicinity of the MIDC boundary. Thus, there is a possibility that the elevated chloride levels may be due to industrial activities, particularly those involving chemical processes, that can release chloride-containing wastewater.
8. Discharge from septic tank systems may contribute to elevated chloride levels in the well water.
9. ***Based on the current study, it is not possible to pin point the exact reason for the elevated concentrations of various contaminants. Both the insanitary conditions of the wells and industrial activity in the vicinity of the wells could be the reason for the elevated concentrations of various contaminants.***



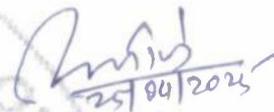
6. Recommendations

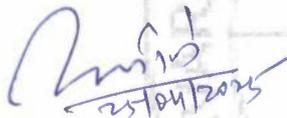
The study makes the following recommendations:

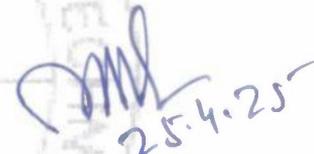
1. It is highly recommended that all the wells be constructed as per the "*OPERATION AND MAINTENANCE MANUAL FOR RURAL WATER SUPPLIES*" published by the Ministry of Drinking Water and Sanitation, Government of India. This is necessary to prevent the runoff and debris from entering into the well.
2. An in-depth audit be conducted on all the industries to assess the groundwater pollution causing potential of the industries. This is necessary to identify the source of pollution from industries and to suggest effective remediation efforts.


Dr. Karthik Balasundaram


Dr. Ashwini B. Mirajkar


25/04/2025
Dr. Dilip H. Lataye


25/04/2025
Dr. Dilip H. Lataye
(Head, Civil Engineering Department)

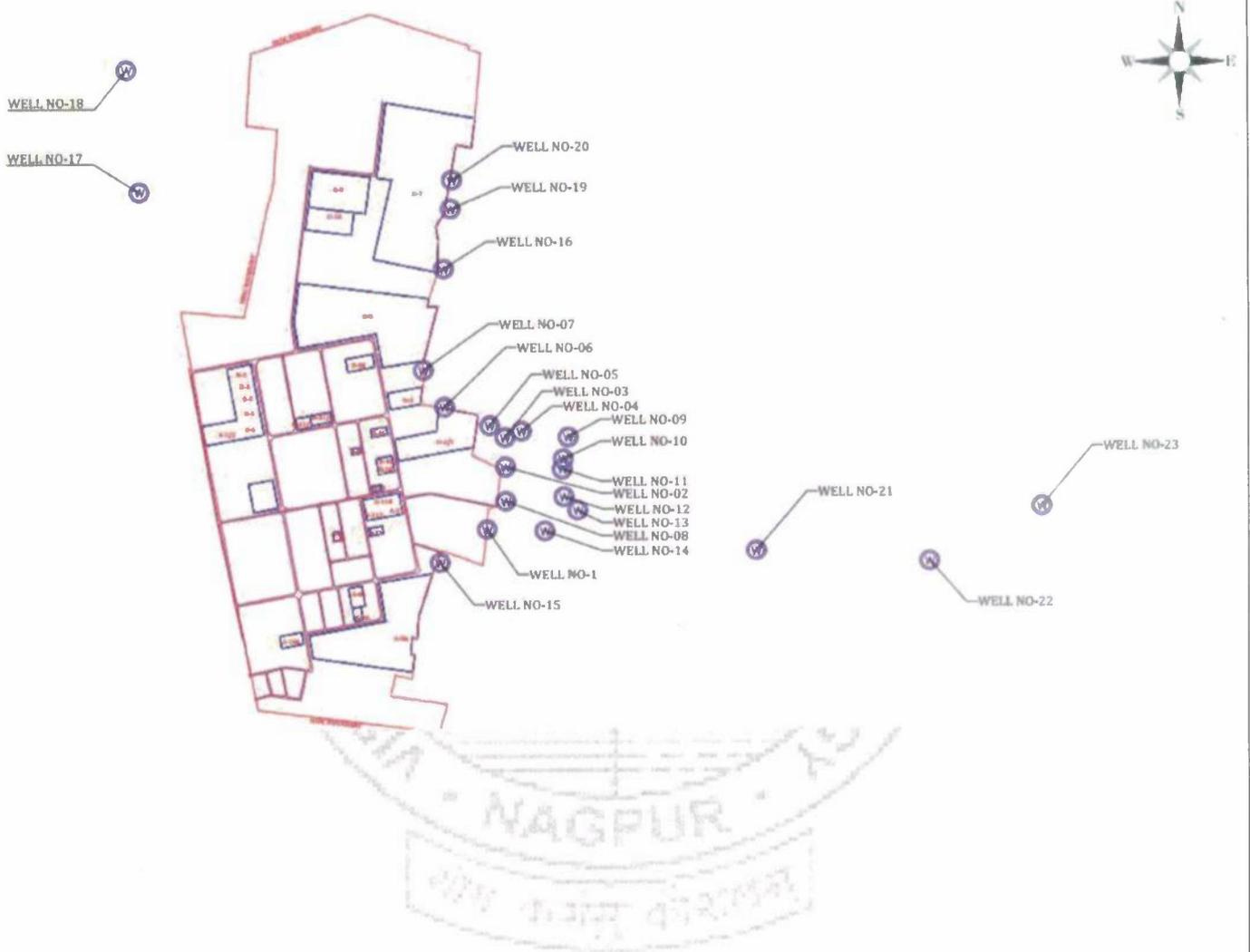

25.4.25
Dr. Yashwant B. Katpatal
(Professor & Dean (R&C))

Note: This report has been prepared based on the observations during the visit on site and the data, information and clarifications made available by the MPCB. VNIT shall not be responsible for any consequences due to incorrect data/ information furnished by MPCB or due to any reasons beyond the control of VNIT. This report shall not form a document in any dispute/litigation.



Annexure-1

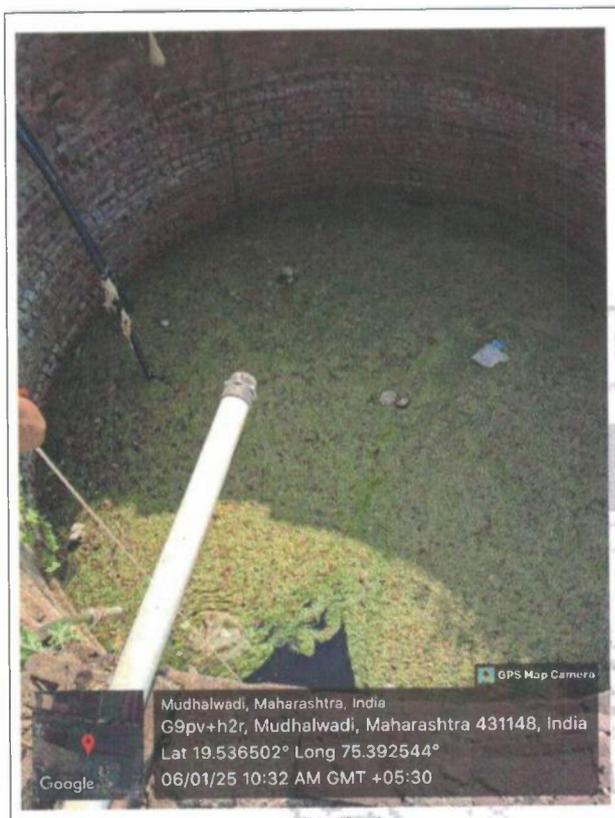
Location of wells with respect to MIDC boundary



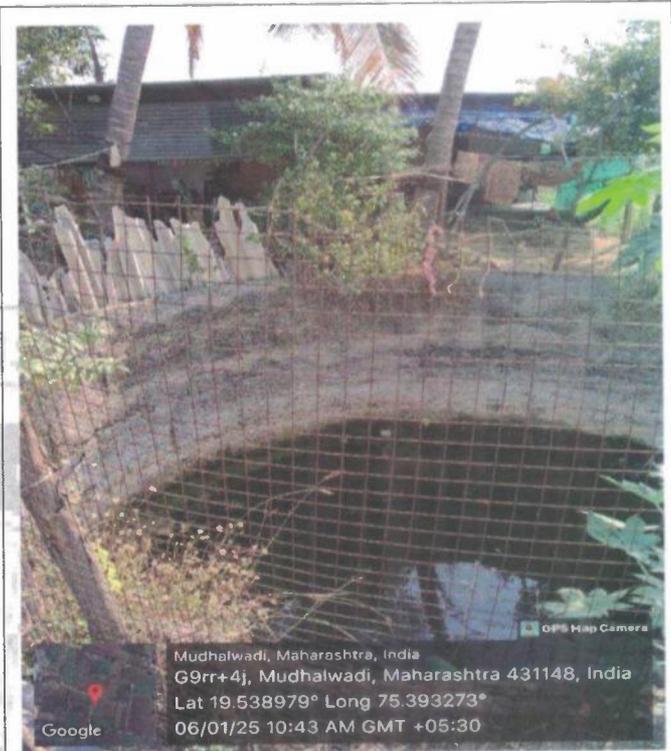
WELL LOCATION CO-ORDINATES			
SR.NO	EASTING	NORTHING	REMARKS
1	541182.0649	2160241.411	WELL NO - 01
2	541262.1198	2160515.154	WELL NO - 02
3	541260.4402	2160642.374	WELL NO - 03
4	541331.092	2160669.511	WELL NO - 04
5	541193.0891	2160694.006	WELL NO - 05
6	540997.089	2160776.084	WELL NO - 06
7	540906.7543	2160936.976	WELL NO - 07
8	541263.4788	2160366.243	WELL NO - 08
9	541532.9255	2160642.569	WELL NO - 09
10	541511.5952	2160548.328	WELL NO - 10
11	541506.7319	2160505.081	WELL NO - 11
12	541514.571	2160384.913	WELL NO - 12
13	541574.0283	2160325.271	WELL NO - 13
14	541432.0131	2160233.528	WELL NO - 14
15	540977.8916	2160095.461	WELL NO - 15
16	540994.6689	2161383.944	WELL NO - 16
17	539677.3851	2161726.718	WELL NO - 17 (Borewell)
18	539622.945	2162262.241	WELL NO - 18
19	541024.8755	2161646.779	WELL NO - 19
20	541031.1041	2161772.908	WELL NO - 20
21	542348.4087	2160144.69	WELL NO - 21
22	543097.1818	2160096.118	WELL NO - 22
23	543586.6263	2160337.317	WELL NO - 23



