

**BEFORE THE NATIONAL GREEN TRIBUNAL**  
**PRINCIPAL BENCH, AT NEW DELHI.**

O.A. No. 515/2022

In the matter of:

Dharamvir

.....Applicant

versus

State of Haryana and others

.....Respondents

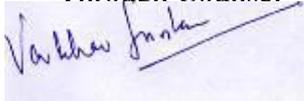
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Dated: 19.01.2026

Respondent No. 07  
HPSPCB.

Through Counsel  


Vaibhav Srivastva  
(Advocate)

**Additional response-cum-Action Taken Report on behalf of HPSPCB in compliance to order dated 15.10.2025 of the Hon'ble NGT passed in O.A No. 515/2022 titled as Dharamvir vs State of Haryana and anr.**

**Background:**

The present Original Application has been registered on the letter of Sh. Dharamvir dated 23.04.2022 which relates to the issue of pollution in River Markanda, originating from Ban kalan, Nahan division, District Sirmaur, Himachal Pradesh, flowing through State of Haryana from Kala Amb area and finally merging into River Ghaggar at Kaithal, Haryana.

That the present case was last listed on 15.10.2025 wherein, the Hon'ble NGT was pleased to passed following directions qua HPSPCB: -

*"...6. Respondent no.7- HPSPCB is directed to file additional response giving complete information with respect to (i) **total number of drains falling in River Markanda (ii) status of all drains as to whether the same have been tapped/not tapped so far (iii) whether any untreated sewage is going to River Markanda (iv) total number of industries in Kala Amb (v) number of industries which are connected to CETP, number of industries which are not connected to CETP and number of industries falling in ZLD category and (vi) sampling and analysis results with respect to all discharge points of confluence of sewage/effluents in River Markanda and Jattan Wala Nallah flowing to Haryana."***

*...9. HP SPCB and HSPCB are directed to carry out sampling at all discharge points and other appropriate places and get the same analyzed and submit analysis reports with reference to all relevant parameters particularly, pertaining to industrial effluents and in case of the analysis reports showing violation of parameters, the HSPCB and HPPCB shall explain the reasons for the same and also mention about remedial action taken regarding the same.*

*10. List on 21.01.2026 for further hearing."*

In compliance to above directions, the Regional Office HPSPCB, Paonta Sahib intimated the concerned stakeholder departments vide letter no. 2699-2712 dated 17.10.2025, letter no. 3320-33 dated 06.12.2025 and letter no.4280-4293 dated 13.01.2026 to comply with the orders of Hon'ble NGT issued on 15.10.2025. (Copies of the letters are attached herewith as **Annexure-A collectively**).

**The Directions of the Hon'ble NGT passed vide order dated 15.10.2025 vis-à-vis compliance by HPSPCB:-**

**1. Total number of drains falling in River Markanda**

There are **three** numbers of drains falling in River Markanda as follows-

- 1. Jattanwala Nallah**
- 2. Public Drain near M/s Vashisht Chemicals, Kala Amb**
- 3. Public drain near Radha Swami Satsang Bhavan, Kala Amb.**

There are **03 Nos** of public drains in the Kala Amb area of Himachal Pradesh (H.P.) territory which fall into river Markanda. The details of the same are tabulated below in **Table no. 1:**

**Table no. 1: - Details of all drains falling in River Markanda in Himachal Pradesh**

<b>Sr. No.</b>	<b>Name of the drain</b>	<b>Details</b>	<b>Nature of wastewater being carried by the drain</b>
i.	<b>Jattanwala Nallah</b> (some part also lies in the Kala Amb area of State of Haryana)	<ul style="list-style-type: none"> <li>• The stretch lies in 02 states.</li> <li>• Approx. length <b>500m (~21%)</b> is in HP.</li> <li>• Approx Length <b>2300m (~80%)</b> is in the State of Haryana.</li> <li>• Approx Flow at exit point of HP is <b>5.6 MLD.</b></li> </ul>	<ul style="list-style-type: none"> <li>• Jattan Nallah drain originating in Kala Amb is carrying domestic waste water of Kala Amb area of both States i.e. Himachal Pradesh and state of Haryana along with waste water of various road side dhabas/butcher shops/sabzi walas located on both sides of Kala Amb-Trilokpur Road of Himachal Pradesh and their</li> </ul>

			<p>solid/liquid waste is flowing into roadside drains and further merging into Jattanwala Nallah.</p> <ul style="list-style-type: none"><li>• HPPCB is monitoring the water quality of the drain on monthly basis. As per analysis report of December 2025, BOD of drain observed was 15 mg/l.</li><li>• The high value of fecal coliform in Jattan drain also indicates discharge of sewage in the drain. The drain finally merges with River Markanda d/s Kala Amb in State of Haryana. Water stagnation and decaying biodegradable waste is also one of the factors in affecting the water quality of River Markanda.</li><li>• In order to cater the domestic waste of Moginand, Rampur Jattan, Mainthapal and Ogli area of Kala Amb, Jal Shakti Vibhag, Nahan has already installed STP of capacity 1.7 MLD at Kala Amb and to cater domestic waste water of Johron, Khairi and Trilokpur area of Kala Amb.</li><li>• 01 Nos STP of capacity 1.5 MLD have been installed. Household connections are under process by Jal Shakti Vibhag, Govt. of H.P.</li></ul>
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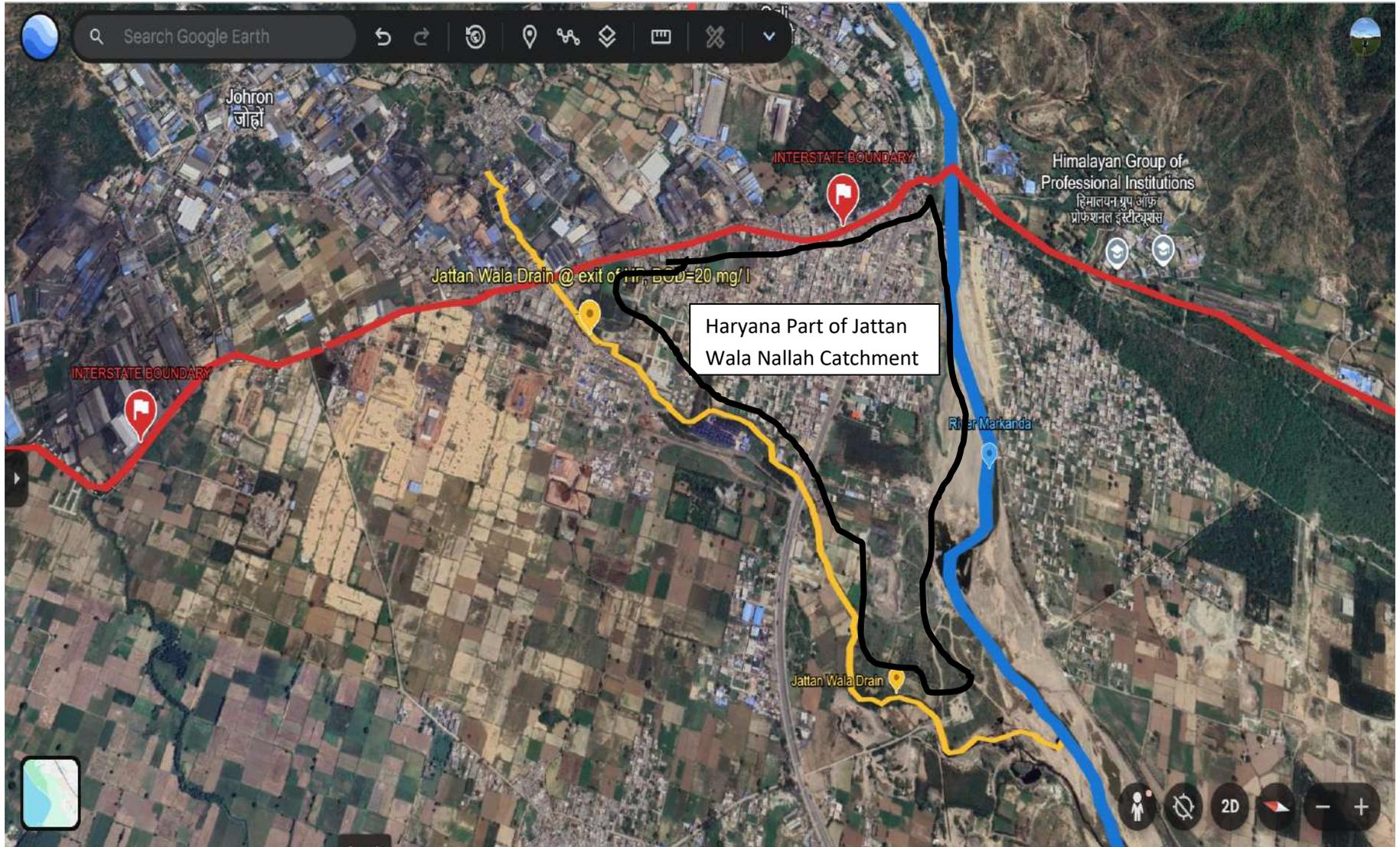
			<ul style="list-style-type: none"> <li>• After, STP Kala Amb is made operational w.r.t. connection of households and laying of main Trunk Sewer Line, the issue of sewage discharge in the aforementioned drain shall be resolved to a large extent, as per the information provided by Jal Shakti Vibhag, Govt. of H.P.</li> <li>• One unit in the name and style M/s Ruchira Paper Mills, Kala Amb is consented by State Board to discharge the treated waste water as per prescribed limits into this drain. The unit has installed its own ETP cum STP of Capacity 11000 KLD for treatment of waste water.</li> <li>• Action is also required from State of Haryana to manage waste water of Kala Amb part of Haryana along the catchment of Jattan Nallah.</li> </ul> <p><b>Note:</b> Only waste water carried by this nallah from H.P. is taken into account and further contribution into the nallah by activities in State of Haryana is not accounted for.</p>
ii.	<b>Public Drain near M/s Vashisht Chemicals, Kala Amb</b>	<ul style="list-style-type: none"> <li>• Entire stretch lies in the state of H.P.</li> <li>• Approx. length in HP is <b>650 m.</b></li> <li>• Approx. Flow is <b>0.5 MLD.</b></li> </ul>	<ul style="list-style-type: none"> <li>• This drain originates from Rampur Jattan area in Kala Amb and carries domestic waste water/ sullage, waste water from commercial activities/ shops and</li> </ul>

			<p>natural storm water during rains.</p> <ul style="list-style-type: none"> <li>• HPPCB has carried out the sampling of the water quality of the drain along with river Markanda water quality u/*s and d/s of the drain.</li> <li>• As per analysis report of December 2025 analysis results of drain and river u/s as well as d/s in terms of BOD are as follows:-</li> <li>• Drain near M/s Vashisht chemical:- 35 mg/l</li> <li>• River Markanda u/s Drain- 1.0 mg/l</li> <li>• River Markanda d/s Drain- 1.70 mg/l</li> </ul>
iii.	<p><b>Public drain near Radha Swami Satsang Bhavan, Kala Amb</b></p>	<ul style="list-style-type: none"> <li>• Entire stretch lies in the state of HP.</li> <li>• Approx. length is <b>2100 m</b></li> <li>• <b>Approx flow is 01 MLD.</b></li> </ul>	<ul style="list-style-type: none"> <li>• This drain originates from Moginand area in Kala Amb and carries domestic waste water/ sullage, waste water from commercial activities/ shops and natural storm water during rains.</li> <li>• HPPCB is carrying out the sampling of the water quality of the drain along with river Markanda water quality u/s and d/s of the drain.</li> <li>• As per analysis report of December 2025 analysis results of drain and river u/s as well as d/s in terms of BOD are as</li> </ul>

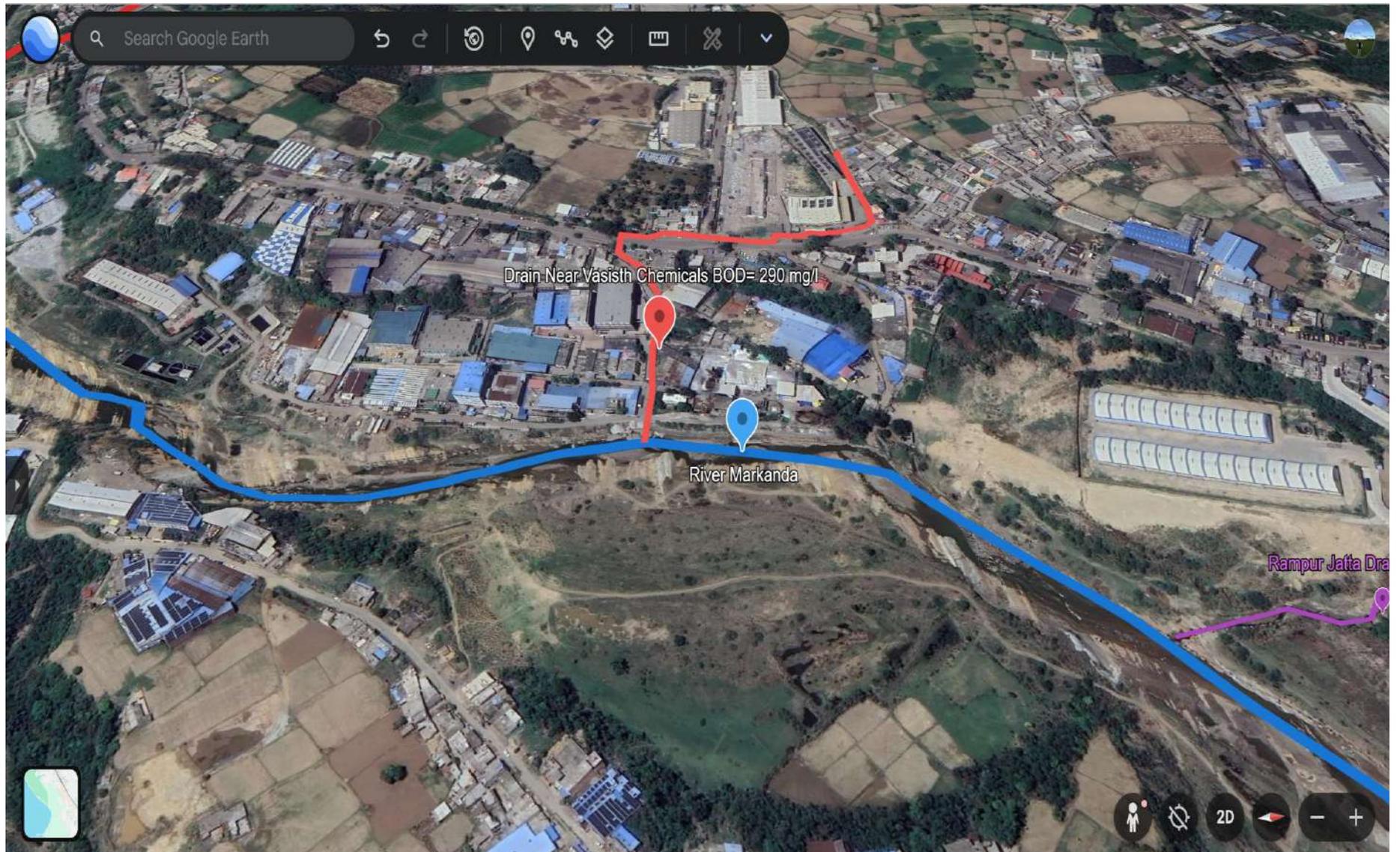
			<p>follows:</p> <ul style="list-style-type: none"><li>• Drain near Radha Swami Satsang Bhavan:- 8.0 mg/l</li><li>• River Markanda u/s Drain- BDL</li></ul> <p>River Markanda d/s Drain- 3.0 mg/l</p>
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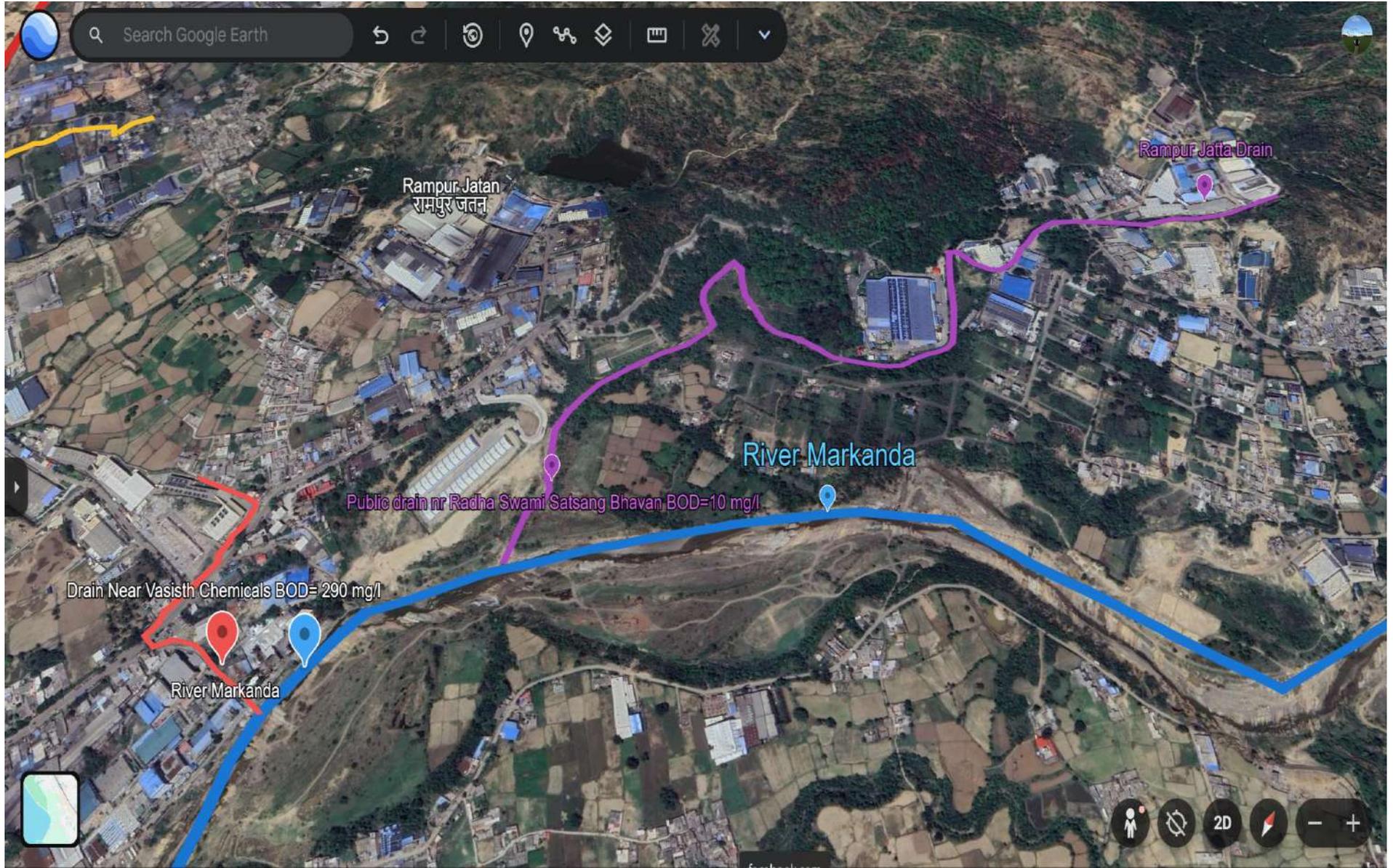
The geographical location of Jattanwala Nallah is highlighted in yellow line below -



The geographical location of Public Drain near M/s Vashisth Chemicals, Kala Amb is highlighted in Red line below –



The geographical location of, Kala Ambis highlighted in Pink line below –



**2. Status of all drains as to whether the same have been tapped/not tapped so far:**

The status of tapping of drains has been discussed below in Table no. 2:

**Table no.2: - Status of Tapping of Drains**

Sr. No.	Name of the drain	Status of Tapping of drain	Reason or Action Taken
i.	<b>Jattanwala Nallah</b> (within territory of H.P. only as some part lies in the Kala Amb area of State of Haryana also)	<b>Not Tapped</b>	Joint inspection of all 03 nos drains has been carried by official of State Board, Gram Panchayat Kala Amb and BDO Nahan on 30.12.2025.
ii.	<b>Public Drain near M/s Vashisht Chemicals,</b> Kala Amb	<b>Not Tapped</b>	The Joint Inspection Report w.r.t management and identification of waste water sources in these drain is attached herewith as <b>Annexure-B</b>
iii.	<b>Public drain near Radha Swami Satsang Bhavan,</b> Kala Amb	<b>Not Tapped</b>	<p>Further action report was sought from Jal Shakti Vibhag (JSV) Nahan and Block Development Officer, Nahan vide this office letter no.3320-33 dated 06.12.2025 and letter no.4280-4293 dated 13.01.2026 to comply with the orders of Hon'ble NGT issued on 15.10.2025. (Copies of letters are already attached as Annexure-A).</p> <p>Reply received from JSV Nahan vide letter no..6938-39 dated 10.12.2025 is attached herewith as <b>Annexure-C</b></p> <p>Reply received from Block Development Officer, Block Nahan</p>

			vide letter no. 165 dated 17.01.2026 vide which Action Plan submitted for management of waste water in these drains is attached as <b>Annexure-D</b>
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### 3. Whether any untreated sewage is going to River Markanda:

As per Census 2011, the population of Kala Amb & Moginand area was 6,695 and the present population is estimated to be 7,280. At present, all the rural water supply schemes under Jal Shakti Vibhag (JSV) division, Nahan have been designed on the water requirement of 70 Liters per capita per day demand (norm set for rural water supply system). Therefore, the total domestic water consumption of Kala Amb and Moginand area comes out around 510 KLD. Further, considering the floating population of about 10,000 water requirement works out to be 450 KLD at the rate of 45 Liters per capita for the workers etc.

#### 3.1 Sewage and Sullage Generation of Kala Amb area:

As per Census 2011, the population of Kala Amb & Moginand area in 2011 was 6,695 and the present population of the area is estimated to be 7,280. The projected population after 20 years will be 10,010 considering the present growth rate of area. For this population sewage load calculations as per water demand of 70 litres per capita will be 408 KLD. In addition to this considering a floating population of around 10,000 in Kala Amb, sewage generation as per water demand of 45 litres per capita will be around 360 KLD (Source: IS 1172:1993 Indian Standard Code of Basic Requirements for basic supply, drainage and sanitation)

Sr. No.	Domestic Sewage Generation	Quantity
1.	Kala Amb and Moginand Area	408 KLD
2.	Floating Population (approx. 10000 nos)	360 KLD
<b>TOTAL SEWAGE GENERATION</b>		<b>0.76 MLD</b>

In Kala Amb area of Himachal Pradesh, waste water is being generated from commercial and domestic activities. For the treatment of domestic sewage, septic tanks/soak pits have been provided by individual households. Further, to cater this untreated domestic sewage from villages i.e. Moginand, Rampur Jattan, Mainthapal, Ogli, Johron, Khairi and Trilokpur, the State Government of H.P. has already established two STPs (STP Trilokpur and CETP-cum-STP Kala Amb). The status of STPs in Kala Amb area of H.P. is discussed as below:

STP Kala Amb (part of CETP Kala Amb)		STP Trilokpur	
Capacity (in MLD)	Operational Status	Capacity (in MLD)	Operational Status
1.7 MLD	Not In Operation	1.5 MLD	Commissioned

➤ **Status of STP Kala Amb:**

As per status report submitted by JSV Nahan:

*“...The CETP Kala Amb has been constructed and being operated by the DIC. However, the domestic sewerage connections were also proposed to be issued against this STP by Jal Shakti Vibhag. Although some portion of Jattanwala Village was also connected to this STP of Kala-Amb operated by the Industries Department and testing of the same was done successfully. The matter was also taken up with the DIC to permit this department for sewerage flow. The Main Sewerage Trunk Line damaged during current monsoon season has now been restored. The sewerage from commercial units is being treated by the STP operated by the DIC and the work of domestic connectivity from Jattanwala village is under process. The provision of sewerage connection is 750 Nos as per proposal. The provision of sewerage connection is 750 Nos as per proposal out of which 104 Nos form has been received and laying, joining of sewerage connection to main sewer trunk is in progress. 85% of the work for Kala-Amb Part is completed and Kala-Amb part is expected to be operational by 30th Jan, 2026...”*

➤ **Status of STP Trilokpur:**

As per status report submitted by JSV Nahan:

*“...The Main Sewer Trunk line has been laid and testing has been done successfully. In response to the awareness campaign, total 206 No. Applications have been*

received through BDO office Nahan. The work for providing PVC Pipe connections from Beneficiaries Septic Tank to Main Sewer line in village Jattanwala, Johron, Kheri, Kala-Amb and Trilokpur have been awarded to various contractors and work is in progress. The provision of sewerage connection is 650 Nos out of which 206 nos. forms have been received. Laying, joining of sewerage connection to main sewer trunk is in progress. 175 Nos connection released to beneficiaries at village Johron, Trilokpur & Kheri. STP is gaining load for the treatment of sewerage. The pipe line which was damaged near Jai Bharat Steel Factory at village Johron, has now been restored. The flow measuring to 0.075 MLD has started flowing into STP. The scheme is expected to be operational by 30th Jan, 2026..."

The copy of status report submitted by Jal Shakti Vibhag, Nahan is already attached as **Annexure-C (Colly)**. After operationalisation of both STP in Kala Amb, the issue of domestic waste water shall be resolved to large extent.

➤ **Action Plan by Rural Development Department for Greywater and load from Commercial establishments**

Block Development Officer vide letter no. 165 dated 17.01.2026 (copy enclosed as **Annexure-D**) submitted Action Plan for management of waste water in these drains which is quoted as below:

**“Short Term Plan**

*As per the report of the team all the three places are in the jurisdiction of Gram Panchayat kala Amb. The villagers and shopkeepers have released the dirty water from the kitchens and bathrooms of their houses directly into the open drains which ultimately flows into the Markanda River thereby polluting the river water. Now, in order to stop this inflow of dirty water the BDO Nahan has sanctioned 49 Soak Pits which will be constructed in the houses in vicinity of these drains Moreover, BDO Nahan has organized many camps to make people aware in the relevant area which will be continued.*

**Long Term Plan**

*During the inspection as told by the locals, a sewerage pipeline has also been laid in this area by the Jal Shakti Vibhag which is not in functional condition and is*

*broken at some places due to which it has not yet been connected to the houses of the people. This problem will be resolved as the work of providing connections is completed by the Jal Shakti Vibhag, 300 Nahan took the initiative and collected all 204 application forms of the houses that fall in the affected area. These dually filled forms have already been deposited to the office of Jal Shakti Vibhag. As and when all the houses are connected the problem will be resolved.”*

It is further submitted that, there are numerous road side dhabas/butcher shops/sabziwalas located on both sides of Kala Amb-Trilokpur Road of Himachal Pradesh and their solid/liquid waste is flowing into roadside drains and further merging into Jattanwala Nallah. Water stagnation and decaying biodegradable waste is also one of the factors in affecting the water quality of River Markanda. Similar action plan is also required from residential area of Kala Amb (Haryana) and commercial establishment along Jattanwala Nallah on side of State of Haryana.

#### **4. Total number of industries in Kala Amb:**

There are total 116 nos. of water polluting industries located in Kala Amb area of Himachal Pradesh. All these industries have provided their own captive Effluent Treatment Plants. Among these, 09 nos. of industries have installed captive STPs where the manpower is more than 150 nos. The treatment technology provided ranges from primary treatment system i.e. Chemical treatment, precipitation/settling followed by dual media carbon filters, activated sludge process followed by dual media carbon filters etc. Some industries have also provided RO systems and evaporators. All the 116 nos. of industries have obtained requisite Consent to Operate of the State Board under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 as applicable. All the 116 nos. of industries have installed their own captive Effluent Treatment Plants or Sewage Treatment Plants as applicable in their respective industries.

**5. Number of industries which are connected to CETP, number of industries which are not connected to CETP and number of industries falling in ZLD category:**

**5.1 Number of industries which are connected to CETP Kala Amb**

There are 60 Nos of industries which are connected to CETP Kala Amb and sending their effluent to CETP Kala Amb. The detail and status of industries which are connected to CETP Kala Amb are mentioned below in **Table no. 3:**

**Table no. 3:  
Detail of Industries connected to CETP Kala Amb (up to 31.12.2025)**

<b>LIST OF UNITS CONNECTED TO CETP</b>						
<b>S N</b>	<b>Name of the unit</b>	<b>Address</b>	<b>Industry Type</b>	<b>Catchment Area</b>	<b>Mode of Treatment</b>	<b>Final Mode of Disposal</b>
1	<b>Accura Care Pharmaceuticals (P) Ltd.</b>	Vill. Moginand, Kala Amb.	Pharmaceutical formulation	Moginand	ETP of Capacity 10 KLD	Connected to CETP
2	<b>Adwin Pharma.</b>	Vill. Rampur Jattan, Kala Amb.	Pharmaceutical formulation	Jattan Wala	ETP of Capacity 4 KLD	Connected to CETP
3	<b>Alencure Biotech</b>	Suketi Road Kala Amb	Pharmaceutical formulation	Suketi Road	ETP of capacity 5 KLD	Connected to CETP
4	<b>Alpex Pharma Pvt. Ltd.</b>	Vill. Ogli, Suketi Road, Kala Amb.	Pharmaceutical formulation	Suketi Road	ETP	Connected to CETP
5	<b>Alps Communications</b>	Village Jattan Wala, Trilokpur Road, Kala Amb	Pharmaceutical formulation	Jattan Wala	ETP of Capacity 3 KLD followed by Evaporator of capacity 400 litters/hr	Connected to CETP
6	<b>AMN Lifescience</b>	Village Moginand, Kala Amb.	Pharmaceutical formulation	Moginand	ETP cum STP of Capacity 14 KLD	Connected to CETP
7	<b>Aqua Parental</b>	Village Khari, Sadhora Road, Kala	Pharmaceutical formulation	Sadhora Road	ETP of Capacity 20 KLD	Connected to CETP

LIST OF UNITS CONNECTED TO CETP						
S N	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
		Amb				
8	<b>Astrazen Pharmaceuticals</b>	Mainthapal, Kala Amb	Pharmaceutical formulation	Mainthapal	ETP of capacity 3 KLD	Connected to CETP
9	<b>Athens Lifesciences</b>	Vill. Rampur jattan, Nahar Road, Kala Amb.	Pharmaceutical formulation	Moginand	ETP of Capacity 10 KLD	Connected to CETP
10	<b>Avalon Cosmetic Pvt. Ltd.</b>	Vill. Khairi, Trilokpur Road, Kala Amb	Cosmetic	Khairi	ETP-cum-STP	Connected to CETP
11	<b>Candour Pharmaceuticals</b>	Suketi Road, Kala Amb.	Pharmaceutical formulation	Suketi Road	ETP of Capacity 5 KLD	Connected to CETP
12	<b>Caspian Pharmaceuticals</b>	Suketi Road, Kala Amb.	Pharmaceutical formulation	Suketi Road	ETP of capacity 5 KLD	Connected to CETP
13	<b>Digital Vision.</b>	Village Ogli, Kala Amb	Pharmaceutical formulation	Ogli	ETP of Capacity 2.5 KLD	Connected to CETP
14	<b>Elnova Pharma.</b>	Village Moginand, Kala Amb.	Pharmaceutical formulation	Moginand	ETP of Capacity 15 KLD	Connected to CETP
15	<b>Gnosis Pharma.</b>	Vill. Moginand Kala Amb.	Pharmaceutical formulation	Moginand	ETP-cum-STP of Capacity 20 KLD	Connected to CETP
16	<b>Grampus Laboratories.</b>	Vill. Johron, Kala Amb.	Pharmaceutical formulation	Khairi	ETP of Capacity 10 KLD	Connected to CETP
17	<b>Him Sagar Laboratories.</b>	Village Kheri, Trilokpur Road, Kala Amb.	Pharmaceutical formulation	Khairi	ETP of Capacity 2 KLD	Connected to CETP
18	<b>Indkus biotech india</b>	Village moginand, Kala Amb	Pharmaceutical formulation	Moginand	ETP of Capacity 10 KLD	Connected to CETP
19	<b>Indo Herbal Extractions</b>	Village Meerpur, Kala Amb	Herbal Extraction	Meerpur	ETP of capacity 5 KLD	Connected to CETP

LIST OF UNITS CONNECTED TO CETP						
S N	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
20	<b>Indo Phyto Chem</b>	Mauza Rampur Jattan, Nahan Road, Kala Amb	Herbal Extraction	Moginand	ETP of capacity 10 KLD	Connected to CETP
21	<b>Indo Rama Engineers</b>	Village Moginand, Kala Amb	Pharmaceutical formulation	Moginand	ETP of Capacity 5 KLD	Connected to CETP
22	<b>Integrated Lab.</b>	Moginand Kala Amb.	Pharmaceutical formulation	Moginand	Common ETP of Capacity 3 KLD	Connected to CETP
23	<b>Iskon Remedies</b>	Village Ogli, Nahan Road, Kala Amb.	Pharmaceutical formulation	Ogli	ETP of Capacity 2 KLD	Connected to CETP
24	<b>JMM Laboratories</b>	Sadhora Road Kala Amb.	Pharmaceutical formulation	Sadhora Road	ETP of Capacity 8 KLD	Connected to CETP
25	<b>KAG Industries</b>	Village Moginand, Kala Amb	Food and food processing	Moginand	ETP of Capacity 50 KLD	Connected to CETP
26	<b>MBC Industries</b>	Kala Amb	Pharmaceutical formulation	Khairi	ETP of Capacity 5 KLD	Connected to CETP
27	<b>Mediking Lifescience</b>	Suketi Road, Kala Amb.	Pharmaceutical formulation	Suketi Road	ETP of capacity 5 KLD	Connected to CETP
28	<b>Medisys Biotech Private Limited.</b>	Moginand, Kala Amb.	Pharmaceutical formulation	Moginand	ETP of Capacity 2 KLD	Connected to CETP
29	<b>Micro Organics Pharmaceuticals India Pvt. Ltd.</b>	Vill. Ogli, Suketi Road, Kala Amb.	Pharmaceutical formulation	Suketi Road	ETP	Connected to CETP
30	<b>Microgen Hygiene (BROP)</b>	Village Ogli, Trilokpur Road, Kala Amb	Disinfectants & Ointments	Jattan Wala	ETP of capacity 1.5 KLD	Connected to CETP
31	<b>MMG Healthcare.</b>	Vill. Johron Kala Amb.	Pharmaceutical formulation	Jattan Wala	ETP of Capacity 12 KLD	Connected to CETP
32	<b>Nixi Laboratories</b>	Vill. Khari, Sadhaura Road, Kala	Pharmaceutical formulation	Sadhora Road	ETP	Connected to CETP

LIST OF UNITS CONNECTED TO CETP						
S N	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
		Amb				
33	<b>Orison Pharma International.</b>	Vill. Ogli, Sadhora Road, Kala Amb	Pharmaceutical formulation	Sadhora Road	ETP of Capacity 5 KLD	Connected to CETP
34	<b>Oscar Remedies</b>	Vill. Johron Kala Amb.	Pharmaceutical formulation	Jattan Wala	ETP of Capacity 4.5 KLD	Connected to CETP
35	<b>Ovation Remedies</b>	Village Johron, Kala Amb.	Pharmaceutical formulation	Jattan Wala	ETP of Capacity 5 KLD	Connected to CETP
36	<b>Pell Caps India Pvt. Ltd.</b>	Vill. Nagal, Suketi Road, Kala Amb.	Pharmaceutical formulation	Suketi Road	ETP	Connected to CETP
37	<b>Pladis India Pvt. Ltd. (formerly United Bisucits Pvt. Ltd.)</b>	Village Khari, Sadhora road, Kala Amb	Bakery and confectionery	Sadhora Road	ETP of Capacity 10 KLD. STP of capacity 10 KLD	Connected to CETP
38	<b>Primus Pharmaceutical</b>	Village Kheri, Sadhora Road, Kala Amb	Pharmaceutical formulation	Sadhora Road	ETP of Capacity 3 KLD	Connected to CETP
39	<b>Protech Telelinks</b>	Suketi Road Kala Amb	Pharmaceutical formulation	Suketi Road	ETP of Capacity 5 KLD	Connected to CETP
40	<b>Pushkar Pharma.</b>	Village Kheri, Meerpur Road, Kala Amb.	Pharmaceutical formulation	Khairi	ETP of Capacity 3 KLD	Connected to CETP
41	<b>Rica Enterprises</b>	Vill Ogli, Sadhaura Road, Kala Amb	Pharmaceutical formulation	Sadhora Road	ETP	Connected to CETP
42	<b>Rich Products and Solutions Pvt. Ltd</b>	Village Manthapal, Kala Amb	Non - Dairy Whip Cream	Jattan Wala	ETP cum STP of Capacity 150 KLD	Connected to CETP

LIST OF UNITS CONNECTED TO CETP						
S N	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
43	<b>Sahika Pharmaceuticals Pvt. Ltd.</b>	Vill. Rampur Jattan, Trilokpur Road, Kala Amb	Pharmaceutical formulation	Rampur Jattan	ETP	CONNECTED TO CETP.
44	<b>Sai Corporation</b>	Village Johron, Kala Amb	Cosmetic Products, cleaner, detergent, spray	Khairi	ETP cum STP of Capacity 20 KLD	CONNECTED TO CETP.
45	<b>Sai Tech Pharmaceuticals.</b>	Vill. Kheri Trilokpur Road, Kala Amb	Pharmaceutical formulation	Khairi	ETP of Capacity 20 KLD, STP of capacity 15 KLD	CONNECTED TO CETP
46	<b>Samay Pharma India Pvt. Ltd.</b>	Vill. Johron, Kala Amb.	Pharmaceutical formulation	Johron	ETP	CONNECTED TO CETP
47	<b>Sarv Biolab (P) ltd.</b>	Village Rampur Jattan, Trilokpur Road, Kala Amb.	Herbal Extraction	Jattan Wala	ETP of Capacity 50 KLD, Dual Stage RO and Evaporator	CONNECTED TO CETP
48	<b>SBS Biotech. Unit -I</b>	Vill. Rampur Jattan, Nahan Road, Kala Amb.	Pharmaceutical formulation	Moginand	ETP of Capacity 5 KLD	CONNECTED TO CETP
49	<b>Shivam Enterprises</b>	Suketi Road Kala Amb	Pharmaceutical formulation	Suketi Road	ETP of Capacity 10 KLD	CONNECTED TO CETP
50	<b>Siddhi Vinayak Industries</b>	Village Johron, Kala Amb	Pharmaceutical formulation	Jattan Wala	ETP of capacity 5 KLD	CONNECTED TO CETP
51	<b>Somadil Biotech</b>	Sudhora Road, Kala Amn	Pharmaceutical formulation	Sadhora Road	ETP cum STP of capacity 5 KLD	CONNECTED TO CETP
52	<b>Star Filtration Systems</b>	Vill. Rampur Jattan, Kala Amb	Pharmaceutical formulation	Rampur Jattan	ETP	CONNECTED TO CETP

LIST OF UNITS CONNECTED TO CETP						
S N	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
53	<b>Sunvet Pharma Private Limited.</b>	Village Moginand, Kala Amb.	Pharmaceutical formulation	Moginand	ETP of Capacity 5 KLD	CONNECTED TO CETP
54	<b>Super Nova Life Drugs Private Ltd.</b>	Vill. Johron, Kala Amb.	Pharmaceutical formulation	Johron	ETP	CONNECTED TO CETP
55	<b>Symboisis Pharmaceuticals.</b>	Suketi Road, Kala Amb.	Pharmaceutical formulation	Suketi Road	ETP cum STP of Capacity 20 KLD	CONNECTED TO CETP
56	<b>Systole Remedies.</b>	Vill. Ogli, Trilokpur Road, Kala Amb.	Pharmaceutical formulation	Ogli	ETP of Capacity 15 KLD	CONNECTED TO CETP
57	<b>Varav Biogenesis P. Ltd</b>	Village Johron, Kala Amb	Pharmaceutical formulation	Khairi	ETP of Capacity 6 KLD	CONNECTED TO CETP
58	<b>Vellinton Healthcare</b>	Rampur Jattan, Kala Amb	Pharmaceutical formulation	Jattan Wala	ETP of capacity 15 KLD	CONNECTED TO CETP
59	<b>Vidhyasha Pharmaceuticals</b>	Village Johron, Kala Amb	Pharmaceutical formulation	Khairi	ETP of capacity 5 KLD	CONNECTED TO CETP
60	<b>Welcure Remedies</b>	Moginand Kala Amb.	Pharmaceutical formulation		ETP of capacity 5 KLD	CONNECTED TO CETP

## 5.2 Number of industries which are not connected to CETP:

There are **29 Nos.** of industries which are not connected to CETP Kala Amb. The detail and status of industries which are not connected to CETP Kala Amb with their disposal status is mentioned below in **Table no. 4:**

....Contd on next page

Table no. 4:

**Detail of Industries which are not connected to CETP Kala Amb with their disposal status (up to 31.12.2025):**

LIST OF UNITS NOT CONNECTED TO CETP WITH THEIR DISPOSAL STATUS						
SN	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
1	ABN India Biotech	Village Sainwala, Salani road, Kala Amb	Food and food processing	Salani Khad	ETP	Used in gardening activities
2	Aditya Industries	Vill. Rampur Jattan, Nahan Road, Kala Amb.	Secondary metallurgical processes	Rampur Jattan	STP	Used in gardening activities
3	AGV Fenestration (P) Ltd.	Vill. Johron, Kala Amb.	Aluminium door window	Jattan Wala	ETP of Capacity 3 KLD	Gardening within plant premises
4	Angad Enterprises	Trilokpur Road Kala Amb.	Card Board Boxed and allied boxes components	Rampur Jattan	ETP of capacity 1 KLD, STP of capacity 10 KLD	Gardening activities within unit premises
5	Art N Glass, Unit-I	Village Johron, Kala Amb	Laminated and Toughened glass	Jattan Wala	ETP of Capacity 5 KLD, STP of capacity 15 KLD	ETP treated water is reused in process and STP treated water is reused for Gardening within plant premises
6	Art-N-Glass unit II	Vill Johron, kala Amb	Laminated and Toughened glass	Jattan Wala	ETP of Capacity 5 KLD	Gardening within plant premises
7	Ayush Herbal & Healthcare Unit II	Suketi Road, Kala Amb.	Herbal Extraction	Suketi Road	ETP of capacity 5 KLD	Used in gardening activities
8	Blue Star Ltd, Unit-I	Village Rampur Jattan, Nahan Road, Kala Amb	Air Conditioner Assembly	Moginand	STP of Capacity 50 KLD	Gardening within unit premises
9	Blue star Ltd, Unit-II	Village Mainthapal, Kala Amb	AC Assembly only	Jattan Wala	2 Nos of STPs of Capacity 15 KLD	Gardening within plant premises

LIST OF UNITS NOT CONNECTED TO CETP WITH THEIR DISPOSAL STATUS						
SN	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
					each	
10	Care Cosmetics	Vill. Moginand Kala Amb	Cosmetic Products	Moginand	ETP of Capacity 3 KLD	Gardening within plant premises
11	Events Corporation, Unit-II	Village Ogli, Nahar Road, Kala Amb	Pharmaceutical formulation	Ogli	ETP of capacity 4 KLD	Gardening activities within unit
12	GMT Machine Tools	Village Johron, Kala Amb	Pharmaceutical formulation	Khairi	ETP of Capacity 5 KLD	Reused with unit for gardening activities
13	Gold Plus Himachal Safety Glass.	Village Johron, Kala Amb	Laminated/Toughened Glass (Cutting and Heat Treatment only)	Jattan Wala	ETP of Capacity 2 KLD	Gardening within plant premises
14	JHS Svendgard Laboratories Ltd.	Village Kheri, Trilokpur Road, Kala Amb.	Mouthwash, toothpaste and teeth whitening gel	Khairi	ETP of Capacity 50 KLD	Reused within plant for gardening activities
15	Konark Fixtures	Village Moginand, Kala Amb	Aluminium Die Casting manufacturing	Moginand	ETP cum STP of Capacity 25 KLD	Reused in gardening activities and cooling towers
16	Konark Herbal & Health Care	Village Moginand, Kala Amb	Herbal Extraction	Moginand	ETP cum STP of Capacity 30 KLD	Gardening and Reuse within plant in cooling towers
17	Metro Decorative	Sadhora Road, Kala Amn	MDF Board, Particle	Sadhora Road	ETP of capacity 70 KLD	Reused within plant in cooling tower and gardening activities
18	Pashupati Spinning & Weaving Mills.	Village Kheri, Trilokpur Road, Kala Amb.	Polyester Yarn manufacturing	Khairi	ETP of Capacity 200 KLD	Gardening activities within unit premises
19	Phoenix Udyog.	Kala Amb, Distt. Sirmour HP.	Sheet Metal Fabrication	Moginand	ETP of Capacity 10 KLD	Gardening within plant premises

LIST OF UNITS NOT CONNECTED TO CETP WITH THEIR DISPOSAL STATUS						
SN	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
20	Pidilite Industry Ltd., (Unit-II)	Johron, Kala Amb, Distt. Sirmour.	Synthetic resins	Jattan Wala	ETP cum STP of Capacity 75 KLD	Gardening within plant premises
21	Pidilite Industry Ltd.,(Unit -I)	Village Moginand, Kala Amb	Monomer Based Adhesive manufacturer	Moginand	STP of Capacity 15 KLD	Reused within plant in gardening and toilet flushing.
22	Pioneer Embroideries.	Vill. Kheri, Kala Amb.	Dyed Yarn/Thread (without dyeing and processing)	Khairi	STP of Capacity 40 KLD	Reused within unit for gardening activities
23	Progressive Industries	Village Ogli, Nahan Road, Kala Amb	LPG Cylinders	Ogli	ETP of Capacity 7 KLD	Gardening activities within unit
24	Rajshree Fabrics	Trilokpur Road Kala Amb.	Non Woven Fabrics	Rampur Jattan	STP of capacity 10 KLD	Gardening activities within unit premises
25	Ruchira Paper Mills Ltd. (Kraft Paper Unit)	Kala Amb, Distt. Sirmour HP.	Pulp and Paper	Jattan Wala	ETP cum STP of Capacity 11000 KLD	Discharge into Jattanwala Nallah
26	Ruchira Paper Mills Ltd. (Writing Paper Unit)	Trilokpur Road Kala Amb.	Pulp and Paper	Jattan Wala		
27	Saboo Cylinder.	Ind Area Kala Amb.	LPG Cylinders	Jattan Wala	ETP of Capacity 10 KLD, STP of capacity 35 KLD	Reused in gardening
28	Sheela Foam.	Nahan Road, Kala Amb.	Mattresses	Jattan Wala	STP of Capacity 25 KLD	Gardening within plant premises
29	V Guard Industries Ltd.	Village Bankabada, Moginand, Kala Amb	Electrical assembly unit	Moginand	STP	Used in gardening activities

### 5.3 Number of industries falling in ZLD category

There are 27nosof industries which falls under ZLD category. Details of industries are as below in Table no. 5:

**Table no. 5:  
Detail of Industries falling under ZLD category**

LIST OF UNITS WITH ZLD AND THEIR DISPOSAL STATUS						
SN	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
1	Algen Healthcare	Sadhora Road, Kala Amb (Near SPT Industries)	Pharmaceutical formulation	Sadhora Road	ETP of capacity 12 KLD followed by Evaporator	ZLD
2	Axsys Solutions	Village Johron, Kala Amb	Surface Metal Treatment	Jattan Wala	ETP of Capacity 4 KLD	ZLD, Reuse in process
3	Bimal Industries unit-II	IA kala amb	Aluminium Milk Canes and Water Coolers	Khairi	ETP of Capacity 5 KLD, Evaporator after ETP	ZLD
4	C S Zircon Product.	Village Rampur Jattan, Trilokpur Road, Kala Amb.	Zircon Products	Jattan Wala	ETP of Capacity 30 KLD	ZLD, Reused in Process
5	CBM Industries	Village Kheri, Trilokpur Road, Kala Amb.	Aluminium Panels	Khairi	ETP	ZLD, Reused in process
6	Dsa remedies pvt. Ltd	Village Moginand, Kala Amb	Nutraceutical formulation	Moginand	Evaporator	ZLD
7	Geeta Industries	Vill. Ogli, Trilokpur Road, Kala Amb.	Industry involving metal treatment or process	Jattan Wala	ETP of Capacity 4 KLD followed by RO of capacity 500 liters/hr	ZLD, Reused in Process
8	Helpzyn Pharma	Nahan Road, Kala Amb.	Pharmaceutical formulation	Ogli	ETP of capacity 5 KLD followed by	ZLD

LIST OF UNITS WITH ZLD AND THEIR DISPOSAL STATUS						
SN	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
					Evaporator.	
9	Himachal Polyolefins.	Village Khari, Sadhora Road, Kala Amb.	Lime manufacturing	Sadhora Road	ETP of Capacity 40 KLD	ZLD, Recycled in slaker, slaking process
10	HK Industries	Village Kheri, Trilokpur Road	Cookware and Pressure cooker manufacturing	Khairi	ETP of capacity 2 KLD and Evaporator	ZLD
11	Insight Soft Labz	Suketi Road Kala Amb	Pharmaceutical formulation	Suketi Road	ETP of Capacity 4 KLD and Evaporator	ZLD
12	Konark Enterprises.	Vill. Moginand Kala Amb	Street Light Manufacturing	Moginand	ETP of Capacity 5 KLD	ZLD, Reuse in process and cooling towers
13	Konark Poducts	Village Moginand, Kala Amb	Street Light Manufacturing	Moginand	ETP cum STP of Capacity 5 KLD	ZLD, Reuse in process and cooling towers
14	MK Auto Clutch Co.	Village Kheri, Kala Amb	Auto Parts	Khairi	ETP of Capacity 2 KLD	ZLD, Reuse in cooling tower
15	Myron Industries	Village Ogli, Nahan Road, Kala Amb	Electric Ceiling	Ogli	ETP of Capacity 1 KLD	ZLD, Recycle/Reuse
16	National Enterprises	Vill. Rampur Jattan, Kala Amb.	Contaminated Drums (HW) Recycler	Rampur Jattan	ETP followed by evaporator	ZLD
17	Pidilite Industries (Unit-III)	Rampur Jattan, Kala Amb	Adhesive Monomer Based products	Jattan Wala	ETP cum STP of Capacity 50 KLD and ATFD of capacity 100 kg per hour	ZLD
18	Sagar Katha Factory	Trilokpur Road Kala Amb.	Kath Manufacturing	Jattan Wala	ETP of Capacity 12 KLD	ZLD, Reused in Process

LIST OF UNITS WITH ZLD AND THEIR DISPOSAL STATUS						
SN	Name of the unit	Address	Industry Type	Catchment Area	Mode of Treatment	Final Mode of Disposal
19	Satyam Auto Industries	Village Ogli, Kala Amb.	Electric Ceiling	Ogli	ETP	ZLD, Reused in process
20	Shree Krishna Packaging	Trilokpur Road Kala Amb.	LPG Cylinders	Khairi	ETP of capacity 3 KLD	ZLD, Recycled/Reuse
21	Shree Krishna Steelage (P) Ltd.	Trilokpur Road Kala Amb.	Surface Metal Treatment	Jattan Wala	ETP of Capacity 5 KLD	ZLD, Reused/Recycle
22	SNS Corporation Unit-II	Village Rampur Jattan, Nahan Road, Kala Amb	Galvanization process	Moginand	ETP of Capacity 4 KLD RO of capacity 100 liters per hour	ZLD, Reused in Process
23	SPT Industries	Village Ogli, Sadhora Road, Kala Amb	Aluminum profile manufacturer	Sadhora Road	ETP of Capacity 2 KLD	ZLD, Reused in Process
24	Sunstar Industries	Village Johron, Kala Amb	assembly of Electric Iron, Fans and Mixer/Grinder	Johron	ETP of capacity 5 KLD	ZLD, reuse in process
25	TLT Electricals	Vill. Ogli, Nahan Road, Kala Amb	Metal surface treatment	Ogli	ETP	ZLD, Reused in process
26	Vashisht Chemical	Nahan Road Kala Amb.	Lime manufacturing	Ogli	ETP of Capacity 50 KLD	ZLD
27	Virgo Industries	Village Rampur jattan, Kala Amb	Laminated Sheets and Boards	Jattan Wala	ETP cum STP of Capacity 60 KLD	ZLD, Reused in cooling towers

## 6. Sampling and analysis results with respect to all discharge points of confluence of sewage/effluents in River Markanda and Jattan Wala Nallah flowing to Haryana:

Three types of discharges have been identified in River Markanda and Jattanwala Nallah in the State of H.P.

- a) Discharge from Industrial Unit
- b) Discharge from CETP Kala Amb
- c) Discharge from 03 no of open public drains into River Markanda

### 6.1 Discharge from Industrial Unit(s):

No industrial unit is discharging effluent directly into River Markanda and Jattanwala Nallah except one unit named M/s Ruchira Papers Ltd. (Writing and Printing Unit). M/s Ruchira Papers Ltd. (Writing & Printing Division) is the only industry in Kala Amb which falls under the 17 categories of highly polluting industries and has installed its own captive ETP cum STP of capacity 11 MLD which is shared with its sister concern in the name & style of Ruchira Papers Ltd. (Kraft Paper Division). The unit generates appx. 08 MLD of waste water out of which appx. 4 MLD is recycled within process and 4 MLD is discharged after treatment. The unit has obtained Consent to Operate from the State Board for discharge of treated effluent quantity of 4.012 MLD into the adjoining drain which merges into Jattanwala nallah and later into the Markanda River. The unit has installed Real Time Online Continuous Water Quality Monitoring Station and Flow meter at the final outlet of ETP. The results of treated effluent are being displayed on the CPCB and HPSPCB server on real time basis. The real time data is available on the following web link:[https://hppcb.glensserver.com/#/publicPortal/industryDetails/site\\_1580/PULP%20AND%20PAPER](https://hppcb.glensserver.com/#/publicPortal/industryDetails/site_1580/PULP%20AND%20PAPER)

Sample Results of M/s **Ruchira Papers Limited (Writing and Printing Unit)**, Rampur Jattan Trilokpur, Kala Amb, Distt Sirmaur (H.P.) for Year 2025 are as follow in Table no. 6: -

**Table no. 6:  
Sample Analysis Results of Ruchira Papers Limited, Kala Amb**

Sr. No.	Date of Sampling	Parameters				Compliance Status
		pH	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	
1	09.01.2025	8.13	15	92	77	Complying
2	20.03.2025	7.68	11	120	BDL	Complying

3	25.04.2025	7.34	10	110	BDL	Complying
4	23.06.2025	7.70	10	150	14.20	Complying
5	13.08.2025	7.54	12	155	BDL	Complying
6	11.09.2025	7.50	9	170	5.40	Complying
7	09.10.2025	7.60	12	130	BDL	Complying
8	06.12.2025	8.14	3.4	15	9.70	Complying

## 6.2. Discharge from CETP Kala Amb:

Another entity which discharges treated effluent into River Markanda is Common Effluent Treatment Plant (CETP) Kala Amb. The Special Purpose Vehicle (SPV) M/s Kala Amb Industrial Development Company (KIDC) is operating CETP-cum-STP Kala Amb of capacity 5 MLD in two phases out of which Common Effluent Treatment Plant (CETP) of capacity 2.5 MLD is already established for first phase (0.8 MLD industrial effluent and 1.7 MLD domestic effluent). H.P. State Pollution Control Board has already issued Consent to operate to run the CETP for 2.5 MLD capacity. The CETP Kala Amb is operational and currently, 60 nos units are sending their effluent to CETP Kala Amb. First phase of CETP is currently receiving primary treated waste water of pharmaceutical formulations units. Presently the unit is discharging avg. 0.65 MLD treated effluent into the Markanda River.

The treated water of CETP Kala Amb is discharged into River Markanda as per the provisions of Consent to Operate Granted to the unit. Online Continuous Water Monitoring Station (OCEMS) is installed at the outlet of CETP Kala Amb for real time continuous monitoring of parameters and connected to SPCB & CPCB server. The real time data is available on the following web link:

<https://hppcb.accesssurveykshan.co.in/>

The calibration report of the CEMS system installed in the CETP is attached herewith as **Annexure–E**. HPSPCB is regularly monitoring the treated water quality of CETP Kala Amb and monthly sample from the final outlet is also being collected and analyzed in the NABL certified Regional Laboratory, Paonta Sahib of the HPPCB. The latest sample analysis report of CETP Kala Amb dated 11.12.2025 is

conforming to the prescribed limits of CETP discharge standards. The copy of analysis report is attached as **Annexure-F**.