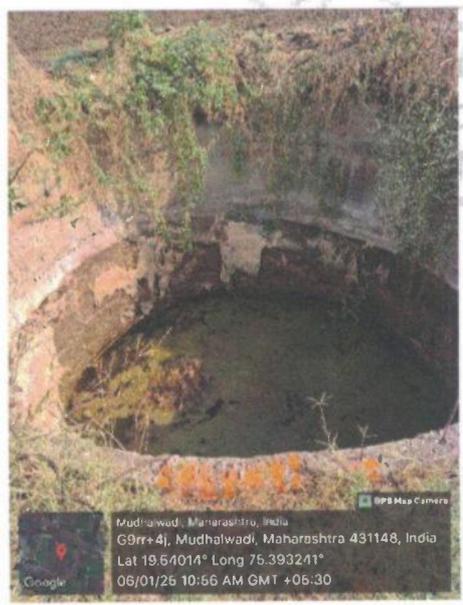
Photographs of well



Well -1



Well -2

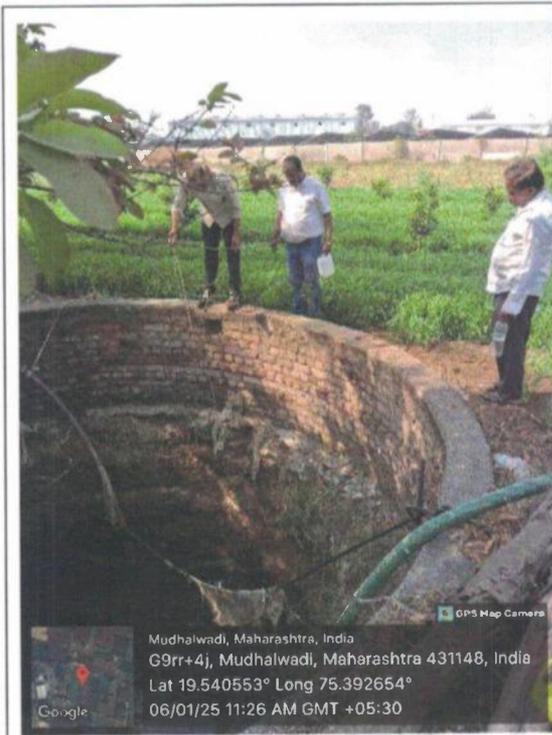


Well -3



Well -4





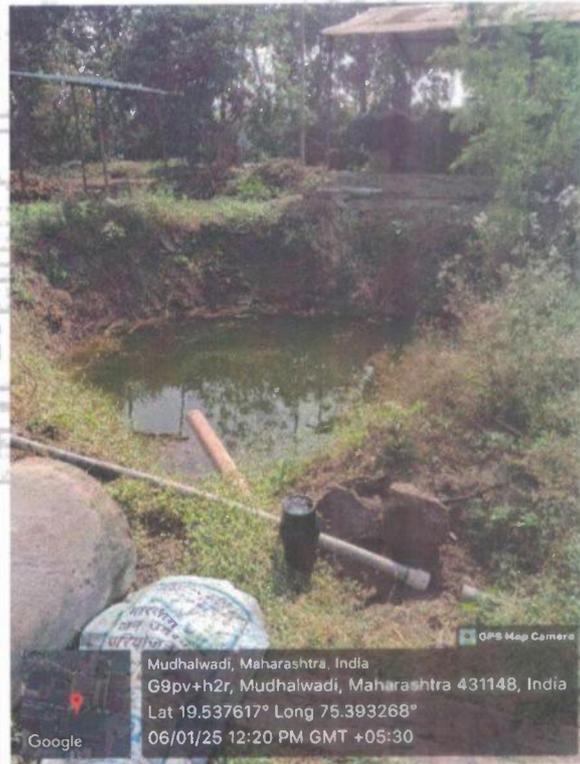
Well -5



Well -6

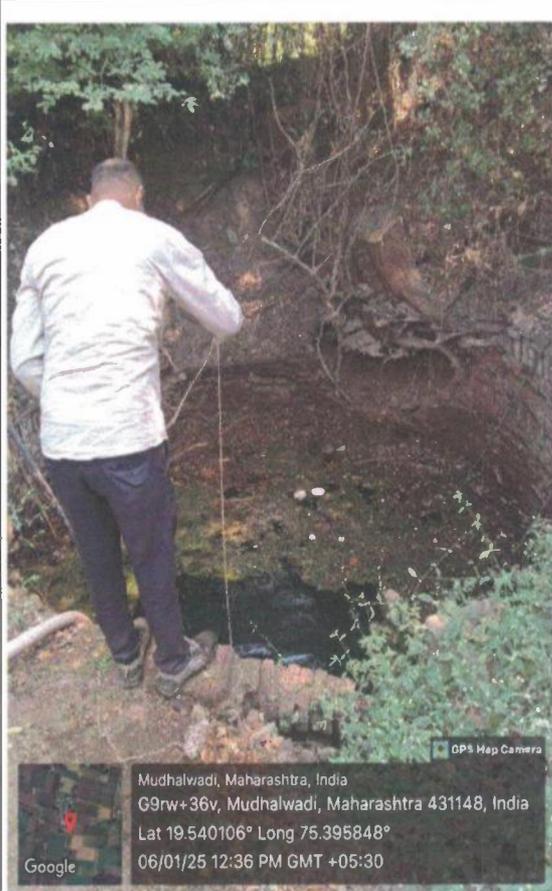


Well -7

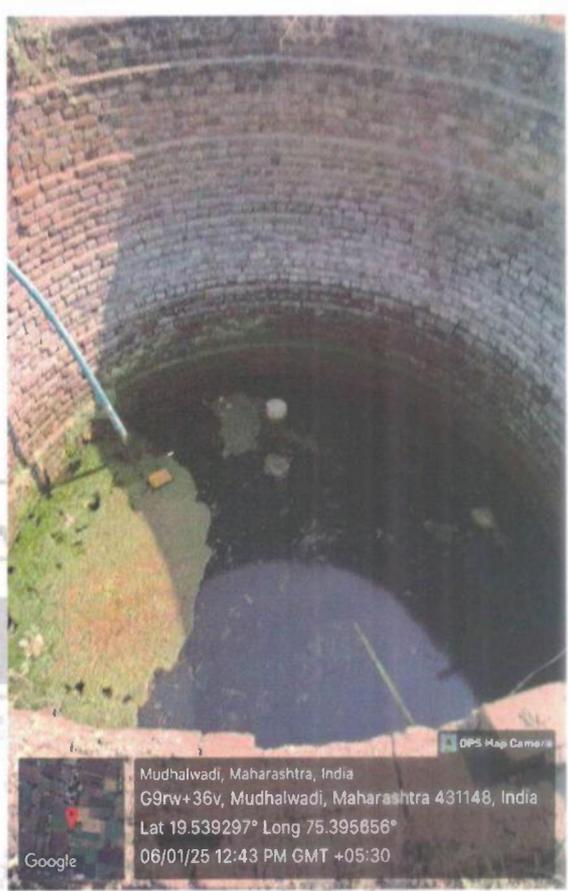


Well -8





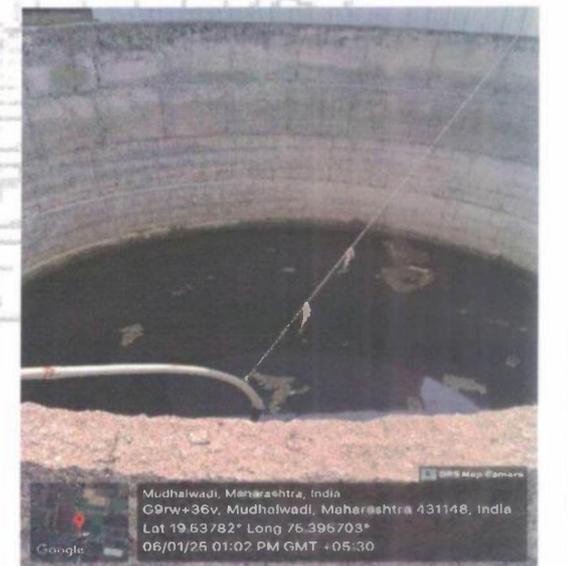
Well 9



Well -10

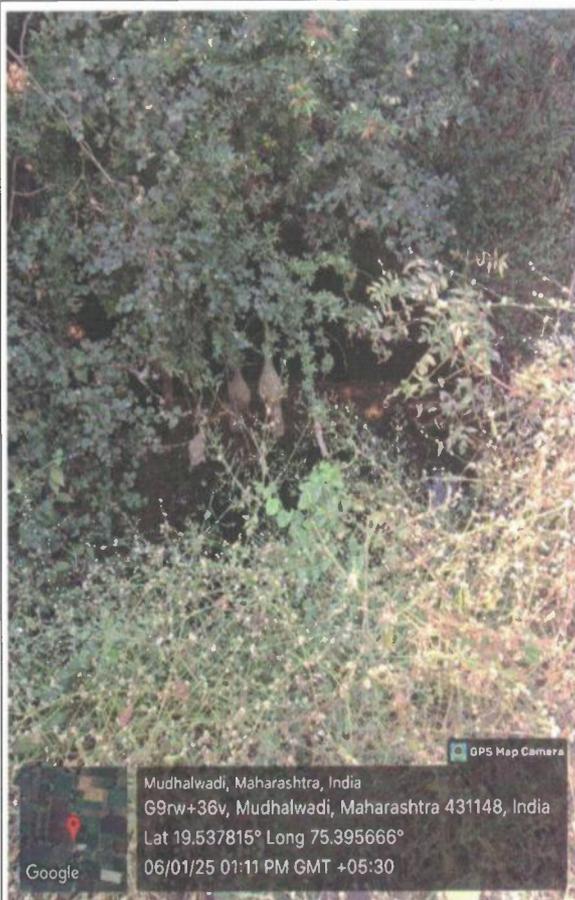


Well -11

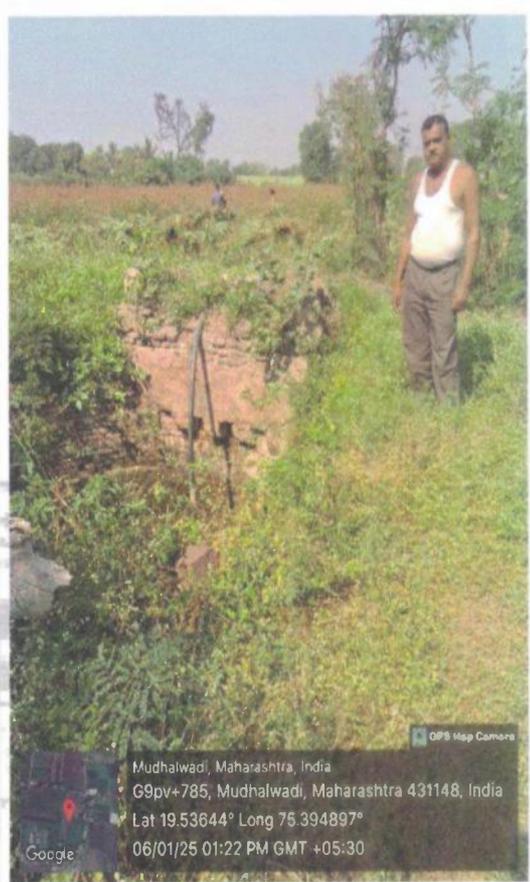


Well -12

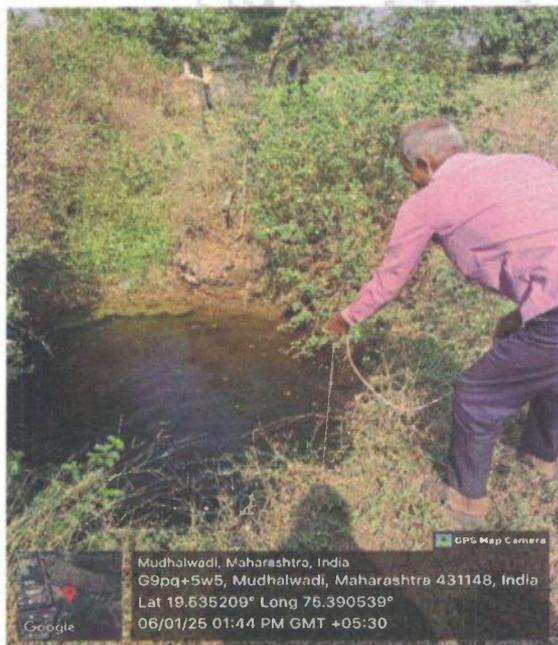




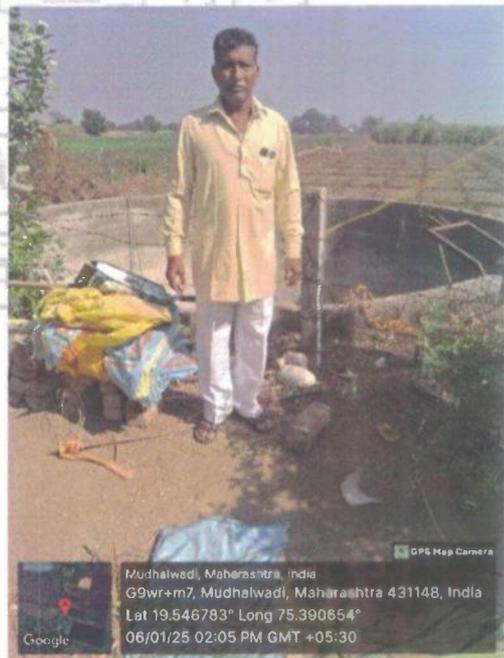
Well -13



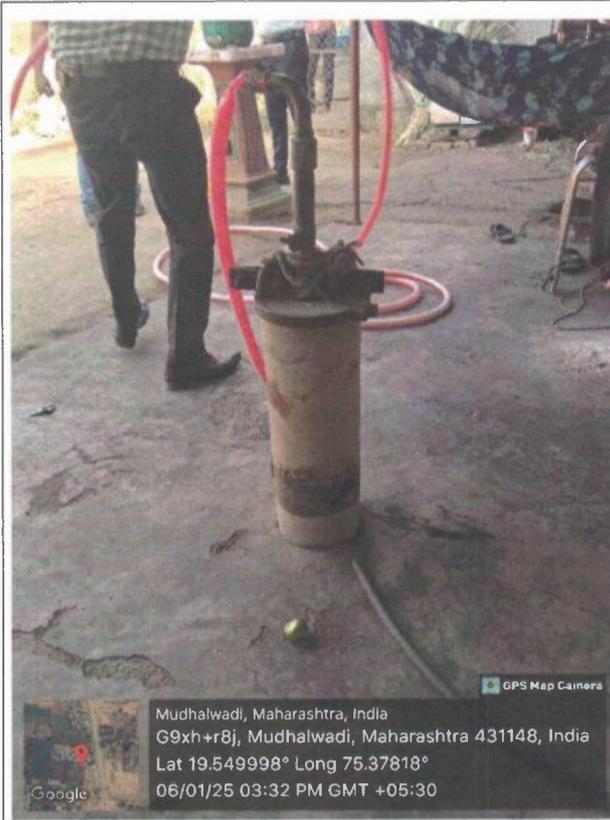
Well -14



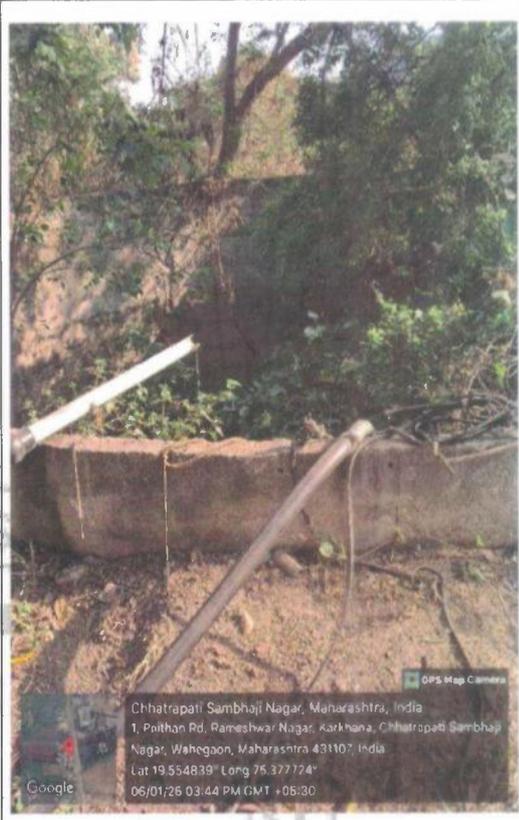
Well -15



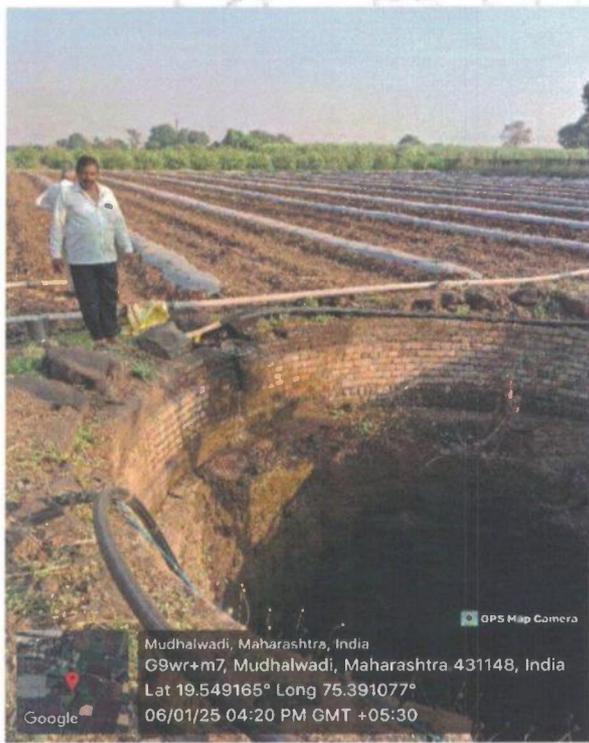
Well -16



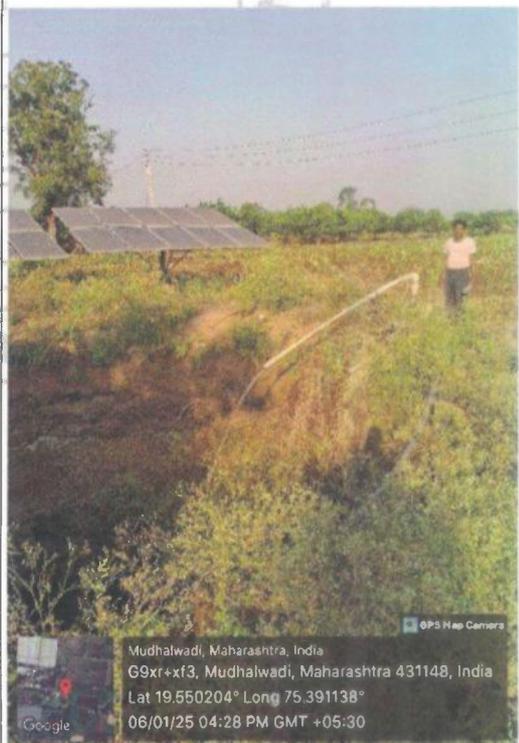
Well -17



Well -18

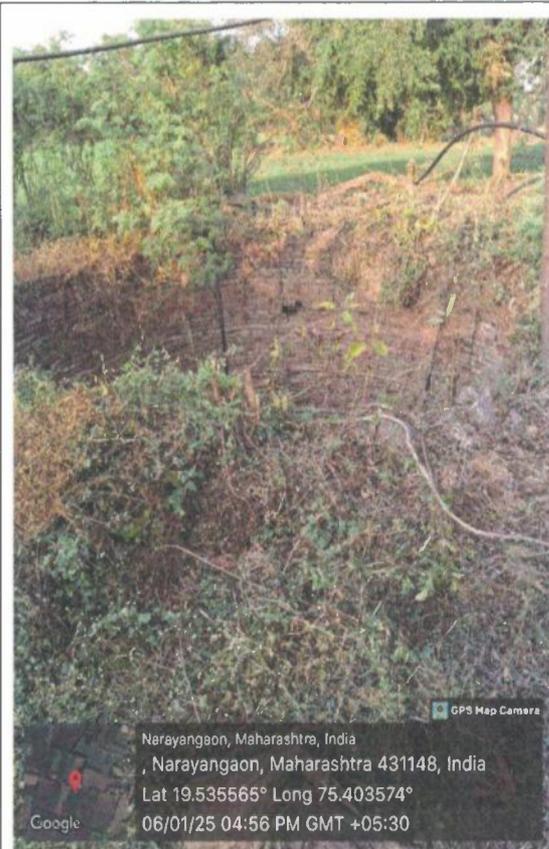


Well -19



Well -20

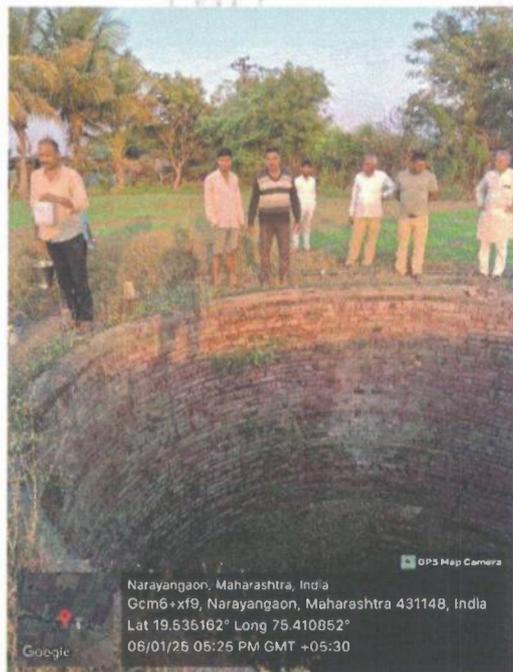




Well -21



Well -22



Well -23



Annexure-3

Well Water characteristics

Characteristic	Loc 1	Loc 2	Loc 3	Loc 4	Loc 5	Loc 6	Loc 7	Loc 8	Loc 9	Loc 10	Loc 11
Colour	< 5	8	< 5	< 5	5	6	< 5	< 5	< 5	< 5	< 5
Electrical Conductivity	6813	4735	4364	3307	2835	1862	5107	1618	3048	2017	3306
pH at 25°C	7.32	7.5	7.42	7.64	7.56	7.58	7.2	8.05	7.78	7.94	7.88
Chloride (as Cl)	2315.94	1675.37	2069.57	1231.89	739.12	492.76	1921.74	591.31	1084.06	689.86	1333.37
Cadmium (as Cd)	0.0062	0.0094	0.0051	0.0089	0.0105	0.0121	0.0117	0.0075	0.0081	0.0068	0.0056
Lead (as Pb)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel (as Ni)	0.0134	<0.01	0.0299	0.1085	<0.01	0.032	0.036	<0.01	0.0154	<0.01	<0.01
Total Dissolved Solids	4445	3085	2849	2165	1864	1235	3342	1075	1998	1338	2172
Zinc (as Zn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic as As	0.0259	0.0149	0.0295	0.0254	0.0166	0.0186	0.0207	0.0197	0.0226	0.019	0.015
Manganese (as Mn)	0.4091	0.3153	0.2814	0.3614	0.3008	0.3113	4.8237	0.3008	0.3089	0.3105	0.3008
Total Chromium (as Cr)	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Total Suspended Solids	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	10
Oil & Grease	26	<5	19	<5	11	11	5	7	14	10	16
Sulphate as SO ₄	223.53	40.49	165.69	177.45	138.24	492.76	106.86	43.53	194.12	117.65	171.57
Nitrate as NO ₃	7.27	30.41	38.13	37.84	38.22	25.19	10.53	6.58	23.87	23.79	29.71
Biochemical Oxygen Demand at 27°C for 3 Days	14	12	18	5	13	7	14	9	4	3	9



Ammonical Nitrogen as NH ₃ -N	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chemical oxygen Demand	52	42	62	16	46	23	49	33	13	10	33	10	33
Iron(as Fe)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Copper (as Cu)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Total Phosphorus	0.34	<1	<1	<1	0.023	<1	<1	<1	<1	<1	<1	<1	<1
Mercury	0.0106	0.0058	0.0051	0.0051	0.0018	0.0029	0.003	0.0038	0.0021	0.0032	0.0022	0.0032	0.0022
Fecal Coliform	1600	1600	900	1600	1600	1600	500	900	500	350	1600	350	1600
Phenolic Compounds (as C ₆ H ₅ OH)	<0.001	<0.001	<0.001	0.001	0.0011	0.0013	0.0015	0.0011	0.0013	<0.001	<0.001	<0.001	<0.001
Dissolved Oxygen	4.5	1.4	3.4	4.8	2.3	2.1	1.2	5	4.6	5	4.6	5	2.9



Annexure-3

Well Water characteristics

Characteristic	Loc 12	Loc 13	Loc 14	Loc 15	Loc 16	Loc 17	Loc 18	Loc 19	Loc 20	Loc 21	Loc 22	Loc 23
Colour	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Electrical Conductivity	3486	3885	4127	1205	1807	1030	575.6	2008	1877	4268	1804	924.9
pH at 25°C	7.84	7.93	7.55	7.9	7.45	7.8	7.26	7.94	7.42	7.69	8.14	8.2
Chloride (as Cl)	1231.8 9	1281.1 6	1428.9 9	256.2 3	335.0 7	98.55	68.99	433.6 2	453.3 3	1379.7 1	492.7 6	157.6 8
Cadmium (as Cd)	0.0068	0.0083	0.0078	0.009 9	0.007 2	0.006 2	0.005 7	0.009 6	0.006 7	0.0089	0.005 3	0.005 5
Lead (as Pb)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel (as Ni)	<0.01	0.04	0.051	0.027 9	<0.01	0.044	0.027 9	0.098 2	0.036 1	0.0361	0.028 8	0.031 2
Total Dissolved Solids	2283	2545	2698	804	1193	690	395	1334	1247	2798	1194	632
Zinc (as Zn)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic as As	0.021	0.016	0.019	0.023	0.02	0.021 3	0.020 9	0.010 1	0.014 9	0.012	0.016	0.018

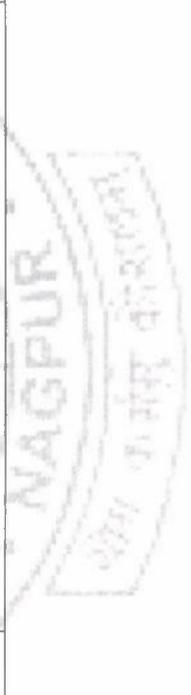
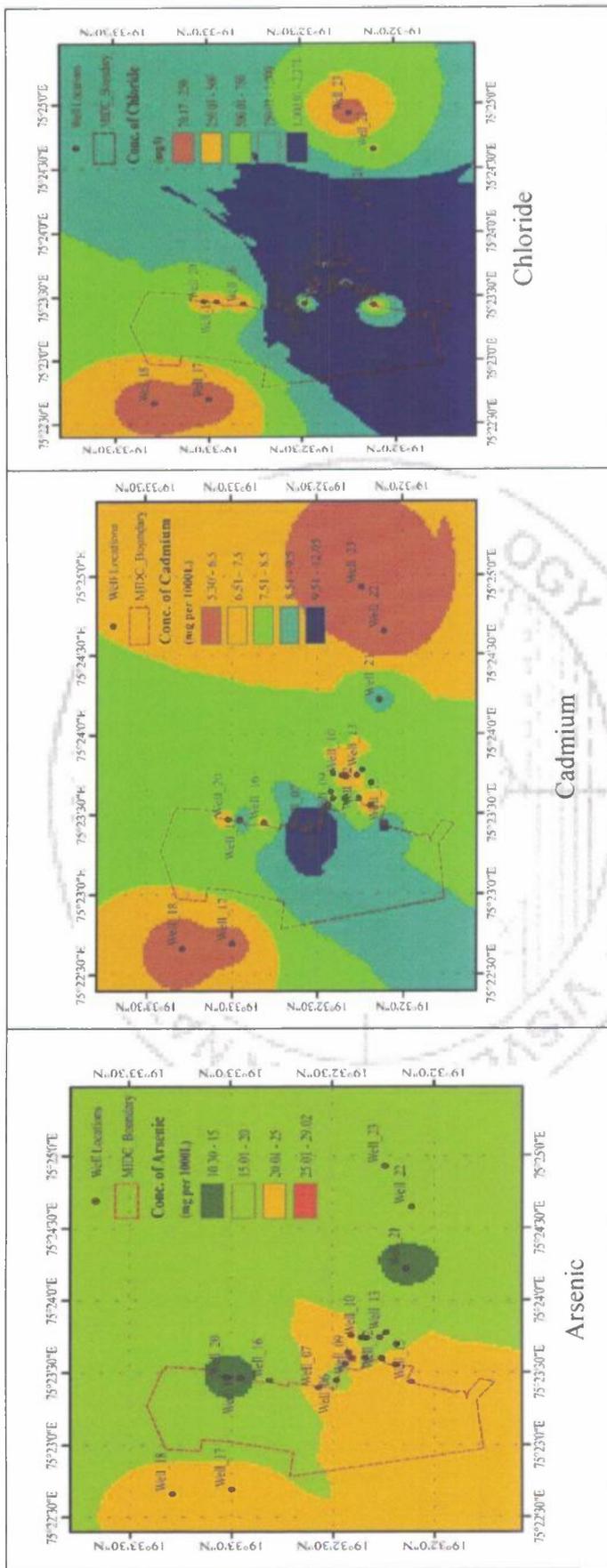


Manganese (as Mn)	0.2911	0.3129	0.2968	0.275	0.332	0.299	0.293	0.996	1.738	0.3016	0.341	0.305
				7	3	2	5	4	1		6	7
Total Chromium (as Cr)	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Total Suspended Solids	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Oil & Grease	9	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Sulphate as SO ₄	173.53	167.65	140.2	105.8	163.7	155.8	78.14	155.8	133.3	169.61	182.3	102.9
				8	3	8		8	3		5	4
Nitrate as NO ₃	34.94	34.05	33.69	20.86	17.52	35.37	8.04	20.87	4.92	30.21	34.49	37.13
Biochemical Oxygen Demand at 27°C for 3 Days	11	12	16	7	8	36	24	36	32	28	8	8
Ammonical Nitrogen as NH ₃ -N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chemical oxygen Demand	39	42	16	23	29	137	82	121	111	98	27	23
Iron(as Fe)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Copper (as Cu)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Total Phosphorus	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Mercury	0.0022	0.0024	0.0019	0.003	0.003	0.003	0.001	0.002	0.010	0.0021	0.002	0.002
				4	6	4	3	7	6		4	3
Fecal Coliform	280	300	900	900	300	<2	80	900	1600	500	350	280
Phenolic Compounds (as C ₆ H ₅ OH)	0.0011	<0.001	0.0015	<0.00	<0.00	<0.00	<0.00	0.001	<0.00	0.0011	<0.00	<0.00
				1	1	1	1	3	1		1	1
Dissolved Oxygen	5.2	3.4	2.1	4.3	5.3	3.2	4	5.6	5.1	3.9	5.7	7.4



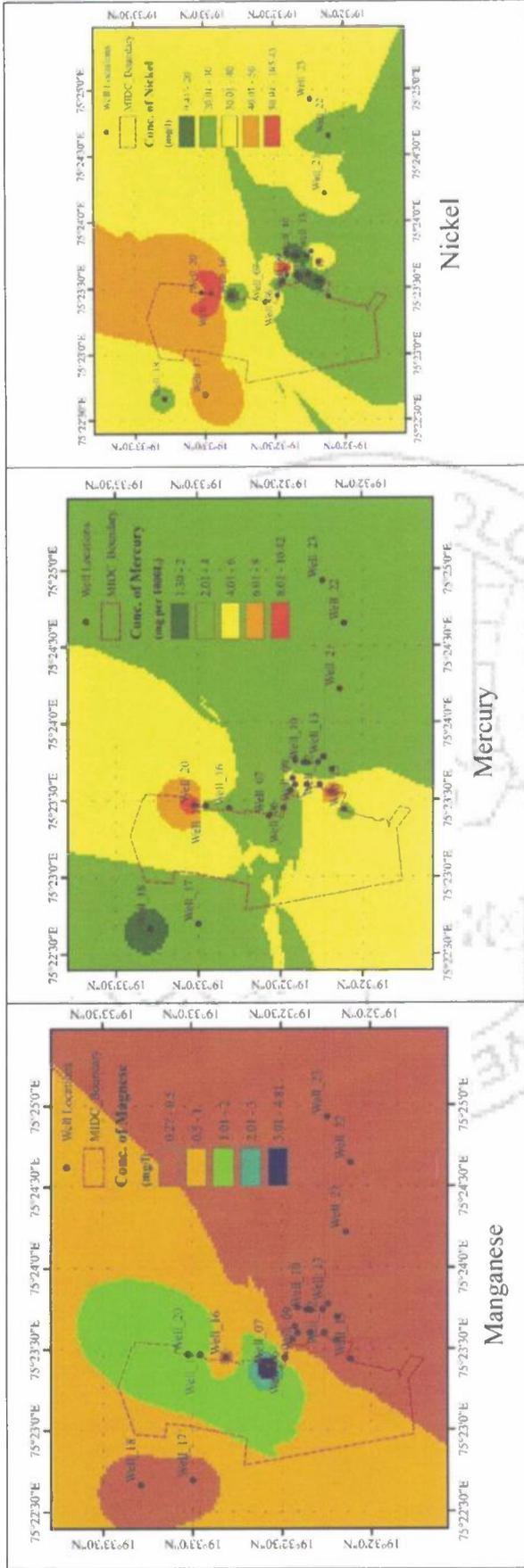
Annexure-4

Spatial mapping of pollutants



Annexure-4

Spatial mapping of pollutants



जा.कं./जी.अ.कृ.अ./समिती अ./ 2435/2024
कार्यालय-जिल्हा अधीक्षक कृषि अधिकारी
छत्रपती संभाजीनगर दि. 23/09/2024

पति.

✓ मा. प्रादेशिक अधिकारी

महाराष्ट्र प्रदूषण नियंत्रण मंडळ, छत्रपती संभाजीनगर

विषय - मा.राष्ट्रीय हरित लवाद या न्यायालयीन प्रकरणामध्ये मंगल विष्णू बोडखे व इतर ४ विरुद्ध मॅट्रीक्स लाइफ साईन्स प्रा.लि. च्या न्यायालयीन निर्देशानुसार पिक वाढीवर व उत्पादनावर होणारा परिणाम याबाबत गठीत समितीचे निष्कर्ष सादर करणेबाबत

संदर्भ - आपले कार्यालयीन पत्र क्रमांक १२८६ दिनांक १०/०७/२०२५

उपरोक्त संदर्भीय विषयान्वये, मौजे मुधळवाडी ता.पैठण येथील मंगल विष्णू बोडखे व इतर ४ यांच्या शेतजमीनीतील विहिरीचे पाणी दुषित होणे, शेतजमीन व पिकाचे नुकसान झाल्यामुळे झालेल्या तक्रारीसंदर्भात आपण न्यायालयीन निर्देशानुसार पिक वाढीवर व उत्पादनावर होणारा परिणाम याबाबत क्षेत्रीय पाहणी करून अहवाल सादर करण्याचे सूचित केलेले होते त्यानुसार क्षेत्रीय पाहणी अहवाल या पत्रासोबत सादर करण्यात येत आहे. करिता पुढील कार्यवाहीस्तव व माहितीस्तव सादर सोबत-क्षेत्रीय पाहणी अहवाल

जिल्हा अधीक्षक कृषि अधिकारी
छत्रपती संभाजीनगर

क्षेत्र पाहणी अहवाल

विषय :- मा.राष्ट्रीय हरित लवाद या न्यायालयीन प्रकरणामध्ये मंगल विष्णू बोडखे व इतर ४ विरुद्ध मॅट्रीक्स लाइफ साईन्स प्रा.लि. च्या न्यायालयीन निर्देशानुसार पिक वाढीवर व उत्पादनावर होणारा परिणाम याबाबत गठीत समितीचे निष्कर्ष सादर करणेबाबत

संदर्भ : १.मा.राष्ट्रीय हरित लवाद, वेस्टर्न झोन बॅच,पुणे यांचा दावा क्र.२२२/२०२३ (W Z)

दि.२२.०४.२०२४.

२.प्रादेशिक अधिकारी, महाराष्ट्र प्रदूषण नियंत्रण मंडळ, छत्रपती संभाजीनगर यांचे पत्र जा.क्र./म.प.नी.मं /प्रा.का.औ./७४७ दि.०९.०८.२०२३.

३.मा.जिल्हाधिकारी, छत्रपती संभाजीनगर यांचे समिती गठीत पत्र जाक्र./जि.अ.क्र.अ./तंत्र/२४९१ दि.१०.६.२०२४

४.समिती पत्र जाक्र.२६६६/२४ दि.१९.६.२०२४

५.मा.राष्ट्रीय हरित लवाद, वेस्टर्न झोन बॅच,पुणे यांचा दावा क्र.२२२/२०२३ hearing दि.०८.०८.२०२४.