Latest sample analysis results of Common Effluent Treatment Plant (CETP) operated by M/s Kala Amb Infrastructure Development Company, Ogli, Kala Amb, Distt Sirmaur (H.P.) are as follows:-

Sr. No	Date of Sampling	Parameters						Compliance Status
		pH	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Oil and Grease (mg/L)	Bio Assay Test (%)	
1	11.12.2025	7.79	10	168	12.5	7.7	90	Complying

HPSPCB is also carrying out river monitoring of River Markanda at downstream of CETP Kala Amb (i.e. Downstream of Kala Amb Town) and the river monitoring results for the year 2025 are tabulated below in **Table no. 7**:

**Table no. 7:**

**Water Quality of River Markanda D/s Kala Amb as per Monthly River Monitoring conducted by HPSPCB (From January, 2025 to December, 2025)**

Name of Location	Water Quality of River Markanda at D/s Kala Amb						
	Month	pH	DO mg/l	BOD mg/l	FC MPN/100ml	TC MPN/100ml	Water Quality (Designated Best Use)
River Markanda D/s Kala Amb	Jan-25	8.18	8.3	1.7	220	540	Class C
	Feb-25	7.97	8.2	1.8	240	540	Class C
	Mar-25	7.94	8.2	1.9	170	920	Class C
	April-25	7.75	8.0	1.2	240	920	Class C
	May-25	7.62	7.5	1.8	280	920	Class C
	June-25	7.79	8.0	1.7	150	540	Class C
	July-25	7.83	8.2	1.0	280	920	Class C
	Aug-25	7.92	8.1	1.0	350	920	Class C
	Sep-25	8.21	7.7	1.0	280	920	Class C

	<b>Oct-25</b>	8.47	7.4	1.3	280	920	<b>Class C</b>
	<b>Nov-25</b>	8.24	7.4	1.2	350	1080	<b>Class C</b>
	<b>Dec-25</b>	8.14	7.3	2.0	170	930	<b>Class C</b>

The water quality of River Markanda D/s Kala Amb i.e. downstream of CETP Kala Amb is **Class-C** as per CPCB Designated Best Use of Water Criteria for surface water which are fit for drinking water source after conventional treatment and disinfection.

### 6.3. Discharge from Drains into River Markanda:

Three drains which flow in the Kala Amb area of H.P. have been identified and their details have been discussed in **Table no.1** above in the report.

The sampling of these drains along with sampling of River Markanda upstream and downstream of these drains has been carried out twice by HPSPCB on **27.11.2025** and on **19.12.2025** since the latest directions from the Hon'ble Tribunal in the matter. The list of these sampling points is submitted below in **Table no. 8:**

**Table no. 8:**

#### List of sampling points of Drains and River Markanda in the State of Himachal Pradesh-

Point No	Sampling Point	GPS Coordinates	Parameters Analyzed
1	River Markanda u/s Jattanwala Nallah at Markanda Bridge Kala Amb, Himachal Pradesh	30.496086, 77.210537	1. BOD 2. Calcium 3. Chloride 4. COD 5. Colour, 6. Conductivity 7. Fluoride 8. K+ 9. Magnesium, 10. Na+, 11. NO <sub>2</sub> - N
2	River Markanda d/s of drain near M/s Vashisth Chemicals, Kala Amb	30.50051, 77.219437	
3	River Markanda u/s of drain near M/s Vashisth Chemicals, Kala Amb	30.504725, 77.219459	
4	River Markanda d/s of Rampur Jattan drain near Radha Swami Satsang Bhawan, Kala Amb	30.505766, 77.220806	
5	River Markanda u/s of Rampur Jattan drain near Radha Swami Satsang Bhawan, Kala Amb	30.506751, 77.221806	
6	River Markanda d/s of Salani Khadd	30.515928, 77.246139	

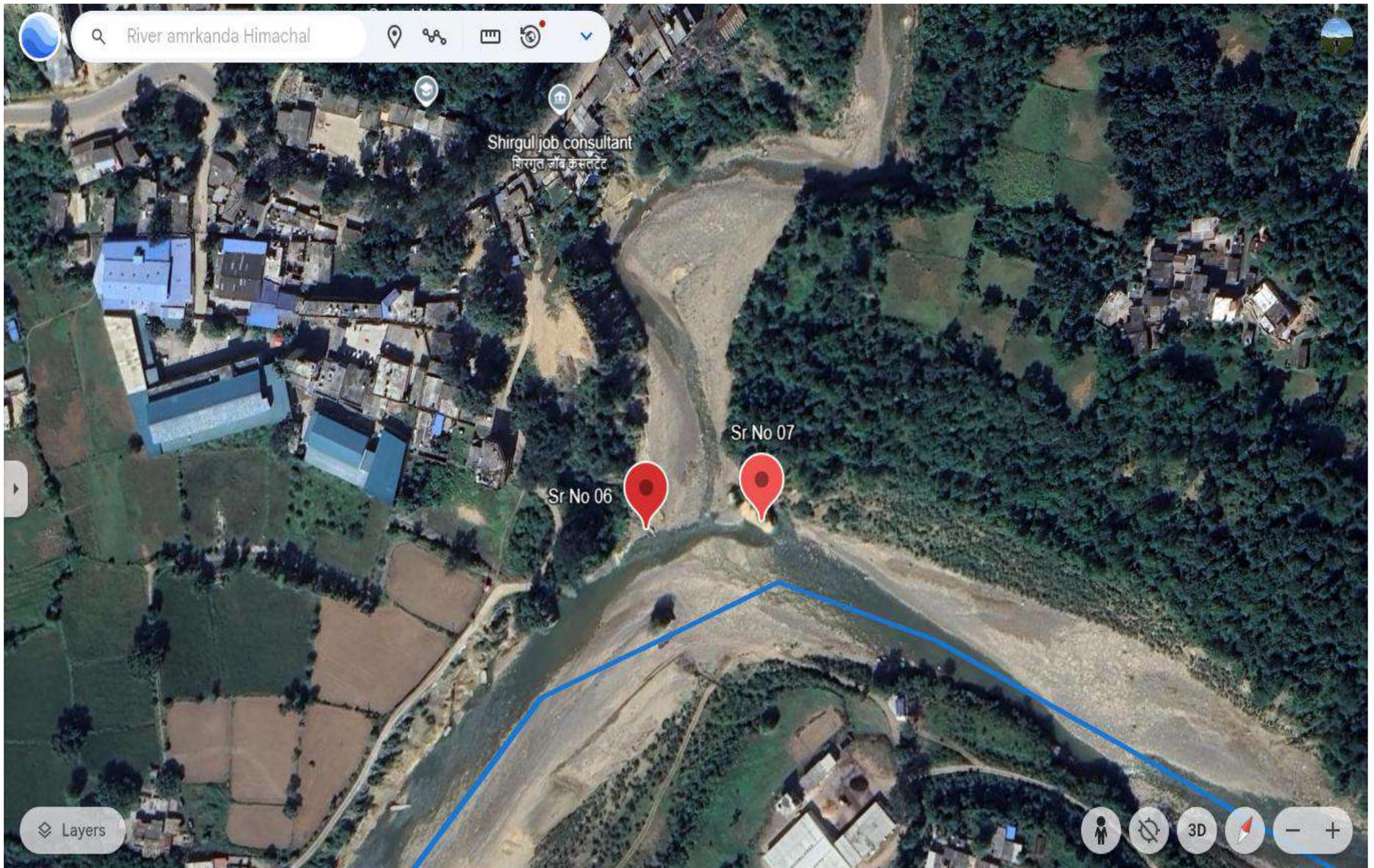
7	River Markanda u/s of Salani Khadd	30.516479, 77.24729	12. NO <sub>3</sub> - N 13. pH, 14. Phosphate – P 15. Sulphate 16. TDS 17. Total Alkalinity 18. Total Hardness as CaCO <sub>3</sub> 19. TSS 20. Turbidity 21. Ammonical Nitrogen 22. TC 23. FC 24. Heavy Metals
8	River Markanda D/s of Khajurna Bridge entering to Kala Amb area	30.529716, 77.292249	
9	River Markanda at U/s of Khajurna Bridge	30.531547, 77.297439	
10	Origin Point of River Markanda near Maharishi Markandeshwar Temple, Jogiban	30.510967, 77.364709	
11	Drain near M/s Vashisht Chemicals	30.503222, 77.219006	
12	Rampur Jattan drain near Radha Swami Satsang Bhawan	30.506472, 77.221078	
13	Salani Khadd	30.516847, 77.246331	
14	Jattan Nallah at the exit of HP	30.504111, 77.204275	

The photographs, GPS coordinates and short video links of each sampling point w.r.t sampling carried out on 27.11.2025 and 19.12.2025 by HPSPCB are attached herewith as **Annexure-G and Annexure-H** respectively. The locations of sampling points are illustrated in the satellite images as below:

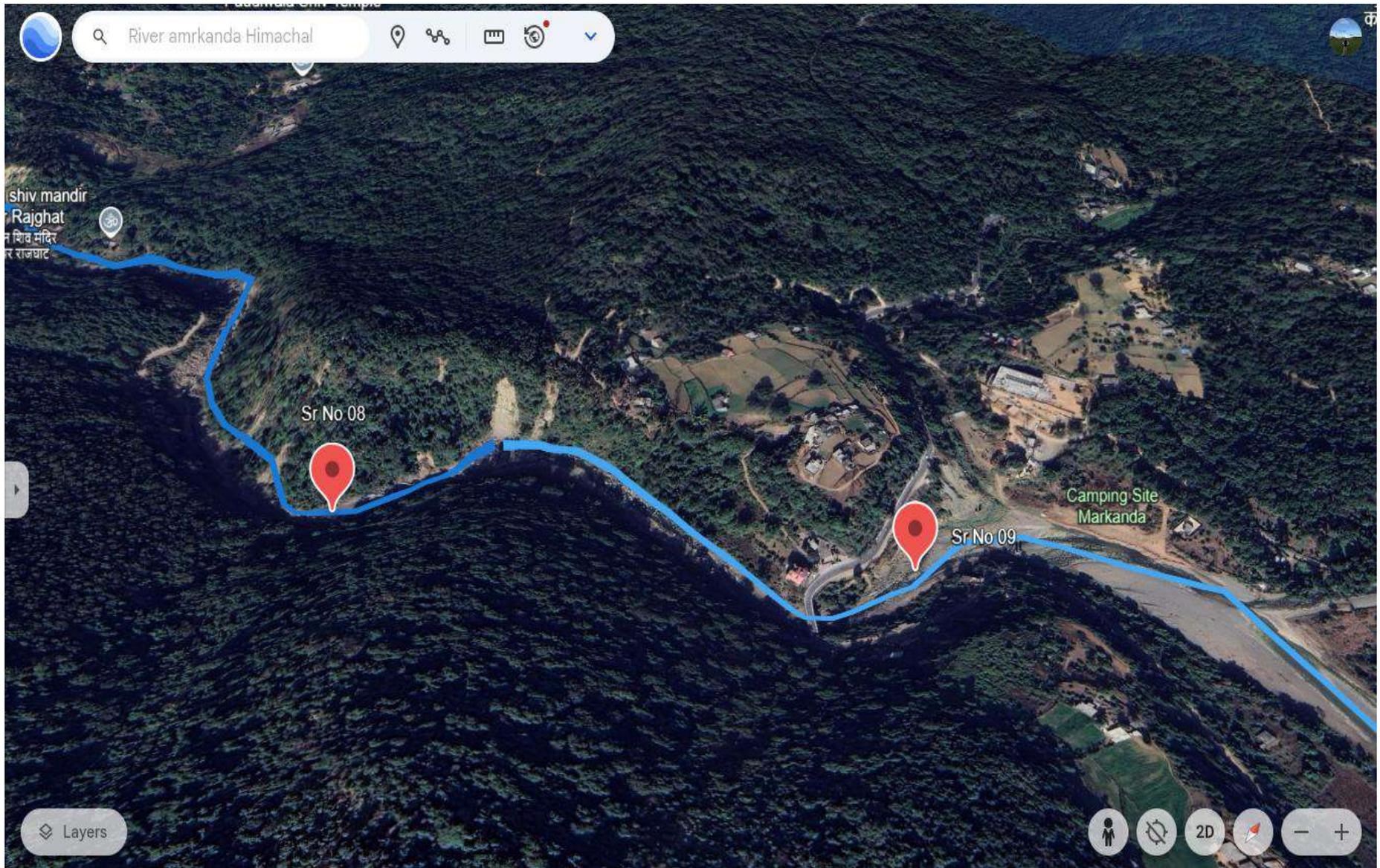
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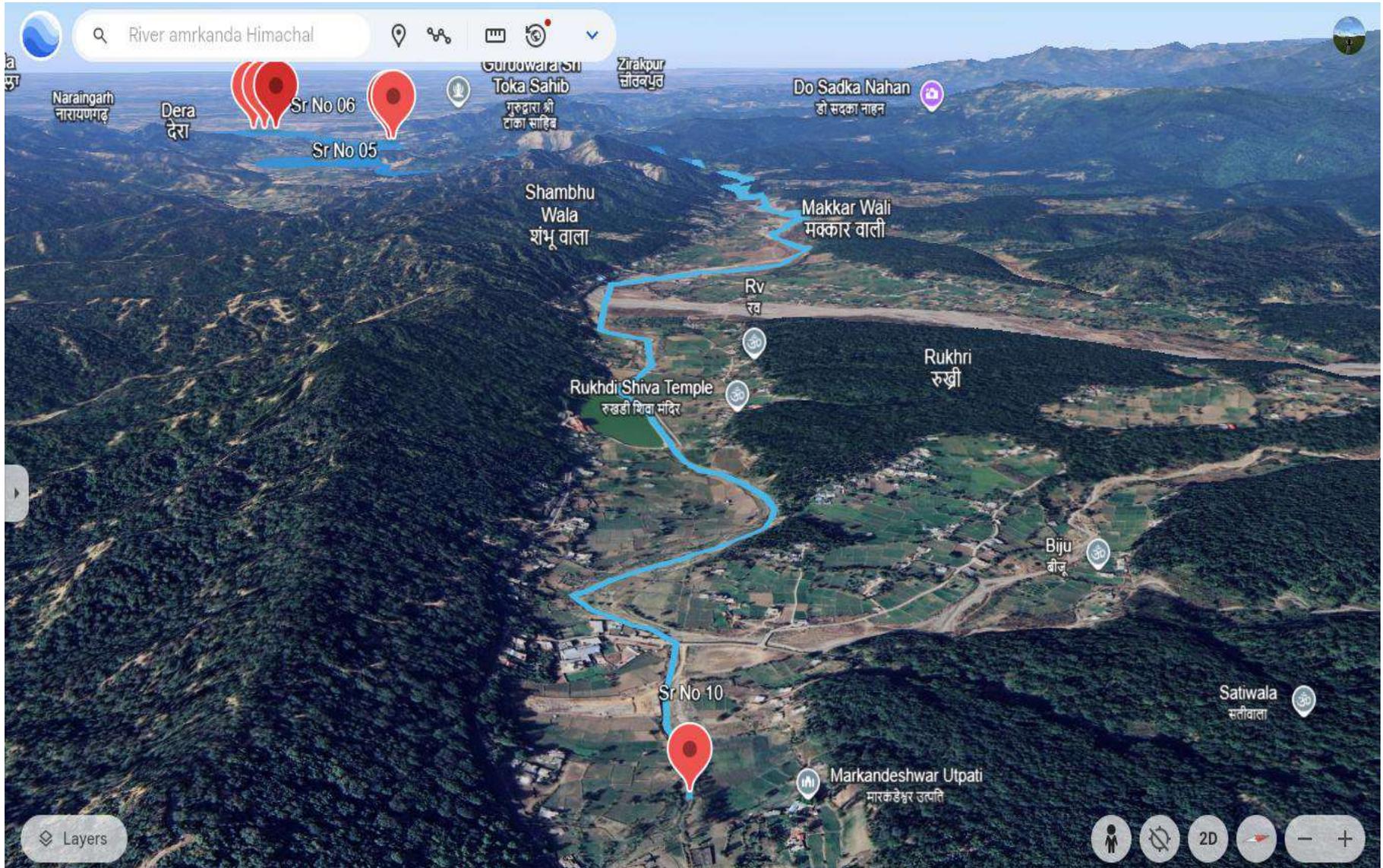
**River Markanda Sampling Point no. 1 to Point no. 5 as per Table no. 8**



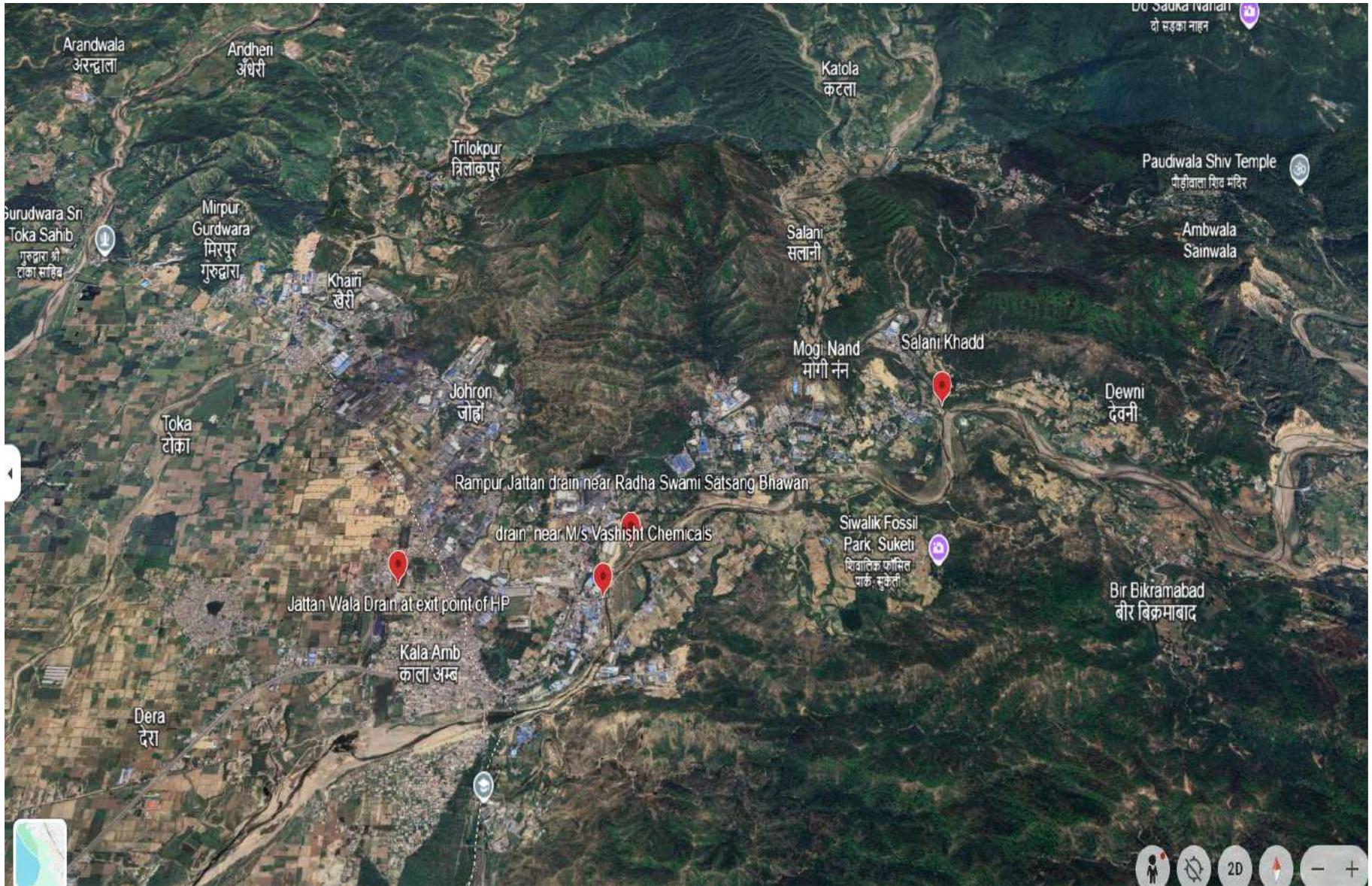
River Markanda Sampling Point no. 6 & 7 as per Table no. 8



River Markanda Sampling Point no. 8 & 9 as per Table no. 8



River Markanda Sampling Point no. 10 as per Table no. 8



Sampling location of drains (Point No 11, 12,13 & 14)

## 6.4 Sample Analysis Results

The sample analysis was carried out in the NABL accredited Regional Laboratory of HPPCB at Paonta Sahib, District Sirmour. Latest sample analysis results were conveyed by Regional Laboratory, HPPCB Paonta Sahib on 18.12.2025 and 06.01.2026. The analysis results of above-mentioned sampling points are per details below: -

### ➤ Sample Analysis Results of Sampling in November-2025

ANALYSIS RESULTS OF SAMPLING OF RIVER MARKANDA IN HIMACHAL PRADESH NOVEMBER 2025																
Sr. No.	Parameter	Unit	Sampling Points										Sample of drain near M/s Vashisht chemicals	Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan	Sample of Salani Khadd	Sample of Jattan Nallah at the exit of H.P.
			River Markanda U/s Jattanwala Nallah at Markanda Bridge, Kala Amb.	River Markanda D/s of drain near M/s Vashisht Chemicals, Kala Amb.	River Markanda U/s of drain near M/s Vashisht Chemicals, Kala Amb..	River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang	River Markanda U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan, Kala Amb.	River Markanda D/s of Salani Khad.	River Markanda U/s of Salani Khad.	River Markanda at D/s of Khajurna Bridge entering to Kala Amb Area.	River Markanda at U/s of Khajurna Bridge.	Origin Point of River Markanda near Maharishi Markandeshwar Temple, Jogiban.				
			Results	Results	Results	Results	Results	Results	Results	Results	Results	Results				
1	pH	--	7.85	8.01	8.03	8.16	8.24	8.09	8.15	8.06	7.97	7.72	6.69	7.89	8.26	7.22
2	Conductivity	µmho/cm	638.2	625.3	688.1	586.2	582.7	624.6	490.8	369.2	752.8	907.4	5381	1227	508.9	1995
3	TSS	mg/l	BDL(DL-4.0)	BDL(DL-4.0)	BDL(DL-4.0)	BDL(DL-4.0)	BDL(DL-4.0)	BDL(DL-4.0)	BDL(DL-4.0)	5.2	BDL(DL-4.0)	8.8	76.3	11.7	BDL(DL-4.0)	180.3
4	COD	mg/l	12	10	11	12.5	6	BDL(DL-5.0)	5.5	BDL(DL-5.0)	BDL(DL-5.0)	BDL(DL-5.0)	930	48	7	160
5	BOD	mg/l	1.4	1.4	1.4	1.8	BDL(DL-1.0)	BDL(DL-1.0)	BDL(DL-1.0)	BDL(DL-1.0)	BDL(DL-1.0)	BDL(DL-1.0)	290	10	BDL(DL-1.0)	20
6	Dissolved Oxy	mg/l	7.8	8.2	8.2	8.1	8.2	8.4	8.4	8.5	8.7	8.8	2.5	4.4	8.1	1.5
7	Sulphate (SO <sub>4</sub> )	mg/l	36.52	36.8	37.73	37.45	34.84	32.88	36.43	34.09	35.77	22.7	230.15	58.66	30.07	198.01
8	NO <sub>3</sub> -N	mg/l	0.41	0.38	0.42	0.42	0.37	0.44	0.39	0.34	BDL(DL-0.3)	0.38	1.31	0.9	0.44	1.1
9	Chloride (Cl <sup>-</sup> )	mg/l	19	17	21	19	12	13	9	8	7	12	174	75	16	44
10	Sodium (Na)	mg/l	11.63	13.25	11.26	12.24	13.14	14.25	12.15	11.54	14.64	12.16	60.8	32.5	10.08	24.52
11	Total Hardnes	mg/l	184	196	190	190	170	160	168	208	210	200	650	380	156	204

Sr. No.	Parameter	Unit	Sampling Points										Sample of drain near M/s Vashisht chemicals	Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan	Sample of Salani Khadd	Sample of Jattan Nallah at the exit of H.P.
			River Markanda U/s Jattanwala Nallah at Markanda Bridge, Kala Amb.	River Markanda D/s of drain near M/s Vashisht Chemicals, Kala Amb.	River Markanda U/s of drain near M/s Vashisht Chemicals, Kala Amb..	River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang	River Markanda U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan, Kala Amb.	River Markanda D/s of Salani Khad.	River Markanda U/s of Salani Khad.	River Markanda at D/s of Khajurna Bridge entering to Kala Amb Area.	River Markanda at U/s of Khajurna Bridge.	Origin Point of River Markanda near Maharishi Markandeshwar Temple, Jogiban.				
			Results	Results	Results	Results	Results	Results	Results	Results	Results	Results				
12	TDS	mg/l	261	256	267	290	168	241	223	250	256	315	2712	637	257	837
13	Calcium (Ca <sup>2+</sup> )	mg/l	46.4	50.4	48	47.2	44	40.8	43.2	52.8	53.6	51.2	144	96.8	40	52.8
14	Magnesium(Mg)	mg/l	61.59	17.08	17.08	17.57	14.64	14.15	14.64	18.54	18.54	17.57	70.76	33.67	13.66	17.57
15	Copper (Cu)	mg/l	0.035	DL(DL-0.03)	DL(DL-0.03)	DL(DL-0.03)	DL(DL-0.03)	DL(DL-0.03)	DL(DL-0.03)	DL(DL-0.03)	DL(DL-0.03)	DL(DL-0.03)	0.04	DL(DL-0.03)	BDL(DL-0.03)	0.035
16	Total Chromium	mg/l	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	DL(DL-0.06)	BDL(DL-0.06)	BDL(DL-0.06)
17	Nickel (Ni)	mg/l	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	BDL(DL-0.10)	BDL(DL-0.10)
18	Lead (Pb)	mg/l	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	DL(DL-0.10)	0.15	DL(DL-0.10)	BDL(DL-0.10)	BDL(DL-0.10)
19	Cadmium (Cd)	mg/l	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	BDL(DL-0.02)	BDL(DL-0.02)
20	Zinc (Zn)	mg/l	0.032	0.037	DL(DL-0.02)	0.022	0.035	0.045	0.027	0.038	0.038	0.041	0.16	0.05	0.018	0.14
21	Iron (Fe)	mg/l	0.19	0.18	0.123	0.155	0.117	0.091	0.091	0.13	0.162	0.238	0.14	0.27	0.111	1.58
22	T. Alkalinity	mg/l	230	260	180	210	190	255	25	255	270	260	455	300	260	265

Sr. No.	Parameter	Unit	Sampling Points										Sample of drain near M/s Vashisht chemicals	Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan	Sample of Salani Khadd	Sample of Jattan Nallah at the exit of H.P.	
			River Markanda U/s Jattanwalla Nallah at Markanda Bridge, Kala Amb.	River Markanda D/s of drain near M/s Vashisht Chemicals, Kala Amb.	River Markanda U/s of drain near M/s Vashisht Chemicals, Kala Amb..	River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang	River Markanda U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan, Kala Amb.	River Markanda D/s of Salani Khad.	River Markanda U/s of Salani Khad.	River Markanda at D/s of Khajurna Bridge entering to Kala Amb Area.	River Markanda at U/s of Khajurna Bridge.	Origin Point of River Markanda near Maharishi Markandeshwar Temple, Jogiban.					
			Results	Results	Results	Results	Results	Results	Results	Results	Results	Results					Results
23	Turbidity	NTU	1.8	1.2	2.1	5.8	1.2	2.1	1.4	1.9	1.1	2.4	83	49	3.2	24.6	
24	NO <sub>2</sub> -N	mg/l	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.05	0.17	0.1	0.04	0.12	
25	Temperature	degree Celsius	16	16	17	16	16	17	16	17	17	15	16	16	16	16	
26	Fluoride (F)	mg/l	DL(DL-0.2)	0.38	0.36	0.59	0.44	0.32	0.44	DL(DL-0.2)	0.29	0.36	1.07	0.53	0.29	0.75	
27	Potassium(K)	mg/l	4.67	5.72	3.72	4.52	5.63	3.72	4.72	3.71	3.48	3.12	25.6	12.65	4.21	9.92	
28	Manganese (M)	mg/l	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	DL(DL-0.02)	0.15	0.07	BDL(DL-0.02)	0.1
29	NH <sub>3</sub> -N	mg/l	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	DL(DL-0.4)	12.6	7.84	BDL(DL-0.4)	6.72
30	PO <sub>4</sub> 3-(P)	mg/l	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	DL(DL-0.2)	1.17	0.39	BDL(DL-0.2)	0.27
31	TC	MPN/100 m	430	920	430	1840	540	280	240	430	280	220	27000	5600	540	46000	
32	FC	MPN/100 m	140	240	170	430	210	110	70	150	94	84	11000	2200	130	12000	