६.मा.राष्ट्रीय हरित लवाद, वेस्टर्न झोन बॅच,पुणे यांचा दावा क्र.२२२/२०२३ hearing दि.१८.०६.२०२५

७.प्रादेशिक अधिकारी,महाराष्ट्र प्रदूषण नियंत्रण मंडळ,छत्रपती संभाजीनगर यांचे पत्र क्रमांक १२८६ दिनांक १०/०७/२०२५

८.प्रादेशिक अधिकारी,महाराष्ट्र प्रदूषण नियंत्रण मंडळ,छत्रपती संभाजीनगर यांचे पत्र क्रमांक १२९९ दिनांक १५ /०७/२०२५

९.मा.जिल्हाधिकारी व मा जिल्हा अधीक्षक कृषि अधिकारी छत्रपती संभाजीनगर यांचे आदेश क्रमांक २२९७ दिनांक १५/०७/२०२५

उपरोक्त संदर्भीय विषयान्वये सविनय सादर करण्यात येते की,मौजे मुधळवाडी ता.पैठण येथील मंगल विष्णू बोडखे व इतर ४ यांच्या शेतजमीनीतील विहिरीचे पाणी दुषित होणे, शेतजमीन व पिकाचे नुकसान झाल्यामुळे झालेल्या तक्रारीसंदर्भात राष्ट्रीय हरित लवाद यांनी दिनांक २२.०४.२०२४ रोजीच्या आदेशान्वये त्रिस्तरीय समिती स्थापन करण्याचे आदेशित करण्यात आलेले होते त्यानुसार मा.जिल्हाधिकारी ,मा.जिल्हा अधीक्षक कृषि अधिकारी व महाराष्ट्र प्रदूषण नियंत्रण मंडळ, छत्रपती संभाजीनगर यांची समिती स्थापन करण्यात आली.मा.जिल्हाधिकारी यांच्या अध्यक्षतेखाली स्थापन समितीने दिनांक १४/०६/२०२४ रोजी प्रत्यक्ष क्षेत्रीय स्तरावर पाहणी करून कृषी विभाग प्रतिनिधी ,महाराष्ट्र प्रदूषण नियंत्रण मंडळ प्रतिनिधी व जिल्हा मृद सर्वेक्षण व मृद चाचणी प्रतिनिधी यांच्या उपस्थितीत बाधित परिसरातील विहिरीच्या पाण्याचे यादृच्छिक पद्धतीने २५ विहिरीतील नमुने संकलित करून प्रादेशिक अधिकारी ,महाराष्ट्र प्रदूषण नियंत्रण मंडळ ,छत्रपती संभाजीनगर यांनी पाण्याचे विश्लेषण करून अहवाल समितीला सादर करावा तसेच बाधित परिसरातील जमिनीचे यादृच्छिक पद्धतीने १० माती नमुने संकलित करून जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी, छत्रपती संभाजीनगर यांनी माती नमुन्यांचे संकलन करून अहवाल समितीला सादर करण्याच्या सूचना देण्यात आल्या.

त्यानुसार महाराष्ट्र प्रदूषण नियंत्रण मंडळ छत्रपती संभाजीनगर यांनी VNIAT नागपूर या संस्थेला पाणी नमुने तपासणी करण्यासाठी पाठविले होते त्यानुसार संदर्भ क्रमांक ८ अन्वये प्रादेशिक अधिकारी महाराष्ट्र प्रदूषण नियंत्रण मंडळ, छत्रपती संभाजीनगर यांनी २३ पाणी नमुने तपासणी अहवाल सादर केलेला आहे. सदरील अहवालातमध्ये सामूरंग, तेल आणि वंगण, एकूण घन पदार्थ, एकूण विरघळलेले घन पदार्थ व क्षारता या पाण्यातील घटकांचे विश्लेषण करण्यात आले. सदरील अहवालानुसार पाण्यातील नमुन्यामध्ये आरसेनिक, कॅडमियम, मर्क्युरी, निकेल हे जास्त प्रमाणात असल्याचे निदर्शनास आले. येथील विहिरी या बंदिस्त नसल्यामुळे पावसाचे पाणी यात मिसळल्यामुळे धातूंचे प्रमाण जास्त असल्याचे तसेच प्राणी व मानव यांच्या करवी निर्माण होणारा कचरा यामुळे कोलीफॉर्म पातळी जास्त असल्याचे निदर्शनास आले. तसेच क्लोरीन व एकूण घन पदार्थ हे औद्योगिक कारखाण्यातून येणारे दूषित पाणी यामुळे असल्याचे निष्कर्ष देण्यात आलेले आहेत.

तसेच माती परीक्षण अहवाल जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी, छत्रपती संभाजीनगर यांनी सादर केले सदरील माती परीक्षण अहवालानुसार सदरील शेतकऱ्यांच्या जमिनीमध्ये मुक्त चुना अत्यंत जास्त असून कॅल्शियम, मॅग्नेशियम, सोडियम हे जास्त आढळून आलेले असून जमिनीचा सामू जास्त असून जमीन हि तीव्र अल्कली स्वरूपाची असल्याचे निदर्शनास आले. तसेच यातील काही शेतकऱ्यांनी जिल्हा मृद सर्वेक्षण व मृद चाचणी प्रयोगशाळा, कृषी विज्ञान केंद्र, पैठण येथे तपासणी साठी पाण्याचे नमुने दिले. सदरील नमुन्यांची तपासणी केली असता पाण्याचा वर्ग C4S1 दर्जाचा आला असून सदरील पाण्याच्या वर्गामुळे जमिनीतील क्षारांचे प्रमाण विशिष्ट मर्यादेपलीकडे जाते त्यावेळी जमीन क्षारयुक्त बनतात व त्याची उत्पादन क्षमता घटते क्षारांचे प्रमाण वाढल्याने पिकांना आवश्यक असणारे अन्नद्रव्य शोषून घेण्यास अडथळा येतो त्याचा परिणाम पिके सुकण्यास व योग्य वाढ न होण्यावर होतो. अशा प्रकारचे निष्कर्ष सदरील अहवालावरून निदर्शनास आले.

मा. राष्ट्रीय हरित लवाद व प्रादेशिक अधिकारी महाराष्ट्र प्रदूषण नियंत्रण मंडळ, छत्रपती संभाजीनगर यांनी VNIAT नागपूर यांनी सादर केलेल्या अहवालाच्या आधारे पिक वाढीवर व उत्पादनावर होणारा परिणाम याबाबतचे अभिप्राय सादर करण्याचे अनुक्रमे संदर्भ क्रमांक ६ व ७ अन्वये सुचित करण्यात आलेले आहे. सदरील अहवाल सादर करणेस्तव क्षेत्रीय अधिकारी यांचे या समितीमध्ये असणे आवश्यक आहे. सदरील क्षेत्रीय पाहणी करणेस्तव जिल्हा समितीचे अध्यक्ष तथा मा. जिल्हाधिकारी, छत्रपती संभाजीनगर व मा. जिल्हा अधीक्षक कृषि अधिकारी, छत्रपती संभाजीनगर यांच्या आदेश क्रमांक २२९७ दिनांक १५/०७/२०२५ अन्वये समिती गठीत करण्यात आलेली आहे सदरील समितीचे उपविभागीय कृषी अधिकारी, छत्रपती संभाजीनगर हे अध्यक्ष असून, माती व पाणी प्रयोगशाळा प्रमुख जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी छत्रपती संभाजीनगर, कृषी विज्ञान केंद्राचे मृद व पाणी परीक्षण विशेषज्ञ व क्षेत्रीय स्तरावरील तालुका कृषी अधिकारी पैठण, मंडळ कृषी अधिकारी, उप कृषी अधिकारी तसेच सहाय्यक कृषी अधिकारी यांचा या समितीमध्ये अंतर्भाव करण्यात आलेला आहे.

सदरील समितीने संदर्भ क्रमांक ९ च्या आदेशान्वये प्रत्येक गावातील १० शेतकरी यादृच्छिक पद्धतीने निवडलेले आहेत त्यांची यादी खालीलप्रमाणे.

अ. क्र.	शेतकऱ्याचे नाव	गावाचे नाव	गट क्र.	घेण्यात आलेले पिक
१	मंगल विष्णु वोडये	मुधलवाडी	२२२	मोसंबी/ऊत

२	प्रमोद बबनराव आढाव	मुधलवाडी	२०	तूर
३	भगवान आसाराम बोडखे	मुधलवाडी	२२८	ऊस
४	शिवाजी नाथा जाधव	मुधलवाडी	२२०	ऊस
५	विनोद बबनराव आढाव	मुधलवाडी	०७	ऊस / तूर
६	मंदाबाई बाबासाहेब आढाव	मुधलवाडी	६	ऊस
७	बप्पासाहेब अंबादास आढाव	मुधलवाडी	६	कापूस , ऊस
८	गोपीचंद हरिचंद बोडखे	मुधलवाडी	२२०	कापूस
९	अनोद बबनराव आढाव	मुधलवाडी	२०	ऊस
१०	सोमनाथ आसाराम बोडखे	मुधलवाडी	२२६	तूर
११	अशोक रावसाहेब मोहिते	वाहेगाव	२५७/३	कापूस / ऊस
१२	भास्कर आप्पासाहेब बोबडे	वाहेगाव	३२६	कापूस
१३	नामदेव शिवाजी शिंदे	वाहेगाव	४१	कापूस
१४	सुनील मुरलीधर कुलकर्णी	वाहेगाव	३०७/१	कापूस
१५	मुरलीधर माधवराव बोबडे	वाहेगाव	२५४	कापूस
१६	काशिनाथ किसन शिंदे	वाहेगाव	२५७	कापूस
१७	साहेबराव भानुदास सोनवणे	वाहेगाव	२६८	कापूस
१८	अयुब गफुर बागवान	वाहेगाव	१९२/४	मोसंबी
१९	आप्पासाहेब बाबुराव बोबडे	वाहेगाव	१९३	मिसंबी
२०	कल्याण चंद्रभान सोनवणे	वाहेगाव	२५८	कापूस
२१	सुरेंद्र सुभाष गवळी	नारायणगाव	२६८/८	मोसंबी / कापूस
२२	बप्पासाहेब उत्तम रोडे	नारायणगाव	२०५	मोसंबी
२३	सोमनाथ सखारामबोडखे	नारायणगाव	२८९/३	मका
२४	संजीवन विनायक रोडे	नारायणगाव	२८१/३	तूर व ऊस
२५	अनंत संजीवन रोडे	नारायणगाव	२८१/२	ऊस
२६	जनदेव एकनाथ रोडे	नारायणगाव	२६०	कापूस
२७	मधुकर एकनाथ रोडे	नारायणगाव	२८०	कापूस / मोसंबी
२८	हरिश्चन्द्र रामराव रोडे	नारायणगाव	२५३	कापूस
२९	रमेश विश्वासराव म्हस्के	नारायणगाव	८३	कापूस / ऊस
३०	बाबासाहेब रामराव गवळी	नारायणगाव	७९	मोसंबी
३१	अशोक भाऊसाहेब गोगडे	कातपूर	७२	कापूस
३२	गजानन कांताराव मोरे	कातपूर	४१	मोसंबी
३३	धनंजय एकनाथ मोरे	कातपूर	४३	कापूस / मोसंबी
३४	दत्तात्रय दिगंबर रोडी	कातपूर	१७	मोसंबी
३५	सत्यभामा कांताराम मोरे	कातपूर	१४	मोसंबी
३६	चंदू दशरथ मोरे	कातपूर	८५	ऊस/मोसंबी
३७	रामचंद्र दिगंबर लोळगे	कातपूर	९१	मोसंबी

३८	सुनील पावलस साळवे	कातपूर	१०६	मोसंबी
३९	रामभाऊ नाथा मोरे	कातपूर	७३	मोसंबी
४०	अर्जुन दादा रोडी	कातपूर	१०३	मोसंबी
४१	भीमा बापु वाघमोडे	पिंपळवाडी	२८	कापूस
४२	पोपट खंडू उघडे	पिंपळवाडी	२९	पपई
४३	दशरथ सूर्यभान उघडे	पिंपळवाडी	२९	ऊस
४४	मधुकर देवराव भागवत	पिंपळवाडी	२६/२	ऊस/मोसंबी
४५	जानेश्वर मधुकर उघडे	पिंपळवाडी	३८	ऊस
४६	नारायण देवराव भागवत	पिंपळवाडी	३४/४	तुर
४७	कैलास सतीश बलदवा	पिंपळवाडी	३२	डार्कीम
४८	तुलसी कैलास बलदवा	पिंपळवाडी	३०	तुर
४९	विशाल कल्याण तुळशे	पिंपळवाडी	२५	कापूस
५०	रविंद्र अशोक दिलवाले	पिंपळवाडी	३५	ऊस
५१	राजु संपतराव जाणकार	पिंपळवाडी	४१/१	मोसंबी
५२	आप्पासाहेब भानुदास बोवडे	पाचलगाव	६२	मोसंबी
५३	गंगाधर श्रीधर महालकर	पाचलगाव	३३	कपाशी
५४	सुभाष शामराव बोंबले	पाचलगाव	७८/१	मोसंबी
५५	बप्पासाहेब भाऊराव महालकर	पाचलगाव	७९	कापूस
५६	नानासाहेब बापूराव बोंबले	पाचलगाव	१०२	कापूस
५७	आंकुश भाऊराव महाळकर	पाचलगाव	७९	कापूस
५८	बाबुराव आसाराम बोवळे	पाचलगाव	५९/१	मोसंबी
५९	प्रल्हाद तुकाराम बोवडे	पाचलगाव	६९	कापूस
६०	सुनील प्रल्हाद बोवडे	पाचलगाव	७५	मोसंबी
६१	मनोहर जिजा बोवले	पाचलगाव	७१	मोसंबी/ कापूस
६२	सतीष दौलतराव लवडे	दियानतपूर	७०/३	दाळीब
६३	संदीप अंकुश फासाटे	दियानतपूर	८६	कापूस
६४	प्रकाश रामभाऊ पाचोडे	दियानतपूर	१५	ऊस /तूर
६५	प्रकाश उत्तम फासाटे	दियानतपूर	७१/१	कापूस
६६	मच्छिंद्र रोहिदास चव्हाण	दियानतपूर	१३/७	कापूस
६७	विश्वनाथ रामराव बोंबले	दियानतपूर	१६	कापूस
६८	गजानन बद्रीनाथ फासाटे	दियानतपूर	८५	कापूस
६९	शांताराम सखाराम हनवते	दियानतपूर	६०	कापूस
७०	कारभारी रामभाऊ हनवते	दियानतपूर	६६	कापूस
७१	कृष्णा बद्रीनाथ बोंबले	दियानतपूर	५२	तूर

सदरील शिवारातील निवड केलेल्या क्षेत्रामध्ये सदरील समितीने दिनांक १८/०७/२०२५ रोजी प्रत्यक्ष क्षेत्रीय पातळीवर जाऊन पाहणी केली त्यानुसार क्षेत्र पाहणीचे निष्कर्ष खालीलप्रमाणे

मौजे मुधळवाडी ,वाहेगाव व नारायण गाव येथे प्रामुख्याने उस, कापूस तूर व मका हि पिके आढळून आली प्रस्तुत पिकांवरती सदरील पाण्याचा दुष्परिणाम आढळून आलेला असून सदरील पिकांच्या उत्पादकतेत २५-४० % घट होण्याची शक्यता आहे. ऊस पिकात फुटवे कमी फुटणे,कापूस,तूर,मका यांची वाढ कमी होणे याप्रमाणे दुष्परिणाम आढळून आलेला आहे.

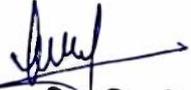
सदरील शिवारांमध्ये कांदा लागवड केल्यास पानांचे प्रमाण कमी होणे,उंची कमी होणे,कंद कमी लागून त्याचे आकारमान कमी होणे व त्याचा साठवणकाळ कमी होणे इत्यादी दुष्परिणाम होतात तसेच मोसंबी लागवड केल्यास मोसंबी पिकाची वाढ कमी होणे,फळगळ होणे,पाने पिवळी पडणे इत्यादी दुष्परिणाम होतात यामुळे कांदा व मोसंबी या पूर्वापार चालत आलेल्या पिकांची लागवड करण्यास मर्यादा येत आहेत.तसेच काही ठिकाणी शेतकरी विहिरीचे पाणी दुषित असल्यामुळे धरणाच्या पाण्याची पाईप लाईन आणून किंवा इतर अबाधित क्षेत्रातील शेतकऱ्यांकडून तिस-या हिस्स्याने पाणी घेत आहेत.नाईलाजास्तव विहिरीचे पाणी घावे लागल्यास वरीलप्रमाणे पिकांवर दुष्परिणाम व तीच तीच पिके घेतल्यामुळे जमिनीचा पोटाढासकून उत्पादनात मागील ४ - ५ वर्षात सातत्याने तीव्र घट येत असल्याचे शेतकऱ्यांशी चर्चा केल्याअंती समजते.

तसेच कातपूर ,पिंपळवाडी पिराची,पाचलगाव,दियानतपूर व दाळवाडी येथील शेतक-यांच्या पिक परिस्थिती ची पाहणी केली असता कोणत्याही प्रकारचा उत्पादकतेवर परिणाम प्रत्यक्षदर्शी आढळून आलेला नाही

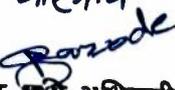
VNIA यांनी सादर केलेल्या निष्कर्षानुसार पाण्यातील नमुन्यामध्ये आरसेनिक, कॅडमियम, मक्वुर्युरी ,निकेल हे जास्त प्रमाणात असल्याने तसेच जिल्हा मृद सर्वेक्षण व मृद चाचणी अधिकारी यांनी केलेल्या माती नमुने तपासणी नुसार सदरील शेतक-यांच्या जमिनीमध्ये मुक्त चुना अत्यंत जास्त असून कॅल्शियम, मॅगनेशिम,सोडीयम,सामू जास्त असल्यामुळे जमीन ही तीव्र अल्कली स्वरूपाची असल्याचे निदर्शनास आले. पाण्याचा वर्ग C4S1 दर्जाचा आला असून सदरील पाण्याच्या वर्गामुळे जमिनीतील क्षारांचे प्रमाण विशिष्ट मर्यादेपलीकडे जाते त्यावेळी जमीन क्षारयुक्त बनतात.