## ➤ Sample Analysis Results of sampling in December-2025

ANALYSIS RESULTS OF SAMPLING OF RIVER MARKANDA IN HIMACHAL PRADESH DECEMBER 2025																
Sr. No.	Parameter	Unit	Sampling Points													
			U/s Jattanwal a Nallah at Markanda Bridge Kal Amb	D/s of drain near M/s Vashisth Chemicals	U/s of drain near M/s Vashisth Chemicals	D/s Rampur Jattan drain near Radha Swami Satsang Bhawan	U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan	D/s of Salani Khad.	U/s of Salani Khad.	D/s of Khajurna Bridge entering to Kala Amb Area.	U/s of Khajurna Bridge.	Origin Point of River at Jogiban	Sample of drain near M/s Vashisth Chemicals	Sample of Rampur Jattan drain near Radha	Sample of Salani Khadd	Sample of Jattan Nallah at the exit of H.P.
			Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results
1	pH	--	8.19	8.34	8.39	8.38	8.3	8.33	8.4	8.34	8.28	7.85	7.35	7.98	8.35	6.93
2	Conductivity	mho/cm	665.3	629	579.8	900.5	541.6	363.2	479.6	615	581.1	717.9	1277	2051	451.9	4163
3	TSS	mg/l	5.2	12.5	BDL (DL-4.0)	BDL (DL-4.0)	BDL (DL-4.0)	BDL (DL-4.0)	BDL (DL-4.0)	BDL (DL-4.0)	BDL (DL-4.0)	BDL (DL-4.0)	52.3	36.4	DL (DL-4)	1009.1
4	COD	mg/l	8	8.5	6	20.5	BDL (DL-5.0)	BDL (DL-5.0)	BDL (DL-5.0)	BDL (DL-5.0)	BDL (DL-5.0)	BDL (DL-5.0)	140	90	13.5	710
5	BOD	mg/l	2	1.7	8	3	BDL (DL-1.0)	1	1.6	1	BDL (DL-1.0)	BDL (DL-1.0)	35	8	1.4	180
6	Dissolved Oxygen	mg/l	7.6	7.5	7.8	7.7	7.8	8.1	8.3	8.4	8.4	8.5	2.3	4.2	7.8	1.2
7	Sulphate (SO <sub>4</sub> )	mg/l	35.31	34.37	35.02	44.74	34.28	35.77	34.37	35.77	33.25	17.56	21.3	77.06	30.45	608.97
8	NO <sub>3</sub> -N	mg/l	0.37	0.33	0.4	0.43	0.36	0.48	0.39	0.35	0.32	0.33	1.01	1.06	0.34	1.52
9	Chloride (Cl <sup>-</sup> )	mg/l	21	18	23	21	14	15	17	18	21	18	210	120	21	325
10	Sodium (Na)	mg/l	18.47	16.61	18.02	17.62	13.33	11.95	12.96	17.1	15.51	17.2	42.05	35.15	19.29	43.1
11	Total Hardness	mg/l	210	198	184	198	186	178	210	206	210	194	328	274	206	468
12	TDS	mg/l	307	295	286	381	275	253	248	317	232	339	567	910	273	2535
13	Calcium (Ca <sup>2+</sup> )	mg/l	51.2	49.6	45.6	50	46.4	43.2	52.8	51.6	44	47.2	62.4	65.6	49.6	92.8
14	Magnesium (Mg <sup>2+</sup> )	mg/l	20.01	18.6	17.08	17.81	17.08	17.08	19.03	18.79	24.4	18.54	41.97	26.84	20.01	57.58

## ANALYSIS RESULTS OF SAMPLING OF RIVER MARKANDA IN HIMACHAL PRADESH DECEMBER 2025

Sr. No.	Parameter	Unit	Sampling Points													
			U/s Jattanwala Nallah at Markanda Bridge Kal Amb	D/s of drain near M/s Vashisth Chemicals	U/s of drain near M/s Vashisth Chemicals	D/s Rampur Jattan drain near Radha Swami Satsang Bhawan	U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan	D/s of Salani Khad.	U/s of Salani Khad.	D/s of Khajurna Bridge entering to Kala Amb Area.	U/s of Khajurna Bridge.	Origin Point of River at Jogiban	Sample of drain near M/s Vashisth Chemicals	Sample of Rampur Jattan drain near Radha	Sample of Salani Khadd	Sample of Jattan Nallah at the exit of H.P.
			Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results
15	Copper (Cu)	mg/l	DL (DL-0.0)	DL (DL-0.0)	BDL (DL-0.03)	BDL (DL-0.03)	BDL (DL-0.03)	BDL (DL-0.03)	BDL (DL-0.03)	BDL (DL-0.03)	BDL (DL-0.03)	BDL (DL-0.03)	DL (DL-0.0)	DL (DL-0.0)	DL (DL-0.0)	0.1
16	Total Chromium	mg/l	DL (DL-0.0)	DL (DL-0.0)	BDL (DL-0.06)	BDL (DL-0.06)	BDL (DL-0.06)	BDL (DL-0.06)	BDL (DL-0.06)	BDL (DL-0.06)	BDL (DL-0.06)	BDL (DL-0.06)	DL (DL-0.0)	DL (DL-0.0)	DL (DL-0.0)	DL (DL-0.0)
17	Nickel (Ni)	mg/l	DL (DL-0.1)	DL (DL-0.1)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	DL (DL-0.1)	DL (DL-0.1)	DL (DL-0.1)	0.1
18	Lead (Pb)	mg/l	DL (DL-0.1)	DL (DL-0.1)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	BDL (DL-0.10)	0.08	0.13	DL (DL-0.1)	0.29
19	Cadmium (Cd)	mg/l	DL (DL-0.0)	DL (DL-0.0)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	DL (DL-0.0)	DL (DL-0.0)	DL (DL-0.0)	0.025
20	Zinc (Zn)	mg/l	0.07	0.12	0.05	0.05	0.09	0.06	0.66	0.07	0.18	0.09	0.26	0.09	0.104	0.45
21	Iron (Fe)	mg/l	0.36	0.643	0.25	0.26	0.28	0.21	0.204	0.204	0.29	0.27	1	0.943	0.264	11.84
22	P. Alkalinity	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	T. Alkalinity	mg/l	150	210	165	175	175	135	140	180	190	235	325	245	185	350
24	TKN	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Turbidity	NTU	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	BDL (DL-1)	35.7	17.5	DL (DL-1)	470
26	NO <sub>2</sub> -N	mg/l	0.02	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.04	0.09	0.07	0.05	0.15
27	Boron	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Temperature*	ree Cel	15	14	15	16	15	14	14	15	14	12	14	16	15	12

## ANALYSIS RESULTS OF SAMPLING OF RIVER MARKANDA IN HIMACHAL PRADESH DECEMBER 2025

Sr. No.	Parameter	Unit	Sampling Points													
			U/s Jattanwala Nallah at Markanda Bridge Kal Amb	D/s of drain near M/s Vashisth Chemicals	U/s of drain near M/s Vashisth Chemicals	D/s Rampur Jattan drain near Radha Swami Satsang Bhawan	U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan	D/s of Salani Khad.	U/s of Salani Khad.	D/s of Khajurna Bridge entering to Kala Amb Area.	U/s of Khajurna Bridge.	Origin Point of River at Jogiban	Sample of drain near M/s Vashisth Chemicals	Sample of Rampur Jattan drain near Radha	Sample of Salani Khadd	Sample of Jattan Nallah at the exit of H.P.
			Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results
29	Fluoride (F)	mg/l	0.25	0.36	0.44	0.34	0.51	0.27	0.37	0.49	0.44	0.3	0.77	0.6	0.32	1.18
30	Vanadium as V	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	Potassium(K)	mg/l	1.85	1.87	1.42	1.46	1.57	1.35	1.3	1.29	1.19	8.54	8.9	7.3	1.19	18.3
32	Phenol	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	Sulphide (S)	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	Manganese (Mn)	mg/l	0.024	0.02	0.02	0.02	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	BDL (DL-0.02)	0.13	0.66	DL(DL-0.02)	0.83
35	NH <sub>3</sub> -N	mg/l	DL(DL-0.4)	DL(DL-0.4)	BDL(DL-0.4)	BDL(DL-0.4)	BDL(DL-0.4)	BDL(DL-0.4)	BDL(DL-0.4)	BDL(DL-0.4)	BDL(DL-0.4)	BDL(DL-0.4)	7.56	DL(DL-0.4)	DL(DL-0.4)	11.76
36	Chromium +6	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	PO <sub>4</sub> 3-	mg/l	DL(DL-0.2)	DL(DL-0.2)	BDL(DL-0.2)	BDL(DL-0.2)	BDL(DL-0.2)	BDL(DL-0.2)	0.22	BDL(DL-0.2)	BDL(DL-0.2)	BDL(DL-0.2)	0.39	0.23	DL(DL-0.2)	1.61
38	Ca Hardness	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	Mg Hardness	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	TC	PN/100	540	430	350	2160	430	350	210	540	350	220	10800	5600	430	108000
41	FC	PN/100	170	94	140	540	170	110	63	220	94	79	2600	1880	110	22000
42	FS	MPN/	-	-	-	-	-	-	-	-	-	-	-	-	-	-

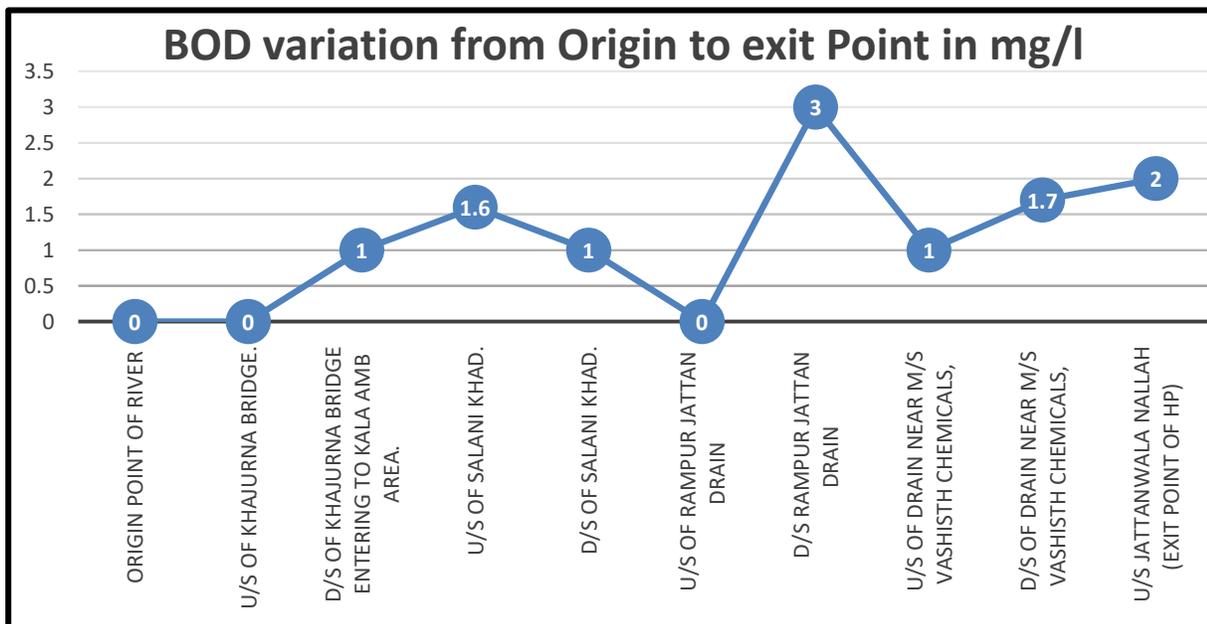
The copy of analysis results of samples collected on 27.11.2025 and 19.12.2025 as received from Regional Laboratory, HPSPCB Paonta Sahib are attached as **Annexure-I (collectively)**.

### 6.5 Interpretation of Sample Analysis Results:

From the perusal of latest river monitoring results, it is observed that, river Markanda in Kala Amb area is meeting **Class-C** (Drinking water source after conventional treatment and disinfection) category as per designated best use criteria (CPCB). The variation of BOD, Dissolved Oxygen and Fecal Coliform for various sampling locations from the origin of the river (i.e. Jogiban) till exit point of River from State of H.P. (i.e. U/s Jattanwala Nallah at Markanda bridge Kala Amb) is represented graphically as below:

The water quality of River Markanda D/s Kala Amb i.e. downstream of CETP Kala Amb is Class-C as per CPCB Designated Best Use of Water Criteria for surface waters which is fit for drinking water source after conventional treatment and disinfection.

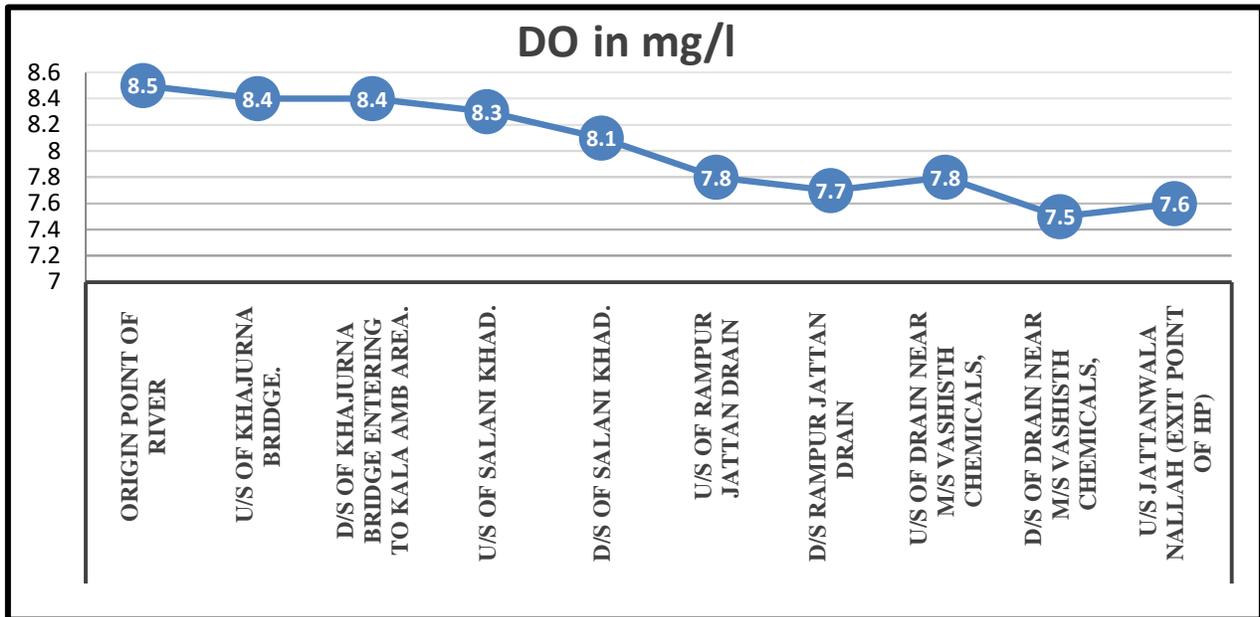
#### a) Variation of BOD:



- The BOD level throughout the monitoring stretch i.e from origin to the point entering Haryana is below 3 mg/l with maximum value observed was **3 mg/l** at location d/s Rampur Jattan drain (Sampling Point no. 04).

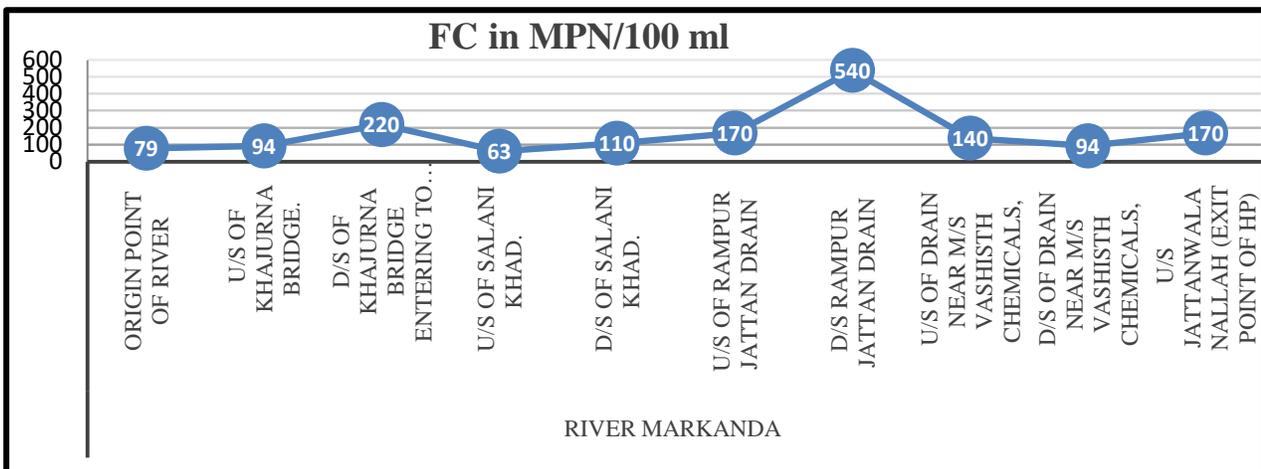
- The BOD at the exit point of River from State of H.P. (Sampling Point no. 01) was observed to be **2 mg/l**
- There is very less variation in the BOD level of water quality in Kala Amb from origin to exit point of H.P, with maximum value observed during the sampling as **3.0 mg/l**.

**b) Variation of Dissolved Oxygen (DO):**



- The DO level throughout the monitoring stretch i.e from origin to the point entering Haryana also does not show significant variation with DO at origin was observed as 8.5 mg/l and 7.6 at the exit of Kala Amb (entering to State of Haryana).

**c) Variation of Faecal Coliform:**



- The FC levels show major spike at Point River Markanda D/s Rampur Jattan drain near Radha Swami Satsang drain which can be attributed to merging of open public drain before the sampling point that carries domestic waste water load of house hold units.

### 6.6 Sampling Status of tributary drains merging into River Makanda by HPSPCB

HPSPCB is regularly monitoring the water quality of 03 nos drains/rivulets/streams in Kala Amb. The monthly monitoring results of these drains/rivulets for the year 2025 is tabulated below in Table no. 9:

**Table no. 9:**

#### Analysis Results of Tributaries/drain/Streams River Monitoring in Kala Amb in year 2025

Sample description	Month and Year	Value of Sampling Parameters (in mg/L except pH)					
		DO	pH	COD	BOD	Total Coliform (MPN)	Fecal Coliform (MPN)
Drain near M/s Vashisht Chemical	Nov-25	2.50	6.69	930	290	27000	11000
	Dec-25	2.30	7.35	140	35	10800	2600
Sample description	Month and Year	Value of Sampling Parameters (in mg/L except pH)					
		DO	pH	COD	BOD	Total Coliform (MPN)	Fecal Coliform (MPN)
Rampur Jattan Moginand Nallah Before conf. to River Markanda Near Radha Swami SatsangBhawan	Jan-25	4.6	8.18	24.0	4.2	2600.0	1160
	Feb-25	4.5	8.09	28.0	4.6	2200	920
	Mar-25	4.2	8.01	20.0	3.8	4200	1260
	Apr-25	4.20	7.71	16	4.2	4300	1700
	May-25	4.1	7.83	55	12	7000	1880
	Jun-25	4.3	8	70	6	7000	2200
	Jul-25	4.2	7.83	16	1.2	3500	1700
	Aug-25	4.1	8.22	45	1.2	3400	1800
	Sep-25	5	8.18	40	5.6	18400	3400
	Oct-25	4	8.15	60	4	4200	1600
	Nov-25	4.5	8.06	40	3.6	4400	1880
Dec-25	3.8	7.48	60	8	4400	1840	
Sample description	Month and Year	Value of Sampling Parameters (in mg/L except pH)					
		DO	pH	COD	BOD	Total Coliform (MPN)	Fecal Coliform (MPN)

<b>Sample of Jattan Nallah</b>	Jan-25	1.6	8.07	72	9.8	108000	8400
	Feb-25	1.6	8.08	76	9.2	92000	3900
	Mar-25	1.4	8.03	20	3.4	5600	1400
	Apr-25	1.4	7.86	80	20	108000	9200
	May-25	1.2	7.62	156	35	184000	15800
	Jun-25	1.4	7.77	62	10	108000	18800
	Jul-25	1.3	7.98	110	9	108000	18800
	Aug-25	1.1	8.42	45	5	86000	22000
	Sep-25	3	8.38	160	18	184000	28000
	Oct-25	1.1	7.95	150	14	184000	22000
	Nov-25	1.5	8.31	65	10	108000	26000
	Dec-25	1.1	10.80	160	15	86000	18800

### 6.7 Summary and Remedial Action:

- The sample analysis reports indicate **water quality of River Markanda at exit point of Himachal Pradesh** i.e. River Markanda U/s Jattanwala Nallah at Markanda Bridge is **Class-C** as per CPCB Designated Best Use of Water criteria for surface waters which is fit for Drinking water source after conventional treatment and disinfection.
- The issue of domestic waste water load in River Markanda shall be largely addressed when the STP Kala Amb pipeline will be repaired and made functional by Jal Shakti Vibhag, Nahan, Himachal Pradesh.
- Work of laying of sewage pipeline and primary treatment to be carried out in CETP-cum-STP Kala Amb (capacity 2.5 MLD for 1st phase – 0.8 MLD industrial + 1.7 MLD domestic) has been undertaken by Jal Shakti Vibhag, Nahan and is expected to be operational soon.
- BDO Nahan has also submitted action plan to connect households with soak pits which are discharging waste water into the public drains.

### 7. Conclusion: -

- (i). In compliance with the directions of the Hon'ble National Green Tribunal in O.A. No. 515/2022, comprehensive monitoring and assessment of River Markanda has been carried out within the territorial jurisdiction of Himachal Pradesh. Sampling of river water was conducted at 10 locations, covering the entire stretch

from the origin of the river at Jogiban up to the point where the river exits the State of Himachal Pradesh at Markanda Bridge, Kala Amb (upstream of Jattanwala Nallah), along with sampling of drains and tributaries merging into the river. The sample analysis was carried out by the NABL-accredited Regional Laboratory of HPSPCB.

- (ii). The analysis results indicate that the ***water quality of River Markanda at the exit point of Himachal Pradesh conforms to CPCB Designated Best Use – Class ‘C’ (Drinking Water Source after Conventional Treatment and Disinfection)***. Key water quality parameters such as ***BOD, Dissolved Oxygen, pH, and other physico-chemical parameters remain within the prescribed limits throughout the monitored stretch within the State***, demonstrating that the river water quality is being maintained in accordance with applicable standards.
- (iii). With regard to industrial activities in the Kala Amb area, all 116 water-polluting industries have installed captive Effluent Treatment Plants and/or Sewage Treatment Plants and are operating after obtaining valid Consent to Operate from HPSPCB. Discharge of treated effluent into water bodies is carried out only by **Common Effluent Treatment Plant (CETP), Kala Amb and M/s Ruchira Papers Ltd., both of which are functioning under valid consents, complying with prescribed discharge standards, and are equipped with Online Continuous Effluent Monitoring Systems (OCEMS) for real-time regulatory oversight.**
- (iv). The assessment further indicates that **three public drains in the Kala Amb area of H.P. part convey a combination of domestic sewage, greywater, and runoff from adjoining habitations and commercial establishments.** The organic and fecal load observed in these drains reflects untreated sewage, which is to be addressed by the Jal Shakti Vibhag, Nahan Division through the commissioning of STP Trilokpur (1.5 MLD) and STP Kala Amb (1.7 MLD), along with expansion of sewer networks and household connections. As these systems become fully functional and sewer connectivity increases, the conveyance of untreated domestic wastewater through open drains is expected to reduce.

- (v). It is also observed that **Jattanwala Nallah traverses both Himachal Pradesh and the State of Haryana, and a substantial portion of its catchment, as well as contributory flows, lies outside the territorial jurisdiction of Himachal Pradesh.** Accordingly, effective and sustained improvement of water quality in the downstream stretch of River Markanda **necessitates coordinated action by stakeholder departments of both States, particularly with respect to sewage management, drain interception, and control of domestic and commercial wastewater discharges on the Haryana side.**
- (vi). HPSPCB shall continue to undertake regular river and drain monitoring, inspection of industries and treatment facilities, online surveillance through OCEMS, and coordination with concerned departments.
- (vii). It is submitted that complete mitigation requires time-bound drain tapping, grey water management and coordinated action along with the State of Haryana.

Overall, it is observed that Residual pollution in River Markanda in the State of H.P. is primarily due to combination of grey water, domestic sewage, runoff from adjoining habitations and commercial establishments. The organic and fecal load observed in these drains reflects untreated sewage and is being addressed by the stakeholder departments of the State i.e. Block Development Officer and Jal Shakti Vibhag, Govt. of HP.

The Action taken Report is submitted before Hon'ble NGT for consideration please.



19. Jan. 2026

**Nodal Officer-cum-Regional Officer,  
HPSPCB RO Paonta Sahib  
at District Sirmaur, H.P.**



## H.P. STATE POLLUTION CONTROL BOARD

Regional Office Paonta Sahib  
Himuda Complex, Plot No. 1-3, Shubhkera  
Teh. Paonta Sahib, Distt Sirmaur, H.P

01704-225870  
<https://hppeb.nic.in/>  
pcbropaonta@gmail.com



No.HPPCB/RO(Pt)/OA 515 of 2022 ( )/2025- 2699-2712

Dated: 17-10-2025

1. The Executive Engineer, JSV, Nahan, Distt. Sirmaur, H.P	2. The General Manager, DIC, Nahan, Distt. Sirmaur, H.P.
3. The BDO Nahan, Distt. Sirmaur, H.P.	4. The MS, SADA Trilokpur, Distt. Sirmaur, H.P.
5. The Station House Officer, Police, Kala Amb, Tehsil Nahan District Sirmaur, H.P.	6. The RTO, Sirmaur at Nahan, Distt. Sirmaur, H.P.
7. The Tehsildar, Nahan, Distt, Sirmaur, H.P	

**Subject:** Regarding latest updated status/action taken report in the matter of OA No. 515/2022 titled as Dharamvir V/s State of Haryana & Anr, pending before Hon'ble NGT.

Sir/Madam

This is in reference to the subject matter cited above. In this context, it is submitted that, a complaint was filed by Sh. Dharamvir dated 23.04.2022 which relate to the issues of pollution in River Markanda, originating from Nahan division. District Sirmaur, Himachal Pradesh. The complaint was registered as original application no. 515/2022 Titled as Dharamvir Vs State of Haryana and Anr. The matter was last listed for hearing on 15.10.2025 (Copy of orders is attached herewith) and further listed for hearing on **21.01.2026**.

Therefore, in view of above, it is requested to submit updated action taken/current status/progress report at the earliest, so that same can be further filled to Hon'ble NGT well within time. It is also requested to provide searchable pdf document using allowed scanner apps, please.

**Encl: Copy of order of Hon'ble NGT**



Mission LiFE

Yours faithfully

Regional Officer

HPPCB, RO, Paonta Sahib

Copy to:

1. The Member Secretary, HPSPCB Phase-III for information, please.
2. The Deputy Commissioner, Sirmaur at Nahan for information, please.
3. The Superintendent of Police, Sirmaur at Nahan for information and necessary action, please.
4. The Additional District Magistrate Sirmaur at Nahan for information and necessary action, please.
5. The Superintending Engineer, JSV, Nahan for information and necessary action, please.
6. The PO, DRDA, Sirmaur at Nahan for information and necessary action, please.
7. The District Revenue Officer, Sirmaur at Nahan for information and necessary action, please.

Regional Officer

HPSPCB, RO, Paonta Sahib



# H.P. STATE POLLUTION CONTROL BOARD

Regional Office Paonta Sahib  
Himuda Complex, Plot No. 1-3, Shubhkera  
Teh. Paonta Sahib, Distt Sirmaur, H.P

01704-225870

<https://hppcb.nic.in/>

[pchropaonta@gmail.com](mailto:pchropaonta@gmail.com)



Most Urgent - Hon'ble NGT matter

No.HPPCB/RO(Pt)/OA 515 of 2022 ( )/2025- 3220-33

Dated: 6-12-2025

To

1. The Executive Engineer, JSV, Nahan, Distt. Sirmaur, H.P	2. The General Manager, DIC, Nahan, Distt. Sirmaur, H.P.
3. The BDO Nahan, Distt. Sirmaur, H.P.	4. The RTO, Sirmaur at Nahan, Distt. Sirmaur, H.P.
5. The MS, SADA Trilokpur, Distt. Sirmaur, H.P.	6. The Tehsildar, Nahan, Distt. Sirmaur, H.P
7. The Station House Officer, Police, Kala Amb, Tehsil Nahan District Sirmaur, H.P.	

**Subject: Regarding latest status/action taken report in the matter of OA No. 515/2022 titled as Dharamvir V/s State of Haryana & Anr, pending before Hon'ble NGT.**

**Ref:** Hon'ble NGT order dated 15.10.2025, this office letter no. No.HPPCB/RO(Pt)/OA 515 of 2022 ( )/2025-2699-2712 dated 17.10.2025 and summary report submitted by HPPCB after consultation with stakeholder departments to Hon'ble NGT on 13.10.2025.

Madam/Sir

**Whereas**, a complaint was filed by Sh. Dharamvir dated 23.04.2022 which relate to the issues of pollution in River Markanda, originating from Nahan division, District Sirmaur, Himachal Pradesh. The complaint was registered as original application no. 515/2022 Titled as Dharamvir Vs State Of Haryana and Anr.

**Whereas**, Hon'ble NGT vide order dated 12.02.2025 considered following issued to be addressed:

- 1) Determination of flood plain zone of river Markanda.
- 2) preventing discharge of untreated industrial effluent/ domestic sewerage/any other pollutant in river Markanda and
- 3) removal of encroachments if any on the land of river Markanda. Thereafter case was listed before Hon'ble NGT for hearing on 21.05.2025, 17.07.2025, 04.09.2025 and 15.10.2025.

**Whereas**, during hearing on 15.10.2025, following directions have been issued by Hon'ble NGT: Respondent no.7- HP SPCB is directed to file additional response giving complete information with respect to

- 1) total number of drains falling in River Markanda
- 2) status of all drains as to whether the same have been tapped/not tapped so far
- 3) whether any untreated sewage is going to River Markanda
- 4) total number of industries in Kala Amb
- 5) number of industries which are connected to CETP, number of industries which are not connected to CETP and number of industries falling in ZLD category and
- 6) sampling and analysis results with respect to all discharge points of confluence of sewage/effluents in River Markanda and Jatton Wala Nallah flowing to Haryana.
- 7) Respondent no.10- DM, Sirmaur is directed to file complete report giving details regarding all the revenue numbers of land with area and nature of use recorded in Revenue Record through which River Markanda is flowing. Copy of order is attached herewith.
- 8) HP SPCB and HSPCB are directed to carry out sampling at all discharge points and other appropriate places and get the same analyzed and submit analysis reports with reference to all relevant parameters particularly, pertaining to industrial effluents and in case of the analyses reports showing violation of parameters, the HS PCB and HPPCB shall explain the reasons for the same and also mention about remedial action taken regarding the same. Case is further listed for hearing on 21.01.2026.

**Whereas**, there are total 03 nos drains identified in State of HP merging with river Markanda in jurisdiction of district Sirmaur. Details of same are as follows:

1. Jattanwala Nallah,
2. Public drain near M/s vashisht chemical and

## 3. Public drain near Radha Swami Satsang.

**Whereas**, vide this office letter no. 2699-2712 dated 17.10.2025 all stakeholder departments were requested to submit updated action taken report in continuation to the action taken report submitted to Hon'ble NGT. However, no action taken/progress report is submitted by the stakeholder departments till date. Copy of letter along with last action taken report is also attached herewith for ready reference.

**And whereas**, as per directions of competent authority and Hon'ble NGT, HPPCB is required to file a progress report in continuation to the report filled on 13.10.2025 addressing all points mentioned above.

Therefore, in view of above, it is requested to submit action taken/current status/progress report within 10 days, so that same can be further filled to Hon'ble NGT well within time.pls.

The action points pertaining to stakeholder departments are as follows:

Sr. No	Action Point	Respondent Department
1	Operational status of STP Kala Amb, STP Trilokpur including detailed status of laying of sewerage lines, household connection, pending work along with action plan and time bound timeline for the same.	JSV Nahan
2	Status of Household connections to STPs, total connections to be provided, total connection provided, pending work, along with action plan and time bound timeline for the same.	BDO Nahan and JSV Nahan
3	Current Status of Solid Waste processing site, utilization of NCAP fund pending work along with action plan and timeline for the same.	SADA Trilokpur
4	Details of inspection/challan of unauthorized vehicles engaged in transportation/disposal of non-hazardous waste.	RTO Nahan and Police, Kala Amb
5	Determination of flood plain zone of river Markanda	JSV Nahan
6	Removal of encroachments if any on the land of river Markanda.	Revenue (Tehsildar/DRO) Nahan
7	Status of development of non hazardous management site at Moginand	Department of Industries
8	Action plan for tapping/diversion/treatment of 03 nos. discharge points/drains merging to River Markanda in Kala Amb	JSV Nahan
9	Status of connection of Septic tanks in industrial area to sewerage line of STP Trilokpur and STP Kala Amb	Department of Industries
10	Status of solid waste management along with details of facilities for same in rural area of Kala Amb	BDO Nahan, DRDA & GP Kala Amb

Encl: As above (Email only)



Mission LIFE

Yours faithfully

Regional Officer  
HPPCB, RO, Paonta Sahib

Copy to:

1. The Member Secretary, HPSPCB Phase-III for information, please.
2. The Deputy Commissioner, Sirmaur at Nahan for information, please.
3. The Superintendent of Police, Sirmaur at Nahan for information and necessary action, please.
4. The Additional District Magistrate Sirmaur at Nahan for information and necessary action, please.
5. The Superintending Engineer, JSV, Nahan for information and necessary action, please.
6. The PO, DRDA, Sirmaur at Nahan for information and necessary action, please.
7. The District Revenue Officer, Sirmaur at Nahan for information and necessary action, please.

Regional Officer  
HPSPCB, RO, Paonta Sahib



## H.P. STATE POLLUTION CONTROL BOARD

Regional Office Paonta Sahib  
Himuda Complex, Plot No. 1-3, Shubhkera  
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01704-225870

<https://hppcb.haryana.gov.in/>

[pebropta@gmail.com](mailto:pebropta@gmail.com)



No.HPPCB/RO(Pt)/OA 515 of 2022 ( )/2025-

4280-4293

Dated: 18-01-2026

To

1. The Executive Engineer, JSV, Nahan, Distt. Sirmaur, H.P.	2. The General Manager, DIC, Nahan, Distt. Sirmaur, H.P.
3. The BDO Nahan, Distt. Sirmaur, H.P.	4. The RTO, Sirmaur at Nahan, Distt. Sirmaur, H.P.
5. The MS, SADA Trilokpur, Distt. Sirmaur, H.P.	6. The Tehsildar, Nahan, Distt. Sirmaur, H.P.
7. The Station House Officer, Police, Kala Amb, Tehsil Nahan District Sirmaur, H.P.	

**Subject:** Regarding latest status/action taken report in the matter of OA No. 515/2022 titled as Dharamvir V/s State of Haryana & Anr, pending before Hon'ble NGT.

**Ref:** Hon'ble NGT order dated 15.10.2025, this office letter no. No.HPPCB/RO(Pt)/OA 515 of 2022 ( )/2025-2699-2712 dated 17.10.2025 and summery report submitted by HPPCB after consultation with stakeholder departments to Hon'ble NGT on 13.10.2025

Madam/Sir

Whereas, a complaint was filled by Sh. Dharamvir dated 23.04.2022 which relate to the issues of pollution in River Markanda, originating from Nahan division, District Sirmaur, Himachal Pradesh. The complaint was registered as original application no. 515/2022 Titled as Dharamvir Vs State Of Haryana and Anr.

Whereas, Hon'ble NGT vide order dated 12.02.2025 considered following issued to be addressed:

- 1) Determination of flood plain zone of river Markanda.
- 2) preventing discharge of untreated industrial effluent/ domestic sewerage/any other pollutant in river Markanda and
- 3) removal of encroachments if any on the land of river Markanda. Thereafter case was listed before Hon'ble NGT for hearing on 21.05.2025, 17.07.2025, 04.09.2025 and 15.10.2025.

Whereas, during hearing on 15.10.2025, following directions have been issued by Hon'ble NGT: Respondent no.7- HP SPCB is directed to file additional response giving complete information with respect to

- 1) total number of drains falling in River Markanda
- 2) status of all drains as to whether the same have been tapped/not tapped so far
- 3) whether any untreated sewage is going to River Markanda
- 4) total number of industries in Kala Amb
- 5) number of industries which are connected to CETP, number of industries which are not connected to CETP and number of industries falling in ZLD category and
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- 7) Respondent no.10- DM, Sirmaur is directed to file complete report giving details regarding all the revenue numbers of land with area and nature of use recorded in Revenue Record through which River Markanda is flowing. Copy of order is attached herewith.
- 8) HP SPCB and HSPCB are directed to carry out sampling at all discharge points and other appropriate places and get the same analyzed and submit analysis reports with reference to all relevant parameters particularly, pertaining to industrial effluents and in case of the analyses reports showing violation of parameters, the HS PCB and HPPCB shall explain the reasons for the same and also mention about remedial action taken regarding the same. Case is further listed for hearing on 21.01.2026.

Whereas, there are total 03 nos drains identified in State of HP merging with river Markanda in jurisdiction of district Sirmaur. Details of same are as follows:

1. Jattanwala Nallah,
2. Public drain near M/s vashisht chemical and

**Whereas**, vide this office letter no. 2699-2712 dated 17.10.2025 and letter no. 3220-33 dated 06.12.202, all stakeholder departments were requested to submit updated action taken report in continuation to the action taken report submitted to Hon'ble NGT

**And whereas**, as per directions of competent authority and Hon'ble NGT, HPPCB is required to file a progress report in continuation to the report filled on 13.10.2025 addressing all points mentioned above.

**Therefore**, in view of above, it is requested to submit latest/updated action taken/current status/progress report within 3 days, so that same can be further filled to Hon'ble NGT well within time.pls.

The action points pertaining to stakeholder departments are as follows:

Sr. No	Action Point	Respondent Department
1	Operational status of STP Kala Amb, STP Trilokpur including detailed status of laying of sewerage lines, household connection, pending work along with action plan and time bound timeline for the same.	JSV Nahan
2	Status of Household connections to STPs, total connections to be provided, total connection provided, pending work, along with action plan and time bound timeline for the same.	BDO Nahan and JSV Nahan
3	Current Status of Solid Waste processing site, utilization of NCAP fund pending work along with action plan and timeline for the same.	SADA Trilokpur
4	Details of inspection/challan of unauthorized vehicles engaged in transportation/disposal of non-hazardous waste.	RTO Nahan and Police, Kala Amb
5	Determination of flood plain zone of river Markanda	JSV Nahan
6	Removal of encroachments if any on the land of river Markanda.	Revenue (Tehsildar/DRO) Nahan
7	Status of development of non hazardous management site at Moginand	Department of Industries
8	Action plan for tapping/diversion/treatment of 03 nos. discharge points/drains merging to River Markanda in Kala Amb	JSV Nahan and BDO Nahan
9	Status of connection of Septic tanks in industrial area to sewerage line of STP Trilokpur and STP Kala Amb	Department of Industries
10	Status of solid waste management along with details of facilities for same in rural area of Kala Amb	BDO Nahan, DRDA & GP Kala Amb

Encl: As above



Mission LIFE

2

Yours faithfully

Regional Officer  
HPPCB, RO, Paonta Sahib

Copy to:

1. The Member Secretary, HPSPCB Phase-III for information, please.
2. The Deputy Commissioner, Sirmaur at Nahan for information, please.
3. The Superintendent of Police, Sirmaur at Nahan for information and necessary action, please.
4. The Additional District Magistrate Sirmaur at Nahan for information and necessary action, please.
5. The Superintending Engineer, JSV, Nahan for information and necessary action, please.
6. The PO, DRDA, Sirmaur at Nahan for information and necessary action, please.
7. The District Revenue Officer, Sirmaur at Nahan for information and necessary action, please.

Regional Officer  
HPSPCB, RO, Paonta Sahib

No.DBN-/SEBPO/SBM-G/2026- 28  
Assistant Commissioner (Dev.)  
Development Block Nahan Distt. Sirmaur H.P.

To

Regional Officer HPSPCB,  
RO, Paonta Sahib Distt. Sirmaur HP  
Dated: - 05 January, 2026

Subject: - **Action Taken Report Regarding Discharge of  
Untreated Domestic Waste Water into the Drain  
Merging with Markanda River**

Madam,

This is in reference to your office letter no.PCB/RO (Pt)/OA No. 515 of 2022/2025-3804-08 dated 10/12/2025 subject cited above. It is submitted that in pursuance of the directions of the honorable NGT & in compliance of the letter No. DDO/SBM-G/Court Matters/2025-26-5907 dated 24/12/25 from the District development Officer District Sirmaur a joint team of the officials of BDO Office Nahan and Pollution Control Board visited all the three spots mentioned in the letter on 30/12/2025, where the discharge of untreated domestic waste water is merged into the drains that ultimately falls into the Markanda River. The findings of the team is as under :-

**1. JATTANWALA NALAH :**

At the said place the villagers and shopkeepers have released the dirty water from the kitchens and bathrooms of their houses directly into the open drains which ultimately flows into the Markanda River thereby polluting the river water. However as told by the locals a sewerage pipeline has also been laid in this area by the Jal Shakti Vibhag and the work of providing connections is in progress. As and when all the houses are connected the problem will be resolved to a great extent.

**2. PUBLIC DRAIN NEAR VASHISHT CHEMICALS, KALA AMB :**

At the above mentioned place, it was found that the villagers and shopkeepers have released the dirty water from the kitchens and bathrooms of their houses directly into the open drains which ultimately flow into the Markanda River thereby polluting the river water. However as told by the locals a sewerage pipeline has also been laid in this area by the Jal Shakti Vibhag which has not yet been connected to the houses of the people. This problem will be resolved as the work of providing connections is completed by the Jal Shakti Vibhag. Apart from this the BDO Nahan has issued a sanction of 30 soak pits. These Soak Pits will be constructed in the affected area. During the inspection the

locals of the area accused the industries/factories and Companies of releasing the waste water into the drains in odd hours at night.

### **3. PUBLIC DRAIN NEAR RADHA SWAMI SATSANG, KALA AMB :**

The team reached the place where this drain begins. At the starting point near Moginand School the water is clear but as the drain flows through the village with houses and industries at both sides the pollution is increasing. This drain falls into the Markanda near Radha Swami Satsang Bhawan, thereby polluting the river. Now if the sewerage pipeline laid by the Jal Shakti Vibhag is restored and the houses & other buildings are connected to it the problem can be resolved to a great extent.

In view of the above, the instructions to Gram Panchayat kala Amb have been given to sensitize the people in the concerned area by way of notice boards, camps, meetings etc. to prevent further pollution of the sacred river Markanda.

  
(Shri Jitender) Sub R.o. Kala Amb  
Junior Environment Engineer PCB  
Sachiv GP at Kala Amb  
Amb

  
(shri Ajay Kumar)  
SEBPO, Dev. Block Nahan

  
(Shri Jasbir Singh)  
Panchayat  
kala

  
(Shrimati Rekha Devi)  
Pradhan GP Kala Amb

  
The Assistant Commissioner (Dev.)  
Development Block Nahan, Sirmaur HP  
Dated- 05/01/2026

Endt. No. As above 29

1. The District Development officer (RD) District Sirmaur HP in compliance of the letter No.DDO/SBM-G/Court Matters/2025-26-5907 dated 24/12/25.

(Dev.)

Sirmaur HP

  
The Assistant Commissioner  
Development Block Nahan,

HIMACHAL PRADESH.  
JAL SHAKTI DEPARTEMNT.

No.-JSD(N)DB/Nahan OA No.515/2022/2025- 6938-39  
To

Dt. 10/12/25

The Regional Officer,  
HPPCB RO Paonta Sahib.

Subject:- Regarding latest status/action taken report in the matter of OA No. 515/2022 titled as Dharmvir V/s state of Haryana and others.  
Reference:- Your office letter No. HPPCB/RO(PT) OA No. 515/2022-3220-33 dated 06.12.2025.

Enclosed please find herewith the subject cited action taken report vide your office letter under reference is hereby submitted for taking further necessary action, at your end please.

Encl :-Action taken report.

  
Executive Engineer  
Jal Shakti Division Nahan

Copy to the Superintending Engineer, Jal Shakti Circle Nahan for

information please.

  
Executive Engineer  
Jal Shakti Division Nahan

Regarding latest status/action taken report in the matter of OA No. 515/2022 titled as Dharmvir V/s state of Haryana and others.

Sr. No	Action Point	Respondent Department.
1	Operational status of STP Kala Amb, STP Trilokpur including detailed status of laying of sewerage lines, household connection, pending work along with action plan and timeline for the same.	<p><b>STP KalaAmb:-</b> This CETP has been constructed and being operated by the DIC. However the domestic sewerage connections were also proposed to be issued against this STP by Jal Shakti Vibhag. Although some portion of Jattanwala Village was also connected to this STP of Kala-Amb operated by the Industries Department and testing of the same was done successfully. The matter was also taken up with the DIC to permit this department for sewerage flow. The Main Sewerage Trunk Line damaged during current monsoon season has now been restored. The sewerage from commercial units is being treated by the STP operated by the DIC and the work of domestic connectivity from Jattanwala village is under process. The provision of sewerage connection is 750 Nos as per proposal. 85% of the work for Kala-Amb Part is completed and Kala-Amb Part is expected to be operational by 30th Jan, 2026.</p> <p><b>STP Trilokpur:-</b> The Main Sewer Trunk line has been laid and testing has been done successfully. In response to the awareness campaign, total 206 No. Applications have been received through BDO office Nahan. The work providing PVC Pipe connections from Beneficiaries Septic Tank to Main Sewer line in village Jattanwala, Johron, Kheri, Kala-Amb and Trilokpur have been awarded to various contractors and work is in progress. 175 Nos connection released to baneficiries at village Johrno,Trilokpur &amp; Kheri .STP is gaining load for the treatement of sewrage. The pipe line which was damaged near Jai Bharat Steel Factory at village Johron, has now been restored. The flow measruing to 0.075 MLD has been started flowing upto STP.</p> <p>The application for obtaing the Consent to Establish and Consent to Operate (CTE &amp; CTO) has been submitted to the HP State Pollution Control Board, office at Paonta Sahib vide online application ID No. 16680513 dated 27.09.2025. But some observation raised by PCB on dated 29-11-2025.all the observation are attend and case same resubmitted for necessary approval from PCB. The scheme is expected to be operational by 30th Jan, 2026.</p>
2	Status of Household connection to STPs, total connections to be provided, total connection provided, pending work, along with action plan and timeline for the same.	<p><b>The STP Trilokpur:-</b> The provision of sewerage connection is 650 Nos out of which 206 Nos form has been received and Laying, jointing of sewerage connection to main sewer trunk is in progress.</p> <p>The process of taking permission consent of Establish of (CTE) and (CTO) apply through HPSPCB online Portal on dated 20.08.2025. But some observation raised by PCB on dated 29-11-2025.all the observation are attend and case same resubmitted for necessary approval and same is awaited for approval.</p> <p><b>STP KalaAmb:-</b> The provision of sewerage connection is 750 Nos as per proposal. out of which 104 Nos form has been received and Laying, jointing of</p>

		sewerage connection to main sewer trunk is in progress. Part -1st Status of Kala Amb area: 85% of the work for Kala-Amb Part is completed and Kal-amb Part is expected to be operational by 30th Jan, 2026.
3	Current Status of Solid Waste processing site, utilization of NCAP fund pending work along with action plan and timeline for the same.	Not pertains to this office.
4	Detail of inspection /Challan of unauthorized vehicle engaged in transportation/disposal of non-hazardous waste.	Not pertains to this office.
5	Determination of flood plain zone of river Markanda	The detail project report (DPR) is submitted to Project Director PMU/SDMA Mandi vide this office letter No. 701 dated 28.4.2025 of Rs. 143.36 lakh only titled as ("Flood Plain Zoning Studies in Markanda river along with its main tributaries in Sirmour District Himachal Pradesh) and proposal also submitted to HP State Disaster Management Authority vide Proposal ID: 156 dated 28.04.2025 for necessary approval.
6	Removal of encroachment if any on the land of river Markanda.	Not pertains to this office.
7.	Status of development of non hazardous management site at Moginand.	Not pertains to this office.
8	Action plan for tapping /diversion/ treatment of 03 nos. discharge points/ drains merging to River Markanda in Kala Amb	<b>Not pertains to this office.</b> JSV Department is only Executive agency of Providing water supply & Irrigation facility for Public Demand & Black water from toilets. (STP) The management of waste / grey water comes under the concern G.P and all other urban agencies M.C. The fund provided under Swatch Bharat Mission (Gramin) and SUJAL from G.O.I. for grey/ waste water management to the implementing Deptt./G.P.
9	Status of connection of Septic tanks in industrial area to sewerage line of STP Trilokpur and STP Kala Amb	Department of Industries.
10	Status of solid waste management along with details of facilities for same in rural area of Kala Amb	BDO Nahan, DRDA & GP Kala

  
 Executive Engineer  
 Jal Shakti Division Nahan

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8	Action plan for tapping /diversion/ treatment of 03 nos. discharge points/ drains merging to River Markanda in Kala Amb	<p>JSV Department is only Executive agency of Providing water supply&amp; Irrigation facility for Public Demand &amp; Black water from toilets(STP).</p> <p>The management of waste / grey water comes under the concern G.P and all other urban agencies M.C. The fund provided under Swatch Bharat Mission (Gramin) and SUJAL from G.O.I. for grey/ waste water management to the implementing Deptt./G.P.</p> <p><b>Jattanwala Nallah:-</b>As per Assistant Engineer Sub Division Nahan ,Report submitted that no sewerage line of the department discharges into Jattanwala Nallah.The nallah is a natural/public water course and the same could be maintained by the concern Gram Panchyat authorities. The flow observed in the nallah mainly consist of domestic household wastewater such as cloth washing, utensil washing, livestock bathing and washroom water from adjoining residential areas where sewerage connections are yet to be provided. The work of issuance of sewerage connections in Jattanwala area is progress and the households shall be covered at the earliest possible.</p> <p><b>2.Public Drain near M/S Vashist Chemicals,Kala-Amb:-</b> As per Assistant Engineer Sub Division Nahan ,Report submitted that the said drain is a public drain under the jurisdiction of the local Panchyat .The discharge observed therein is domestic in nature only and does not include any sewerage from the Jal Shakti Vibhag.</p> <p><b>3. Public Drain near Radha Swami Satsang,Kala-Amb:-</b> As per Assistant Engineer Sub Division Nahan ,Report submitted that the discharge observed in this drain is domestic in nature, comprising wastewater from washing and household activities.There is no direct sewerage discharge into this drain.In addition to this,</p>

		<p>it is further added that a D.I. pipeline of 3.5 kilometers was laid from the Moginand area to the Primary Treatment Unit at Kala Amb, which included various RDs along the bank of the Markanda River. It was aligned along with RCC pillars and retaining walls. During the 2023 monsoon season, the retaining wall, RCC pillars, manhole chambers, and other civil structures at various RDs were completely damaged and washed away. During the 2024 monsoon season, the Markanda River experienced severe flooding, which completely damaged and washed away other structures such as the retaining wall, RCC column pillars, and manhole chambers at various RDs. The structures suffered significant damage, and it is nearly impossible to realign the pipeline on the existing structures. Moreover, there is no scope for laying the D.I. pipeline because the river has changed its course. Due to the flood-affected area, it is not feasible to reconstruct the aforementioned damaged structures. Therefore, a plan is being proposed to reroute the pipeline alongside the National Highway. Coordination with senior officials of the National Highway is currently underway for this purpose. As soon as approval is received from the National Highway authorities, the remaining work will be completed at the earliest.”</p> <p>As far as operational status for Kala-AMB, Trilokpur is concerned, it is respectfully submitted that the Sewerage Treatment Plant (STP) at Trilokpur is operational on a routine basis. Further sewerage connection at village Kheri, Trilokpur have been issued up to about 75% and the remaining work of issuance of connections work is in progress. The sewerage from connected households is being conveyed through D.I. pipe lines laid by the department up to the STP, where it is being treated regularly. The department is fully committed to comply with the directions of the Hon’ble NGT and to ensure prevention of pollution of River Markanda. All remaining works related to sewerage connections and system strengthening are being pursued on priority.</p>
9	Status of connection of Septic tanks in industrial area to sewerage line of STP Trilokpur and STP Kala Amb	Department of Industries.
10	Status of solid waste management along with details of facilities for same in rural area of Kala Amb	BDO Nahan, DRDA & GP Kala

-sd-

Executive Engineer  
Jal Shakti Division Nahan.

No. DBN-/SEBPO/SBM-G/2026- 165  
 Assistant Commissioner (Dev.)  
 Development Block Nahan Distt. Sirmaur H.P.

To

Regional Officer HPSPCB.  
 RO, Paonta Sahib Distt. Sirmaur HP  
 Dated: 17 January, 2026

**Subject:- Action Plan to Prevent Discharge of Untreated Domestic Waste Water Into the Drains Merging with Markanda River.**

Sir,

This is in reference to your office letter no. PCB/RO (Pt)/OA No. 515 of 2022/2026-4315-17 dated 15/01/2026 on the subject cited above. It is submitted that in pursuance of the directions of the Hon'ble NGT & in compliance of the letter No. DDO/SBM-G/Court Matters/2025-26-5907 dated 24/12/25 from the District Development Officer, District Sirmaur, a joint team of the officials of BDO Office Nahan and Pollution Control Board visited all the three spots mentioned in the letter dated 30/12/2025, where the discharge of untreated domestic waste water is merged into the drains that ultimately falls into the Markanda River. In view of the above findings, an action plan to meet the issues is prepared and the same is submitted to your good office for information as under:

#### Short Term Plan

As per the report of the team, all the three places are in the jurisdiction of Gram Panchayat Kala Amb. The villagers and shopkeepers have released dirty water from the kitchens and bathrooms of their houses directly into the open drains which ultimately flows into the Markanda River, thereby polluting the river water. Now in order to stop this inflow of dirty water, the BDO Nahan has sanctioned 49 soak pits which will be constructed in the houses in vicinity of these drains. Moreover, BDO Nahan has organized many camps to make people aware in the relevant area which will be continued.

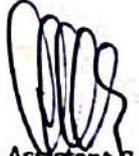
#### Long Term Plan

During the inspection, as told by the locals, a sewerage pipeline has also been laid in this area by the Jal Shakti Vibhag which is not in functional condition and is broken at some places due to which it has not yet been connected to the houses of the people. This problem will be resolved as the work of providing connections is completed by the Jal Shakti Vibhag. BDO Nahan took the initiative and collected all 204 application forms of the houses that fall in the affected area. These duly filled forms have already been deposited in the office of Jal Shakti Vibhag. As and when all the houses are connected, the problem will be resolved.