अयोग्य पाणी यामुळे जमिनीतील क्षारांचे प्रमाण वाढल्याने पिकांना आवश्यक असणारे अन्नद्रव्य शोषून घेण्यास अडथळा येतो त्याचा परिणाम पिके सुकण्यास व योग्य वाढ न होण्यावर होतो.यास्तव सदरील जमिनीतील पिकांवर अबाधित क्षेत्राच्या तुलनेत उत्पादनात २५-४०% घट येण्याची शक्यता वाटते.

करिता पुढील कार्यवाहीस्तव सविनय सादर.

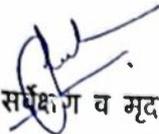

सहाय्यक कृषि अधिकारी
कातपूर

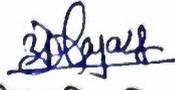

उप कृषि अधिकारी
पैठण


सहाय्यक कृषि अधिकारी
वाहेगाव

मंडळ कृषि अधिकारी
पैठण २


तालुका कृषी अधिकारी
पैठण


मृदा व पाणी परीक्षण विशेषज्ञ
कृषि विज्ञान केंद्र


जिल्हा मृद संधक्षण व मृद चाचणी अधिकारी
छत्रपती संभाजीनगर


उपविभागीय कृषि अधिकारी अधिकारी
छत्रपती संभाजीनगर

जा.क्र./जि.अ.कृ.अ./स.अ./ २४५९ /२०२५
कार्यालय-जिल्हा अधीक्षक कृषि अधिकारी
छत्रपती संभाजीनगर दि.२४/०७/२०२५

प्रति,

मा.प्रादेशिक अधिकारी
महाराष्ट्र प्रदूषण नियंत्रण मंडळ, छत्रपती संभाजीनगर

विषय :- मा.राष्ट्रीय हरित लवाद या न्यायालयीन प्रकरणामध्ये मंगल विष्णू बोडखे व इतर ४ विरुद्ध
मेंट्रीक्स लाइफ साईन्स प्रा.लि. च्या न्यायालयीन निर्देशानुसार पिक वाढीवर व उत्पादनावर
होणारा परिणाम याबाबत गठीत समितीचे निष्कर्ष सादर करणेबाबत

संदर्भ : १.या कार्यालयाचे पत्र क्रमांक २४३५ दिनांक २३/०७/२०२५

२.ऑनलाईन आढावा सभेतील सूचना दिनांक २४/०७/२०२५

उपरोक्त संदर्भीय विषयान्वये संदर्भ क्रमांक १ अन्वये या कार्यालयाकडून क्षेत्रीय पाहणी अहवाल
सादर करण्यात आलेला होता.संदर्भ क्रमांक २ अन्वये आढावा सभेतील प्राप्त सूचनेनुसार पीकनिहाय मंडळनिहाय
उत्पन्न व किमान आधारभूत किंमत सादर करण्यात येत आहे.

अ. क्र.	पिकाचे नाव	मंडळाचे नाव	प्रति हेक्टर उत्पन्न (किलोग्राम)			किमान आधारभूत किंमत (प्रति क्विंटल)			उत्पन्नात झालेली घट(%)	उत्पन्नात झालेली घट(रूपये)
			२०२२-२३	२०२३-२४	२०२४-२५	२०२२-२३	२०२३-२४	२०२४-२५		
१	तूर	लोहगाव	१४७४.००	१४९०.००	३५६.५०	६६००	७०००	७५५	५५%	१०३८१२
		धोरकीन	१०५२.७५	१४७५.८८	२२१.७५			०	६३.३६%	११९५९२
		पिंपळवा-डी	१५७.५०	१३४८.७५	७७०.०				६९.६६%	१३१४८३
२	कापूस	लोहगाव	६०४.५८	९२१.९२	४३१.२५	६०८०	६६२०	७१२१	७८.२६%	१६७९१३
		धोरकीन	५५७.८३	९०९.४२	३९६.९६				७९.३१%	१६९४२९
		पिंपळवा-डी	६०३.८३	९१७.१७	३९५.२५				७८.७२%	१६८१६९
३	ऊस	पैठण	१९५ टन	१०६ टन		३०५	३१५	३४०	२४.७५%	१६८३०

करिता माहितीस्तव व पुढील कार्यावाहीस्तव सादर.

जिल्हा अधीक्षक कृषि अधिकारी
छत्रपती संभाजीनगर

Summary of Survey of industries located in MIDC Paithan area on 04.12.2023 to 13.12.2023 regarding complaints received about water pollution problems due to industries located in MIDC Paithan area.					
Sr. No.	Name of Industry and Address	Consent Status	Effluent generated and Disposal	Observations during visit	Remarks
1	M/s. BB Chemical, Plot No. B-53, MIDC Paithan, Tal. Paithan, Dist. Aurangabad	30-11-2026 Red/SSI	Trade effluent 5.0 CMD and Domestic Effluent 1.0 CMD	<ol style="list-style-type: none"> 1. Industry has not provided separate collection system /pipeline for the collection of effluent of process plant. 2. Industry has not provided ETP as per consent condition and PP has inform that they have neutralize the effluent in HDPE / rubber line and send it to CETP by tanker. 3. Last disposal to CETP is on 28.02.2023 of quantity 15 Lit. (Neutral water). 4. Details of Hazardous/Non-hazardous waste not available during the visit. 5. Industry has not provided ETP with strong COD/TDS stream and week COD/TDS Stream as per consent conditions. Leakages & seepages observed in the process area. 6. Scrubber was not found in operation during visit and scrubbing outlet is not connected with collection tank. Fumes observed during visit. 	Board has issued on Proposed Direction on 27.07.2023. Then personal hearing extended on 14.12.2023 and ID issued on 15.12.2023.

2	M/s. Matrix Life Sciences Pvt. Ltd.,Plot No. D-8,MIDC Paithan,Tal.Paithan,Dist.Aurangabad	31-05-2024 Red/LSI	Trade effluent 89.2 CMD and Domestic Effluent 20 CMD	<p>1.Industry has obtained consent to operate for the 19 nos. of products which is valid upto 31/05/2024.</p> <p>2.Total Trade effluent 89.2 CMD as per consent for treatment of same industry has provided ETP of capacity 160 CMD comprising of primary treatment, anaerobic diaester, Aeration tank, sand-carbon filter followed by RO & ATFD.</p> <p>3.During visit ETP found in operation. The RO permit used in cooling tower & RO reject disposed through ATFD. During visit ATFD found in operation.</p> <p>4.Total domestic effluent-20 CMD as per consent for treatment of same industry has provided STP of capacity 30 CMD. During visit STP found in operation. The treated D.E. is use on own land.</p> <p>5.Industry has provided two numbers of boiler of 10 TPH & 3 TPH. Industry used coal as fuel boiler-30MT/day. Industry has provided MDC followed by bag filter/cyclone dust collector as an APC with stack of height 30 meters.</p> <p>6.Industry has provided 03 nos. of TFH of capacity 4 lackcal, 10 lackcal & 10 lackcal with cyclone type dust collector as an APC. Industry has provided 30 meters stack & use fule as coal.</p> <p>7.Industry has obtained membership of CHWTSDF for disposal of Ha2 waste. Industry has sent cat-35.3 chemical sludge from ETP-3.48 MT on 17/10/2023, 5.2-waste residue containing oil-0.388 kl on 20/11/2023.</p> <p>8.Industry has provided separate electric meter to ETP, STP & ATFD.</p> <p>9.Industry has provided separate isolated shed storage of Ha2 waste.</p> <p>10.Industry has submitted Bank Guarantee of Rs. 13 Lakhs as per consent condition which is valid upto 30/09/2024.</p> <p>11.Industry has provided RCC flooring within the premises. However, collection of washing effluent is not provided. Shal be collected in collection tank & treated in to ETP.</p>	--
3	M/s. Apex Medichem Pvt. Ltd.,Plot No. B-28,MIDC Paithan,Tal.Paithan,Dist.Aurangabad	31-07-2022 Red/SSI	Trade effluent 2.05 CMD and Domestic Effluent 1 CMD	<p>1.During visit industry is not found in operation, it is found closed/sealed.</p> <p>2.No any person available at the site during visit.</p>	DRI found Mephedrone drug in the company and sealed the company 29.10.2023

4	M/s. Tooba Pharma, Plot No. A-117, 118 & 119 MIDC Paithan, Tal, Paithan, Dist. Aurangabad	31-12-2020 Red/SSI	Trade effluent 5.4 CMD and Domestic Effluent 1.8 CMD	<p>1. During visit industry is not found in operation.</p> <p>2. Industry has applied for renewal of consent to operate.</p> <p>3. Industry has connected underground pipeline to ETP.</p> <p>4. Industry has installed Boiler of 300 Kg capacity and installation work of Dust collector is in progress yet not commissioning.</p> <p>5. Industry has provided ladder & sampling port to the stack of boiler without platform.</p> <p>6. Industry has not provided details of Hazardous/Non-hazardous & inform that they have yet not started production activity, presently R & D Activity is going on. Hence no generation of Hazardous /non-hazardous waste.</p>	Board has issued on Proposed Direction on 21.07.2023. Then personal hearing extended on 14.12.2023 and ID issued on 15.12.2023.
5	M/s. Satallite Pharma, Plot No. B-40, MIDC Paithan, Tal. Paithan, Dist. Aurangabad	31-07-2026 Red/SSI	Trade effluent 3.0 M3 and Domestic effluent is 2.0 M3	<p>1. During visit industry is not found in operation. Industry representatives inform that production activity not in operation from Dec.2022.</p> <p>2. Industry has not provided concrete floor within premises.</p> <p>3. Industry has disposed treated effluent of 15000 lit. to CETP by tanker on 24.12.2022.</p> <p>4. Industry has not provided storage of hazardous waste. Last hazardous waste i.e ETP sludge – 0.060 MT disposal to CHWTSDf on 22.09.2022.</p> <p>5. Industry has obtained consent to establish for expansion on 08.07.2022 for new product and completed hearing for obtaining EC for the same. Actual production details not available site during visit.</p> <p>6. Industry has not submitted BG of Rs.50000/- as per ID condition.</p>	Board has issued on Proposed Direction on 20.09.2022. Then personal hearing extended on 25.07.2023 and ID issued on 25.07.2023. SRO issued letter on 19.12.2023 for non-submission of BG.

6	M/s. Shalini Chemicals, Plot No. A-75,MIDC Paithan,Tal.Paithan,Dist.Aurangabad	31-05-2027 Red/SSI	Trade effluent 0.1 M3 and Domestic effluent is 0.1 M3	<p>1.During visit industry is found in operation.</p> <p>2.Industry has provided collection & neutralization tank for generated effluent. Industry has not provided Full-fledged ETP and OCEMS to ETP as per consent conditions.</p> <p>3.Industry has provided MEE of capacity 10 KL which is Batch type. During visit MEE is not found in operation.</p> <p>4.Industry has provided permanent Pipeline for transferring effluent in the ETP.</p> <p>5.Industry has not provided Strom water drain system in the premises.</p> <p>6.Industry has not provided Sludge drying bed and utilizing dryer for drying of generated sludge. Near about 300 Kg hazardous waste sludge found stored in the MEE shed and not yet dispose to CHWTSDF.</p> <p>7.Industry has provided Flow meter at effluent consumption place of reactor & one is required as MEE outlet but not provided. Record of treated effluent generation & disposal is not available during visit.</p> <p>8.Industry has not provided STP as per consent conditions.</p> <p>9.Industry has used Wood as a fuel instead of Briquettes.</p> <p>10.Industry has not submitted details of BG as per consent conditions.</p> <p>11.Chemical containing/Empty drums are found stored in openly in the premises.</p>	Board has issued on Interim Direction on 14.11.2022. Then personal hearing extended at HQ on 24.08.2023 and ID issued on 2.11.2023.
7	M/s. Crystal Industries, Plot No. B-21,MIDC Paithan,Tal.Paithan,Dist.Aurangabad	31-03-2025 Red/SSI	Trade effluent 4.5 M3 and Domestic effluent is 2.4 M3	<p>1.During visit industry is found in operation.</p> <p>2.Industry has provided only collection & neutralization tank as ETP, not provided equalization tank and tertiary treatment system as per consent conditions.</p> <p>3.Industry has not recycled the treated effluent (after neutralization) they have recover ammonia by heating process from untreated effluent and remaining effluent send to CETP by tanker. Last disposal is on 30.11.2023 of quantity 22 KL.</p> <p>4.Industry has not provided scientific storage facility for hazardous waste and about 500 Kg hazardous waste found stored in open area of premises unscientifically which creates surface runoff within factory premises.</p> <p>5.Last Hazardous waste disposal is on i.e. ETP Sludge of quantity 1.5 MT to CHWTSDF is on 18.07.2023.</p> <p>6.Industry has not submitted BG of Rs. 1.0 Lack as per ID condition.</p> <p>7.Record of water consumption, effluent generation and disposal is not available during visit.</p> <p>8.Pungent smell notice within factory premises.</p>	Board has issued on Proposed Direction on 7.10.2023 and ID on 10.02.2023. Then personal hearing extended at HQ on 24.08.2023 and ID issued on 13.10.2023. Submitted to HQ for further necessary action.

8	M/s. Ajanta Pharma Pvt. Ltd., Plot no. B-2,3,4,5,6, 1/2, MIDC Paithan, Tal. Paithan, Dist. Aurangabad	31-01-2026 Red/LSI	Trade effluent 40 to 50 M3 and Domestic effluent is	<p>1.As per consent IE generation is 71 M3 and DE generation is 80 M3. However actual generation of IE is 40 to 50 M3 and DE 15 M3.</p> <p>2.Industry has provided ETP with primary, Secondary & tertiary treatment facility of capacity 80 M3 and STP of capacity 100 M3 with primary, secondary and tertiary treatment facility.</p> <p>3.Industry has provided ultra filtration treatment facility for the treatment of ETP and STP outlet and treated effluent is used for gardening in the premises.</p> <p>4.Industry has provided flow meter to ETP & STP inlet & outlet.</p> <p>5.Industry has provided 4 Nos. of Boiler with capacity 850 Kh/hr (3 Nos.) and one is of 600 Kg/Hr. with combined Stack of height of 21 mtrs.</p> <p>6.Industry has provided 7 Nos. of DG set (1010 KVA 3 Nos., 500 KVA 3 Nos. & 160 KVA 1 No. DG set having stack height 15 mtrs. each).</p> <p>7.Last HW disposal is on 26.11.2023 of category 35.3 – 0.500 MT, 27.1 – 0.900 MT.</p> <p>8.Industry has submitted Form – IV on 30.06.2023 and Form – V is on 26.09.2023.</p> <p>9.Industry has submitted BG of Rs.1.0 lack as per consent condition dtd. 15.03.2022 which is valid up to 31.05.2024.</p>	--
9	M/s. Encore Pharma Pvt. Ltd., Plot No. D-5, MIDC Paithan, Tal. Paithan, Dist. Aurangabad	30-04-2025 Orange/LSI	Trade effluent 50.5 CMD and Domestic effluent is 24 CMD	<p>1.Industry has not provided separate ETP & STP for the treatment of industrial effluent & domestic effluent. Industry has provided ETP of capacity 80 M3/day in which domestic effluent mixed in aeration tank. The treated effluent is use for gardening purpose.</p> <p>2.Industry has provided Flow meter at inlet of ETP.</p> <p>3.Industry has not obtained membership of CETP for disposal of effluent.</p> <p>4.Industry has sent hazardous waste of category 28.4 – 0.191 MT, 35.3-0.250 MT, 1.4 - 0.210 MT to CHWTSDF on 09.09.2023 and 28.4 – 2.209 MT, 35.3 - 0.5 MT and 1.4 – 0.816 MT on 23.05.2023. and submitted the same to the office.</p> <p>5.Industry has not shift cleaner fuel other than LDO for boiler.</p> <p>6.ETP & plant area is concreted with concrete and rest of area is non concreted area.</p> <p>7.Industry has not submitted BG of Rs.1.0 lack as per ID condition.</p>	--
10	M/s. Quantinental Pharmachem Pvt. Ltd., Plot No. A-106/1, MIDC Paithan, Tal. Paithan, Dist. Aurangabad	30-09-2025 Red/SSI	Trade effluent 8.8 CMD and Domestic effluent is 1.8 CMD	<p>1.Industry has provided primary treatment facility with neutralization & equalization treatment and reused treated effluent in the process. Used condensed water in the cooling water. Industry has not provided ETP with Strong COD & TDS and Week COD & TDS. ETP is not found in operation during visit.</p> <p>2.Industry has provided boiler of capacity 1 TPH with stack height 30 mtrs. and cyclone dust collector as APCS. Industry used wood as a fuel instead of Briquets as per consent condition. Boiler is not found in operation during visit.</p> <p>3.Industry has provided 4 Nos. of reactors & combine process vent to scrubber. Scrubber is not found in operation during visit.</p>	Warning Notice issued on 19.12.2023