  
 The Assistant Commissioner (Dev.)  
 Development Block Nahan, Sirmaur HP  
 Dated: 17/01/2025

Endt. No. As above

166  
 1. The District Development Officer (RD), District Sirmaur HP in compliance of the letter No. DDO/SBM-G/Court Matters/2025-26-5907 dated 24/12/25.

  
 The Assistant Commissioner (Dev.)  
 Development Block Nahan, Sirmaur HP



## Calibration Certificate

Page No 1 of 1

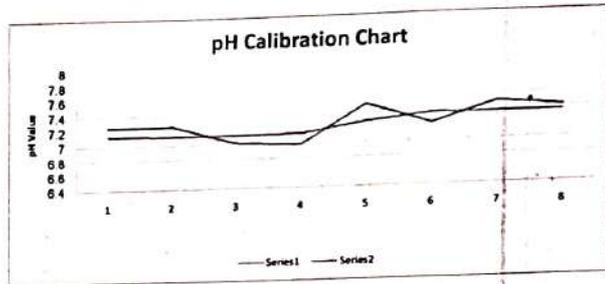
Customer Name & Address  <b>KALA AMB INFRASTRUCTURE DEVELOPMENT COMPANY</b>	Certificate No.	NPI/WQA/131
	Date of Issue	18-11-2025
	Date of calibration	18-11-2025
	Calibration Valid Upto	17-11-2026
	Service request no. & Date	18-11-2025

Instrument Detail			
Name	Water Quality Analyser(ETP & STP PLANT)	Parameters	Range
Make	Nobel Process Instruments (NPI)	pH	0 - 14 pH
Ins. Id.	Nil	COD	0-1000mg/l
Sr. No	2205007100949	BOD	0-1000mg/l
Model	NPI-WA-01	TSS	0-1000mg/l
			Least Count
			0.1 pH
			1mg/l
			0.2mg/l
			1mg/l

Environmental Condition		
Temperature (°C)	25 ± 3	Humidity (%RH)
		35 to 70

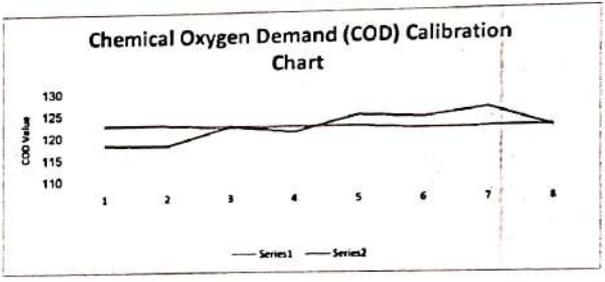
pH							
Sr. No.	Date	Time	Sample ID	UUC Value	Test Results	Variation	% Error
1	18.11.2025	08.00 AM	1075-1	7.14	7.25	0.11	1.54
2	18.11.2025	09.00 AM	1075-2	7.12	7.26	0.14	1.97
3	18.11.2025	10.00 AM	1075-3	7.12	7.02	-0.10	-1.40
4	18.11.2025	11.00 AM	1075-4	7.13	6.98	-0.15	-3.00
5	18.11.2025	12.00 PM	1075-5	7.27	7.5	0.23	3.16
6	18.11.2025	01.00 PM	1075-6	7.36	7.22	-0.14	-1.90
7	18.11.2025	02.00 PM	1075-7	7.35	7.49	-0.14	-1.90
8	18.11.2025	03.00 PM	1075-8	7.35	7.42	0.07	0.95

Test Results  
 Min Max  
 6.98 7.50



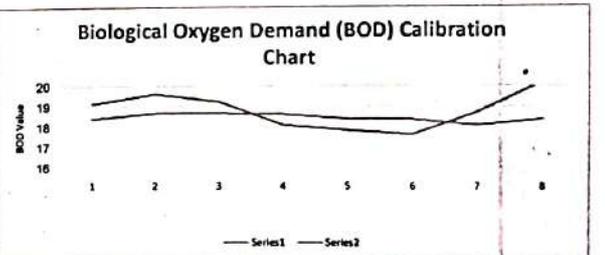
Chemical Oxygen Demand (COD)							
Sr. No.	Date	Time	Sample ID	UUC Value	Test Results	Variation	% Error
1	18.11.2025	08.00 AM	1075-1	122.52	118.2	-4.32	-3.53
2	18.11.2025	09.00 AM	1075-2	122.51	117.98	-4.53	-3.70
3	18.11.2025	10.00 AM	1075-3	121.99	122.25	0.26	0.21
4	18.11.2025	11.00 AM	1075-4	122.25	120.88	-1.37	-1.12
5	18.11.2025	12.00 PM	1075-5	122.14	124.64	2.50	2.05
6	18.11.2025	01.00 PM	1075-6	121.42	123.96	2.54	2.09
7	18.11.2025	02.00 PM	1075-7	121.73	126	4.27	3.51
8	18.11.2025	03.00 PM	1075-8	121.69	121.54	-0.15	-0.12

Test Results  
 Min Max  
 117.98 126.00



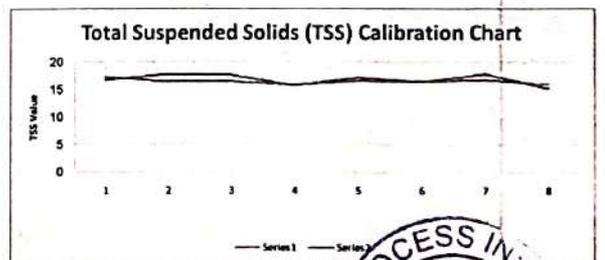
Biological Oxygen Demand (BOD3 day, at 27 °C)							
Sr. No.	Date	Time	Sample ID	UUC Value	Test Results	Variation	% Error
1	18.11.2025	08.00 AM	1075-1	18.42	19.14	0.72	3.91
2	18.11.2025	09.00 AM	1075-2	18.69	19.63	0.94	5.03
3	18.11.2025	10.00 AM	1075-3	18.7	19.26	0.56	2.99
4	18.11.2025	11.00 AM	1075-4	18.64	18.12	-0.52	-2.79
5	18.11.2025	12.00 PM	1075-5	18.42	17.86	-0.56	-3.04
6	18.11.2025	01.00 PM	1075-6	18.38	17.66	-0.72	-3.92
7	18.11.2025	02.00 PM	1075-7	18.12	18.74	0.62	3.42
8	18.11.2025	03.00 PM	1075-8	18.4	20.2	1.80	9.78

Test Results  
 Min Max  
 17.66 20.20



Total Suspended Solids (TSS)							
Sr. No.	Date	Time	Sample ID	UUC Value	Test Results	Variation	% Error
1	18.11.2025	08.00 AM	1075-1	17.31	16.74	-0.57	-3.29
2	18.11.2025	09.00 AM	1075-2	16.44	17.82	1.38	8.39
3	18.11.2025	10.00 AM	1075-3	16.48	17.66	1.18	7.16
4	18.11.2025	11.00 AM	1075-4	15.91	15.76	-0.15	-0.94
5	18.11.2025	12.00 PM	1075-5	16.67	17.24	0.57	3.42
6	18.11.2025	01.00 PM	1075-6	16.47	16.44	-0.03	-0.18
7	18.11.2025	02.00 PM	1075-7	16.83	17.86	1.03	6.12
8	18.11.2025	03.00 PM	1075-8	15.94	15.24	-0.70	-4.39

Test Results  
 Min Max  
 15.24 17.86



\*\*\*\*End of Test Report\*\*\*\*





**H.P.STATE POLLUTION CONTROL BOARD**  
**FORM X**  
**REPORT BY STATE BOARD ANALYST**  
(See Rule 26)

Report No: 12555/W-21242

02/01/2026

I hereby certify that I **Dr Kuldeep Negi, SO**, State Board Analyst duly appointed under sub-section (3) of section 53 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) received on **12/12/2025** from **Rajesh Kumar, JEE**, HP State Pollution Control Board **RO Paonta a Grab** sample of **final out let of CETP**. of **KALA AMB INFRASTRUCTURE DEVELOPMENT COMPANY , Ogli, Nahan, Sirmour, Nahan** Distt. **Sirmaur, H.P. 173030** on dated **11/12/2025** for analysis. The sample was in a condition fit for analysis reported below:

I further certify that I have analyzed the aforementioned sample on **12/12/2025** to **02/01/2026** and declare the result of analysis is to be as follows :-

Method of analysis					
IS- 2488(I-V), IS-3025(Part 44): 1933, 'Standard method for examination of water', 23rd edition prepared and published jointly by:-					
1. American Public Health Association 2. American Water Works Association 3. Water Pollution Control Federation					
SAMPLING PARAMETERS					
Sr. No.	Parameter Name	Results	Units	Permissible Limit	Remark/Result Analysis
1	pH	7.79	--	6.0-9.0	Within Permissible Limit
2	BOD	10.0	mg/L	30	Within Permissible Limit
3	Total KJELDAHL-N	8.12	mg/L	50	Within Permissible Limit
4	Phenolic Compounds(as C <sub>6</sub> H <sub>5</sub> OH)	BDL (DL- 0.1)	mg/L	1	--
5	Bio-assay Test	90.0	%	90-100	Within Permissible Limit
6	TSS	12.5	mg/L	100	Within Permissible Limit
7	Fluoride	0.51	mg/L	2	Within Permissible Limit
8	COD	168.0	mg/L	250	Within Permissible Limit
9	Arsenic	BDL	mg/L	0.2	--
10	Mercury	BDL (DL-0.005)	mg/L	0.01	--
11	Zinc	0.15	mg/L	5	Within Permissible Limit

12	Lead	BDL (DL-0.05)	mg/L	0.1	--
13	Sulfide (S <sup>2-</sup> )	BDL (DL-1.0)	mg/L	5	--
14	Ammonical Nitrogen	BDL (DL-5.0)	mg/L	50	--
15	Hexavalent Chromium	BDL (DL- 0.05)	mg/L	0.1	--
16	Oil and Grease	7.7	mg/L	10	Within Permissible Limit
17	TDS	1267.0	mg/L	NA	NA
18	Phosphate (as P)	1.51	mg/L	5	Within Permissible Limit

The condition of the seals, fastening and container on receipt was as: sealed as **PCB**

Signed this on **02/01/2026**

**Remarks of Lab Head:**

---



**Dr Kuldeep Negi, SO**  
(State Board Analyst)  
RL Paonta

**From:**

H.P. STATE POLLUTION CONTROL BOARD,  
RL Paonta

**To:**

KALA AMB INFRASTRUCTURE DEVELOPMENT COMPANY  
Ogli, Nahan, Sirmour, Nahan,  
Distt.Sirmaur, H.P.173030

**Point No 01**

Exit Point of River Markanda from H.P.  
(U/s Jattanwala Nallah at Markanda bridge Kala Amb)

GPS Location:- 30.495944, 77.210807

River: Markanda (Boundary of HP and Haryana)

Date of Sampling : 27.11.2025

Video Link: <https://drive.google.com/file/d/1pdCSPPr19Uvu7J6FKF-Hq8E07YohqHaN/view?usp=sharing>



**Photograph No. 1**



**Photograph No. 2**



**Photograph No. 3**



**Photograph No. 4**

**Photograph No.1 to Photograph No.4 shows status of sampling details of Exit Point of River Markanda U/s Jattanwala Nallah at Markanda bridge Kala Amb.**

**River Markanda D/s of drain near M/s Vashisht Chemicals**

GPS Location:- 30.50039, 77.21932

River: Markanda

Date of Sampling : 27.11.2025

Video: <https://drive.google.com/file/d/1W92y1cqgrcdnMOJ1NJdzmkw4LYHir89U/view?usp=sharing>



**Photograph No. 5**



**Photograph No. 6**



**Photograph No. 7**



**Photograph No. 8**

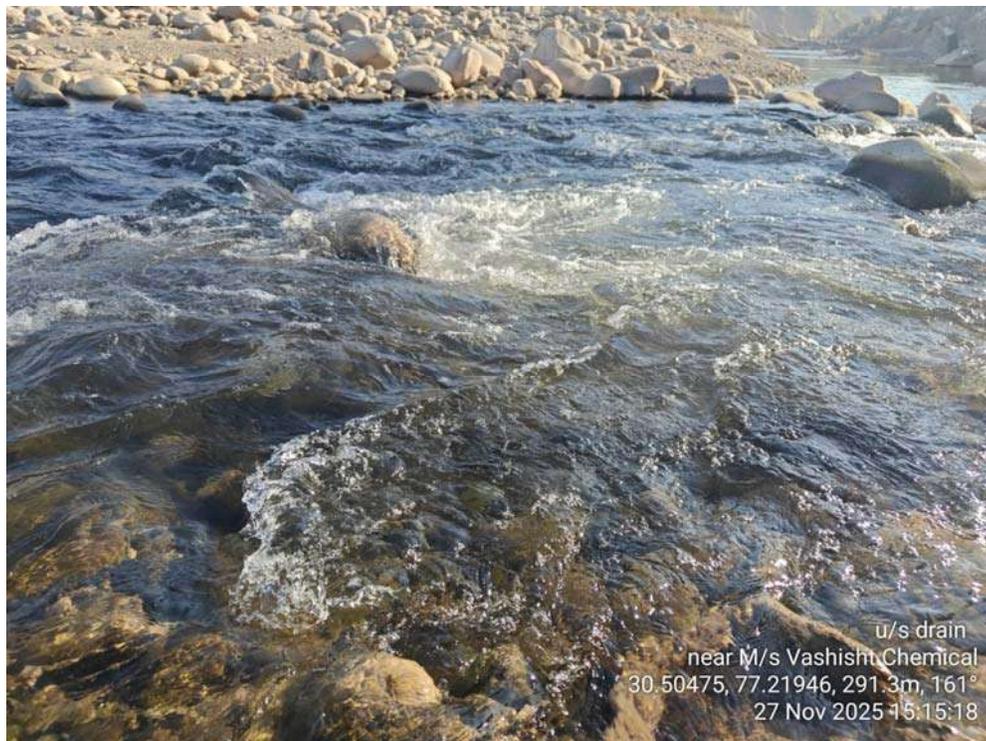
**Photograph No.5 to Photograph No.8 shows status of sampling of River Markanda D/s of drain near M/s Vashisht Chemicals**

GPS Location:- 30.50475, 77.21946

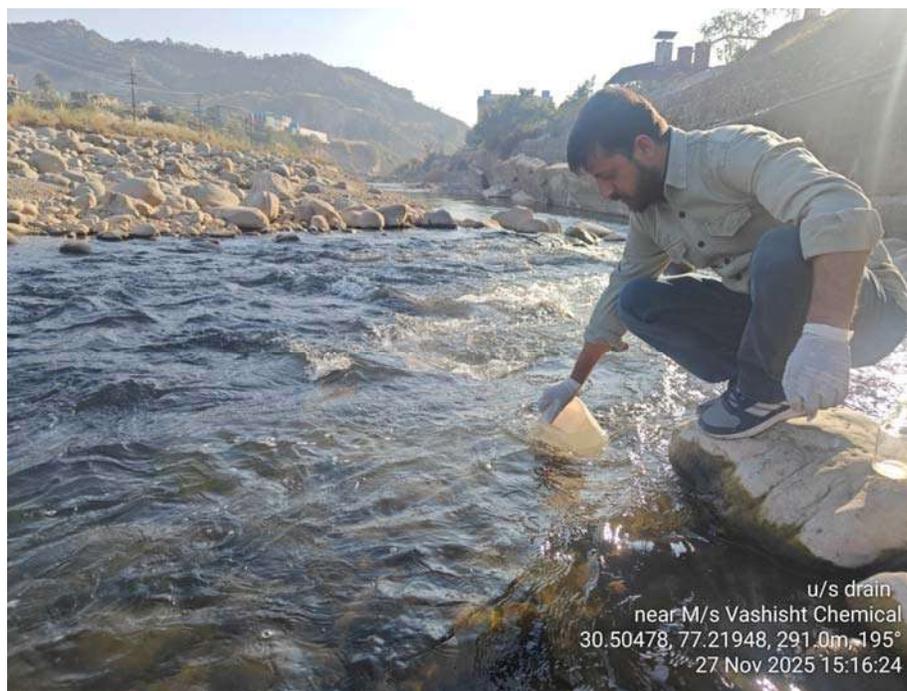
River: Markanda

Date of Sampling : 27.11.2025

Video: [https://drive.google.com/file/d/1mVV\\_uVlunZcl4Cm\\_II\\_duLDYkKINgYuM/view?usp=sharing](https://drive.google.com/file/d/1mVV_uVlunZcl4Cm_II_duLDYkKINgYuM/view?usp=sharing)



**Photograph No. 9**



**Photograph No. 10**



**Photograph No. 11**



**Photograph No. 12**

**Photograph No.9 to Photograph No.12 shows status of sampling of Markanda U/s of drain near M/s Vashisht Chemicals**

**River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang Bhawan**

GPS Location:- 30.50548, 77.22062

River: Markanda

Date of Sampling : 27.11.2025

Video: [https://drive.google.com/file/d/1mOCNr8a3xAXCnobC2QLM5IsGOx4TaDwx/view?usp=drive\\_link](https://drive.google.com/file/d/1mOCNr8a3xAXCnobC2QLM5IsGOx4TaDwx/view?usp=drive_link)**Photograph No. 13****Photograph No. 14**



**Photograph No. 15**



**Photograph No.16**

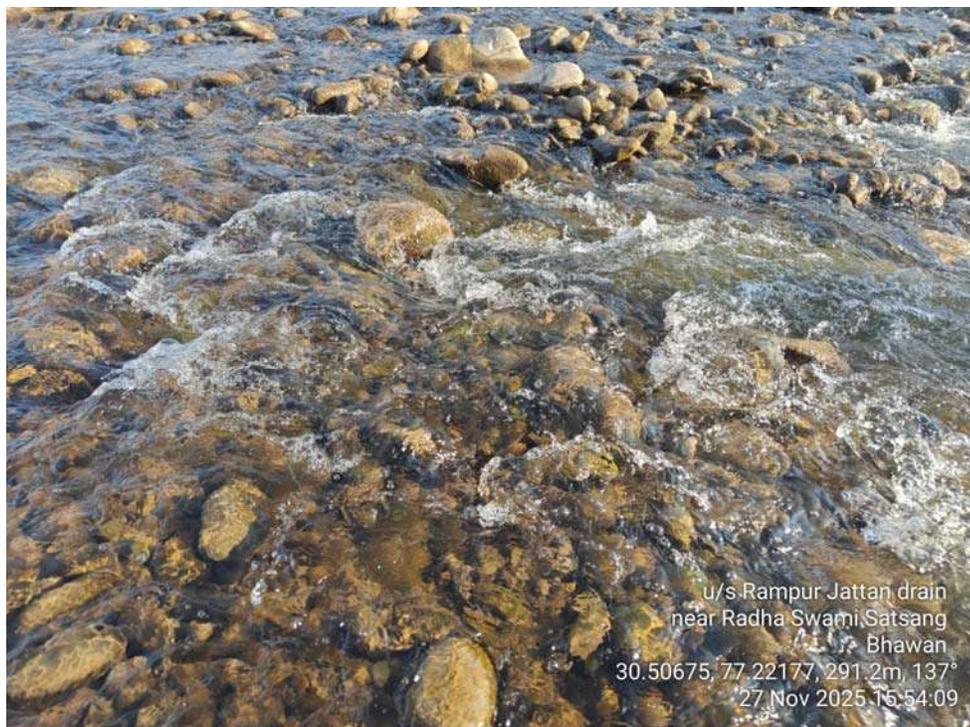
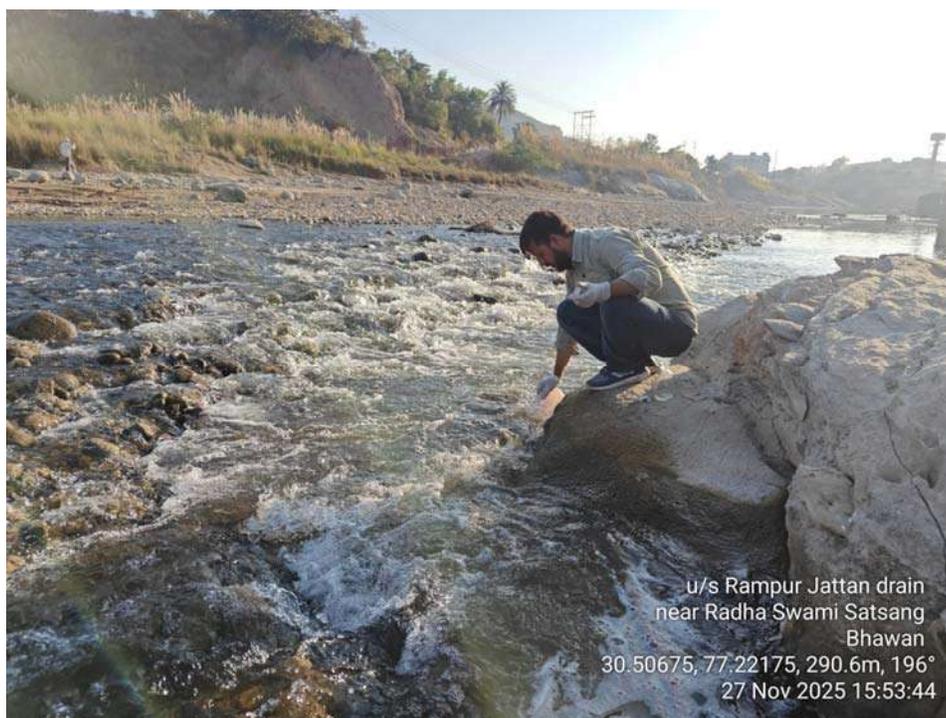
**Photograph No.13 to Photograph No.16 shows status of sampling of River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang Bhawan**

**River Markanda U/s of Rampur Jattandrain near Radha Swami Satsang Bhawan**

GPS Location:- 30.50675, 77.22177

River: Markanda

Date of Sampling : 27.11.2025

Video: [https://drive.google.com/file/d/12MW2qDKVij3\\_cAdSmpBV3dL355uFVOVv/view?usp=drive\\_link](https://drive.google.com/file/d/12MW2qDKVij3_cAdSmpBV3dL355uFVOVv/view?usp=drive_link)**Photograph No.17****Photograph No.18**



**Photograph No.19**



**Photograph No.20**

**Photograph No.17 to Photograph No.20 shows status of sampling of River Markanda U/s of Rampur Jattandrain near Radha Swami Satsang Bhawan**

GPS Location:- 30.51626, 77.24646

River: Markanda

Date of Sampling : 27.11.2025

Video: [https://drive.google.com/file/d/1JC\\_NoseuUNb5CsmG1n9fnR0YYVre1-5i/view?usp=drive\\_link](https://drive.google.com/file/d/1JC_NoseuUNb5CsmG1n9fnR0YYVre1-5i/view?usp=drive_link)



**Photograph No.21**



**Photograph No.22**



**Photograph No.23**



**Photograph No.24**

**Photograph No.21 to Photograph No.24 shows status of sampling of River Markanda D/s of Salani Khadd**

GPS Location:- 30.51667, 77.2467

River: Markanda

Date of Sampling : 27.11.2025

Video: <https://drive.google.com/file/d/1MPHRHaUZPG1NsoRzDJ5TrDht5BNjsnBb/view?usp=sharing>



**Photograph No.25**



**Photograph No.26**



Photograph No. 27

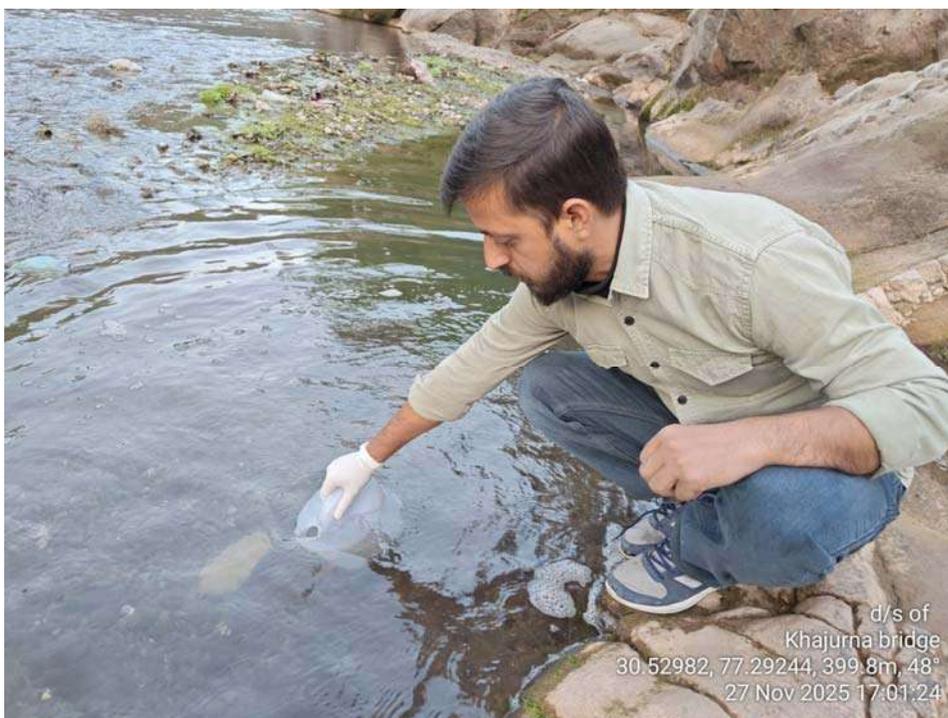
Photograph No.24 to Photograph No.27 shows status of sampling of River Markanda U/s of Salani Khadd.