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11	M/s. Neets Pharma Pvt. Ltd., Plot No. B-45, MIDC Paithan, Tal.Paithan, Dist.Aurangabad	31-05-2026 Orange/SSI	Trade effluent 2.0 CMD and Domestic effluent is 1.2 CMD	<p>1. During visit industry is found in operation.</p> <p>2. Industry has provided concrete floor for the storage of Raw material. Not provided shed/covered to the storage area as well as effluent collection tank.</p> <p>3. Industry has provided storage facility for the generated hazardous waste and obtain membership of MEPL. PP has communicated to MEPL for lifting/collection of hazardous waste. Presently hazardous waste found stored in gunny bags in RCC tank about 1800 Kg.</p> <p>4. Industry has yet not change in fuel Wood to Briquette.</p> <p>5. Industry has sent generated industrial effluent to CETP by tanker after primary treatment. Last disposal is on 03.12.2023, 20.09.2023, 27.07.2023 of quantity 27 M3 each respectively.</p> <p>6. Industry has disposed Boiler ash of quantity 800 Kg on 13.07.2023, 1250 Kg on 01.10.2023 & 1250 Kg on 03.12.2023 respectively as per their submission.</p> <p>7. Industry has not submitted BG of Rs.1.0 Lack as per consent conditions, submitted BG of Rs.50000/- as per ID conditions.</p>	Board has issued on Proposed Direction on 7.01.2020. Then personal hearing extended on 25.07.2023 and ID issued on 25.07.2023. SRO issued letter on 19.12.2023 for non-submission of BG.
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12	M/s. Varun Breweries Ltd.,Plot no. D-7, MIDC Paithan,Tal.Paithan,Dist.Aurangabad	31-08-2027 Red/LSI	Trade effluent is 200 CMD and Domestic effluent is 4 CMD	<p>1.During visit industry found in operation and engaged in the mfg. of sweetened carbonated and non-carbonated Beverages and Aerated water.</p> <p>2.As per consent IE generation is 802 CMD and DE generation is 24 CMD. However, actual IE generation 200 CMD and DE generation is 4 CMD.</p> <p>3.Industry has provided ETP with collection tank, oil skimmer, equalization aim neutralization tank, primary clarifier, upflow, aeration and MBR system, treated effluent collection tank. Industry is not using PSF and ACF instead of this using MBR system/technology. ETP found in operation during visit. Industry has provided flow meter to ETP inlet and outlet.</p> <p>4.Industry has provided RO about 30% ETP outlet is treated in RO and RO permeate is used in the cooling tower. RO reject is again treat sin the ETP. Remaining treated effluent is used for gardening.</p> <p>5.Industry has provided STP for the treatment of generated DE and treated DE is used for gardening purpose.</p> <p>6.Industry having @ 41 acres land for gardening plantation as per consent and total plot area S2 acres.</p> <p>7.Industry has provided 3 nos. of Boilers with capacity 3 TPH, 5 TPH and 6 TPH. Industry has provided stack of height of 30 mtrs each to 5 and 6 TPH, boilers with bag filter as APCS. Industry has dismantled one 3 TPH boiler.</p> <p>8.Industry has provided 2 nos. of DG sets of capacity 2000 KVA with acaustic enclosure.</p> <p>9.DG sets of capacity 1010 KVA, 750 KVA, 225 KVA and 62.5 KVA are not in use as inform by IR.</p> <p>10.HW generated is found stored in sludge drying beds. Huge quantity of HW found stored in sludge drying beds. Last HW disposal is on 28/11/2023 with quantity sludge 3.16 MT. Instructed to disposal HW as early as possible.</p> <p>11.Industry has submitted 2 nos. of BG of Rs. 10.0 Lacs and 15.0 Lacs which is valid upto 11/09/2024 and 31/08/2024 respectively. Details of BG forfeiture is not available during visit.</p> <p>12.Industry has submitted BG of Rs. 1.0 Lacs as per ID dtd. 11/04/2023 which is valid upto 20/04/2024.</p>	--
13	M/s. Hindustan Composite Ltd.,Plot no. D-2/1, MIDC Paithan,Tal.Paithan,Dist.Aurangabad	31-01-2024 Red/LSI	Trade effluent is 0 and Domestic effluent is 12.0 CMD	<p>1.No generation of IE. Industry has provided STP for the treatment of DE which consists of primary, secondary and treatment facility. Treated DE is used for gardening.</p> <p>2.Industry has provided 3 Nos. of Dust Collector which are attached to grinding sections. Generated non-asbestos dust is reused in the process as informed by PP.</p> <p>3.Industry has provided DG Set of capacity 200 KVA with stack height 11 mtrs. with acoustic encloser.</p> <p>4.Industry has submitted BG of Rs. 2.0 lacks which is valid up to 31.01.2024.</p>	--

14	M/s. Satyhari OrganicLtd., Plot no. A-90, MIDC Paithan, Tal.Paithan, Dist.Aurangabad	31-07-2024 Red/SSI	Trade effluent is 0.8 M3 and Domestic effluent is 1.7 M3	<p>1. During visit industry is carrying out production of Anhydrous copper, other product are not in operation. Details of production not provided.</p> <p>2. Industry has not provided primary treatment system i.e. ETP to treat the tread effluent. Industry has provided 2 Nos. of 10000 Lit. capacity of HDPE tank for the storage above the ground level.</p> <p>3. Industry has obtained membership of CETP MIDC Waluj and last disposal to CETP of 10 KL effluent on 29.11.2023. Industry has not submitted detail record of disposal of effluent.</p> <p>4. During visit no discharge of tread effluent found outside the premises. Effluent stored in HDPE storage tank.</p> <p>5. Industry has stooped the use as a fuel Wood for boiler and using coal as fuel and the process of the amendment for change in fuel is in progress.</p> <p>6. Industry has provided hazardous waste storage with concrete floor the work of shed is in progress.</p> <p>7. Last hazardous waste disposal of chemical sludge from ETP i.e. 33.3 – 2.390 MT to CHWTSDF on 30.06.2023.</p> <p>8. Industry has disposed Boiler Ash to brick manufacturer in the month of July 2023.</p> <p>9. Industry has not submitted BG of Rs.1.0 Lack as per ID.</p>	Board has issued on Proposed Direction on 7.10.2022 and ID on 10.07.2023. Then personal hearing extended at HQ on 24.08.2023 and ID issued on 04.10.2023. Submitted to HQ for further necessary action.
15	M/s. Fainger Laser Ltd., Plot no. D-3, MIDC Paithan, Tal.Paithan, Dist.Aurangabad	31-01-2023 Red/LSI	ZLD	<p>1. Industry has provided ETP with primary & tertiary facility which is not found in operation during visit. Industry representatives inform that presently they are manufacturing safety relief was without Phosphating activity. Hence no generation of effluent. Last disposal of effluent to CETP is on 06.01.2021 of quantity 1500 Lit.</p> <p>2. Industry has provided STP with capacity 15 CMD which consist of primary and tertiary treatment facility and treated effluent is used for gardening. STP found in operation during visit.</p> <p>3. Industry has provided Fumes extraction system with Wet scrubber to the phosphating section and stack height 12 mtrs. Scrubber not found in operation during visit as no manufacturing of phosphating related products.</p> <p>4. Industry has installed steam boiler with stack height 12 mtrs and LPG as a fuel.</p> <p>5. Industry has provided 2 nos. of Paint booth with scrubber & stack height of 12 mtrs.</p> <p>6. Industry has provided DG set of Capacity 500 KVA with stack height of 12 mtrs with acoustic enclosure.</p> <p>7. Industry has provided storage facility for the Hazardous waste. Last HW disposal is on 14.09.2023.</p>	Applied for renewal of consent to operate.

16	M/s. Unicorn Pvt. Ltd., Plot No. A-44, MIDC Paithan, Tal. Paithan, Dist. Aurangabad	31-08-2021 Red/SSI	Trade effluent is 0 and Domestic effluent is 0.1 M3	<p>1.No generation of IE. Industry has generated distillation residue as HW. Industry has obtained membership of CHWTSDF/MEPL. Last disposal of HW i.e. IPA residue – 355 Kg to MEPL on 06.02.2020.</p> <p>2.Industry has provided 2 Nos. Glass Assembly Machines with two Stage Condenser.</p> <p>3.Industry has obtained authorisation form Board which is valid up to 03.08.2021.</p> <p>4.Industry representative said that they are not doing the distillation of Spent solvent. Continuously as no availability of Raw material spent solvent.</p> <p>5.Industry has applied for renewal of C to O on 15.06.2021 & authorisation on 15.06.2021. The same was rejected due to Non submission of PESO Licence. However, industry has told that industry has applied for PESO Licence on 26.01.2022, but not obtained the same.</p>	Warning Notice issued on 19.12.2023
17	M/s. Umesh Floride Pvt. Ltd., MIDC Paithan, Tal. Paithan, Dist. Aurangabad	<p>1.During visit industry is not found in operation, it is found closed/sealed.</p> <p>2.No any person available at the site during visit.</p>	--
18	M/s. Kings Food Pvt. Ltd., Plot no. B-96/1, MIDC Paithan, Tal. Paithan, Dist. Aurangabad	31-05-2025 Red/SSI	Trade effluent is 4-5 CMD and Gardening	<p>1.Industry has provided ETP of capacity of 25 CMD with primary, secondary & Tertiary facility. Treated effluent is used for gardening.</p> <p>2.Hot water boiler with stack height 8 mtrs. And dust collector as a APCS and briquettes as a fuel.</p> <p>3.Industry has provided 2 Nos. of DG Sets with capacity 200 & 400 KVA with stack height 5 mtrs each and acoustic enclosure.</p> <p>4.ETP found in operation during visit.</p>	--
19	M/s. A D Pharmachem PVT. LTD. (UNIT - 2) Plot No. A-86, MIDC Paithan, Tal. Paithan, Dist. Aurangabad.	30-12-2023 Red/SSI	Trade effluent is 32.15 CMD and Domestic effluent is 4 CMD	<p>1.Industry has provided ETP consisting of collection tank, primary & tertiary settler & sand & carbon filter followed by MEE. As per consent industrial effluent generation is 32.15 CMD however, actual generation is 0 CMD industry representative is inform that the manufacturing 2 products which are solvent base no requirement of water in process. Hence no generation IE</p> <p>2.Industry ha obtained EC dated 27.12.2021 or 8 No. of product for API products/Intermediates.</p> <p>3.Industry has provided Boiler of capacity 2 TPH with stack height 31 mtrs and provided bag filter & dust collector as an APCS.</p> <p>4.Industry has provided 8 nos. of reactor with 4 no. of scrubber and centrifuge followed by solvent recovery chamber.</p> <p>5.Industry representative said that no hazardous waste is generated from these 2 manufacturing products, only spent solvent is generated same is disposed by sale to authorised party.</p> <p>6.Industry has not submitted BG of Rs.5.0 Lacks as aper consent condition.</p>	SRO issued letter on 19.12.2023 for non-submission og BG.

20	M/s. Shalini Organics, Plot No. D-10 MIDC Paithan, Aurangabad	31-01-2027 Red/MSI	Trade effluent is 10.0 CMD and Domestic effluent is 8.0 CMD	<ol style="list-style-type: none"> 1. During visit industry is found in operation. 2. Industry has provided collection & neutralization tank for generated effluent. Industry has not provided Full-fledged ETP and OCEMS to ETP as per consent conditions. 3. Industry has provided MEE of capacity 10 KL which is Batch type. During visit MEE is not found in operation. 4. Industry has provided permanent Pipeline for transferring effluent in the ETP. 5. Industry has not provided Storm water drain system in the premises. 6. Industry has not provided Sludge drying bed and utilizing dryer for drying of generated sludge. Near about 300 Kg hazardous waste sludge found stored in the MEE shed and not yet dispose to CHWTSDF. 7. Industry has provided Flow meter at effluent consumption place of reactor & one is required as MEE outlet but not provided. Record of treated effluent generation & disposal is not available during visit. 8. Industry has not provided STP as per consent conditions. 9. Industry has used Wood as a fuel instead of Briquettes. 	Board has issued on Proposed Direction on 25.07.2023. Submitted to HQ for further necessary action.
21	M/s. Bond Life science Plot no. B-68 MIDC Paithan, Aurangabad	31-03-2028 Red/SSI	Trade effluent is 0.5 CMD and Domestic effluent is 0.35 CMD	<ol style="list-style-type: none"> 1. Industry has obtained consent to operate form the Board which is valid up to 31.03.2028. 2. As per informed by representative at present they are carried out solvent distillation which is spent solvent from the self-production and not operation consented products also not produce product details during visit. 3. Industry has not provided primary ETP to treat the tread effluent. Industry has provided 10000 Lit. capacity of HDPE tank for the storage of untreated effluent. Industry has not provided CETP effluent disposal record. 4. During visit no discharge of tread effluent found outside the premises. Effluent stored in HDPE storage tank. 5. Industry has not stopped the use of wood as boiler fuel, not switch over to cleaner fuel i.e biomass briquettes and not applied for amendment for change in fuel. 6. Industry has not provided scientific storage area for hazardous waste. 7. Industry has not provided Hazardous waste disposal documents, no record available at site. 8. The boiler ash generated from boiler is lying on land near boiler, not provided scientific storage of boiler ash and not provided disposal details of the same. 9. Industry has not provided details of BG. 	Board has issued on Proposed Direction on 6.02.2020 and ID on 25.06.2020. Then personal hearing extended at HQ on 24.08.2023 and ID issued on 04.10.2023. Submitted to HQ for further necessary action.

F.No. IA-J-11011/60/2018- IA II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(IA-II Section)

Indira Paryavaran Bhawan
 Jorbagh Road, New Delhi - 3

Dated: 17th May, 2019

To

M/s Matrix Fine Sciences Pvt Ltd
 Plot No.D-8, MIDC Paithan
 District **Aurangabad** (Maharashtra)

Annexure-D

Sub: Expansion of Organic Chemicals by M/s Matrix Fine Sciences Pvt Ltd at Plot No.D-8, MIDC Paithan, Taluka & District Aurangabad (Maharashtra) - Environmental Clearance - reg.

Sir,

This has reference to your proposal No.IA/MH/IND2/79952/2018 dated 22nd October 2018, submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for expansion of organic chemicals from 10005 TPA (9 products) to 14925 TPA (16 nos of products) by M/s Matrix Fine Sciences Pvt Ltd in an area of 40,000 sqm at Plot No.D-8, MIDC Paithan, Taluka & District Aurangabad (Maharashtra). The details of products/by-products are as under:

S. No.	Product	Existing (TPA)	Proposed (TPA)	Total (TPA)
1	FAME/Biodiesel/ Distillated Fatty Acid	7600	0	7600
2	Phytosterol	450	0	450
3	Tocopherol & Its Derivatives	600	0	600
4	Oil Residue	600	0	600
5	Squalene	50	0	50
6	Tocotrieols	550	0	550
7	Bixin or Nor-Bixin	52	0	52
8	Omega 3 Fatty Acid	53	0	53
9	Beta Carotene	50	0	50
10	D Alpha Tocopherol	0	720	720
11	D Alpha Tocopherol Acetate	0	720	720
12	D Alpha Tocopheryl Succinate	0	720	720
13	Vitamin E TPGS	0	720	720
14	Steryl Ester	0	720	720
15	Squalane	0	720	720
16	Vitamin E Powder	0	600	600
Total		10005	4928	14933
By-product				
17	Acetic Acid	0	3	3
18	Succinic Acid	0	5	5

3. Existing land area is 40000 sqm. No additional land is required for the proposed expansion. Industry has developed greenbelt in an area of 9947 sqm, and additional area of 795 sqm will be covered under greenbelt. The estimated project cost is Rs.28

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crore. Total capital cost earmarked towards environmental pollution control measures is Rs.1.95 crores and the recurring cost (O&M) will be about Rs 0.9 cr per annum. Total employment opportunity will be for 200 persons directly and 500 persons indirectly after expansion.