River Markanda at d/s of Khajurna bridge entering to Kala Amb

GPS Location:- 30.52981, 77.29247

River: Markanda

Date of Sampling : 27.11.2025

Video: <https://drive.google.com/file/d/17Pn9zJYsXGkY1cEPf18MY8WcrsRCQp7l/view?usp=sharing>**Photograph No. 28****Photograph No. 29**



**Photograph No. 30**



**Photograph No. 31**

**Photograph No.28 to Photograph No.31 shows status of sampling of River Markanda at d/s of Khajurna bridge entering to Kala Amb**

**River Markanda at u/s of Khajurna bridge**

GPS Location:- 30.52959, 77.30476

River: Markanda

Date of Sampling : 27.11.2025

Video: <https://drive.google.com/file/d/1y1vxN322fF0UN8NjMZmm2rikjHQ9i98j/view?usp=sharing>**Photograph No. 32****Photograph No. 33**



**Photograph No. 34**

**Photograph No.32 to Photograph No.34 shows status of sampling of River Markanda at u/s of Khajurna bridge**

3127

84

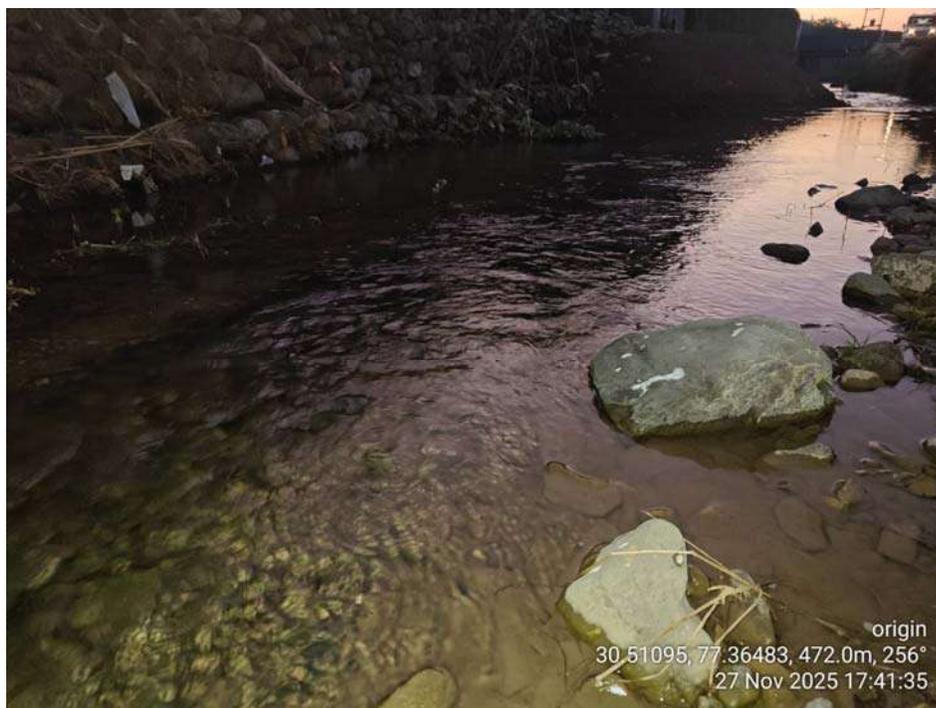
**Point No 10**

**(Origin Point of River Markanda at Jogiban)**

**GPS Location:- 30.51095, 77.36483**

**Date of Sampling : 27.11.2025**

**River: Markanda**



**Photograph No. 35**



**Photograph No. 36**



**Photograph No. 37**



**Photograph No. 38**

**Photograph No.35 and Photograph No.38 shows status of sampling of Origin Point of river Markanda at Jogiban**

(Sample of drain near M/s Vashisht Chemicals)

GPS Location:- 30.50325, 77.21906

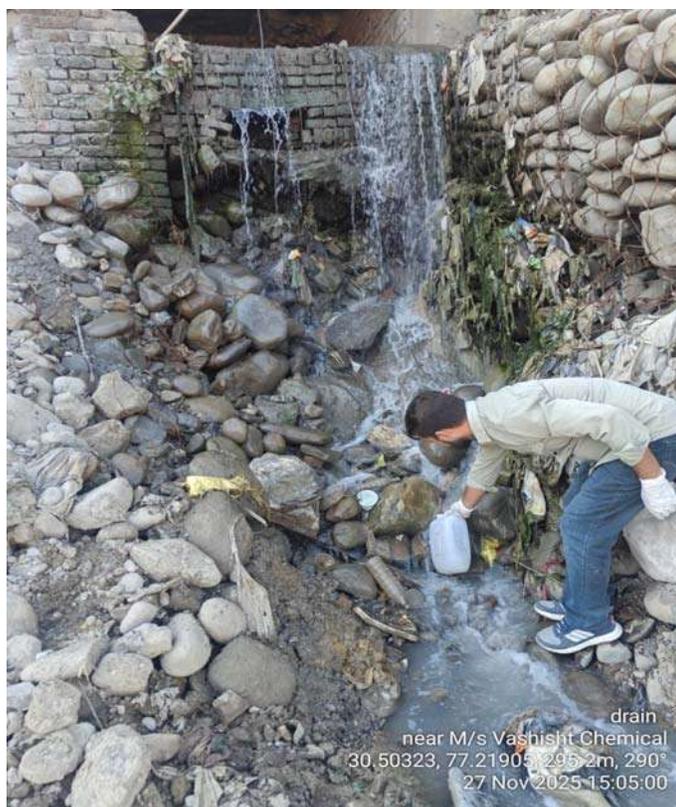
Date of Sampling : 27.11.2025

Type of water body: Drain

Video: [https://drive.google.com/file/d/1\\_72vjFptptnsoCpygPcuJ2WJ6z5SD4gw/view?usp=sharing](https://drive.google.com/file/d/1_72vjFptptnsoCpygPcuJ2WJ6z5SD4gw/view?usp=sharing)



**Photograph No. 39**



**Photograph No. 40**



**Photograph No. 41**



**Photograph No. 42**

**Photograph No.39 and Photograph No.42 shows status of sampling of Sample of drain near M/s Vashisht Chemicals**

**Point No 12****(Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan)****GPS Location:- 30.50653, 77.21112****Date of Sampling : 27.11.2025****Type of water body: Drain****Video: [https://drive.google.com/file/d/1\\_72vjFptptns0CpygPcuJ2WJ6z5SD4gw/view?usp=sharing](https://drive.google.com/file/d/1_72vjFptptns0CpygPcuJ2WJ6z5SD4gw/view?usp=sharing)****Photograph No. 43****Photograph No. 44**



**Photograph No. 45**

**Photograph No.43 and Photograph No.45 shows status of sampling of Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan**

### **Point No 13**

**(Sample of of Salani Khadd)**

**GPS Location:- 30.51678, 77.22439**

**Date of Sampling : 27.11.2025**

**Type of water body: Drain**

**Video: [https://drive.google.com/file/d/1tm6dJM90VjEeHcn7IOjCWK-hgiPL5\\_Ap/view?usp=sharing](https://drive.google.com/file/d/1tm6dJM90VjEeHcn7IOjCWK-hgiPL5_Ap/view?usp=sharing)**



**Photograph No. 46**



Photograph No. 47



Photograph No. 48

Photograph No.46 to Photograph No.48 shows status of sampling of Sample of of Salani Khadd

(Sample of Jattan Nallah at the exit of HP)

GPS Location:- 30.508981, 77.207759

Date of Sampling : 27.11.2025

Type of water body: Drain

Video: [https://drive.google.com/file/d/1tm6dJM90VjEeHcn7IOjCWK-hgiPL5\\_Ap/view?usp=sharing](https://drive.google.com/file/d/1tm6dJM90VjEeHcn7IOjCWK-hgiPL5_Ap/view?usp=sharing)



**Photograph No. 49**



**Photograph No. 50**



**Photograph No. 51**

**Photograph No.49 to Photograph No.51 shows status of sampling of Sample of Jattan Nallah at the exit of HP**

**Point No 01**

**Exit Point of River Markanda from H.P.  
(U/s Jattanwala Nallah at Markanda bridge Kala Amb)**

**GPS Location:- 30.496086, 77.210537**

**River: Markanda (Boundary of HP and Haryana)**

**Date of Sampling : 19.12.2025**

**Video**

**Link:**[https://drive.google.com/file/d/1L1I0dPdJVkYyeb1\\_0zou81zjGirppANU/view?usp=drive\\_link](https://drive.google.com/file/d/1L1I0dPdJVkYyeb1_0zou81zjGirppANU/view?usp=drive_link)



**Photograph No 1B**



**Photograph No 2B**

**Photograph No 3B****Photograph No 4B**

Photograph No.1B to Photograph No.4B shows status of sampling details of Exit Point of River Markanda U/s Jattanwala Nallah at Markanda bridge Kala Amb.

**Point No 02****River Markanda D/s of drain near M/s Vashisht Chemicals****GPS Location:- 30.50051, 77.219437****River: Markanda****Date of Sampling : 19.12.2025****Video: [https://drive.google.com/file/d/1\\_lcZ\\_y7LDUfqo2K-l5ZEVv4mHeAY3ga\\_/view?usp=drive\\_link](https://drive.google.com/file/d/1_lcZ_y7LDUfqo2K-l5ZEVv4mHeAY3ga_/view?usp=drive_link)****Photograph No 5B**



**Photograph No 6B**



**Photograph No 7B**



**Photograph No 8B**

Photograph No.5B to Photograph No.8B shows status of sampling of River Markanda D/s of drain near M/s Vashisht Chemicals

**Point No 03**

**River Markanda U/s of drain near M/s Vashisht Chemicals**

**GPS Location:- 30.504725, 77.219459**

**River: Markanda**

**Date of Sampling : 19.12.2025**

**Video:**[https://drive.google.com/file/d/1P\\_JixHQ8xDqdpS5oxhwqaNtfztOs\\_xq8/view?usp=drive link](https://drive.google.com/file/d/1P_JixHQ8xDqdpS5oxhwqaNtfztOs_xq8/view?usp=drive_link)

**Photograph No 9B****Photograph No 10B**

**Photograph No 11B****Photograph No 12B**

Photograph No.9B to Photograph No.12B shows status of sampling of Markanda U/s of drain near M/s Vashisht Chemicals.

**Point No 04****River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang Bhawan**

GPS Location:- 30.505766, 77.220806

River: Markanda

Date of Sampling : 19.12.2025

Video:[https://drive.google.com/file/d/1\\_8i6oyrETrKn0v8kYU5ZPBz4qAC2cuwL/view?usp=drive\\_link](https://drive.google.com/file/d/1_8i6oyrETrKn0v8kYU5ZPBz4qAC2cuwL/view?usp=drive_link)**Photograph No 13B****Photograph No 14B**



**Photograph No 15B**



**Photograph No 16B**

Photograph No.13B to Photograph No.16B shows status of sampling of River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang Bhawan.

**Point No 05****River Markanda U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan**

GPS Location:- 30.506751, 77.221806

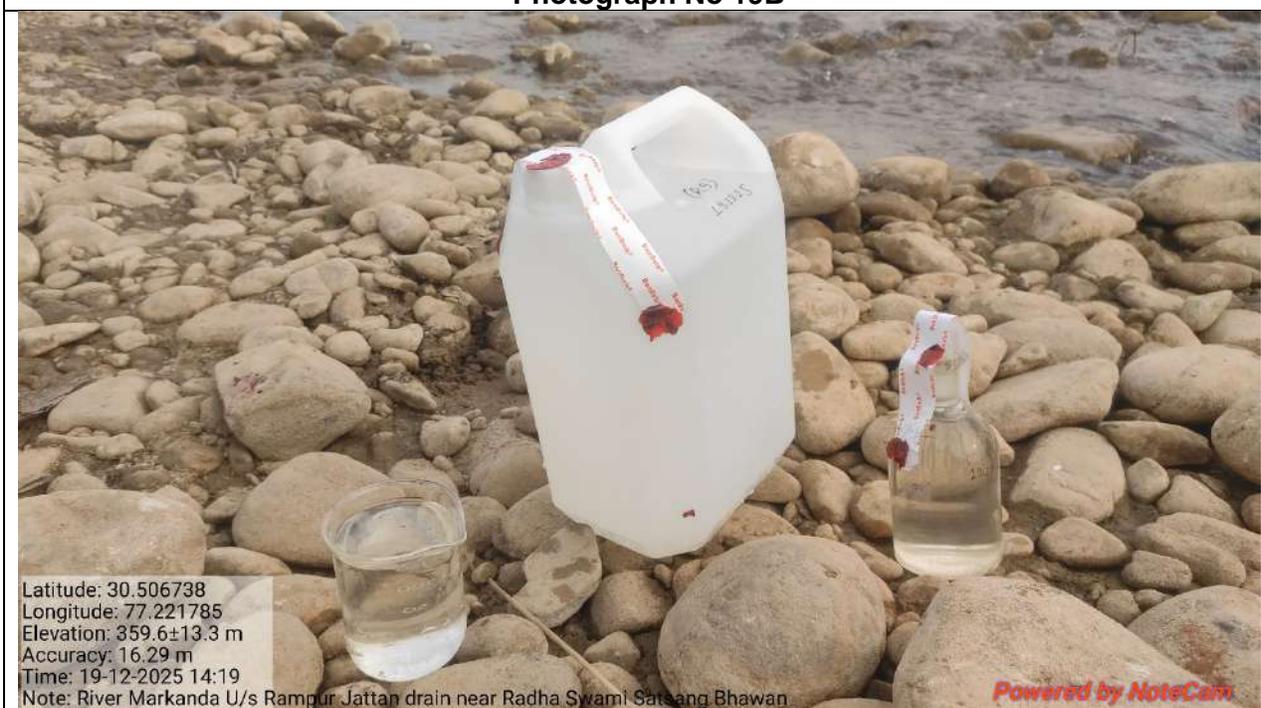
River: Markanda

Date of Sampling : 19.12.2025

Video: [https://drive.google.com/file/d/1waTvmaXhiu\\_BRw\\_lxPm1WG6Co4HjtePA/view?usp=drive\\_link](https://drive.google.com/file/d/1waTvmaXhiu_BRw_lxPm1WG6Co4HjtePA/view?usp=drive_link)**Photograph No 17B****Photograph No 18B**



**Photograph No 19B**



**Photograph No 20B**

Photograph No.17B to Photograph No.20 B shows status of sampling of River Markanda U/s of Rampur Jattandrain near Radha Swami Satsang Bhawan

**Point No 06**  
**River Markanda D/s of Salani Khadd**

GPS Location:- 30.515928, 77.246139

River: Markanda

Date of Sampling : 19.12.2025

Video: [https://drive.google.com/file/d/1UvB0RKmqZIOllwtfEelSdKBY314RCLr5/view?usp=drive\\_link](https://drive.google.com/file/d/1UvB0RKmqZIOllwtfEelSdKBY314RCLr5/view?usp=drive_link)



**Photograph No 21B**



**Photograph No 22B**

**Photograph No 23B****Photograph No 24B**

Photograph No.21B to Photograph No.24B shows status of sampling of River Markanda D/s of Salani Khadd

**Point No 07**  
**River Markanda U/s of Salani Khadd**

**GPS Location:- 30.516479, 77.24729**

**River: Markanda**

**Date of Sampling : 19.12.2025**

**Video: [https://drive.google.com/file/d/1bYrSgi91XzZmx7B9Bsh6APklaMLC-1wH/view?usp=drive\\_link](https://drive.google.com/file/d/1bYrSgi91XzZmx7B9Bsh6APklaMLC-1wH/view?usp=drive_link)**



**Photograph No 25B**



**Photograph No 26B**

**Photograph No 27B****Photograph No 28B**

Photograph No.25B to Photograph No.28B shows status of sampling of River Markanda U/s of Salani Khadd.

**Point No 08**  
**River Markanda at d/s of Khajurna bridge entering to Kala Amb**

GPS Location:- 30.529716, 77.292249

River: Markanda

Date of Sampling : 19.12.2025

Video:[https://drive.google.com/file/d/16vRmWTxd7p33BkYeUKefyRWhDmTpc7wB/view?usp=drive\\_link](https://drive.google.com/file/d/16vRmWTxd7p33BkYeUKefyRWhDmTpc7wB/view?usp=drive_link)



**Photograph No 29B**



**Photograph No 30B**

**Photograph No 31B****Photograph No 32B**

Photograph No.29B to Photograph No.32B shows status of sampling of River Markanda at d/s of Khajurna bridge entering to Kala Amb

**Point No 09**  
**River Markanda at u/s of Khajurna bridge**

GPS Location:- 30.531547, 77.297439

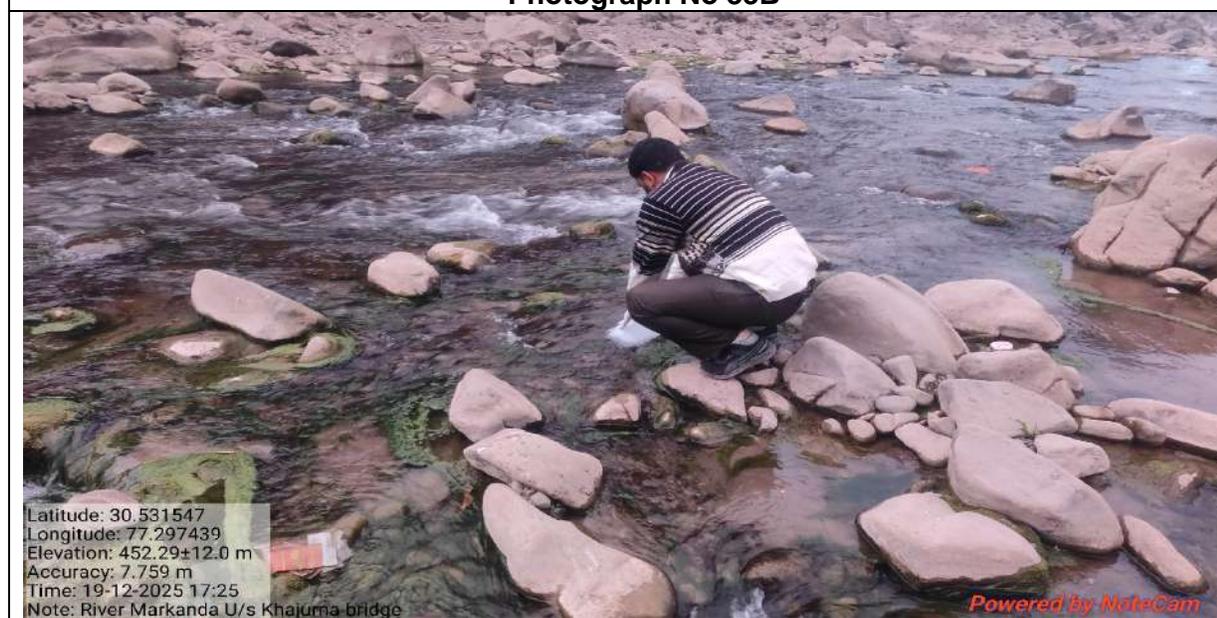
River: Markanda

Date of Sampling : 19.12.2025

Video:[https://drive.google.com/file/d/1B\\_A8LMPs2r6kja1F-Yz80chH\\_fVyTOY/view?usp=drive\\_link](https://drive.google.com/file/d/1B_A8LMPs2r6kja1F-Yz80chH_fVyTOY/view?usp=drive_link)



**Photograph No 33B**



**Photograph No 34B**



Latitude: 30.531553  
Longitude: 77.297435  
Elevation: 456.02±16.0 m  
Accuracy: 12.16 m  
Time: 19-12-2025 17:27  
Note: River Markanda U/s Khajurna bridge

Powered by NoteCam

**Photograph No 35B**



Latitude: 30.531556  
Longitude: 77.297621  
Elevation: 440.24±12.0 m  
Accuracy: 6.352 m  
Time: 19-12-2025 17:32  
Note: River Markanda U/s Khajurna bridge

Powered by NoteCam

**Photograph No 36B**

Photograph No.33B to Photograph No.36B shows status of sampling of River Markanda at u/s of Khajurna bridge

**Point No 10**  
**(Origin Point of River Markanda at Jogiban)**

**GPS Location:- 30.510967, 77.364709**

**Date of Sampling : 19.12.2025**

**River: Markanda**

**Video:**

[https://drive.google.com/file/d/1nNi9HzRKvHTACZ\\_pjOCyFADDtrVpbz1w/view?usp=drive\\_link](https://drive.google.com/file/d/1nNi9HzRKvHTACZ_pjOCyFADDtrVpbz1w/view?usp=drive_link)



**Photograph No 37B**

**Photograph No 38B****Photograph No 39B**



Photograph No.37B and Photograph No.4B0 shows status of sampling of Origin Point of river Markanda at Jogiban

**Point No 11**  
**(Sample of drain near M/s Vashisht Chemicals)**

**GPS Location:- 30.503222, 77.219006**

**Date of Sampling : 19.12.2025**

**Type of water body: Drain**

**Video:**[https://drive.google.com/file/d/1fqoL51oyfOla888tO-k7FSzm7qkMUppZ/view?usp=drive\\_link](https://drive.google.com/file/d/1fqoL51oyfOla888tO-k7FSzm7qkMUppZ/view?usp=drive_link)

**Photograph No 41B****Photograph No 42B**

**Photograph No 43B****Photograph No 44B**

Photograph No.41B and Photograph No.44B shows status of sampling of Sample of drain near M/s Vashisht Chemicals.

**Point No 12**  
(Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan)

GPS Location:- 30.506472, 77.221078

Date of Sampling : 19.12.2025

Type of water body: Drain

Video:[https://drive.google.com/file/d/1pBsDd7xHKH54sBscsBGcJMQ4qhNZZ5ix/view?usp=drive\\_link](https://drive.google.com/file/d/1pBsDd7xHKH54sBscsBGcJMQ4qhNZZ5ix/view?usp=drive_link)



**Photograph No 45B**



**Photograph No 46B**

**Photograph No 47B****Photograph No 48B**

Photograph No.45B and Photograph No.48B shows status of sampling of Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan

**Point No 13**  
**(Sample of of Salani Khadd)**

**GPS Location:- 30.516847, 77.246331**

**Date of Sampling : 19.12.2025**

**Type of water body: Drain**

**Video:**[https://drive.google.com/file/d/1seD1hNwIWAmVKmF1mH48CE3I\\_4g8klo1/view?usp=drive\\_link](https://drive.google.com/file/d/1seD1hNwIWAmVKmF1mH48CE3I_4g8klo1/view?usp=drive_link)



**Photograph No 49B**



**Photograph No 50B**

**Photograph No 51B****Photograph No 52B**

Photograph No.49B to Photograph No.52B shows status of sampling of Sample of Salani Khadd

**Point No 14****(Sample of Jattan Nallah at the exit of HP)****GPS Location:- 30.504111, 77.204275****Date of Sampling : 19.12.2025****Type of water body: Drain****Video:** [https://drive.google.com/file/d/1C3hOI2EDxHbM4K3R42RGrTssDwd\\_Zc67/view?usp=drive\\_link](https://drive.google.com/file/d/1C3hOI2EDxHbM4K3R42RGrTssDwd_Zc67/view?usp=drive_link)**Photograph No 53B****Photograph No 54B**

**Photograph No 55B****Photograph No 56B**

Photograph No.53B to Photograph No.56B shows status of sampling of Sample of Jattan Nallah at the exit of HP



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
Paonta Sahib, Distt. Sirmaur (H.P.) PIN-173025,  
Telephone & Fax No.: 01704-223445,  
E-mail: pcblabpaonta@gmail.com



HPSPCB

No. HPSPCB/R.Lab/Paonta/Analysis Report/25-626-627

Dated: 6.01.2026

To

✓ The Environmental Engineer,  
H.P. State Pollution Control Board,  
Regional Office, Shubhkhera, HIMUDA Colony,  
Paonta Sahib, District Sirmour, H.P.

**Sub: Analysis Reports of Study Samples.**

Sir,

This is in reference to your letter no. PCB/RO/(Pt)/Sample File/2025-100-101; dated: 20.12.2025, vide which samples were sent to the Regional Laboratory, Paonta Sahib for analysis. In this regard, it is submitted that the aforesaid samples were received in good condition with seal of the samples intact and were fit for analysis. The analysis reports of study samples is as per detail given below:

Sr. No.	Report No.	Name of the location
1	W-3220	River Markanda U/s Jattanwala Nallah at Markanda Bridge, Kala Amb.
2	W-3221	River Markanda D/s of drain near M/s Vashisht Chemicals.
3	W-3222	River Markanda U/s of drain near M/s Vashisht Chemicals.
4	W-3223	River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang Bhawan.
5	W-3224	River Markanda U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan.
6	W-3225	River Markanda D/s of Salani Khadd.
7	W-3226	River Markanda U/s of Salani Khadd.
8	W-3227	River Markanda at D/s of Khajurna Bridge entering to Kala Amb.
9	W-3228	River Markanda at U/s of Khajurna Bridge.
10	W-3229	Origin Point of River Markanda at Jogiban.
11	W-3230	Sample of Jattan Nallah at the exit of H.P.
12	W-3231	Sample of drain near M/s Vashisht Chemicals.
13	W-3232	Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan.
14	W-3233	Sample of Salani Khadd.

Thanking you

Yours faithfully,

*[Signature]*  
6/1/2026  
Dr. Hitender Kr. Sharma  
Pr. Scientific Officer  
HPSPCB, Paonta Sahib

Encl. As above

Copy to: The Member Secretary, HPSPCB, Him Parivesh, Shimla-09 for kind information please.

HPSPCB Reg. Office Paonta Sahib				
F/R Date 7-01-2026				
AEE	JEE	SA	Clerk	JA
Diary Dt. 8-01-2026				
Diary No. 2841				

Pr. Scientific Officer

Pl. compile

52/03

JE-2 has been received & JE-3  
send through whatsapp, Pl. File.  
8-1-2026



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
Paonta Sahib, Distt. Sirmaur (H.P.) PIN-173025,  
Telephone & Fax No.: 01704-223445,  
E-mail: pcblabpaonta@gmail.com



HPSPCB

REPORT NO. W-3220

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *River Markanda U/s Jattanwala Nallah at Markanda Bridge, Kala Amb.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.19	--	22	P. Alkalinity	--	mg/l
2	Conductivity	665.30	µS/cm	23	T. Alkalinity	150.0	mg/l
3	TSS	5.20	mg/l	24	TKN	--	mg/l
4	COD	8.0	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	2.0	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	7.6	mg/l	27	Boron	--	mg/l
7	Sulphate (SO <sub>4</sub> )	35.31	mg/l	28	Temperature*	15.0	Degree Celsius
8	NO <sub>3</sub> -N	0.37	mg/l	29	Fluoride (F)	0.25	mg/l
9	Chloride (Cl <sup>-</sup> )	21.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	18.47	mg/l	31	Potassium(K)	1.85	mg/l
11	Total Hardness	210.0	mg/l	32	Phenol	--	mg/l
12	TDS	307.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	51.20	mg/l	34	Manganese (Mn)	0.024	mg/l
14	Magnesium(Mg <sup>2+</sup> )	20.01	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.40)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.20)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	540.0	MPN/100 ml
20	Zinc (Zn)	0.070	mg/l	41	FC	170.0	MPN/100 ml
21	Iron (Fe)	0.360	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

*[Signature]*  
State Board Analyst

*[Signature]*  
Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
Paonta Sahib, Distt. Sirmour (H.P.) PIN-173025,  
Telephone & Fax No.: 01704-223445,  
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HPSPCB

REPORT NO. W-3221

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

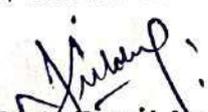
Sample received on : 20.12.2025

Description of sample: River Markanda D/s of drain near M/s Vashisht Chemicals.

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.34	--	22	P. Alkalinity	--	mg/l
2	Conductivity	629.0	µS/cm	23	T. Alkalinity	210.00	mg/l
3	TSS	12.50	mg/l	24	TKN	--	mg/l
4	COD	8.5	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	1.70	mg/l	26	NO <sub>2</sub> -N	0.03	mg/l
6	Dissolved Oxygen*	7.50	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	34.37	mg/l	28	Temperature*	14.0	Degree Celsius
8	NO <sub>3</sub> -N	0.33	mg/l	29	Fluoride (F)	0.36	mg/l
9	Chloride (Cl <sup>-</sup> )	18.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	16.61	mg/l	31	Potassium(K)	1.87	mg/l
11	Total Hardness	198.0	mg/l	32	Phenol	--	mg/l
12	TDS	295.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	49.60	mg/l	34	Manganese (Mn)	0.020	mg/l
14	Magnesium(Mg <sup>2+</sup> )	18.06	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	430.0	MPN/100 ml
20	Zinc (Zn)	0.120	mg/l	41	FC	94.0	MPN/100 ml
21	Iron (Fe)	0.643	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst

  
Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

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Paonta Sahib, Distt. Sirmaur (H.P.) PIN-173025,  
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REPORT NO. W-3222

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *River Markanda U/s of drain near M/s Vashisht Chemicals.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.39	--	22	P. Alkalinity	--	mg/l
2	Conductivity	579.80	µS/cm	23	T. Alkalinity	165.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	6.0	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	1.0	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	7.80	mg/l	27	Boron	--	mg/l
7	Sulphate (SO <sub>4</sub> )	35.02	mg/l	28	Temperature*	15.0	Degree Celsius
8	NO <sub>3</sub> -N	0.40	mg/l	29	Fluoride (F)	0.44	mg/l
9	Chloride (Cl)	23.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	18.02	mg/l	31	Potassium(K)	1.42	mg/l
11	Total Hardness	184.0	mg/l	32	Phenol	--	mg/l
12	TDS	286.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	45.60	mg/l	34	Manganese (Mn)	0.020	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.08	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	350.0	MPN/100 ml
20	Zinc (Zn)	0.050	mg/l	41	FC	140.0	MPN/100 ml
21	Iron (Fe)	0.250	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst

  
Lab-in-charge



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3223

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang Bhawan.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.38	--	22	P. Alkalinity	--	mg/l
2	Conductivity	900.50	µS/cm	23	T. Alkalinity	175.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	20.50	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	3.00	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	7.70	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	44.74	mg/l	28	Temperature*	16.0	Degree Celsius
8	NO <sub>3</sub> -N	0.43	mg/l	29	Fluoride (F)	0.34	mg/l
9	Chloride (Cl)	21.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	17.62	mg/l	31	Potassium(K)	1.46	mg/l
11	Total Hardness	198.0	mg/l	32	Phenol	--	mg/l
12	TDS	381.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	50.00	mg/l	34	Manganese (Mn)	0.020	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.81	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	2160.0	MPN/100 ml
20	Zinc (Zn)	0.050	mg/l	41	FC	540.0	MPN/100 ml
21	Iron (Fe)	0.260	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst

Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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E-mail: pclubpaonta@gmail.com



REPORT NO. W-3224

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *River Markanda U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.30	--	22	P. Alkalinity	--	mg/l
2	Conductivity	541.60	µS/cm	23	T. Alkalinity	175.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.04	mg/l
6	Dissolved Oxygen*	7.80	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	34.28	mg/l	28	Temperature*	15.00	Degree Celsius
8	NO <sub>3</sub> -N	0.36	mg/l	29	Fluoride (F)	0.51	mg/l
9	Chloride (Cl <sup>-</sup> )	14.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	13.33	mg/l	31	Potassium (K)	1.57	mg/l
11	Total Hardness	186.00	mg/l	32	Phenol	--	mg/l
12	TDS	275.00	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	46.40	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.08	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	430.00	MPN/100 ml
20	Zinc (Zn)	0.090	mg/l	41	FC	170.00	MPN/100 ml
21	Iron (Fe)	0.280	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst

Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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E-mail: pcblabpaonta@gmail.com



REPORT NO. W-3225

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *River Markanda D/s of Salani Khadd.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.33	--	22	P. Alkalinity	--	mg/l
2	Conductivity	363.20	µS/cm	23	T. Alkalinity	135.0	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	1.00	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.10	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	35.77	mg/l	28	Temperature*	14.00	Degree Celsius
8	NO <sub>3</sub> -N	0.48	mg/l	29	Fluoride (F)	0.27	mg/l
9	Chloride (Cl <sup>-</sup> )	15.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	11.95	mg/l	31	Potassium(K)	1.35	mg/l
11	Total Hardness	178.0	mg/l	32	Phenol	--	mg/l
12	TDS	253.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	43.20	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.08	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	350.0	MPN/100 ml
20	Zinc (Zn)	0.060	mg/l	41	FC	110.0	MPN/100 ml
21	Iron (Fe)	0.210	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst

Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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HPSPCB

REPORT NO. W-3226

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: River Markanda U/s of Salari Khadd.

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.40	--	22	P. Alkalinity	--	mg/l
2	Conductivity	479.60	µS/cm	23	T. Alkalinity	140.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	1.60	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.30	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	34.37	mg/l	28	Temperature*	14.00	Degree Celsius
8	NO <sub>3</sub> -N	0.39	mg/l	29	Fluoride (F)	0.37	mg/l
9	Chloride (Cl <sup>-</sup> )	17.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	12.96	mg/l	31	Potassium(K)	1.30	mg/l
11	Total Hardness	210.0	mg/l	32	Phenol	--	mg/l
12	TDS	248.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	52.80	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	19.03	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	0.22	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	210.0	MPN/100 ml
20	Zinc (Zn)	0.660	mg/l	41	FC	63.0	MPN/100 ml
21	Iron (Fe)	0.204	mg/l	42	FS	--	MPN/100 ml

\*Temperature &amp; DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.



State Board Analyst



Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3227

Date: 06.01.2026

ISSUED TO: The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: River Markanda at D/s of Khajurna Bridge entering to Kala Amb.

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.34	--	22	P. Alkalinity	--	mg/l
2	Conductivity	615.00	µS/cm	23	T. Alkalinity	180.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	1.00	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.40	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	35.77	mg/l	28	Temperature*	15.00	Degree Celsius
8	NO <sub>3</sub> -N	0.35	mg/l	29	Fluoride (F)	0.49	mg/l
9	Chloride (Cl <sup>-</sup> )	18.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	17.10	mg/l	31	Potassium(K)	1.29	mg/l
11	Total Hardness	206.0	mg/l	32	Phenol	--	mg/l
12	TDS	317.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	51.60	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	18.79	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	540.0	MPN/100 ml
20	Zinc (Zn)	0.070	mg/l	41	FC	220.0	MPN/100 ml
21	Iron (Fe)	0.204	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst

  
Lab in-charge



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3228

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: River Markanda at U/s of Khajurna Bridge.

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.28	--	22	P. Alkalinity	--	mg/l
2	Conductivity	581.10	µS/cm	23	T. Alkalinity	190.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.40	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	33.25	mg/l	28	Temperature*	14.00	Degree Celsius
8	NO <sub>3</sub> -N	0.32	mg/l	29	Fluoride (F)	0.44	mg/l
9	Chloride (Cl <sup>-</sup> )	21.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	15.51	mg/l	31	Potassium(K)	1.19	mg/l
11	Total Hardness	210.00	mg/l	32	Phenol	--	mg/l
12	TDS	332.00	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	44.00	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	24.40	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	350.00	MPN/100 ml
20	Zinc (Zn)	0.180	mg/l	41	FC	94.00	MPN/100 ml
21	Iron (Fe)	0.290	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst

Lab In-charge



# H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
Paonta Sahib, Distt. Sirmaur (H.P.) PIN-173025,  
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REPORT NO. W-3229

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *Origin Point of River Markanda at Jogiban.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.85	--	22	P. Alkalinity	--	mg/l
2	Conductivity	717.90	μS/cm	23	T. Alkalinity	235.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.04	mg/l
6	Dissolved Oxygen*	8.50	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	17.56	mg/l	28	Temperature*	12.00	Degree Celsius
8	NO <sub>3</sub> -N	0.33	mg/l	29	Fluoride (F)	0.30	mg/l
9	Chloride (Cl)	18.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	17.20	mg/l	31	Potassium(K)	8.54	mg/l
11	Total Hardness	194.0	mg/l	32	Phenol	--	mg/l
12	TDS	339.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	47.20	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	18.54	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	220.0	MPN/100 ml
20	Zinc (Zn)	0.090	mg/l	41	FC	79.0	MPN/100 ml
21	Iron (Fe)	0.270	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst

Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3230

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *Sample of Jattan Nallah at the exit point of H.P.*

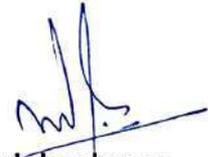
S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	6.93	--	22	P. Alkalinity	--	mg/l
2	Conductivity	4163.00	µS/cm	23	T. Alkalinity	350.00	mg/l
3	TSS	1009.10	mg/l	24	TKN	--	mg/l
4	COD	710.0	mg/l	25	Turbidity	470.00	NTU
5	BOD	180.0	mg/l	26	NO <sub>2</sub> -N	0.15	mg/l
6	Dissolved Oxygen*	1.20	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	608.97	mg/l	28	Temperature*	12.00	Degree Celsius
8	NO <sub>3</sub> -N	1.52	mg/l	29	Fluoride (F)	1.18	mg/l
9	Chloride (Cl <sup>-</sup> )	325.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	43.10	mg/l	31	Potassium(K)	18.30	mg/l
11	Total Hardness	468.0	mg/l	32	Phenol	--	mg/l
12	TDS	2535.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	92.80	mg/l	34	Manganese (Mn)	0.830	mg/l
14	Magnesium(Mg <sup>2+</sup> )	57.58	mg/l	35	NH <sub>3</sub> -N	11.76	mg/l
15	Copper (Cu)	0.100	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	1.61	mg/l
17	Nickel (Ni)	0.10	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	0.290	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	0.025	mg/l	40	TC	108000.0	MPN/100 ml
20	Zinc (Zn)	0.450	mg/l	41	FC	22000.0	MPN/100 ml
21	Iron (Fe)	11.840	mg/l	42	FS	--	MPN/100 ml

\*Temperature &amp; DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.



State Board Analyst



Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3231

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *Sample of drain near M/s Vashisht Chemicals.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.35	--	22	P. Alkalinity	--	mg/l
2	Conductivity	1277.00	μS/cm	23	T. Alkalinity	325.00	mg/l
3	TSS	52.30	mg/l	24	TKN	--	mg/l
4	COD	140.0	mg/l	25	Turbidity	35.70	NTU
5	BOD	35.0	mg/l	26	NO <sub>2</sub> -N	0.09	mg/l
6	Dissolved Oxygen*	2.30	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	21.30	mg/l	28	Temperature*	14.00	Degree Celsius
8	NO <sub>3</sub> -N	1.01	mg/l	29	Fluoride (F)	0.77	mg/l
9	Chloride (Cl)	210.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	42.05	mg/l	31	Potassium(K)	8.90	mg/l
11	Total Hardness	328.0	mg/l	32	Phenol	--	mg/l
12	TDS	567.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	62.40	mg/l	34	Manganese (Mn)	0.130	mg/l
14	Magnesium(Mg <sup>2+</sup> )	41.97	mg/l	35	NH <sub>3</sub> -N	7.56	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	0.39	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	0.080	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	10800.0	MPN/100 ml
20	Zinc (Zn)	0.260	mg/l	41	FC	2600.0	MPN/100 ml
21	Iron (Fe)	1.00	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst

  
Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3232

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.98	--	22	P. Alkalinity	--	mg/l
2	Conductivity	2051.00	µS/cm	23	T. Alkalinity	245.00	mg/l
3	TSS	36.40	mg/l	24	TKN	--	mg/l
4	COD	90.0	mg/l	25	Turbidity	17.50	NTU
5	BOD	8.00	mg/l	26	NO <sub>2</sub> -N	0.07	mg/l
6	Dissolved Oxygen*	4.20	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	77.06	mg/l	28	Temperature*	16.00	Degree Celsius
8	NO <sub>3</sub> -N	1.06	mg/l	29	Fluoride (F)	0.60	mg/l
9	Chloride (Cl <sup>-</sup> )	120.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	35.15	mg/l	31	Potassium(K)	7.30	mg/l
11	Total Hardness	274.0	mg/l	32	Phenol	--	mg/l
12	TDS	910.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	65.60	mg/l	34	Manganese (Mn)	0.660	mg/l
14	Magnesium(Mg <sup>2+</sup> )	26.84	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	0.23	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	0.130	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	5600.0	MPN/100 ml
20	Zinc (Zn)	0.090	mg/l	41	FC	1880.0	MPN/100 ml
21	Iron (Fe)	0.943	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst

  
Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3233

Date: 06.01.2026

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 20.12.2025

Description of sample: *Sample of Salani Khadd.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.35	--	22	P. Alkalinity	--	mg/l
2	Conductivity	451.90	µS/cm	23	T. Alkalinity	185.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	13.5	mg/l	25	Turbidity	BDL(DL-1.0)	NTU
5	BOD	1.4	mg/l	26	NO <sub>2</sub> -N	0.05	mg/l
6	Dissolved Oxygen*	7.80	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	30.45	mg/l	28	Temperature*	15.00	Degree Celsius
8	NO <sub>3</sub> -N	0.34	mg/l	29	Fluoride (F)	0.32	mg/l
9	Chloride (Cl <sup>-</sup> )	21.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	19.29	mg/l	31	Potassium(K)	1.19	mg/l
11	Total Hardness	206.0	mg/l	32	Phenol	--	mg/l
12	TDS	273.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	49.60	mg/l	34	Manganese (Mn)*	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	20.01	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	430.0	MPN/100 ml
20	Zinc (Zn)	0.104	mg/l	41	FC	110.0	MPN/100 ml
21	Iron (Fe)	0.264	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst

  
Lab In-charge



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3175

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *River Markanda U/s Jattanwala Nallah at Markanda Bridge, Kala Amb.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.85	--	22	P. Alkalinity	--	mg/l
2	Conductivity	638.20	µmho/cm	23	T. Alkalinity	230.0	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	12.0	mg/l	25	Turbidity	1.80	NTU
5	BOD	1.40	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	7.8	mg/l	27	Boron	--	mg/l
7	Sulphate (SO <sub>4</sub> )	36.52	mg/l	28	Temperature*	16.0	Degree Celsius
8	NO <sub>3</sub> -N	0.41	mg/l	29	Fluoride (F)	BDL(DL-0.20)	mg/l
9	Chloride (Cl <sup>-</sup> )	19.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	11.63	mg/l	31	Potassium(K)	4.67	mg/l
11	Total Hardness	184.0	mg/l	32	Phenol	--	mg/l
12	TDS	261.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	46.40	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	16.59	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.40)	mg/l
15	Copper (Cu)	0.035	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.20)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	430.0	MPN/100 ml
20	Zinc (Zn)	0.032	mg/l	41	FC	140.0	MPN/100 ml
21	Iron (Fe)	0.190	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3176

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *River Markanda D/s of drain near M/s Vashisht Chemicals.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.01	--	22	P. Alkalinity	--	mg/l
2	Conductivity	625.30	µmho/cm	23	T. Alkalinity	260.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	10.0	mg/l	25	Turbidity	1.20	NTU
5	BOD	1.40	mg/l	26	NO <sub>2</sub> -N	0.03	mg/l
6	Dissolved Oxygen*	8.20	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	36.80	mg/l	28	Temperature*	16.0	Degree Celsius
8	NO <sub>3</sub> -N	0.38	mg/l	29	Fluoride (F)	0.38	mg/l
9	Chloride (Cl <sup>-</sup> )	17.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	13.25	mg/l	31	Potassium(K)	5.72	mg/l
11	Total Hardness	196.0	mg/l	32	Phenol	--	mg/l
12	TDS	256.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	50.40	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.08	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	920.0	MPN/100 ml
20	Zinc (Zn)	0.037	mg/l	41	FC	240.0	MPN/100 ml
21	Iron (Fe)	0.180	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3177

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *River Markanda U/s of drain near M/s Vashisht Chemicals.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.03	--	22	P. Alkalinity	--	mg/l
2	Conductivity	688.10	µmho/cm	23	T. Alkalinity	180.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	11.0	mg/l	25	Turbidity	2.10	NTU
5	BOD	1.40	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.20	mg/l	27	Boron	--	mg/l
7	Sulphate (SO <sub>4</sub> )	37.73	mg/l	28	Temperature*	17.0	Degree Celsius
8	NO <sub>3</sub> -N	0.42	mg/l	29	Fluoride (F)	0.36	mg/l
9	Chloride (Cl <sup>-</sup> )	21.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	11.26	mg/l	31	Potassium(K)	3.72	mg/l
11	Total Hardness	190.0	mg/l	32	Phenol	--	mg/l
12	TDS	267.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	48.00	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.08	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	430.0	MPN/100 ml
20	Zinc (Zn)	BDL(DL-0.02)	mg/l	41	FC	170.0	MPN/100 ml
21	Iron (Fe)	0.123	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
Paonta Sahib, Distt. Sirmaur (H.P.) PIN-173025,  
Telephone & Fax No.: 01704-223445,  
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REPORT NO. W-3178

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *River Markanda D/s of Rampur Jattan drain near Radha Swami Satsang Bhawan.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.16	--	22	P. Alkalinity	--	mg/l
2	Conductivity	586.20	µmho/cm	23	T. Alkalinity	210.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	12.50	mg/l	25	Turbidity	5.80	NTU
5	BOD	1.80	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.10	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	37.45	mg/l	28	Temperature*	16.0	Degree Celsius
8	NO <sub>3</sub> -N	0.42	mg/l	29	Fluoride (F)	0.59	mg/l
9	Chloride (Cl <sup>-</sup> )	19.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	12.24	mg/l	31	Potassium(K)	4.52	mg/l
11	Total Hardness	190.0	mg/l	32	Phenol	--	mg/l
12	TDS	290.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	47.20	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.57	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	1840.0	MPN/100 ml
20	Zinc (Zn)	0.022	mg/l	41	FC	430.0	MPN/100 ml
21	Iron (Fe)	0.155	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst



HPSPCB

**H.P. STATE POLLUTION CONTROL BOARD**

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REPORT NO. W-3179

Date: 18.12.2025

## ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: River Markanda U/s of Rampur Jattan drain near Radha Swami Satsang Bhawan.

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.24	--	22	P. Alkalinity	--	mg/l
2	Conductivity	582.70	µmho/cm	23	T. Alkalinity	190.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	6.00	mg/l	25	Turbidity	1.20	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.04	mg/l
6	Dissolved Oxygen*	8.20	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	34.84	mg/l	28	Temperature*	16.00	Degree Celsius
8	NO <sub>3</sub> -N	0.37	mg/l	29	Fluoride (F)	0.44	mg/l
9	Chloride (Cl <sup>-</sup> )	12.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	13.14	mg/l	31	Potassium (K)	5.63	mg/l
11	Total Hardness	170.00	mg/l	32	Phenol	--	mg/l
12	TDS	168.00	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	44.00	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	14.64	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	540.00	MPN/100 ml
20	Zinc (Zn)	0.035	mg/l	41	FC	210.00	MPN/100 ml
21	Iron (Fe)	0.117	mg/l	42	FS	--	MPN/100 ml

\*Temperature &amp; DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst



HPSPCB

**H.P. STATE POLLUTION CONTROL BOARD**

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REPORT NO. W-3180

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *River Markanda D/s of Salani Khadd.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.09	--	22	P. Alkalinity	--	mg/l
2	Conductivity	624.60	µmho/cm	23	T. Alkalinity	255.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	2.10	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.40	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	32.88	mg/l	28	Temperature*	17.00	Degree Celsius
8	NO <sub>3</sub> -N	0.44	mg/l	29	Fluoride (F)	0.32	mg/l
9	Chloride (Cl <sup>-</sup> )	13.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	14.25	mg/l	31	Potassium(K)	3.72	mg/l
11	Total Hardness	160.0	mg/l	32	Phenol	--	mg/l
12	TDS	241.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	40.80	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	14.15	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	280.0	MPN/100 ml
20	Zinc (Zn)	0.045	mg/l	41	FC	110.0	MPN/100 ml
21	Iron (Fe)	0.091	mg/l	42	FS	--	MPN/100 ml

\*Temperature &amp; DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

*[Signature]*  
State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3181

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *River Markanda U/s of Salani Khadd.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH,	8.15	--	22	P. Alkalinity	--	mg/l
2	Conductivity	490.80	µmho/cm	23	T. Alkalinity	25.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	5.50	mg/l	25	Turbidity	1.40	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.40	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	36.43	mg/l	28	Temperature*	16.00	Degree Celsius
8	NO <sub>3</sub> -N	0.39	mg/l	29	Fluoride (F)	0.44	mg/l
9	Chloride (Cl <sup>-</sup> )	9.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	12.15	mg/l	31	Potassium(K)	4.72	mg/l
11	Total Hardness	168.0	mg/l	32	Phenol	--	mg/l
12	TDS	223.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	43.20	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	14.64	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	240.0	MPN/100 ml
20	Zinc (Zn)	0.027	mg/l	41	FC	70.0	MPN/100 ml
21	Iron (Fe)	0.091	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3182

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

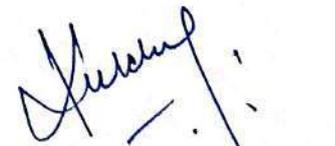
Sample received on : 28.11.2025

Description of sample: *River Markanda at D/s of Khajurna Bridge entering to Kala Amb.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.06	--	22	P. Alkalinity	--	mg/l
2	Conductivity	369.20	µmho/cm	23	T. Alkalinity	255.00	mg/l
3	TSS	5.20	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	1.9	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.50	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	34.09	mg/l	28	Temperature*	17.00	Degree Celsius
8	NO <sub>3</sub> -N	0.34	mg/l	29	Fluoride (F)	BDL(DL-0.20)	mg/l
9	Chloride (Cl <sup>-</sup> )	8.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	11.54	mg/l	31	Potassium(K)	3.71	mg/l
11	Total Hardness	208.0	mg/l	32	Phenol	--	mg/l
12	TDS	250.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	52.80	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	18.54	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	430.0	MPN/100 ml
20	Zinc (Zn)	0.038	mg/l	41	FC	150.0	MPN/100 ml
21	Iron (Fe)	0.130	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3183

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *River Markanda at U/s of Khajurna Bridge.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.97	--	22	P. Alkalinity	--	mg/l
2	Conductivity	752.80	µmho/cm	23	T. Alkalinity	270.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	1.10	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.02	mg/l
6	Dissolved Oxygen*	8.70	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	35.77	mg/l	28	Temperature*	17.00	Degree Celsius
8	NO <sub>3</sub> -N	BDL(DL-0.3)	mg/l	29	Fluoride (F)	0.29	mg/l
9	Chloride (Cl <sup>-</sup> )	7.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	14.64	mg/l	31	Potassium(K)	3.48	mg/l
11	Total Hardness	210.00	mg/l	32	Phenol	--	mg/l
12	TDS	256.00	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	53.60	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	18.54	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	280.00	MPN/100 ml
20	Zinc (Zn)	0.038	mg/l	41	FC	94.00	MPN/100 ml
21	Iron (Fe)	0.162	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

  
State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3184

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *Origin Point of River Markanda at Jogiban.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.72	--	22	P. Alkalinity	--	mg/l
2	Conductivity	907.40	µmho/cm	23	T. Alkalinity	260.00	mg/l
3	TSS	8.80	mg/l	24	TKN	--	mg/l
4	COD	BDL(DL-5.0)	mg/l	25	Turbidity	2.40	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.05	mg/l
6	Dissolved Oxygen*	8.80	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	22.70	mg/l	28	Temperature*	15.00	Degree Celsius
8	NO <sub>3</sub> -N	0.38	mg/l	29	Fluoride (F)	0.36	mg/l
9	Chloride (Cl <sup>-</sup> )	12.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	12.16	mg/l	31	Potassium(K)	3.12	mg/l
11	Total Hardness	200.0	mg/l	32	Phenol	--	mg/l
12	TDS	315.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	51.20	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.57	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	220.0	MPN/100 ml
20	Zinc (Zn)	0.041	mg/l	41	FC	84.0	MPN/100 ml
21	Iron (Fe)	0.238	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

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REPORT NO. W-3185

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *Sample of drain near M/s Vashisht Chemicals.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	6.69	--	22	P. Alkalinity	--	mg/l
2	Conductivity	5381.00	µmho/cm	23	T. Alkalinity	455.00	mg/l
3	TSS	76.30	mg/l	24	TKN	--	mg/l
4	COD	930.0	mg/l	25	Turbidity	83.00	NTU
5	BOD	290.0	mg/l	26	NO <sub>2</sub> -N	0.17	mg/l
6	Dissolved Oxygen*	2.50	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	203.15	mg/l	28	Temperature*	16.00	Degree Celsius
8	NO <sub>3</sub> -N	1.31	mg/l	29	Fluoride (F)	1.07	mg/l
9	Chloride (Cl <sup>-</sup> )	174.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	60.80	mg/l	31	Potassium(K)	25.60	mg/l
11	Total Hardness	650.0	mg/l	32	Phenol	--	mg/l
12	TDS	2712.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	144.00	mg/l	34	Manganese (Mn)	0.150	mg/l
14	Magnesium(Mg <sup>2+</sup> )	70.76	mg/l	35	NH <sub>3</sub> -N	12.60	mg/l
15	Copper (Cu)	0.040	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	1.17	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	0.150	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	27000.0	MPN/100 ml
20	Zinc (Zn)	0.160	mg/l	41	FC	11000.0	MPN/100 ml
21	Iron (Fe)	1.140	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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HPSPCB

Date: 18.12.2025

REPORT NO. W-3186

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *Sample of Rampur Jattan drain near Radha Swami Satsang Bhawan.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.89	--	22	P. Alkalinity	--	mg/l
2	Conductivity	1227.00	µmho/cm	23	T. Alkalinity	300.00	mg/l
3	TSS	11.70	mg/l	24	TKN	--	mg/l
4	COD	48.0	mg/l	25	Turbidity	49.00	NTU
5	BOD	10.0	mg/l	26	NO <sub>2</sub> -N	0.10	mg/l
6	Dissolved Oxygen*	4.40	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	58.66	mg/l	28	Temperature*	16.00	Degree Celsius
8	NO <sub>3</sub> -N	0.90	mg/l	29	Fluoride (F)	0.53	mg/l
9	Chloride (Cl <sup>-</sup> )	75.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	32.50	mg/l	31	Potassium(K)	12.65	mg/l
11	Total Hardness	380.0	mg/l	32	Phenol	--	mg/l
12	TDS	637.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	96.80	mg/l	34	Manganese (Mn)	0.070	mg/l
14	Magnesium(Mg <sup>2+</sup> )	33.67	mg/l	35	NH <sub>3</sub> -N	7.84	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	0.39	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	5600.0	MPN/100 ml
20	Zinc (Zn)	0.050	mg/l	41	FC	2200.0	MPN/100 ml
21	Iron (Fe)	0.270	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

*(Signature)*  
State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3187

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *Sample of Salani Khadd.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	8.26	--	22	P. Alkalinity	--	mg/l
2	Conductivity	508.90	µmho/cm	23	T. Alkalinity	260.00	mg/l
3	TSS	BDL(DL-4.0)	mg/l	24	TKN	--	mg/l
4	COD	7.0	mg/l	25	Turbidity	3.20	NTU
5	BOD	BDL(DL-1.0)	mg/l	26	NO <sub>2</sub> -N	0.04	mg/l
6	Dissolved Oxygen*	8.10	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	30.07	mg/l	28	Temperature*	16.00	Degree Celsius
8	NO <sub>3</sub> -N	0.44	mg/l	29	Fluoride (F)	0.29	mg/l
9	Chloride (Cl)	16.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	10.08	mg/l	31	Potassium(K)	4.21	mg/l
11	Total Hardness	156.0	mg/l	32	Phenol	--	mg/l
12	TDS	257.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	40.00	mg/l	34	Manganese (Mn)	BDL(DL-0.02)	mg/l
14	Magnesium(Mg <sup>2+</sup> )	13.66	mg/l	35	NH <sub>3</sub> -N	BDL(DL-0.4)	mg/l
15	Copper (Cu)	BDL(DL-0.03)	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	BDL(DL-0.2)	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	540.0	MPN/100 ml
20	Zinc (Zn)	0.018	mg/l	41	FC	130.0	MPN/100 ml
21	Iron (Fe)	0.111	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

*[Handwritten Signature]*

State Board Analyst



## H.P. STATE POLLUTION CONTROL BOARD

Regional Laboratory, HIMUDA Colony, Shubhkhera,  
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REPORT NO. W-3188

Date: 18.12.2025

ISSUED TO:

The Environmental Engineer,  
HP State Pollution Control Board,  
HIMUDA Colony, Shubhkhera, Paonta Sahib.

Sample received on : 28.11.2025

Description of sample: *Sample of Jattan Nallah at the exit of H.P.*

S.No.	Parameter	Results	Unit	S.No.	Parameter	Results	Unit
1	pH	7.22	--	22	P. Alkalinity	--	mg/l
2	Conductivity	1995.00	µmho/cm	23	T. Alkalinity	265.00	mg/l
3	TSS	180.30	mg/l	24	TKN	--	mg/l
4	COD	160.0	mg/l	25	Turbidity	24.60	NTU
5	BOD	20.0	mg/l	26	NO <sub>2</sub> -N	0.12	mg/l
6	Dissolved Oxygen*	1.50	mg/l	27	Boron	--	mg/l
7	Sulphate(SO <sub>4</sub> )	198.01	mg/l	28	Temperature*	16.00	Degree Celsius
8	NO <sub>3</sub> -N	1.10	mg/l	29	Fluoride (F)	0.75	mg/l
9	Chloride (Cl <sup>-</sup> )	44.00	mg/l	30	Vanadium as V	--	mg/l
10	Sodium (Na)	24.52	mg/l	31	Potassium(K)	9.92	mg/l
11	Total Hardness	204.0	mg/l	32	Phenol	--	mg/l
12	TDS	837.0	mg/l	33	Sulphide (S)	--	mg/l
13	Calcium (Ca <sup>2+</sup> )	52.80	mg/l	34	Manganese (Mn)	0.100	mg/l
14	Magnesium(Mg <sup>2+</sup> )	17.57	mg/l	35	NH <sub>3</sub> -N	6.72	mg/l
15	Copper (Cu)	0.035	mg/l	36	Chromium <sup>+6</sup>	--	mg/l
16	Total Chromium	BDL(DL-0.06)	mg/l	37	PO <sub>4</sub> <sup>3-</sup> (P)	0.27	mg/l
17	Nickel (Ni)	BDL(DL-0.10)	mg/l	38	Ca Hardness	--	mg/l
18	Lead (Pb)	BDL(DL-0.10)	mg/l	39	Mg Hardness	--	mg/l
19	Cadmium (Cd)	BDL(DL-0.02)	mg/l	40	TC	46000.0	MPN/100 ml
20	Zinc (Zn)	0.140	mg/l	41	FC	12000.0	MPN/100 ml
21	Iron (Fe)	1.580	mg/l	42	FS	--	MPN/100 ml

\*Temperature & DO as reported by Regional Office, Paonta Sahib.

\*Here, 'BDL' and 'DL' stands for Below Detection Limit and Detection Limit, respectively.

State Board Analyst