4. Jayakwadi Bird Sanctuary is located at 2 km in the South-West Direction. Godavari river is flowing at a distance of 7.6 km in the South direction.

5. Total fresh water requirement is estimated to be 245 cum/day, which will be met from the MIDC supply. Industrial effluent of 91.5 cum/day will be treated through Effluent Treatment Plant. Domestic effluent will be taken to STP for treatment. High COD effluent will be treated in solvent stripper, MEE and ATFD and treated water will be recycled in the process and for green belt development. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 1650 KVA, which will be met from the Maharashtra State Power Distribution Corporation Limited. DG set of 750KVA capacity with stack of height 6.5 m will be installed as standby during power failure.

Coal fired boiler of 7 TPH with Multi cyclone dust collector and bag filter will be installed along with a stack of height 30 m to control the particulate emissions within statutory limit of 115 mg/Nm³.

6. The project/activity is covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general condition (Jayakwadi Bird Sanctuary within 2 km), the proposal requires appraisal/approval at central level in the Ministry.

7. Standard terms of reference (ToR) for the project was granted on 24th May 2018. Public hearing/consultation is exempted as the project site is located in the notified industrial area.

8. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meetings held during 19-20 December, 2018 & 26-28 February, 2019 in the Ministry. The project proponent and their accredited consultant presented the EIA/EMP report as per the ToR. The Committee found the EIA/EMP report complying with the ToR and recommended the project for grant of environmental clearance.

9. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **Expansion of Organic Chemicals from 10005 TPA to 14925 TPA by M/s Matrix Fine Sciences Pvt Ltd** at Plot No. D-8, MIDC Paithan, Taluka & District Aurangabad (Maharashtra), under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as under:-

- (i) Environmental clearance shall be subject to obtaining prior clearance from the wildlife angle including clearance from the Standing Committee of the National Board for Wildlife as applicable. Grant of environmental clearance does not necessarily implies that Wildlife Clearance shall be granted to the project and that their proposals for Wildlife Clearance will be considered by the respective authorities on their merits and decision taken.
- (ii) Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.

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- (iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (iv) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (v) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R.608(E) dated 21st July, 2010 and amended from time to time shall be followed. Fugitive emissions shall be controlled at 99.98% with effective chillers.
- (vi) No raw material/solvent prohibited by the concerned regulatory authorities from time to time, shall be used.
- (vii) Coal with Sulphur content less than 0.5 % shall be used as fuel in the boiler.
- (viii) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (ix) Solvent management shall be carried out as follows:
 - (a) Reactor shall be connected to chilled brine condenser system.
 - (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (c) The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.
 - (d) Solvents shall be stored in a separate space specified with all safety measures.
 - (e) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
 - (f) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.
 - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (x) Total fresh water requirement shall not exceed 245 cum/day to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xi) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- (xii) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xiii) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989



as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.

- (xv) Fly ash should be stored separately as per CPCB guidelines so that it may not adversely affect the air quality. Direct exposure of workers to fly ash and dust should be avoided.
- (xvi) The company shall undertake waste minimization measures as below:-
 - (a) Metering and control of quantities of active ingredients to minimize waste.
 - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (c) Use of automated filling to minimize spillage.
 - (d) Use of Close Feed system into batch reactors.
 - (e) Venting equipment through vapour recovery system.
 - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xvii) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xviii) At least 2.5% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xix) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (xx) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xxi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

9.1 The grant of environmental clearance is further subject to compliance of other generic conditions as under:-

- (i) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and/ or any other statutory authority.
- (ii) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

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- (iii) The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- (iv) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with.
- (v) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.
- (vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- (vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- (viii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing shall be implemented.
- (ix) The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental measures shall be undertaken for overall improvement of the environment.
- (x) A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- (xii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xiii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.



- (xiv) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional offices of MoEF&CC by e-mail.
- (xv) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <http://moef.nic.in>. This shall be advertised 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 of the locality concerned and a copy of the same shall be forwarded to the concerned Regional office of the Ministry.

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. The above conditions will be enforced, *inter alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water 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.


 17/5/2019
(S. K. Srivastava)
Scientist E

Copy to: -

1. The Additional DG (C), MoEF&CC Regional Office(WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Line, Nagpur - 1
2. The Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 32
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th Floor, Opp. Cine Planet, Sion Circle, Mumbai - 22
5. Guard File/Monitoring File/Website/Record File


 17/5/2019
(S. K. Srivastava)
Scientist E

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010437/24020781/24014701		Kalpataru Point, 2 nd - 4 th Fl.
Fax: 24024068 / 24023516		Opp. Cine Planet Cinema,
Website: http://mpcb.gov.in		Near Sion Circle, Sion (E)
E-mail: ast@mpcb.gov.in		Mumbai-400 022.

RED/MSI

Consent No: -Format 1.0/BO/AST/RO-AD/UAN No.-0000068819/E/CC- 1909000857

Date-24/09/2019

To,
M/s. Matrix Fine Sciences Pvt. Ltd.,
Plot No. D-8, MIDC,
Paithan, Dist. Aurangabad.

Annexure-B

Subject: Consent to Establish for expansion in RED category.

- Ref :**
1. Consent to operate was granted by the Board vide no. BO/AST/RO-AD/MPCB-CONSENT-0000025320/O/CC-1708000785 dtd. 28.08.2017 which is valid up to 31.05.2019
 2. Consent to Establish for Expansion was granted by the Board vide no. Consent order No: -BO/AST/RO-AD/ MPCB-CONSENT-0000032870 E/CC-1802001199 Date-16.02.2018
 3. Minutes of the 3rd Consent Committee Meeting (Part-III) dtd. 09.08.2019

Your application: MPCB-CONSENT-0000068819

Dated: 11.03.2019

For Consent to Establish under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 5 of the Hazardous & other Wastes (M, & T M) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. The consent is granted for a period up to commissioning of the unit or 5 years whichever is earlier. (i.e. Upto 30.09.2024)
2. The proposed capital investment of the industry is Rs. 65.56 Cr. (Existing CI was Rs. 30.56+Proposed-35 Cr. (As per undertaking submitted by industry)
3. The Consent is valid for the manufacturing of -

Sr. No.	Product Name	Maximum Quantity MT/A
1.	Phytosterols	75
2.	Fame/Biodiesel/Fatty Acid Distillate/Methyl Ester	9000
3.	Tocopherol & its derivatives	900
4.	Oil Residue	900
5.	Tocotrienols	500
6.	Bixin or Nor - Bixin	50
7.	Squalene / Squalane	150

4. Conditions under Water (P&CP), 1974 Act for discharge of effluent:

Sr. no.	Description	Permitted quantity of discharge (CMD)	Standards to be achieved	Disposal
1.	Trade effluent	28.0	As per Schedule -I	Zero Liquid Discharge
2.	Domestic effluent	3.0	As per Schedule -I	Treated in STP & To use on land for Gardening.

5. Conditions under Air (P& CP) Act, 1981 for air emissions:

Sr. no.	Description of stack / source	Number of Stack	Standards to be achieved
1.	Coal fired Boiler	1	As per Schedule -II
2.	Hot Oil Unit	1	As per Schedule -II
3.	D.G. Set (1250 KVA)	1	As per Schedule -II

6. Conditions about Non Hazardous Wastes:

Sr. No.	Category & Type Of Waste	Quantity	Treatment	Disposal
1	Coal Ash	700 KG/Day	Sale to brick Manufactures
2	Plastic and Packing material	50 Kg/M	By Sale
3	Empty Drums & Carboys	50 No/M	By Sale

7. Conditions under Hazardous & Other Wastes (M & TM) Rules, 2016 for treatment and disposal of hazardous waste: NA

8. The Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.

9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government authorities.

10. The industry shall also comply with the Industry specific standards notified under Environment Protection Act.

11. The applicant should not take any effective steps for implementation of the project before obtaining Environmental Clearance as per EIA Notification 2006 and amendments thereto. As per Para 2 of EIA notification dated- 14.09.2006, the effective steps include starting of any construction work or preparation of land by the project management. However as clarified by the MoEF vide office memorandum no. J-1103/41/2006-IA. II(I); Dated- 19/08/2010, fencing of the site to protect it from getting encroached and construction of temporary shed(s) for the guard(s) & acquisition of land not be treated as an effective steps.

12. This consent is issued with pursuant to the decision of 3rd consent committee meeting (Part-III) held on 09.08.2019

For and on behalf of the
Maharashtra Pollution Control Board

(E. Ravendiran, IAS)
Member Secretary

Received Consent fee of -

Sr. No.	Amount (Rs.)	DD. No.	Date	Drawn On
1	75000/-	TXN1903001090	11.03.2019	Online

Copy to:

1. Regional Officer, Aurangabad and Sub-Regional Officer, Aurangabad, MPCB, Aurangabad - They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Mumbai.
3. Website updating purposes.

Handwritten signature: 

Maharashtra Pollution Control Board

Schedule-I**Terms & conditions for compliance of Water Pollution Control:**

1) A] As per your application, you have proposed to expand the capacity of existing 60 CMD Effluent Treatment Plant (ETP) to 120 CMD, consisting of Primary and secondary treatment systems followed by Solvent Stripper and ATFD for achieving Zero Liquid Discharge (ZLD).

B] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

Sr No.	Parameters	Standards prescribed by Board
	I. Compulsory Parameters	Limiting Concentration in mg/l, except for pH
01	pH	5.5 to 8.5
02	Suspended Solids	100
03	BOD 3 days 27 deg.0	30
04	COD	100
05	Oil & Grease	10
06	Chlorides	600
07	Sulphates	1000
08	Total Dissolved solids	2100

C] Treated effluent shall be 100 % recycled/ reuse in the manufacturing process. There shall not be any discharge outside the factory premises/CETP.

2) A] As per your consent application, you have provided the sewage treatment system with the design capacity of 15 CMD.

B] The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards/ prescribed under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

- | | | | | |
|-----|-------------------|---------------|-----|-------|
| (1) | Suspended Solids. | Not to exceed | 100 | mg/l. |
| (2) | BOD 3 days 27°C. | Not to exceed | 30 | mg/l. |

C] The treated sewage shall be used on land for gardening/plantation only in the factory premises.

3) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or and extension or addition thereto.

4) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

- 5) The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 and as amended, by installing water meters, filing water cess returns in Form-I and other provisions as contained in the said act.

Sr. no.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	123
2.	Domestic purpose	5.0
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	27.5
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	NIL
5.	For Agriculture/gardening	15

- 6) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.



Maharashtra Pollution Control Board

Schedule-IITerms & conditions for compliance of Air Pollution Control:

1. As per your application, you have provided the Air pollution control (APC) system and also proposed to erect following stack (s) and to observe the following fuel pattern-

Sr. No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S %	SO2 Kg/D
1	Boiler	Dust Collector	30	Coal	15000 Kg/D	0.5	150
2	Hot Oil Unit	----	30	Coal	8400 Kg/D	--	84.0
3	DG Set 1250 KVA	Stack with Acoustics Enclosure	3.5*	Diesel	90 Lit/Hr	--	--

(* above the roof level of the building)

2. The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time / Environmental Clearance.
3. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Particulate matter	Not to exceed	150 mg/Nm ³
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4. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement well before its life come to an end or erection of new pollution control equipment.
5. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

Schedule-III
Details of Bank Guarantees

Bank Guarantee History: Fresh and Existing BG's

Sr. No.	Consent (C to E/O/R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C To E	5 Lakh	15 days	Towards compliance of consent conditions	Up to commissioning or up to 5 years i.e. up to 30.09.2024 whichever is earlier	31.12.2024

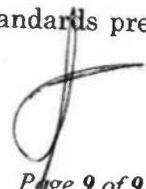
Maharashtra Pollution Control Board

Schedule-IVGeneral Conditions:

- 1) The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- 2) If the MIDC pipeline is broken/ overflowing chamber, in such cases industry shall not discharge their treated effluent into MIDC drain, it shall be sent to CETP by tanker.
- 3) Industry should monitor effluent quality, stack emissions and ambient air quality monthly.
- 4) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- 5) Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipment's, the production process connected to it shall be stopped.
- 6) The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 7) The firm shall submit to this office, the 30th day of September every year , the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- 8) The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous & other wastes (M&TM) Rules 2016, which can be recycled/processed/reused/recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- 9) The industry should comply with the Hazardous & other wastes (M&TM) Rules 2016 and submit the Annual Returns as per Rule 5(6) & 22(2) of Hazardous & other wastes (M&TM) Rules 2016 for the preceding year April to March in Form-IV by 30th June of every year.
- 10) An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- 11) The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before actual commencement of the Activity.
- 12) Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
- 13) The industry shall constitute an Environmental cell with qualified staff/personnel/agency to see the day to day compliance of consent condition towards Environment Protection.
- 14) Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
- 15) Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.

- 16) The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- 17) Conditions for D.G. Set
- a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEF dated 17.05.2002 regarding noise limit for generator sets run with diesel
- 18) The industry should not cause any nuisance in surrounding area.
- 19) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- 20) The applicant shall maintain good housekeeping.
- 21) The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
- 22) The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
- 23) The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipment provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
- 24) The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
- 25) The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
- 26) The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
- 27) The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification dt. 16.11.2009 as amended.

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MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
 Fax: 24023516
 Website: <http://mpcb.gov.in>
 Email: cac-cell@mpcb.gov.in



Kalpataru Point, 2nd, 3rd
 and 4th floor, Opp. Cine
 Planet Cinema, Near Sion
 Circle, Sion (E),
 Mumbai-400022

RED/L.S.I (R22)
 No:- Format1.0/CAC/UAN No.MPCB-
 CONSENT-0000205558/CR/2408001321

Date: 13/08/2024

To,
Matrix Life Sciences Pvt. Ltd.,
 (Formerly known as M/s. Matrix Fine Sciences Pvt.
 Ltd.)
 Plot No. D-8, MIDC Paithan,
 Tal. Paithan, Dist. Aurangabad.



Sub: Plain Renewal of consent to operate for manufacturing of 15 nos organic chemicals and 4 Nos of products by Purification and extraction process, undier RED category.

- Ref:**
1. Environment Clearance accorded by MoEF&CC, Gol vide F.No. IA-J-11011/60/2018-IA II (I) dtd. 17/05/2019.
 2. Existing Consent to Operate accorded by the Board vide No. Format 1.0/CC/UAN NO.MPCB-CONSENT-0000125533/CO/2302000693 dated 09.02.2023.
 3. Consent to establish for proposed Expansion accorded by Board vide No. Format1.0/CAC/UAN No. 91099/CE-2006000528, dated 12.06.2020 & Amendment No. MPCB/UAN No. 0000091099/CAC-Cell/Amend-200909fts0002, Date.09.09.2020.
 4. Minutes of 5th Consent Appraisal Committee meeting held on 30.07.2024.

Your application No.MPCB-CONSENT-0000205558 Dated 04.04.2024

For: grant of Consent to Operate, under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 and Rule 18(7) of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The consent to renewal is granted for a period up to 31/05/2029**
2. **The capital investment of the project is Rs.138 Crs. (As per C.A Certificate submitted by industry Existing CI is of Rs. 83.512 Crs + Expansion C.I. is of Rs. 54.488 Crs)**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Existing Quantity	Proposed Quantity	Total	UOM
Products					
1	Phytosterols	1200	0	1200	MT/A
2	Fame/Biodiesel/Distilled Fatty acid	16600	0	16600	MT/A

Sr No	Product	Existing Quantity	Proposed Quantity	Total	UOM
3	Tocopherol & its derivatives	1500	0	1500	MT/A
4	Oil residue	1500	0	1500	MT/A
5	Squalene	920	0	920	MT/A
6	Tocotrienols	1050	0	1050	MT/A
7	Bixin or Nor - Bixin	102	0	102	MT/A
8	Omega 3 fatty acid	53	0	53	MT/A
9	Beta Carotene	50	0	50	MT/A
10	D Alpha Tocopherol acetate	720	0	720	MT/A
11	D Alpha Tocopherol Succinate	720	0	720	MT/A
12	Vitamin E TPGS	720	0	720	MT/A
13	Stery ester	720	0	720	MT/A
14	Vitamin E powder	600	0	600	MT/A
15	D. Alpha Tocopherol	720	0	720	MT/A
16	Carnosic Acid(Oil/ Powder) *	0	0	1280	MT/A
17	Ursolic Acid *	0	0	60	MT/A
18	Rosemary Essential *	0	0	40	MT/A
19	Rosemarinic Acid *	0	0	40	MT/A

(* The industry shall manufacture the products at Sr. 16, 17, 18, 19 & 20 by purification and extraction process only)

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	89.2	As per Schedule-I	Recycle 100% to achieve ZLD
2.	Domestic effluent	20	As per Schedule-I	On land for gardening

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	S-1	Boiler (3 TPH)	1	As per Schedule -II
2	S-2	Boiler (10 TPH)	1	As per Schedule -II
3	S-3	Thermic Fluid Heater (4.0 Lakh Kcal/Hr)-I	1	As per Schedule -II
4	S-4	Thermic Fluid Heater (10.0 Lakh Kcal/Hr) -II	1	As per Schedule -II
5	S-5	Thermic Fluid Heater (10.0 Lakh Kcal/Hr) -III	1	As per Schedule -II
6	S-6	D G Set (750KVA)	1	As per Schedule -II
7	S-7	D G Set (320 KVA)	1	As per Schedule -II
8	S-8	D G Set (910 KVA) x 2 Nos.	1	As per Schedule -II

6. **Non-Hazardous Wastes:**

<i>Sr No</i>	<i>Type of Waste</i>	<i>Quantity</i>	<i>UoM</i>	<i>Treatment</i>	<i>Disposal</i>
1	Charcoal	40	MT/A	Sale	Use in with boiler coal.
2	Coal Ash	3500	Kg/Day	Sale	Sale to authorized party
3	Packing material	250	Kg/M	Sale	Sale to authorized party
4	Canteen waste	100	Kg/M	Sale	Used in Piggery
5	Empty Drums & Carboy	150	No/M	Sale	Sale to authorized party
6	Biomass	1500	Kg/Day	Incineration	Use in boiler coal.

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for Collection, Segregation, Storage, Transportation, Treatment and Disposal of hazardous waste:**

<i>Sr No</i>	<i>Category No./ Type</i>	<i>Quantity</i>	<i>UoM</i>	<i>Treatment</i>	<i>Disposal</i>
1	5.2 Wastes or residues containing oil	125	Ltr/M	Recycle*	Sale to authorised party
2	28.1 Process Residue and wastes	4.2	MT/A	Incineration	CHWTSDf
3	35.3 Chemical sludge from waste water treatment	250	Kg/Day	Landfill	CHWTSDf
4	26.1 Acetic acid	3.0	MT/A	Recycle*	Sale to authorised party
5	26.1 Succinic acid/calcium succinate	5.0	MT/A	Recycle*	Sale to authorised party
6	28.1 Potassium Sulphate	420	MT/A	Recycle*	Sale to authorised party

*** The applicant shall ensure disposal of by-products to Actual user having permission under Rule 9 of Hazardous and Other Wastes(Management & Transboundary Movement) Rules 2016.**

8. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
10. The industry shall obtain necessary permission from the Directorate of Industrial Safety and Health (DISH).
11. PP shall comply with the conditions stipulated in Environmental Clearance granted by MOEFCC, Gol, vide e F.No. IAJ-11011/60/2018-IA II (I) dtd. 17/05/2019.
12. The applicant shall ensure to operate comprehensive treatment system for the treatment of trade effluent & treated effluent will be 100% recycled to achieve ZLD.
13. PP shall ensure the connectivity of online monitoring system i.e. IP Camera and flow meter to Board server. Data to be transmitted directly from data logger to Board server. PP shall also install separate energy meter to the pollution control devices.
14. The applicant shall not carry out any excess production or produce new products without obtaining consent of the Board and Environment Clearance.

15. This consent is issued without prejudiced to the matter filed in the Hon'ble NGT in O.A. 222/2023.
16. The industry shall dispose the by-products as Hazardous waste and shall comply the provisions of Hazardous & Other Wastes (M & TM) Rules,2016.
17. This consent is issued pursuant to the Minutes of the Consent Committee meeting dtd. 30.07.2024.
18. The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent.
19. PP shall extend/submit the Bank Guarantee of Rs.25.0 Lakh for O & M of pollution control system and compliance of consent and Environmental Clearance conditions.
20. The industry shall create an Environment Cell by appointing an Environmental Engineer / Expert for looking after day-to-day activities related to Environment / Pollution control.

This consent is issued on the basis of information/documents submitted by the Applicant/Project Proponent, if it has been observed that the information submitted by the Applicant/Project Proponent is false, misleading or fraudulent, the Board reserves its right to revoke the consent & further legal action will be initiated against the Applicant/Project Proponent.



Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	1380000.00	TXN2404001010	05/04/2024	Online Payment
2	100000.00	TXN2404004849	26/04/2024	Online Payment

Copy to:

1. Regional Officer, MPCB, Chhatrapati Sambhaji Nagar and Sub-Regional Officer, MPCB, Chhatrapati Sambhaji Nagar I
 - They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Sion, Mumbai
3. CC-CAC updating.

SCHEDULE-I**Terms & conditions for compliance of Water Pollution Control:**

1. A] As per your application, you have provided Effluent Treatment Plant (ETP) of designed capacity of 160.00 CMD consisting of Primary (Collection tank, Neutralization tank, Equalization tank, Flash mixer, Primary Clarifier/Primary Settling Tank), Secondary (Activated sludge process, Anaerobic digester), Tertiary (Pressure sand filter, Activated carbon filter), Advanced treatment (Reverse osmosis, Stripper, ATFD) for the treatment of 89.2 CMD of trade effluent.
 - B] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent and recycle the entire treated effluent into the process for various purposes such as for cooling, process & Scrubbing with metering system so as to achieve Zero Liquid Discharge. There shall be no discharge on land or outside factory premises.
 - C] The treated effluent shall be 100% recycled/reuse in the manufacturing process/ utilities to achieve Zero Liquid Discharge with water metering system. In no case effluent shall find its way outside the factory premises.
 - D] Industry shall ensure the connectivity of online monitoring system i.e. IP Camera and flow meter to Board server. Data to be transmitted directly from data logger to Board server. Industry shall also install separate energy meter to the pollution control devices.
2. A] As per your application, you have provided Sewage Treatment Plant of designed capacity 20 CMD with MBBR technology.
 - B] The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

Sr.No	Parameters	Standards (mg/l)	
1	BOD	Not to exceed	30 mg/l
2	SS	Not to exceed	100 mg/l

- C] The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise. In no case, sewage shall find its way outside factory premises.
3. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
4. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	646.00
2.	Domestic purpose	28.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	107.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Gardening	0.00

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Source	APC System provided/proposed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
S-1	Boiler (3 TPH)	Fabric Bag Filter Multi Cyclone	30.00	Coal 335 Kg/Hr	0.5	TPM	150 Mg/Nm ³
						SO ₂	90 Kg/Day
S-2	Boiler (10 TPH)	Fabric Bag Filter Multi Cyclone	30.00	Coal 750 Kg/Hr	0.5	TPM	150 Mg/Nm ³
						SO ₂	150 Kg/Day
S-3	TFH (4 Lkcal/Hr)	Multi Cyclone	30.00	Coal 140 Kg/Hr	0.5	TPM	150 Mg/Nm ³
						SO ₂	33.60 Kg/Day
S-4	TFH (10 Lkcal/Hr)	Multi Cyclone	30.00	Coal 300 Kg/Hr	0.5	TPM	150 Mg/Nm ³
						SO ₂	72 Kg/Day
S-5	TFH (10 Lkcal/Hr)	Multi Cyclone	30.00	Coal 300 Kg/Hr	0.5	TPM	150 Mg/Nm ³
						SO ₂	72 Kg/Day

Stack No.	Source	APC System provided/proposed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
S-6	DG Set	Acoustic Enclosure Stack	3.00	HSD 30.0 Kg/Hr	1.0	TPM	150 Mg/Nm ³
						SO2	14.40 Kg/Day
S-7	DG Set	Acoustic Enclosure Stack	3.50	HSD 60 Kg/Hr	1.0	TPM	150 Mg/Nm ³
						SO2	28.80 Kg/Day
S-8	D.G Set (910 KVA x 2 Nos.)	Acoustic Enclosure Stack	3.50	HSD 125 Kg/Hr	1.0	TPM	150 Mg/Nm ³
						SO2	60.0 Kg/Day

(D.G Set stack height shall be above the roof of the building)

- The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.
- The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
- The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

SCHEDULE-III

Details of Bank Guarantees:

Sr. No	Consent (C2E/ C2O /C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to R	2500000	15 days/extend	Towards O & M of Pollution control systems and compliance of Consent and Environmental Clearance conditions	31.05.2029	31.05.2030

****Existing BG obtained for above purpose if any, may be extended for period of validity as above.**

If the above Bank Guarantee is not submitted within stipulated period, then 12% interest will be levied as a penalty as per circular dtd 29/02/2024 No.

BO/MPCB/AS(T)/Circular/B-240229FTS0122

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV**General Conditions:**

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
 - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
4. The applicant shall maintain good housekeeping.
5. The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
6. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.

7. The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
13. The PP shall provide personal protection equipment as per norms of Factory Act
14. Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.

21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.
23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
25. The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
26. The industry should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.
27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
31. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

This certificate is digitally & electronically signed.



Ann-B

607

Annexure-E

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MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 0240-2473462
 Fax : 0240-2473461
 Website: <http://mpcb.gov.in>.
 E-Mail : sroaurangabad1@mpcb.gov.in



PARYAVARAN BHAVAN,
 A-4/1 MIDC Chikhalthana,
 Near Nandlal Dhoot Hospital,
 Jalna Road, Aurangabad-431210.

No. : MPCB/SROAD/TB/ - /2021
 2102020001

Date: 02/02/2021

To,
 Matrix Fine Sciences Pvt. Ltd,
 Plot No.- D-8, MIDC palthar, Tal.- Palthan & Dist.- Aurangabad.

Sub: - Warning Notice for violations/Non compliances of provisions made in Water (Prevention & Control of Pollution) Act 1974 & Air (Prevention & Control of Pollution) Act 1981 and Authorization /renewal of authorization under rule 5 of the Hazardous & Other Waste (Management & Trans boundary Movement) Rules, 2016.

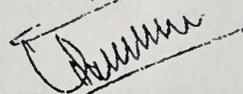
Ref: - 1. Consent to operate is valid up to 31.04.2024.
 2. complaint received on 23.12.2021
 3. Board Official visit to your industry on 27.01.2021.

It is mandatory and obligatory on your part to abide the provisions stipulated under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and Hazardous & Other Waste (Management & Trans boundary Movement) Rules, 2016.

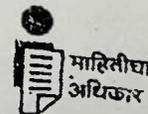
The Board official of this office has visited on 27.01.2021 to your Unit & surrounding area regarding complaint received on And During visit following observations were made as under:-

1. You have not comply the consent conditions i.e not provided ATFD for waste treatment & disposal and the RO reject is used on Ash spraying.

In view of above, you are hereby warned to comply with the above points immediately and inform the steps taken by you in this behalf to this office within a period of seven days from the date of issuance of this letter, otherwise legal action shall be initiated against you, as per the provision under Water (Prevention & control of Pollution) Act, 1974, which may please be noted.


 (P.D. Wankhede)
 Sub Regional Officer
 M. P. C. Board, Aurangabad

Copy submitted to -
 The Regional Officer, M. P. C. Board, Aurangabad- for necessary information.



महाराष्ट्र
 अतिकर

T.C. @ Prade

MAHARASHTRA POLLUTION CONTROL BOARD
REGIONAL LABORATORY, AURANGABAD

Annexure 11

Phone no. : 0240-2993004
Visit us at : <http://mpcb.gov.in>
mail : soaurangabadlab@mpcb.gov.in



Regional Laboratory, Aurangabad,
Maharashtra Pollution Control Board, A-4/1, Paryavaran Bhavan, Behind Dhoot Hospital, Chikalthana MIDC
Aurangabad 431 210

NABL Certificate No.:

Validity

Laboratory MoEF Recognition :

Validity

Test Report No.: MPCB/RL-Aurangabad/JVS/23-24/12/87

Date: 04/01/2024 11:16 AM

Analysis Report-Water (JVS)

Field Sample ID :	BR-0060359		
Name & Address of the Industry	Matrix Fine Sciences Pvt. Ltd. R22 Organic Chemicals manufacturing		
Sampling Location :	STP (Outlet)		
Lab code :	MPCB/RL-Aurangabad/JVS/23-24/445		
Sampling Method(s) :		Sample Details (Water/Air/HW) :	Water
Sampling drawn by (Officer name):	FO-Aurangabad I (Dr. Yogini. A Balankhe)	Sample Volume Received :	
Sample submitted by (Name) :	FO-Aurangabad I (Dr. Yogini. A Balankhe) (SRO-Aurangabad I)	Seal No. :	179
Date of Sample Collection.(dd/mm/yyyy) :	05/12/2023 01:15 PM	Date of Sample receipt to Laboratory (dd/mm/yyyy) :	07/12/2023 11:22 AM
Analysis start Date (dd/mm/yyyy) :	07/12/2023 03:11 PM	Analysis end Date (dd/mm/yyyy) . :	28/12/2023 05:51 PM

Test Report

Sr.No	Parameter	Results	Unit	Method Adopted
1	Suspended Solids (SS)	14.0	mg/l	As per SOP
2	Biochemical Oxygen Demand (BOD)	36.0	mg/l	As per SOP

Abbreviations: - BDL=Below Detectable limit, N.D.=Not Detected, N.A.= Not Analyzed, * Not covered under NABL scop.

Comment (if any):

Comment for Amended Report:

Remark: - Note: This test report refers only to the sample submitted for the testing.

Results Compiled by:

**MAHARASHTRA POLLUTION CONTROL BOARD
REGIONAL LABORATORY, AURANGABAD**

Phone no. : 0240-2993004
Visit us at : <http://mpcb.gov.in>
mail : soaurangabadlab@mpcb.gov.in



Regional Laboratory, Aurangabad,
Maharashtra Pollution Control Board, A-
4/1, Paryavaran Bhavan, Behind Dhoot
Hospital, Chikalthana MIDC
Aurangabad 431 210

NABL Certificate No.:

Validity

Laboratory MoEF Recognition :

Validity

Test Report No.: MPCB/RL-Aurangabad/JVS/23-24/07/56

Date: 25/07/2023 03:42 PM

Analysis Report-Water (JVS)

Field Sample ID :	BR-0049118		
Name & Address of the Industry	Matrix Fine Sciences Pvt. Ltd. R22 Organic Chemicals manufacturing		
Sampling Location :	STP (Outlet)		
Lab code :	MPCB/RL-Aurangabad/JVS/23-24/154		
Sampling Method(s) :		Sample Details (Water/Air/HW) :	Water
Sampling drawn by (Officer name):	FO-Aurangabad I (Mr. Deepak Bansod)	Sample Volume Received :	
Sample submitted by (Name) :	FO-Aurangabad I (Mr. Deepak Bansod) (SRO-Aurangabad I)	Seal No. :	170
Date of Sample Collection.(dd/mm/yyyy) :	12/07/2023 04:00 PM	Date of Sample receipt to Laboratory (dd/mm/yyyy) :	12/07/2023 06:02 PM
Analysis start Date (dd/mm/yyyy). :	13/07/2023 11:09 AM	Analysis end Date (dd/mm/yyyy). :	25/07/2023 03:41 PM

Test Report

Sr.No	Parameter	Results	Unit	Method Adopted
1	Suspended Solids (SS)	46.0	mg/l	As per SOP
2	Biochemical Oxygen Demand (BOD)	32.0	mg/l	As per SOP

Abbreviations: - BDL=Below Detectable limit, N.D.=Not Detected, N.A.= Not Analyzed, * Not covered under NABL scop.

Comment (if any):

Comment for Amended Report:

Remark: - Note: This test report refers only to the sample submitted for the testing.

Results Compiled by: