



ਪੰਜਾਬ ਪ੍ਰਦੂਸ਼ਣ ਰੋਕਥਾਮ ਬੋਰਡ
PUNJAB POLLUTION CONTROL BOARD

No. 1208

Dated 13/4/2023

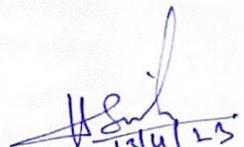
To

The Registrar General,
 National Green Tribunal,
 Faridkot House, New Delhi.

Subject: Status Report in compliance to order dated 06.02.2023 passed by the Hon'ble Green Tribunal in M.A. No. 103 of 2022 in Original Application No. 169 of 2021 titled as H.C. Arora Vs State of Punjab & Ors.

Ref: Order dated 06.02.2023 passed by the Hon'ble Green Tribunal in Original Application No. 169 of 2021 titled as H.C. Arora Vs State of Punjab & Ors.

Find enclosed herewith the status report of Joint Committee in compliance to order dated 06.02.2023 passed by the Hon'ble Green Tribunal in M.A. No. 103 of 2022 in Original Application No. 169 of 2021 titled as H.C. Arora Vs State of Punjab & Ors for kind consideration, please.


**Environmental Engineer,
 Punjab Pollution Control Board,
 Regional Office, Sangrur**

REPORT OF THE JOINT COMMITTEE

(In compliance to order dated 6.2.2023 passed by the Hon'ble Green Tribunal (Principal Bench), New Delhi in M.A No.103 of 2022 in Original Application No. 169 of 2021 titled as H.C. Arora Vs State of Punjab & Ors.)

1. Background of the case:

The Hon'ble National Green Tribunal has taken cognizance of an application filed by Sh. H.C. Arora with grievance against failure of the State Authorities to take remedial measures against contamination of ground water in Village Aloarakh, Block Bhawanigarh, District Sangrur.

After considering the background of the status report filed earlier in the case in compliance to order dated 31.3.2022 by Environmental Engineer, Punjab Pollution Control Board, Regional Office, Sangrur and the application now moved by the applicant in M.A No. 103 of 2022, the Hon'ble Tribunal vide order dated 06.02.2023 has observed that the issue of remediation of contaminated site and supply of portable drinking water in the area requires further consideration.

The Hon'ble Tribunal was pleased to issued directions vide order dated 6.2.2023 thereby calling a report from the Joint Committee for further course of action to remedy the situation with respect to the wells, agricultures and human health issues, the relevant extract of paragraph 5 of the order dated 6.2.2023 (Annexure-1) is reproduced herein below:

"From the above, it is seen that the issue of remediation of the contaminated site and supply of potable drinking water in the area requires further consideration. It needs to be verified whether the contamination is confined to five wells or has further migrated to other wells. Since the issue has been pending for more than ten months, it is necessary to have personal interaction on the issue with nominees of the CPCB, District Magistrate, Sangrur, Chief Engineer, Public Health Engineering Department, Punjab and Member Secretary, State PCB after they deliberate upon the same. They may hold a joint meeting within one week and furnish a report to this Tribunal within two weeks by email.

The report may opine about further course of action to remedy the situation with respect of the wells, agriculture and human health issues."

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Ref. 13/4/23

HC

2. Compliance of orders of Hon'ble National Green Tribunal:

That in compliance to the orders dated 6.2.2023 of the Hon'ble National Green Tribunal, the District Magistrate, Sangrur has convened a meeting on 14.02.2023, which was attended by Dr. Narender Sharma, Additional Director, CPCB; Er. Ramandeep Singh Sidhu, Environmental Engineer and Er. Mohit Singla, Assistant Environmental Engineer, Punjab Pollution Control Board, Regional Office, Sangrur on behalf of Member Secretary, PPCB; Er. Adarsh Nirmal, Executive Engineer, Department of Water Supply and Sanitation on behalf of Chief Engineer Department of Water Supply and Sanitation. After deliberations, it was decided as under:

1. The Punjab Pollution Control Board shall take-up the matter with the Competent Authority for taking necessary action on the Expression of Interest (EOI), received for assessment and remediation of contamination site.
2. A Joint Committee of Central Pollution Control Board, Punjab Pollution Control Board and Department of Water Supply and Sanitation shall carry out fresh ground water sampling, within 05 days, to verify, whether, the contamination is confined to five wells or has further migrated to other wells.
3. The Punjab Pollution Control Board shall provide analysis results of the ground water sampling carried out by Joint Committee of Punjab Pollution Control Board and Department of Water Resources, Mohali, after the month of September, 2022.
4. Executive Engineer, Department of Water Supply and Sanitation, Sangrur shall ensure supply of portable drinking water in the subject cited area.

The minutes of the meeting held on 14.2.2023 are placed at **Annexure-2**.

Accordingly, the fresh ground water sampling from 18 Nos. bore-wells of the area in question, was carried out jointly by the officers of Central Pollution Control Board, Punjab Pollution Control Board and Department of Water Supply and Sanitation on 16.2.2023. The samples were sent to CPCB Head Office Laboratory for analysis.

The analysis results of ground water sampling jointly carried out by Punjab Pollution Control Board and Department of Water Resources, Mohali for the period September, 2022 onwards, were provided to the Joint Committee.

Further, the Environmental Engineer, Punjab Pollution Control Board, Regional Office, Sangrur vide letter no. 855 dated 9.3.2023 while submitting the progress made by the Joint Committee, had requested for grant of two months time for filing of status report before the Hon'ble National Green Tribunal. A copy of letter dated 9.3.2023 is enclosed as Annexure-3.

A meeting was taken by Deputy Commissioner, Sangrur on 3.4.2023 to review the progress of the case and it was decided that action be taken as per the proceedings of the meeting dated 1.3.2023 and reply based on above facts will be prepared and submitted before the Hon'ble National Green Tribunal. A copy of the minutes of the meeting held on 3.4.2023 as issued vide letter no.1112-1114 dated 5.4.2023 is enclosed as Annexure-4.

3. Report of the Joint Committee:

3.1. Verification regarding migration of the contamination:

It was directed by the Hon'ble National Green Tribunal to verify whether the contamination is confined to five wells or migrated to other wells. In this regard, the summary of the analysis of ground water samples collected by the Joint Committee and analysed in CPCB Laboratory (Annexure-5) are summarized in the Table 1:

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Table 1: Analysis Result of Ground Water Samples collected on 16/02/2023 by the Joint Committee in NGT Matter of O.A. No. 169/2021

S. No.	Sample Code	Water Source	Sample Description	Latitude & Longitude	pH	TDS (mg/L)	COD (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	NH ₃ -N (mg/L)	Colour (in Colour units)	Turbidity (NTU)	Boron (mg/L)	Sulphate (mg/L)
1	169-1	Tubewell	Sh. Kulinder Singh So Sh. Jaag Singh, Alowrikh	30.28246; 76.07795	8.0	1354	345	113	BDL	10.6	1152	7	3.0	815.0
2	169-2	Tubewell	Sh. Anuraj Pal Singh So Sh. Rajwant Singh,	30.28181; 76.0777	7.9	1453	140	68	BDL	4.8	718	2	2.3	784.0
3	169-3	Tubewell	M/s Kamdhwa Filling Station, Alowrikh from Petrol Pump	30.28501; 76.07867	7.7	505	4	28	0.3	BDL	BDL	2	1.3	23.0
4	169-4	Tubewell	M/s Kamdhwa Filling Station, Alowrikh from Behind Petrol Pump	30.28512; 76.07839	8.4	Sample Finished	5	Sample Finished	Sample Finished	0.7	Sample Finished	Sample Finished	Sample Finished	Sample Finished
5	169-5	Tubewell	Sh. Kulinder Singh So Sh. Gurnam Singh, Alowrikh	30.28425; 76.07769	7.7	536	6	22	0.4	1.1	BDL	1	2.0	49.0
6	169-6	Tubewell	Sh. Dillag Singh So Jigar Singh, Alowrikh	30.28337; 76.07593	8.2	546	12	25	0.4	1.2	BDL	2	1.2	46.0
7	169-7	Submersible	Sh. Darwan Singh So Sh. Lal Singh, Alowrikh	30.28739; 76.0681	7.7	507	3	29	0.4	BDL	BDL	1	2.1	43.0
8	169-8	Submersible	Sh. Karam Singh So Sh. Joga Singh, Alowrikh	30.28302; 76.06547	7.8	632	3	35	0.3	BDL	BDL	1	1.9	40.0
9	169-9	Water Supply Tubewell	Nearby Water works, Alowrikh	30.2834; 76.06532	7.5	671	3	48	0.5	BDL	BDL	2	1.8	48.0
10	169-10	Submersible	Sh. Devinder Singh So Jaspal Singh, Alowrikh	30.28573; 76.06389	7.6	547	5	33	0.2	0.2	BDL	1	0.8	22.0
11	169-11	Tubewell	Water Supply, Village-Bakhtari	30.30224; 76.0808	8.2	385	2	27	0.7	BDL	BDL	3	2.4	17.0
12	169-12	Submersible	Sh. Nail Singh So Gurjit Singh Nearby Gurjant Singh So S. Bachan Singh, Village Bakhtari	30.30187; 76.07943	7.8	496	3	21	0.3	BDL	BDL	1	1.8	31.0
13	169-13	Submersible	Sh. Gurjant Singh So S. Bachan Singh, Village Bakhtari	30.30204; 76.08002	7.7	546	3	18	0.7	BDL	BDL	1	1.6	30.0
14	169-14	Submersible	Sh. Ashu Singh W/o S. Mahand Singh, Village-Bakhtari	30.30263; 76.08009	7.6	466	BDL	19	0.4	BDL	BDL	1	1.7	28.0
15	169-15	Tubewell	upstream-1	30.28239; 76.08128	8.5	375	10	15	0.4	BDL	BDL	29	0.8	34.0
16	169-16	Tubewell	Dilpreet Singh So Harmander Singh, Alowrikh Downstream-1	30.28763; 76.07179	7.6	648	3	21	0.4	BDL	BDL	2	1.7	42.0
17	169-17	Tubewell	Sh. Karam Singh So Sh. Bachan Singh, Alowrikh Downstream-2	30.28776; 76.0702	7.8	544	1	23	0.3	0.6	BDL	26	1.9	39.0
18	169-18	Tubewell	Sh. Mahinder Singh (Pardhan) Village- Majhi Upstream-2	30.28716; 76.09341	8.1	324	2	15	0.4	BDL	BDL	1	1.2	9.0

Comparison of analysis results of ground water samples collected by the Joint Committee in NGT matter in O.A No. 169 of 2021 in September, 2021 with the groundwater samples collected February, 2023 for the same location with regard to indicator parameters namely COD and TOC is presented in Table-2:

Table 2:

Comparison of the Ground Water Quality in Samples drawn by The Joint Committee in NGT Matter O.A. No. 169/2021 in Dec, 2021 and February, 2023								
Sr. No.	Sample Code	Water Source	Sample Description	Latitude & Longitude	COD (mg/l)		TOC (mgCA)	
					Dec, 2021	Feb, 2023	Dec, 2021	Feb, 2023
1	169-1	Tubewell	Sh. Kulwinder Singh S/o Sh. Jang Singh, Alowrkh	30.28246; 76.07795	284	345	97	75.53
2	169-2	Tubewell	Sh. Amrit Pal Singh S/o Sh. Rajwant singh,	30.28181; 76.0777	262	140	29	30.8
3	169-3	Tubewell	M/s Randhawa Filling Station, Alowrkh from Petrol Pump	30.28501; 76.07867	BDL	4	0.67	BDL
4	169-5	Tubewell	Sh. Kulwinder Singh S/o Sh. Gurnam Singh, Alowrkh	30.28425; 76.07769	BDL	6	0.76	1.43
5	169-6	Tubewell	Sh. Dilbag Singh S/o Jagar Singh, Alowrkh	30.28337; 76.07593	BDL	12	3.61	2.21
6	169-7	Submersible	Sh. Darsan Singh S/o Sh. Lal Singh, Alowrkh	30.28739; 76.0681	BDL	3	0.55	BDL
7	169-8	Submersible	Sh. Kashmir Singh S/o Sh. Joga Singh, Alowrkh	30.28302; 76.06547	BDL	3	0.7	BDL
8	169-9	Water Supply Tubewell	Nearby Water works, Alowrakh	30.2834; 76.06532	BDL	3	0.76	BDL
9	169-10	Submersible	Sh. Devinder Singh S/o Jaspal Singh, Alowrkh	30.28573; 76.06389	BDL	5	2.31	BDL

It was observed by the Joint Committee that the fixed location data analysis of ground water quality indicates, while TOC contamination is limited to the bore-wells initially identified as contaminated, Chemical Oxygen demand (COD) contamination has started appearing beyond the 05 bore-wells initially identified as contaminated. *Initially in September, 2021, only 03 bore-wells were found to be having significant concentration of COD, while COD has been observed in 09 bore-wells for same locations. Thus, indicating spread of contamination. Out of total 18 no. bore-wells monitored by the Joint Committee in the month of February, 2023, COD has been observed in 17 no. of bore wells, although at low concentration in 15 no. of bore wells, thereby further confirming the spread of contamination. As per the above said analysis, the concentration of COD in sample no. 169-2 has found to be reduced, thus indicating migration/distribution to other bore wells.*

In order to ensure that above conclusion regarding migration of contamination is not based on one set of sampling conducted by the Joint Committee, the ground water monitoring data generated by PPCB on monthly basis (Annexure-6) was also considered by the Joint Committee. *The analysis of the ground water quality data generated by PPCB also indicates that the COD contamination has been migrated beyond two bore-wells and that too significantly, thus further confirming the migration of contamination.*

3.2. Status of the Remediation of the Contaminated Site:

The contaminated site under reference was visited by the Joint Committee. It was observed that the remediation work of the contaminated site is yet to be initiated. *It was also observed that though the site in question has been declared as the contaminated site in 2016-17 by the Ministry of Environment, Forests and Climate Change (MoEF&CC), but the same contaminated site was being used for agriculture purpose posing threat to public health (Photograph1).*



Photograph 1: Contaminated site being used for agriculture purpose

It was informed by the Member representing PPCB that Punjab Pollution Control Board had called Expression of Interest (EOI) with regard to the assessment and remediation of contaminated site through newspapers on 22.6.2022. However, in reference to the said EOI, only one company has submitted proposal under sealed cover.

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The matter was deliberated in the meeting held under the Chairmanship of the then Secretary, Environment on 3.11.2022 and it was decided to call fresh EOI for the assessment and remediation of the contaminated site immediate. In compliance, fresh EOI was called by the Board through public notices on 25.11.2022 and 26.11.2022 in various newspapers. Two number agencies have submitted proposal for detailed investigation of contaminated site and preparation of remediation plan. In the meantime, fresh order dated 6.2.2023 has been passed by the Hon'ble National Green Tribunal in M.A No.103 of 2022 in O.A No. 169 of 2021.

It was further informed that the matter was deliberated by the committee under the Chairmanship of Secretary, Environment on 1.3.2023 and it was observed that the terms of EOI have not been approved by the Government and allocation of work to any Government Institution of repute may be explored. In view to further maintain transparency, it was decided to call e-tendering for the project.

It was informed by CPCB Member that CPCB is following up with PPCB for status of remediation of this contaminated site (Annexure-7). This point was also highlighted in the 4th review meeting with SPCBs held on 04/05/2022.

3.3. Status of provision for portable water supply to the affected area:

The Executive Engineer, Department of Water Supply and Sanitation Division, Sangrur has provided a report to the Punjab Pollution Control Board, Sangrur in this vide letter no. 2845 dated 3.4.2023 along with water analysis report (Annexure-7). According to the report provided by the Executive Engineer, out of total 471 Houses, drinking water supply has been provided to 275 houses by Department of Water Supply and Sanitation Division, Sangrur. Remaining 196 houses have made their own arrangements of drinking water.

4. Further Course of action to remedy the situation:

It was directed by Hon'ble National Green Tribunal that *"The report may opine about further course of action to remedy the situation with respect of the wells, agriculture and human health issues."*

This aspect was deliberated in the meeting and the following course of action is recommended:

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4.1. Detailed Investigation and Human Health Risk Assessment:

The site under reference has been declared contaminated site in the year 2016-17 by Ministry of Environment, Forests and Climate Change (MoEF&CC) and therefore needs to be remediated by following the procedure specified by MoEF&CC and CPCB in the Guidelines. In view of this and the fact that this contaminated site is currently being used for agriculture purpose, an immediate action in a time bound manner, is required by State Pollution Control Board to undertake detailed investigation by involving reputed institute/consultant having experience in the field. This investigation may take 04-05 months. The concentration levels in the samples collected during investigation must be compared with Canadian Screening Criteria for Soil/Sediment/ Ground Water/Surface-Water. Once the above exercise is done; Human Health Risk Assessment may be required to find out remediation target level.

4.2. Periodical Monitoring of the ground water in the affected area:

Punjab Pollution Control Board is monitoring limited number of bore-wells in the area, on monthly basis. Since, now it has been established that contamination has started migrating further, it is recommended that PPCB includes all the 18 number bore-wells, which were monitored by the Joint Committee, in its periodic monitoring schedule. It is necessary to have the periodical ground water quality data to take timely corrective action, as and when required, based on the monitoring results.

4.3. Study on the Biomagnification in agro-products:

The joint committee constituted earlier in the matter of OA No. 169/2021 conducted study on "the effect on agriculture crops and Bio-magnification of contaminants in agro products" under the directions of Hon'ble National Green Tribunal. In view of the fact that now the contamination has been found to be migrating further, it is recommended that Biomagnification study with all the crops grown in the area, is conducted by SPCB in the entire catchment area of 18 bore-wells monitored by the Joint Committee, so that timely corrective action with regard to public health is taken based on the outcome of the study.

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A signature in the center with the date 7.12/14/23.
A signature at the bottom right.

The above report with regard to "*Current status of the contaminated site, migration of contamination and further course of action to remedy the situation with respect of the wells, agriculture and human health issues*" is being submitted for consideration of Hon'ble National Green Tribunal. The Joint Committee shall abide by the further orders of Hon'ble National Green Tribunal, in this regard.

13/4/23

(Dr. Narender Sharma)
Additional Director, CPCB

13/4/23
(Harinder Singh)
Environmental Engineer, PPCB

Date: April 13, 2023

(Jitendra Jorwal, IAS)
Deputy Commissioner, Sangrur

(Adarsh Nirmal)
Executive Engineer, Department of Water
Supply and Sanitation

* The below submission of PPCB member may kindly be considered:

"Continuous sampling procedure has to be carried out for at least 4-5 times on monthly basis, before reaching to any conclusion regarding spread of contamination."

13/4/23
(Harinder Singh)
Environmental Engineer, PPCB

Item No. 02

Court No. 1

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

M.A. NO. 103/2022

In

O.A. No. 169/2021

H. C. Arora

Applicant

Versus

State of Punjab & Ors.

Respondent(s)

Date of hearing: 06.02.2023

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER**

Respondents: Mr. Vikrant Pachnanda, Advocate for CPCB

ORDER

1. Grievance in this application is against failure of the State authorities to take remedial measures against contamination of ground water in village Aloarakh, Block Bhiwanigarh, District Sangrur. The applicant has referred to the media report dated 08.07.2021 in Hindustan Times titled '**Sangrur tubewell spews out polluted water; PPCB blames dismantled factory**'. It is stated that the ground water is contaminated and colored water is coming out of the tubewells which has potential for damage to the public health. The problem has been existing for more than 10 years. According to the State PCB, a private factory which was closed 15 years ago, is responsible for contamination. It is also reported that this Tribunal had imposed compensation of Rs. 2 Crore

on the said factory for restoration of the environment but the amount was not recovered.

2. The matter was earlier considered on 20.07.2020 and having regard to the averments in the application, the Tribunal constituted a five Member joint Committee comprising CPCB, Regional Officer, MoEF&CC, Chandigarh, State PCB, a nominee of Secretary Environment Department, Punjab, and District Magistrate, Sangrur to visit the site, interact with the stake holders, assess the ground situation and recommend the measures required to be taken. The Committee was to ascertain the number of tube wells discharging coloured water, depth of such wells, aquifer status in terms of movement and extent of contamination, characteristics of contaminated water with reference to effluent sludge disposed by the industry in question - dyes and dye intermediate, effect on agricultural crops, bio-magnification in agro products and suggest short and long-term basis considering agronomy and public health, remediation plan, cost of such remediation. A copy of the report was to be forwarded to the Chief Secretary, Punjab for ensuring remedial measures, based on the facts found.

3. The matter was thereafter considered on 31.03.2022 in the light of joint Committee report dated 30.03.2022 suggesting short-term and long-term remediation measures. Additional comments were given by the CPCB member separately. The Tribunal accepted the report and issued directions in terms thereof. It was further directed that the Chief Secretary, Punjab, in coordination with the concerned authorities may ensure effective action on the ground for supply of clean potable water. Cost of remediation was to be borne by the State in the first instance without prejudice to the recovery of the amount later from the violators. The area was to be treated as 'contaminated site' and remediated as per

action plan in consultation with CPCB and any other Institution. There was also direction to monitor execution of plans and file a status report before this Tribunal. Operative part of the order is reproduced below:-

*“5. Having regard to the composition of the Committee and the material considered in the report and also in absence of any opposition by the State inspite of copy of report having been served on it, we accept the report of the Committee and issue directions in terms thereof. **The Chief Secretary, Punjab, in coordination with the concerned authorities may ensure remedial action speedily to effectuate the guaranteed right of the citizens to clean potable water. The Chief Secretary may also take into account the suggestions in the additional report referred to above. The cost of remediation has to be borne by the State in the first instance without prejudice to the recovery of the amount later from the violators/erring officers. Area in question be treated as 'contaminated site' and remediation plan as per the Report of the Joint Committee may be executed within six months. If it becomes necessary, the Plan may be suitably modified in consultation with CPCB and any other Institution. Chief Secretary may constitute a credible executing/ monitoring Committee to get the remediation plan executed and to monitor its timely and proper execution. Status report of compliance as on 31.8.2022 may be forwarded to Registrar General, NGT on or before September 30, 2022 by email. District Magistrate, Sangrur may place the information in public domain and appropriately caution the inhabitants about contaminated water in the interest of public health. PPCB and State GWB may regularly monitor the quality of contaminated water.**”*

4. In the light of above, further report has been filed by the State PCB on 29.09.2022 to the effect that meeting was held by Chief Secretary, Punjab on 05.05.2022 with the Chairman, State PCB, Additional Deputy Commissioner, Sangrur and Additional Secretary, Punjab Water Regulation and Development Authority. Action was proposed with regard to contaminated site. Certain decisions were taken and with reference to said decisions, compliance status was compiled as follows:-

“

S.No.	Decisions	Compliance
1	The Deputy Commissioner, Sangrur shall provide the Board in English as well as in Punjabi indicating that "Water not fit for drinking" at five no. tube-wells, which has been found	Display boards have been installed by the team consisting of Assistant Environmental Engineer of Punjab Pollution Control Board and Naib Tehsildar, Bhawanigarh, District Sangrur in English as well as in

	<p>contaminated by the Joint Committee, so that this water is not used for drinking purposes. Thereafter, the photographs of the Boards installed at tube-wells shall be taken for further submission of the same to the Hon'ble NGT.</p>	<p>Punjabi language indicating that "Water not fit for drinking" at five no. tube —wells around the site, which have been found contaminated by the Joint Committee earlier constituted by the National Green Tribunal vide order dated 20.07.2021 passed in OA No. 169 of 2021, so that the water of the said tube wells shall not be used for drinking purposes by the people of the area. Photographs showing the installation of display boards by the team of officers are placed at Annexure-C.</p>
2	<p>The Punjab Pollution Control Board shall co-ordinate with CPCB for declaration of site as contaminated site and shall follow due procedure to declare the site under reference as contaminated site.</p>	<p>The Punjab Pollution Control Board has written a letter bearing no. 1676 dated 06.06.2022 to the Member Secretary, Central Pollution Control Board with the request to advise as to whether the site stands notified as contaminated site and whether Board can proceed to implement the remediation plan as suggested by the Joint Committee and directed by the Hon'ble NGT or any further action is required to be taken before proceeding further in the matter. Thereafter, a reminder was also issued to Central Pollution Control Board vide letter no. 2661 dated 21.09.2022, but till date, no communication has been received from the Central Pollution Control Board</p>
3	<p>The Punjab Pollution Control Board shall call Expression of Interest (EOI) with cost effective remedial plan within 15 days (with 30 days' time to the applicants to submit EOI), so that actual contamination at site under reference can be adjudged</p>	<p>The Punjab Pollution Control Board has called Expression of Interest (EOI) through newspapers on 22.06.2022. However, in reference to the said EOI, only one company has submitted proposal under cover, which is under consideration of the Competent Authority of the Punjab Pollution Control Board.</p>
4	<p>The Deputy Commissioner, Sangrur shall place the information on the official website of District Administration and also carry out Munadi in the nearby villages to make the public aware with regard to contamination of ground water of 5 no. tube-wells within 7 days. Thereafter, the Deputy Commissioner shall submit the information i.e. screen shot of</p>	<p>The Office of Deputy Commissioner, Sangrur has placed the information on the official website of District Administration, Sangrur. Munadi was also carried out in the villages (Alorakh of Tehsil Bhawanigarh and nearby villages of (Bapokheer, Dayalgarh, Bakhtora) through chowkidar to make the general public aware with regard to the contamination of ground water of 5 no. tube-wells. The screenshot of</p>

	<i>web site showing information in public domain and proof of report in Rojnamcha regarding Munadi to the Member Secretary, Punjab Pollution Control Board, Patiala for further submission of the same to the Hon'ble NGT.</i>	<i>website showing information in public domain is enclosed herewith as Annexure-D. The relevant papers relating to proof of report in Rojnamcha and Munadi (English translation of Punjabi language) are placed at Annexure-E.</i>
5	<i>The Punjab Pollution Control Board shall write a letter to ground water wing of Irrigation Department for regular monitoring of quality of quality of contaminated water within 7 days</i>	<p><i>The Punjab Pollution Control Board has written a letter bearing no. 1676 dated 06.06.2022 to Chief Engineer, Ground Water cum Coordinator NHP, Water Resources Bhawan, Sector 68, Mohali with the request to nominate an officer of the department for regular monitoring of quality of contaminated water jointly with PPCB as per the orders dated 31.03.2022 of the Hon'ble National Green Tribunal passed in OA No. 169 of 2021. The Department of Water Resources has nominated Sh. Tarun Kumar, SDO in reference to the request of the Board. The action taken with regard to monitoring is summarized herein below:</i></p> <p><i>i. Monitoring of contaminated tube wells was carried out by the team of officers (of Punjab Pollution Control Board and Department of Water Resources) for the months of July & August, 2022.</i></p> <p><i>ii. The groundwater samples were got analyzed from Punjab Pollution Control Board Laboratory for parameters of pH, Electrical Conductance, COD, BOD, Total Hardness, Calcium, Magnesium, Chloride, Sulphate, Fluoride, Phosphate, Nitrate Nitrogen, Sodium, Potassium, SAR, Phenolic Compound, Copper, Iron, Zinc, Magnesse, Selenium, Silver, Cadmium, Lead, Arsenic, Nickel & Total Chromium.</i></p> <p><i>iii. The samples of ground water with regard to parameters of COB, HCO₃, S102 & TOC were got analyzed from Thapar Institute of Engineering & Technology, Patiala as the facility to analyze the said parameters was not available with the laboratory of Punjab Pollution Control Board.</i></p> <p><i>iv. The perusal of the results of monitoring carried out by the team during the month of July & August,</i></p>

		<p>2022 reveals that there is decrease in the concentration of BOD & COD in comparison to the analysis of ground samples carried out during Sept., 2021. No significant change in the concentration of other parameters has been observed. All the metals were found to be below detectible limit (BDL) except Iron & Zinc (whose concentration varies from 0.17 to 0.61 & 0.10 to 0.21 respectively) but were well within the permissible limits as per drinking water standards. However, the concentration of TOC varies from 3.8 mg/l to 112 mg/l and 22.7 to 150 mg/l respectively for the months of July & August, 2022. Thus, there is enhancement in the concentration of TOC in ground water samples when compared with analysis results of ground water samples collected by Central Ground Water Board during Sept., 2021.</p> <p>v. The analysis results of the ground water samples collected during the monitoring for the months of July & Aug, 2022 are annexed as Annexure-F.</p> <p>vi. The monitoring for the month of September, 2022 has been carried out by the team and the results are awaited.</p>
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5. From the above, it is seen that the issue of remediation of the contaminated site and supply of potable drinking water in the area requires further consideration. It needs to be verified whether the contamination is confined to five wells or has further migrated to other wells. Since the issue has been pending for more than ten months, it is necessary to have personal interaction on the issue with nominees of the CPCB, District Magistrate, Sangrur, Chief Engineer, Public Health Engineering Department, Punjab and Member Secretary, State PCB after they deliberate upon the same. They may hold a joint meeting within one week and furnish a report to this Tribunal within two weeks by email.

The report may opine about further course of action to remedy the situation with respect of the wells, agriculture and human health issues.

List for further consideration on 13.03.2023.

The said officers may also remain present by video conferencing on the next date.

A copy of this order be forwarded to the Chief Secretary, Punjab, CPCB and District Magistrate, Sangrur, Chief Engineer, Public Health Engineering Department, Punjab and Member Secretary, State PCB by email for compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

February 06, 2023
M.A. NO. 103/2022
In O.A. No. 169/2021
AB



408 ਪੰਜਾਬ ਪ੍ਰਦੂਸ਼ਣ ਰੋਕਥਾਮ ਬੋਰਡ
PUNJAB POLLUTION CONTROL BOARD

No. 708-710

Through email only

Dated 28-02-2023

To

1. The Member Secretary,
Central Pollution Control Board,
New Delhi.
(mscb.cpcb@nic.in)
2. The Member Secretary,
Punjab Pollution Control Board,
Head Office, Patiala
(msppcb@gmail.com)
3. The Chief Engineer (South)
Department of Water Supply & Sanitation,
Head Office, Patiala
(ce_south@yahoo.com)

Subject: Minutes of meeting held on 14.02.2023 at 04.00 PM under the chairmanship of Deputy Commissioner, Sangrur in the matter of NGT OA No. 169 / 2021 titled as H.C. Arora vs State of Punjab & Ors.

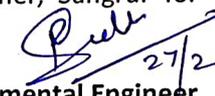
Find enclosed herewith the minutes of meeting held on 14.02.2023 at 04.00 PM under the chairmanship of Deputy Commissioner, Sangrur in the matter of NGT OA No. 169 / 2021 titled as H.C. Arora vs State of Punjab & Ors for information and compliance, please.

Endst. No. 711

A copy of the above is forwarded to the Deputy Commissioner, Sangrur for information, please.


Environmental Engineer

Dated 28-02-2023


Environmental Engineer

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Minutes of Meeting held under the Chairmanship of the Deputy Commissioner, Sangrur on 14.02.2023 to review the progress in compliance of the various orders passed by the Hon'ble NGT in the matter of OA no. 169 of 2021 titled as H.C. Arora Vrs. State of Punjab & Ors.

1. Dr. Narender Sharma, Additional Director, CPCB.
2. Er. Ramandeep Singh Sidhu, Environmental Engineer, PPCB, RO Sangrur on behalf of Member Secretary, PPCB.
3. Er. Adarsh Nirmal, Executive Engineer, Department of Water Supply & Sanitation, Sangrur on behalf of the Chief Engineer, Department of Water Supply & Sanitation.
4. Er. Mohit Singla, Assistant Environmental Engineer, PPCB, RO Sangrur.

At the outset, Assistant Environmental Engineer welcomed all members present in the meeting. He apprised that the Hon'ble National Green Tribunal, in the matter of OA No. 169/ 2021 titled as H.C. Arora Vs State of Punjab & Ors. has passed fresh order on 06.02.2023 and the operative part of NGT order is as under: -

"The issue of remediation of the contaminated site and supply of potable drinking water in the area requires further consideration. It needs to be verified whether the contamination is confined to five wells or has further migrated to other wells. Since the issue has been pending for more than ten months, it is necessary to have personal interaction on the issue with nominees of the CPCB, District Magistrate, Sangrur, Chief Engineer, Public Health Engineering Department, Punjab and Member Secretary, State PCB after they deliberate upon the same. They may hold a joint meeting within one week and furnish a report to this Tribunal within two weeks by email. The report may opine about further course of action to remedy the situation with respect of the wells, agriculture and human health issues."

He further apprised that in compliance to the directions of the Hon'ble Tribunal, an executing / Monitoring Committee consisting of following officers was constituted by the Worthy Chief Secretary, Punjab to get the remedial plan executed and to monitor its timely and proper execution:

1. Principal Secretary, Science Technology and Environment, as Chairperson;
2. Chairman, Punjab Pollution Control Board, as member;
3. Deputy Commissioner, Sangrur, as member;
4. Secretary/Additional Secretary, Punjab Water Regulation & Development Authority, as member; and
5. Member Secretary, Punjab Pollution Control Board as convener member.

He further apprised that 2nd meeting of the Executing Committee was held on 03.11.2022 and during meeting, it was apprised to the Committee that the Punjab Pollution Control Board had called Expression of Interest (EOI) through newspapers on 22.06.2022 for assessment and remediation of the ground water quality. However, in reference to the said EOI, only one company has submitted proposal under sealed cover. The matter w.r.t. single EOI was deliberated by the committee and it was decided that a fresh EOI may be called through leading newspapers for assessment and remediation plan of contaminated site alongwith timelines, cost and methodology.

He further added that, in compliance of the **410** decisions taken during the meeting of the above said Executing Committee, the Board has already called fresh EOI dated 29.11.2022 and has received proposals from two firms and further action will be taken in the next meeting of the Executing Committee to be held shortly.

During meeting, the Executive Engineer, Department of Water Supply & Sanitation, Sangrur informed that necessary sampling is being carried out by the Department before supply of portable drinking water in the subject cited area and as per the analysis results of sampling, the concentration of the various parameters were found to be within permissible limits of the drinking water standards prescribed by Centre Ground Water Board.

During meeting, the Additional Director, CPCB informed that fresh sampling is required to be carried out to verify, whether, the contamination is confined to five wells or has further migrated to other wells.

After deliberation, it was decided as under: -

1. The PPCB shall take-up the matter with the Competent Authority for taking necessary action on the 'Expression of Interest' (EOI) received for assessment and remediation of contaminated site.
2. A Joint Committee of CPCB, PPCB and Department of Water Supply & Sanitation shall carry out fresh ground water sampling, within 5 days, to verify, whether, the contamination is confined to five wells or has further migrated to other wells.
3. The PPCB shall provide analysis results of the ground water sampling carried out by Joint Committee of PPCB and Department of Water Resources, Mohali, after the month of September, 2022.
4. Executive Engineer, Department of Water Supply & Sanitation, Sangrur shall ensure supply of portable drinking water in the subject cited area.

Meeting ended with vote of thanks to the chair.



ਪੰਜਾਬ ਪ੍ਰਦੂਸ਼ਣ ਰੋਕਥਾਮ ਬੋਰਡ
PUNJAB POLLUTION CONTROL BOARD

No. 855.....

Dated 01-03-2023

To

The Registrar General,
National Green Tribunal,
Faridkot House, New Delhi.

Subject: Request for grant of time to file Status Report in compliance to order dated 6.2.2023 passed by the Hon'ble Green Tribunal (Principal Bench), New Delhi in M.A No. 103 of 2022 in Original Application No. 169 of 2021 titled as H.C. Arora Vs State of Punjab & Ors.

Ref: Order dated 6.2.2023 passed by the Hon'ble Green Tribunal in M.A No. 103 of 2022 in Original Application No. 169 of 2021 titled as H.C. Arora Vs State of Punjab & Ors.

The Hon'ble National Green Tribunal has taken cognizance of an application filed by Sh. H.C. Arora with grievance against failure of the State Authorities to take remedial measures against contamination of ground water in Village Aloarakh, Block Bhawanigarh, District Sangrur.

2) That after considering the background of the status report filed earlier in the case in compliance to order dated 31.3.2022 by Environmental Engineer, Punjab Pollution Control Board, Regional Office, Sangrur and the application now moved by the applicant in M.A No. 103 of 2022, the Hon'ble Tribunal vide order dated 6.2.2023 has observed that the issue of remediation of contaminated site and supply of portable drinking water in the area requires further consideration.

3) That in compliance to the orders dated 6.2.2023 of the Hon'ble National Green Tribunal, the District Magistrate, Sangrur has convened a meeting of the nominees of Central Pollution Control Board; Chief Engineer, Public Health Engineering Department; Member Secretary, Punjab Pollution Control Board on 14.2.2023 to deliberate the matter.

The meeting under the Chairmanship of Deputy Commissioner, Sangrur on 14.2.2023 was attended by Dr. Narender Sharma, Regional Director, CPCB; Er. Ramandeep Singh Sidhu, Environmental Engineer and Er. Mohit Singla, Assistant Environmental Engineer, Punjab Pollution Control Board, Regional Office, Sangrur on behalf of Member Secretary, PPCB; Er. Adarsh Nirmal, Executive Engineer, Department of Water Supply and Sanitation. After deliberations, it was decided as under:

- a) The Punjab Pollution Control Board shall take-up the matter with the Competent Authority for taking necessary action on the Expression of Interest (EOI), received for assessment and remediation of contamination site.

- b) A Joint Committee of Central Pollution Control Board, Punjab Pollution Control Board and Department of Water Supply and Sanitation shall carry out fresh ground water sampling, within 05 days, to verify, whether, the contamination is confined to five wells or has further migrated to other wells.
- c) The Punjab Pollution Control Board shall provide analysis results of the ground water sampling carried out by Joint Committee of Punjab Pollution Control Board and Department of Water Resources, Mohali, after the month of September, 2022.
- d) Executive Engineer, Department of Water Supply and Sanitation, Sangrur shall ensure supply of portable drinking water in the subject cited area.

The minutes of the meeting held on 14.2.2023 are placed at **Annexure-A.**

- 4) That in compliance to the decisions taken during the meeting on 14.2.2023, the analysis of ground water sampling jointly carried out Punjab Pollution Control Board and Department of Water Resources, Mohali after the month September, 2022 had been provided to the Central Pollution Control Board.
- 5) That in compliance to further decision of the meeting held on 14.2.2023, the fresh ground water sampling of the area in question was carried out jointly by the officers of Central Pollution Control Board, Punjab Pollution Control Board and Department of Water Supply and Sanitation on 16.2.2022. Groundwater samples from 22 number tube-wells at Village Alorakh, Bhawanigarh, District Sangrur were collected to verify as to whether the contamination is confined to five wells or has further migrated to other wells. The officers of Central Pollution Control Board had carried the said samples collected on 16.2.2022 for analysis from central laboratory. The analysis reports are awaited.
- 6) That in view of the facts stated herein above, a time period of about two months may kindly be granted of filing of further status report in the case before the Hon'ble National Green Tribunal. The case is listed for hearing before the Hon'ble National Green Tribunal on 13.3.2023.


9/5/23
**Environmental Engineer,
Punjab Pollution Control Board,
Regional Office, Sangrur**




413

ਪੰਜਾਬ ਪ੍ਰਦੂਸ਼ਣ ਰੋਕਥਾਮ ਬੋਰਡ
PUNJAB POLLUTION CONTROL BOARD

No. 1.112-111.4

Through email only

Dated 05-04-2023

To

1. The Member Secretary,
Central Pollution Control Board,
New Delhi.
(miscb.cpcb@nic.in)
2. The Member Secretary,
Punjab Pollution Control Board,
Head Office, Patiala
(msppcb@gmail.com)
3. The Chief Engineer (South)
Department of Water Supply & Sanitation,
Head Office, Patiala
(ce_south@yahoo.com)

Subject: Minutes of meeting held on 03.04.2023 under the chairmanship of Deputy Commissioner, Sangrur in the matter of NGT OA No. 169 / 2021 titled as H.C. Arora vs State of Punjab & Ors.

Find enclosed herewith the minutes of meeting held on 03.04.2023 under the chairmanship of Deputy Commissioner, Sangrur in the matter of NGT OA No. 169 / 2021 titled as H.C. Arora vs State of Punjab & Ors for information and compliance, please.

DA/As above

Endst. No. 1115

A copy of the above is forwarded to the Deputy Commissioner, Sangrur for information, please.

DA/As above


Environmental Engineer

Dated 05-04-2023


Environmental Engineer

ਖੇਤਰੀ ਦਫ਼ਤਰ, ਇੰਡਸਟਰੀਅਲ ਫੋਕਲ ਪੁਆਇੰਟ, ਸੰਗਰੂਰ

REGIONAL OFFICE, INDUSTRIAL FOCAL POINT, SANGRUR

Email: eerosangrur@gmail.com; Web: www.ppcb.gov.in

Ph./Fax No. 01672-233475

Minutes of Meeting held under the Chairmanship of the Deputy Commissioner, Sangrur on 03.04.2023 to review the progress in compliance of the various orders passed by the Hon'ble NGT in the matter of OA no. 169 of 2021 titled as H.C. Arora Vrs. State of Punjab & Ors.

1. Dr. Narender Sharma, Additional Director, CPCB.
2. Er. Gurbakshish Singh Gill, Senior Environmental Engineer, PPCB, Zonal Office-II, Patiala on behalf of Member Secretary, PPCB.
3. Er. Ramandeep Singh Sidhu, Environmental Engineer, PPCB, RO Sangrur.
4. Er. Adarsh Nirmal, Executive Engineer, Department of Water Supply & Sanitation, Sangrur on behalf of the Chief Engineer, Department of Water Supply & Sanitation.
5. Er. Mohit Singla, Assistant Environmental Engineer, PPCB, RO Sangrur.

At the outset, Environmental Engineer welcomed all members present in the meeting. He apprised that the Hon'ble National Green Tribunal, in the matter of OA No. 169/ 2021 titled as H.C. Arora Vs State of Punjab & Ors. has passed fresh order on 06.02.2023 and the operative part of NGT order is as under: -

"The issue of remediation of the contaminated site and supply of potable drinking water in the area requires further consideration. It needs to be verified whether the contamination is confined to five wells or has further migrated to other wells. Since the issue has been pending for more than ten months, it is necessary to have personal interaction on the issue with nominees of the CPCB, District Magistrate, Sangrur, Chief Engineer, Public Health Engineering Department, Punjab and Member Secretary, State PCB after they deliberate upon the same. They may hold a joint meeting within one week and furnish a report to this Tribunal within two weeks by email. The report may opine about further course of action to remedy the situation with respect of the wells, agriculture and human health issues."

Accordingly, a meeting was held on 14.02.2023 under the Chairmanship of Deputy Commissioner, Sangrur to review the progress in compliance of the various orders passed by the Hon'ble NGT in the matter of OA no. 169 of 2021 titled as H.C. Arora Vrs. State of Punjab & Ors.. During meeting, it was decided as under: -

1. The PPCB shall take-up the matter with the Competent Authority for taking necessary action on the 'Expression of Interest' (EOI) received for assessment and remediation of contaminated site.
2. A Joint Committee of CPCB, PPCB and Department of Water Supply & Sanitation shall carry out fresh ground water sampling, within 5 days, to verify, whether, the contamination is confined to five wells or has further migrated to other wells.
3. The PPCB shall provide analysis results of the ground water sampling carried out by Joint Committee of PPCB and Department of Water Resources, Mohali, after the month of September, 2022.
4. Executive Engineer, Department of Water Supply & Sanitation, Sangrur shall ensure supply of portable drinking water in the subject cited area.

AS

In compliance to the decisions:

Environmental Engineer, PPCB, RO Sangrur apprised that Punjab Pollution Control Board had called Expression of Interest (EOI) through newspapers on 22.06.2022 for assessment and remediation of the ground water quality. However, in reference to the said EOI, only one company has submitted proposal under sealed cover. The matter w.r.t. single EOI was deliberated by the committee and it was decided that a fresh EOI may be called through leading newspapers for assessment and remediation plan of contaminated site alongwith timelines, cost and methodology.

He further added that, in compliance of the decisions taken during the meeting of the above said Executing Committee, the Board has already called fresh EOI dated 29.11.2022 and has received proposals from two firms. The meeting in this regard has been held on 01.03.2023 and proceedings of the meeting are yet awaited.

During meeting, the Additional Director, CPCB informed that the site was visited by Technical Members representing CPCB and PPCB along with CPCB team for collection of ground water samples on 16/02/2023 and same was analyzed from CPCB Head Office Laboratory. The fixed location data analysis of ground water quality indicates TOC contamination is limited to the bore-wells initially identified as contaminated while Chemical Oxygen demand (COD) contamination has started appearing beyond the 05 bore-wells initially identified as contaminated. The concentration levels in the samples collected during investigation must be compared with Canadian Screening Criteria for Soil/Sediment/ Ground Water/Surface-Water. Once the above exercise is done, Human Health Risk Assessment may be required to find out remediation target level. He further informed that there are agencies empenelled for assessment and preparation of remediation plan of contaminated sites, which may be hired for this purpose rather than calling EOI.

During meeting, the Executive Engineer, Department of Water Supply & Sanitation, Sangrur has informed that the polluted water coming from the two tube wells in the village Aloarkh Block Bhawanigarh is not being used to supply drinking water to the village through them. 275 houses have been provided water connections from water works by the water supply department in the village and rest of the houses have private submersibles or have arranged their own drinking water. Accordingly, Water samples have been collected from water works of the department and from one house in the village house and test reports reveals that the water in the village is potable at present.

After deliberation, it was decided as under: -

1. Action be taken as per the proceedings of the meeting dated 01.03.2023 approved by the Competent Authority. Matter may be expedite in this regard.
2. The reply based on above facts will be prepared and submitted in the Hon'ble NGT before the next date of hearing.

Meeting ended with vote of thanks to the chair.

AS



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केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

February 28, 2023

C-11012/29/Result/2011/Inst.lab/

SPEED POST

To

The Regional Director
CPCB Regional Directorate-Chandigarh
BSNL Exchange, 2nd Floor
Sector 49-C, Chandigarh
Pin-160047

Sub: Analysis report of Freshwater samples for Heavy metals – reg.

Ref: CPCB, Instrumentation Lab., Reg. No.: IL/SR-284/HM-18/2223, Dated: 17-02-2023.

Sir,

This has reference to the subject cited above, please find enclosed herewith the analysis report of eighteen numbers of Freshwater samples as received from Regional Directorate, Central Pollution Control Board, Chandigarh for Heavy metal analysis.

Kindly acknowledge the receipt of the analysis report.

K. Ranganathan
28/2/23

(Dr. K. Ranganathan)
Scientist – 'E' & Divisional Head
Instrumentation Laboratory

Encl: As above

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली-110032
उपकरणीय प्रयोगशाला
धातु विश्लेषण रिपोर्ट



1. विश्लेषण का स्थान : उपकरणीय प्रयोगशाला
2. रिपोर्ट सं. एवं जारी करने की तिथि : आईएल/एचएम/आईसीपी-एमएस/1315, 28.02.2023
3. रिपोर्ट प्रेषित किए जाने वाले का नाम, मोब. न. एवं पता : सीपीसीबी आरडी चंडीगढ़
4. संदर्भित जांच पद्धति : आफा-3125-बी 23 वॉ एडिशन, 2017
5. नमूने की स्थिति (कृपया वर्णन करें, यदि प्रक्रिया के अनुसार नहीं) : प्रक्रिया के अनुसार
6. नमूना मैट्रिक्स : शुद्ध जल
7. नमूना संग्रहण करने की तिथि एवं समय : 16.02.2023 11:00 एएम-04:30 पीएम
8. नमूना एकत्रित करने वाले का नाम : डॉ नरेंद्र शर्मा & टीम
9. नमूना प्राप्त की तिथि एवं समय : 17.02.2023 03:00 पीएम
10. नमूना पंजीकरण सं. एवं तिथि : आईएल/एसआर-284/एचएम-18/2223; 17.02.2023
11. नमूना विश्लेषण की तिथि : 24.02.2023
12. नमूना योजना संदर्भ : एनजीटी मैटर ओए संख्या-169/2021

क्र.सं	सैंपल कोड	आर्सेनिक (मिग्रा/ली)	कैडमियम (मिग्रा/ली)	कोबाल्ट (मिग्रा/ली)	क्रोमियम (मिग्रा/ली)	कॉपर (मिग्रा/ली)	आयरन (मिग्रा/ली)	मँगनीज (मिग्रा/ली)	निकिल (मिग्रा/ली)	लेड (मिग्रा/ली)	सेलेनियम (मिग्रा/ली)	ज़िंक (मिग्रा/ली)
1.	169-1	बीडीएल	बीडीएल	0.03	बीडीएल	0.08	0.13	0.19	बीडीएल	बीडीएल	बीडीएल	0.01
2.	169-2	बीडीएल	बीडीएल	0.01	बीडीएल	0.05	0.06	0.22	बीडीएल	बीडीएल	बीडीएल	बीडीएल
3.	169-3	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.07	0.02	बीडीएल	बीडीएल	बीडीएल	0.08
4.	169-4	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.04	0.02	बीडीएल	बीडीएल	बीडीएल	0.01
5.	169-5	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.07	0.05	बीडीएल	बीडीएल	बीडीएल	बीडीएल
6.	169-6	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.05	0.03	बीडीएल	बीडीएल	बीडीएल	0.02
7.	169-7	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.11	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.01
8.	169-8	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.07	0.03	बीडीएल	बीडीएल	बीडीएल	0.01
9.	169-9	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.16	0.05	बीडीएल	बीडीएल	बीडीएल	0.03
10.	169-10	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.74	0.14	बीडीएल	बीडीएल	बीडीएल	0.03
11.	169-11	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.26	0.02	बीडीएल	बीडीएल	बीडीएल	0.03
12.	169-12	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.03	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.01
13.	169-13	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.08	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.04
14.	169-14	बीडीएल	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.05	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.03
15.	169-15	बीडीएल	बीडीएल	बीडीएल	0.01	बीडीएल	7.23	0.08	बीडीएल	बीडीएल	बीडीएल	0.04
16.	169-16	बीडीएल	बीडीएल	बीडीएल	बीडीएल	0.04	0.54	0.26	बीडीएल	बीडीएल	बीडीएल	0.17
17.	169-17	बीडीएल	बीडीएल	बीडीएल	0.02	0.03	7.36	0.23	0.01	बीडीएल	बीडीएल	0.19
18.	169-18	बीडीएल	बीडीएल	बीडीएल	0.01	0.01	0.17	0.64	बीडीएल	बीडीएल	बीडीएल	0.04

बीडीएल: नीचे का पता लगाने की सीमापहचान सीमा ($\mu\text{g/L}$): आर्सेनिक-0.49, कैडमियम-0.42, कोबाल्ट-0.35, क्रोमियम-0.56, कॉपर-0.35, आयरन-0.67, मँगनीज-0.43, निकिल-0.54, लेड-0.31, सेलेनियम -1.13 और ज़िंक-0.59

विवरण:

1. परिणाम केवल परीक्षण किए गए नमूनों से संबंधित है।
2. पूर्ण रिपोर्ट के सिवाय प्रयोगशाला के लिखित अनुमोदन के बिना रिपोर्ट की प्रतिकृति नहीं की जाएगी।
3. यह पैरामीटर एनएबीएल आईएसओ-17025:2017 के अंतर्गत स्वीकृति है; (सर्टिफिकेट सं.-टीसी-7723)।
4. इस रिपोर्ट के जारी होने की तिथि से एक महीने तक नमूनों को संरक्षित रखा जाएगा

(Handwritten Signature)
(डॉ. एन. के. शर्मा)

विश्लेषक

(Handwritten Signature)
(नमिता मिश्रा)

पर्यवेक्षक व पुनर्विलोकक

(Handwritten Signature)
(डॉ. के. रंगानाथन)

प्रभारी, उपकरणीय प्रयोगशाला

डीओसी/सीबी/सीएल/क्यूआर/7.8/आईएल-5	जारी सं0 .05	संशोधन सं.05	जारी तिथि: 08.12.2020	पृष्ठ सं. 01 का 01
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CENTRAL POLLUTION CONTROL BOARD
Parivesh Bhawan, East Arjun Nagar, Delhi-110032
INSTRUMENTATION LABORATORY
Metal Analysis Report



1. Place of Analysis : Instrumentation Laboratory
2. Report No. & Issue Date : IL/HM/ICP-MS/1315; 28.02.2023
3. Report sent to (Name, Mobile no. & Address of Indenter) : CPCB RD Chandigarh
4. Test Method Reference : APHA, 3125-B, 23rd Ed. 2017
5. Sample condition (please describe, if not as per procedure) : As per procedure
6. Sample Matrix : Freshwater
7. Date & Time of Sample Collection : 16.02.2023 ,11:00 AM- 04:30 PM
8. Samples Collected by : Dr Narendra Sharma &Team
9. Date & Time of Sample Receipt : 17.02.2023 03:00 PM
10. Sample Registration No. & Date : IL/SR-284/HM-18/2223 17.02.2023
11. Date of Sample Analysis : 24.02.2023
12. Sampling Plan Reference : NGT Matter OA No-169/2021

S. No.	Sample Code	As (mg/L)	Cd (mg/L)	Co (mg/L)	Cr (mg/L)	Cu (mg/L)	Fe (mg/L)	Mn (mg/L)	Ni (mg/L)	Pb (mg/L)	Se (mg/L)	Zn (mg/L)
1.	169-1	BDL	BDL	0.03	BDL	0.08	0.13	0.19	BDL	BDL	BDL	0.01
2.	169-2	BDL	BDL	0.01	BDL	0.05	0.06	0.22	BDL	BDL	BDL	BDL
3.	169-3	BDL	BDL	BDL	BDL	BDL	0.07	0.02	BDL	BDL	BDL	0.08
4.	169-4	BDL	BDL	BDL	BDL	BDL	0.04	0.02	BDL	BDL	BDL	0.01
5.	169-5	BDL	BDL	BDL	BDL	BDL	0.07	0.05	BDL	BDL	BDL	BDL
6.	169-6	BDL	BDL	BDL	BDL	BDL	0.05	0.03	BDL	BDL	BDL	0.02
7.	169-7	BDL	BDL	BDL	BDL	BDL	0.11	BDL	BDL	BDL	BDL	0.01
8.	169-8	BDL	BDL	BDL	BDL	BDL	0.07	0.03	BDL	BDL	BDL	0.01
9.	169-9	BDL	BDL	BDL	BDL	BDL	0.16	0.05	BDL	BDL	BDL	0.03
10.	169-10	BDL	BDL	BDL	BDL	BDL	0.74	0.14	BDL	BDL	BDL	0.03
11.	169-11	BDL	BDL	BDL	BDL	BDL	0.26	0.02	BDL	BDL	BDL	0.03
12.	169-12	BDL	BDL	BDL	BDL	BDL	0.03	BDL	BDL	BDL	BDL	0.01
13.	169-13	BDL	BDL	BDL	BDL	BDL	0.08	BDL	BDL	BDL	BDL	0.04
14.	169-14	BDL	BDL	BDL	BDL	BDL	0.05	BDL	BDL	BDL	BDL	0.03
15.	169-15	BDL	BDL	BDL	0.01	BDL	7.23	0.08	BDL	BDL	BDL	0.04
16.	169-16	BDL	BDL	BDL	BDL	0.04	0.54	0.26	BDL	BDL	BDL	0.17
17.	169-17	BDL	BDL	BDL	0.02	0.03	7.36	0.23	0.01	BDL	BDL	0.19
18.	169-18	BDL	BDL	BDL	0.01	0.01	0.17	0.64	BDL	BDL	BDL	0.04

BDL: Below Detection Limit

Detection Limit - (µg/L):- As-0.49, Cd-0.42, Co-0.35, Cr-0.56, Cu-0.35, Fe-0.67, Mn-0.43, Ni-0.54, Pb-0.31, Se-1.13 & Zn-0.59.

Statement:

1. The Results related only to the samples tested as received.
2. The report shall not be reproduced except in full, without the written approval of the Laboratory.
3. The parameter is under the scope of NABL accreditation, ISO-17025:2017 (Certificate No.TC-7723).
4. Samples will be retained for 30 days from the date of issue of Test Report.

Dr. N. K. Sharma
Dr. N. K. SHARMA
 Analyst

Namita Mishra
(NAMITA MISHRA)
 Supervisor & Reviewer

Dr. K. Ranganathan
Dr. K. RANGANATHAN
 D H Instrumentation Lab



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CENTRAL POLLUTION CONTROL BOARD
Parivesh Bhawan, East Arjun Nagar, Delhi-110032



INSTRUMENTATION LABORATORY
Total Organic Carbon Report

1.	Place of analysis	:	Instrumentation Laboratory
2.	Report No. & Issue Date	:	204/2223; 01.03.2023
3.	Report sent to (Name, Mobile no. & Address of Indenter)	:	CPCB R D Chandigarh
4.	Test Method reference	:	APHA 23rd Edition, 2017 (5310-B)
5.	Sample condition (please describe, if not as per procedure)	:	As per Procedure
6.	Sample matrix	:	Fresh Water
7.	Date & Time of sample collection	:	16.02.2023 11:00AM-04:30PM
8.	Samples collected by	:	Dr. Narendra Sharma & Team
9.	Date & Time of sample receipt	:	17.02.2023 ; 03:00 PM
10.	Sample Registration No. & date	:	IL/SR-285/TOC-18/2223; 17.02.2023
11.	Date of sample analysis	:	24.02.2023
12.	Sampling Plan reference	:	NGT Matter,OANo-169/2021

S. No.	Sample Code	Total Organic Carbon (TOC) (mgC/L)	S. No.	Sample Code	Total Organic Carbon (TOC) (mgC/L)
1.	169-1	75.53	10.	169-10	BDL
2.	169-2	30.80	11.	169-11	BDL
3.	169-3	BDL	12.	169-12	BDL
4.	169-4	BDL	13.	169-13	BDL
5.	169-5	1.43	14.	169-14	BDL
6.	169-6	2.21	15.	169-15	BDL
7.	169-7	BDL	16.	169-16	BDL
8.	169-8	BDL	17.	169-17	BDL
9.	169-9	BDL	18.	169-18	BDL

DL=1 mgC/L. (BDL means below detection limit)

Statement:

1. The results relate only to the samples tested.
2. The report shall not be reproduced except in full, without the written approval of the laboratory.
3. The parameter is under the scope of NABL accreditation, ISO-17025:2017 (Certificate No.TC-7723).
4. Sample will be retained for 30 days from the date of issue of Test Report.

01/03/2023
Maneesh N.
Analyst

11/3/2023
Dr. Yogita Kharayat
Supervisor & Reviewer

11/3/23
Dr. K. Ranganathan
D.H. Instrumentation Lab.

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Central Pollution Control Board केंद्रीय प्रदूषण नियंत्रण बोर्ड
Parivesh Bhawan, East Arjun Nagar, Delhi-110 032
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली-110 032
Water Laboratory (Freshwater Section) जल प्रयोगशाला (स्वच्छ जल अनुभाग)
Analysis Report विश्लेषण आख्या
NABL Accreditation: ISO/IEC 17025:2017, Certificate No: TC-7723



Source of sample: River/Ground Water/Any other नमूने का स्रोत :नदी/भूजल/अन्य : Ground Water Report No. आख्या सं : FWL/158
Samples collected by नमूने एकत्रित करने वाले का नाम : Dr. Narender Sharma, Sh. Amit Kumar, Sopar Issue Date जारी करने की तिथि: 28/02/2023
Date & time of sample Collection नमूने एकत्रीकरण की तिथि एवं समय : 16/02/2023
Date & time of sample receipt नमूने प्राप्ति की तिथि एवं समय : 17/02/2023
Period of sample analysis नमूने के विश्लेषण की अवधि : 17/02/2023 to 24/02/2023
Sample registration no. & date नमूने की पंजीकरण सं. एवं तिथि : 158/Water/FW/36/2023
Test method reference परीक्षण विधि का संदर्भ : APHA/BIS. एपीएचए/बीआईएस
Report sent to (Name & Division) आख्या किसे जारी की गयी (नाम एवं प्रभाग) : CPCB- RD Chandigarh

S. No.	Sampling Point नमूना स्थल	FWL Sample No. स्वच्छ जल प्रयोगशाला नमूना सं	pH	TDS	COD	Chloride	Fluoride
1.	169-1	799	8.0	1354	345	113	BDL
2.	169-2	800	7.9	1453	140	68	BDL
3.	169-3	801	7.7	505	04	28	0.3
4.	169-4	802	8.4	Sample Finished	05	Sample Finished	Sample Finished
5.	169-5	803	7.7	536	06	22	0.4
6.	169-6	804	8.2	546	12	25	0.4
7.	169-7	805	7.7	567	03	29	0.4
8.	169-8	806	7.8	632	03	35	0.3

Note: All the concentrations are expressed in mg/l except pH and Conductivity ($\mu\text{mho/cm}$). नोट : पीएच तथा चालकता ($\mu\text{mho/cm}$) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं।

Statement: कथन:

- The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
- The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी।
- BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
- Samples will be retained only for one week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल एक सप्ताह तक ही सुरक्षित रखे जाएंगे।

(P.K. Gupta)
Analyst

(S. M. Bilal)
Supervisor, Reviewer & Authorised Signatory

(Dr. K. Ranganathan)
DH – Water Lab



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Central Pollution Control Board केंद्रीय प्रदूषण नियंत्रण बोर्ड
Parivesh Bhawan, East Arjun Nagar, Delhi-110 032
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली-110 032

Water Laboratory (Freshwater Section) जल प्रयोगशाला (स्वच्छ जल अनुभाग)

Analysis Report विश्लेषण आख्या

NABL Accreditation: ISO/IEC 17025:2017, Certificate No: TC-7723



S. No.	Sampling Point नमूना स्थल	FWL Sample No. स्वच्छ जल प्रयोगशाला नमूना सं.	pH	TDS	COD	Chloride	Fluoride	NH ₃ -N
9.	169-9	807	7.5	671	03	48	0.5	-
10.	169-10	808	7.6	547	05	33	0.2	-
11.	169-11	809	8.2	385	02	27	0.7	-
12.	169-12	810	7.8	496	03	21	0.3	-
13.	169-13	811	7.7	546	03	18	0.7	-
14.	169-14	812	7.6	466	BDL	19	0.4	-
15.	169-15	813	8.5	375	10	15	0.4	-
16.	169-16	814	7.6	648	03	21	0.4	-
17.	169-17	815	7.8	544	01	23	0.3	-
18.	169-18	816	8.1	324	02	15	0.4	-
19.	169-1	799A	-	-	-	-	-	10.6
20.	169-2	800A	-	-	-	-	-	4.8
21.	169-3	801A	-	-	-	-	-	BDL
22.	169-4	802A	-	-	-	-	-	0.7
23.	169-5	803A	-	-	-	-	-	1.1

Note: All the concentrations are expressed in mg/l except pH and Conductivity ($\mu\text{mho/cm}$). नोट : पीएच तथा चालकता ($\mu\text{mho/cm}$) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं।

Statement: कथन:

- The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
- The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी।
- BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
- Samples will be retained only for one week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल एक सप्ताह तक ही सुरक्षित रखे जाएंगे।


(P.K. Gupta)
Analyst


(S. M. Bilal)

Supervisor, Reviewer & Authorised Signatory


(Dr. K. Ranganathan)
DH - Water Lab

422



Central Pollution Control Board केंद्रीय प्रदूषण नियंत्रण बोर्ड
Parivesh Bhawan, East Arjun Nagar, Delhi-110 032
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली-110 032
Water Laboratory (Freshwater Section) जल प्रयोगशाला (स्वच्छ जल अनुभाग)
Analysis Report विश्लेषण आख्या
NABL Accreditation: ISO/IEC 17025:2017, Certificate No: TC-7723



S. No.	Sampling Point नमूना स्थल	FWL Sample No. स्वच्छ जल प्रयोगशाला नमूना सं	NH ₃ -N
24.	169-6	804A	1.2
25.	169-7	805A	BDL
26.	169-8	806A	BDL
27.	169-9	807A	BDL
28.	169-10	808A	0.2
29.	169-11	809A	BDL
30.	169-12	810A	BDI
31.	169-13	811A	BDL
32.	169-14	812A	BDL
33.	169-15	813A	BDL
34.	169-16	814A	BDL
35.	169-17	815A	0.6
36.	169-18	816A	BDL

Note: All the concentrations are expressed in mg/l except pH and Conductivity ($\mu\text{mho/cm}$). नोट : पीएच तथा चालकता ($\mu\text{mho/cm}$) के अतिरिक्त सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं।

Statement: कथन:

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
2. The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी।
3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
4. Samples will be retained only for one week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल एक सप्ताह तक ही सुरक्षित रखे जाएंगे।


(P.K. GUpta)
Analyst


(S. M. Bilal)
Supervisor, Reviewer & Authorised Signatory


(Dr. K. Ranganathan)
DH - Water Lab
28/2/23



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Central Pollution Control Board केंद्रीय प्रदूषण नियंत्रण बोर्ड
Parivesh Bhawan, East Arjun Nagar, Delhi-110 032
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली-110 032
Water Laboratory (Freshwater Section) जल प्रयोगशाला (स्वच्छ जल अनुभाग)
Analysis Report विश्लेषण आख्या

Source of sample: River/Ground Water/Any other नमूने का स्रोत : नदी/भूजल/अन्य : Ground Water Report No. आख्या सं : FWL/158
Samples collected by नमूने एकत्रित करने वाले का नाम : Dr. Narender Sharma, Sh. Amit Kumar, Sopar Issue Date जारी करने की तिथि: 28/02/2023
Date & time of sample Collection नमूने एकत्रीकरण की तिथि एवं समय : 16/02/2023
Date & time of sample receipt नमूने प्राप्ति की तिथि एवं समय : 17/02/2023
Period of sample analysis नमूने के विश्लेषण की अवधि : 17/02/2023 to 24/02/2023
Sample registration no. & date नमूने की पंजीकरण सं. एवं तिथि : 158/Water/FW/36/2023
Test method reference परीक्षण विधि का संदर्भ : APHA/BIS. एपीएचए/बीआईएस
Report sent to (Name & Division) आख्या किसे जारी की गयी (नाम एवं प्रभाग) : CPCB- RD Chandigarh

S. No.	Sampling Point नमूना स्थल	FWL Sample No. स्वच्छ जल प्रयोगशाला नमूना सं.	Colour (Colour Unit)	Turbidity	Boron	Sulfate	NO ₃ -N
1.	169-1	799	1152	07	3.0	815	63.0
2.	169-2	800	718	02	2.3	784	20.7
3.	169-3	801	BDL	02	1.3	23	9.5
4.	169-4	802	Sample Finished	Sample Finished	Sample Finished	Sample Finished	Sample Finished
5.	169-5	803	BDL	01	2.0	49	7.0
6.	169-6	804	BDL	02	1.2	46	5.1

Note: All the concentrations are expressed in mg/l. नोट: सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं।

Statement: कथन:

- The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
- The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी।
- BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
- Samples will be retained only for one week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल एक सप्ताह तक ही सुरक्षित रखे जाएंगे।


(P.K. Gupta)
Analyst


(S. M. Bilal)
Supervisor & Reviewer


(Dr. K. Ranganathan)
DH - Water Lab

DOC: CB/CL/QR/7.8/FWL - 1 Issue No.: 04 Amendment No.: 06 Issue Date: 22.05.2007 Amendment Date: 19.03.2021 Page: 04 of 05

11 12
18 19
25

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Central Pollution Control Board केंद्रीय प्रदूषण नियंत्रण बोर्ड
Parivesh Bhawan, East Arjun Nagar, Delhi-110 032
परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली-110 032
Water Laboratory (Freshwater Section) जल प्रयोगशाला (स्वच्छ जल अनुभाग)
Analysis Report विश्लेषण आख्या

S. No.	Sampling Point नमूना स्थल	FWL Sample No. स्वच्छ जल प्रयोगशाला नमूना सं.	Colour (Colour Unit)	Turbidity	Boron	Sulfate	NO ₃ -N
7.	169-7	805	BDL	01	2.1	43	4.2
8.	169-8	806	BDL	01	1.9	40	4.1
9.	169-9	807	BDL	02	1.8	48	5.5
10.	169-10	808	BDL	01	0.8	22	5.1
11.	169-11	809	BDL	03	2.4	17	BDL
12.	169-12	810	BDL	01	1.8	31	6.3
13.	169-13	811	BDL	01	1.6	30	7.7
14.	169-14	812	BDL	01	1.7	28	4.7
15.	169-15	813	BDL	29	0.8	34	BDL
16.	169-16	814	BDL	02	1.7	42	5.7
17.	169-17	815	BDL	26	1.9	39	4.1
18.	169-18	816	BDL	01	1.2	09	BDL

Note: All the concentrations are expressed in mg/l. नोट: सभी सांद्रता मिग्रा/ली. में व्यक्त की गई हैं।

Statement: कथन:

1. The results relate only to the samples tested. परिणाम केवल जांचे गए नमूनों से संबंधित है।
2. The report shall not be reproduced except in full without written approval of the laboratory पूर्ण रिपोर्ट के अतिरिक्त प्रयोगशाला के लिखित अनुमोदन के बिना आख्या की आंशिक प्रतिकृति नहीं की जायेगी।
3. BDL & Test methods are mentioned on back side of this report. बी डी एल एवं परीक्षण विधि आख्या के अंत में दिए गए हैं।
4. Samples will be retained only for one week after receipt of Report. संबंधित आख्या जारी होने के बाद नमूने केवल एक सप्ताह तक ही सुरक्षित रखे जाएंगे।

(P.K. GUpta)
Analyst

(S. M. Bilal)
Supervisor & Reviewer

(Dr. K. Ranganathan)
DH - Water Lab

Surface Water & Ground Water

S. No.	Parameter	Test Method	Range of Testing/Limit of Detection	Uncertainty of Measurement \pm
1.	Conductivity	APHA 25 10 -B, 23 rd Ed. 2017	1 - 30000 μ mhos/cm	280 \pm 10 μ mhos/cm
2	Total Dissolved Solids	APHA 2540 C, 23 rd Ed. 2017	5 - 18000 mg/l	350 \pm 20.0 mg/l
3	Chemical Oxygen Demand	APHA 5220 B, 23 rd Ed. 2017	5 - 200 mg/l	96 \pm 10 mg/l
4	Bio -Chemical Oxygen Demand	APHA 5210 B, 23 rd Ed. 2017, 4500 OC, (5 days at 20° C). IS- 3025 part 44:1993. BOD (3 days at 25°C).	1 - 100 mg/l	40 \pm 8 mg/l
5	Chloride	APHA 4500 - Cl B, 23 rd Ed. 2017	5 - 600 mg/l	300 \pm 15 mg/l
6	Phosphate - P	APHA 4500 -PD, 23 rd Ed. 2017	0.05 - 10 mg/l	0.3 \pm 0.03 mg/l
7	Total Hardness As CaCO ₃	APHA 2340 - C 23 rd Ed. 2017	10 - 900 mg/l	150 \pm 10.0 mg/l
8	Calcium	APHA 3500 - Ca B, 23 rd . 2017	2 - 200 mg/l	50 \pm 10 mg/l
9	Magnesium	APHA 3500 - Mg B, 23 rd Ed. 2017	2 -200 mg/l	20 \pm 3 mg/l
10	Fluoride	APHA 4500- F D, 23 rd Ed. 2017	0.2 - 10 mg/l	0.8 \pm 0.1 mg/l
11	pH	APHA 4500 H ⁺ -B, 23 rd Ed. 2017	2 - 14	7.24 \pm 0.18
12	NO ₂ -N	APHA 4500 - NO ₂ , B, 23 rd Ed. 2017	0.01 - 2 mg/l	0.06 \pm 0.01 mg/l
13	NH ₃ -N	IS 3025(Part-34)- 1988, (First reprint April-1992)	0.2 - 20 mg/l	2.0 \pm 0.2 mg/l

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ਪੰਜਾਬ ਪ੍ਰਦੂਸ਼ਣ ਰੋਕਥਾਮ ਬੋਰਡ
PUNJAB POLLUTION CONTROL BOARD

No. 805.....

Through email only

Dated 03-03-2023

To

The Member Secretary,
Central Pollution Control Board,
New Delhi.
(mccb.cpcb@nic.in)

Subject: Minutes of meeting held on 14.02.2023 at 04.00 PM under the chairmanship of Deputy Commissioner, Sangrur in the matter of NGT OA No. 169 / 2021 titled as H.C. Arora vs State of Punjab & Ors.

Reference: This office letter no. 708-10 dated 28.02.2023.

Find enclosed herewith the analysis results of the ground water sampling carried out by the Board for the month of ^{October, 2022,} November 2022 & January 2023 for information and necessary action please.

Endst. No. 806.....

A copy of the above is forwarded to Sh. Narender Sharma, Additional Director, Central Pollution Control Board for information, please.

Sharma
3/3
Environmental Engineer
Dated 03-03-2023

Sharma
3/3
Environmental Engineer

ਖੇਤਰੀ ਦਫ਼ਤਰ, ਇੰਡਸਟਰੀਅਲ ਫੋਕਲ ਪੁਆਇੰਟ, ਸੰਗਰੂਰ

REGIONAL OFFICE, INDUSTRIAL FOCAL POINT, SANGRUR

Email: eerosangrur@gmail.com; Web: www.ppcb.gov.in

Ph./Fax No. 01672-233475

PUNJAB POLLUTION CONTROL BOARD VATAVARAN BHAVAN,
NABHA ROAD, PATIALA
GROUND WATER REPORT

1. Laboratory Sample No. GW 192-194/ H.O.Lab./ G.W. Monitoring/2022
 2. ULR Number ULR-TC70451800000000
 3. Name of Industry Ground Water sample collected from the Farm Tubewells in the vicinity of M/s Matharu Chemical, Pvt Ltd, Tehsil Bhawanigarh, Distt Sangrur.
 4. Name of Sample collecting Officer Er. Mohit Singla, AEE
 5. Designation of authorizing Test EE, RO, Sangrur
 6. Date & Time of Sample collection 21.10.2022
 7. Date & Time of Sample receipt in Lab. 21.10.2022
 8. Period of Analysis 21.10.2022 to 2.11.2022
 9. Test Methods As per relevant parts of IS:3025/IS:1622 & Methods of APHA

Results

Sr. no.	Parameters	From Tubewell of Sh. Kulwinder Singh S/o Jang Singh	From Tubewell of sh. Amrit Singh S/o Sh. Rajwant Singh	Tubewell of M/s Super Pipes, Right side of Matharu Chemicals
1	pH	7.7	7.6	7.8
2	Electrical Conductance $\mu\text{s}/\text{cm}$	1732	1334	777
3	Chemical Oxygen Demand mg/l	274	134	38
4	BOD mg/l	20	12	BDL
5	Total Hardness mg/l	620	380	310
6	Calcium mg/l	114	90	36
7	Magnesium mg/l	81	38	22
8	Chloride mg/l	98	59	45
9	Sulphate mg/l	168	129	98
10	Fluoride mg/l	0.2	0.2	BDL
11	Phosphate mg/l	0.2	BDL	BDL
12	Nitrate Nitrogen mg/l	0.7	0.5	0.2
13	Sodium mg/l	204	195	80
14	Pottassium mg/l	15	14	10
15	SAR	3.6	4.3	2.0
16	Phenolic Compound mg/l	BDL	BDL	BDL
17	Copper mg/l	BDL	BDL	BDL
18	Iron mg/l	0.45	0.40	0.25
19	Zinc mg/l	0.18	0.17	0.10
20	Manganese mg/l	BDL	BDL	BDL
21	Selenium mg/l	BDL	BDL	BDL
22	Silver mg/l	BDL	BDL	BDL
23	Cadmium mg/l	BDL	BDL	BDL
24	Lead mg/l	BDL	BDL	BDL
25	Arsenic mg/l	BDL	BDL	BDL
26	Nickel mg/l	BDL	BDL	BDL
27	Total Chromium mg/l	BDL	BDL	BDL

BDL means below method Detection Limit.

--End of Report--

Scientific Officer

Endst. No: 23380-82

Dt. 03/11/2022

A copy of the above is forwarded to the:-

- The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhian
- The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office- Patiala-II
- The Environment Engineer, Punjab Pollution Control Board, Regional Office, Sangrur.

Asstg Scientific Officer

file
 RK
 ALL-II
 10/11
 21/10/22

3765
 10/11/22

PUNJAB POLLUTION CONTROL BOARD VATAVARAN BHAVAN,
NABHA ROAD, PATIALA
GROUND WATER REPORT

1. Laboratory Sample No. GW 221-224/ H.O.Lab./ G.W. Monitoring/2022
 2. ULR Number ULR-TC704518000000005653
 3. Name of Industry Ground Water sample collected in the vicinity of M/s Matharu Chemical, Pvt Ltd, Tehsil Bhawanigarh, Distt Sangrur.
 4. Name of Sample collecting Officer Er. Mohit Singla, AEE
 5. Designation of authorizing Test EE, RO, Sangrur
 6. Date & Time of Sample collection 29.11.2022
 7. Date & Time of Sample receipt in Lab. 30.11.2022
 8. Period of Analysis 30.11.2022 to 14.12.2022
 9. Test Methods As per relevant parts of IS:3025/IS:1622 & Methods of APHA

Results

Sr. no.	Parameters	From Tubewell of Sh. Kulwinder Singh S/o Jang Singh	From Tubewell of sh. Amrit Singh S/o Sh. Rajwant Singh	Farm Tubewell of Sh. Dilbag Singh S/o of Jagtar Singh	Tubewell of M/s Super Pipes, Right side of Matharu Chemicals
1	pH	7.4	7.3	7.5	7.2
2	Electrical Conductance $\mu\text{s}/\text{cm}$	1932	1637	801	854
3	Chemical Oxygen Demand mg/l	328	128	6	15
4	BOD mg/l	24	13	BDL	BDL
5	Total Hardness mg/l	680	520	200	360
6	Calcium mg/l	112	112	40	67
7	Magnesium mg/l	97	58	24	46
8	Chloride mg/l	116	86	24	80
9	Sulphate mg/l	212	178	92	96
10	Fluoride mg/l	0.3	0.2	BDL	0.1
11	Phosphate mg/l	BDL	BDL	BDL	BDL
12	Nitrate Nitrogen mg/l	1.1	0.9	BDL	0.2
13	Sodium mg/l	240	215	78	90
14	Pottassium mg/l	20	15	9	12
15	SAR	4.0	4.1	2.4	2.1
16	Phenolic Compound mg/l	BDL	BDL	BDL	BDL
17	Copper mg/l	BDL	BDL	BDL	BDL
18	Iron mg/l	0.72	0.61	0.12	0.34
19	Zinc mg/l	0.28	0.20	BDL	0.15
20	Magnesse mg/l	BDL	BDL	BDL	BDL
21	Selenium mg/l	BDL	BDL	BDL	BDL
22	Cer mg/l	BDL	BDL	BDL	BDL
23	Cadmium mg/l	BDL	BDL	BDL	BDL
24	Lead mg/l	BDL	BDL	BDL	BDL
25	Arsenic mg/l	BDL	BDL	BDL	BDL
26	Nickel mg/l	BDL	BDL	BDL	BDL
27	Total Chromium mg/l	BDL	BDL	BDL	BDL

BDL means below method Detection Limit.

--End of Report--

Endst. No: 26470-72

Dt. 15/12/22

Scientific Officer

A copy of the above is forwarded to the -

1. The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana
2. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-2, Patiala.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office, Sangrur.

Asst. Scientific Officer

PUNJAB POLLUTION CONTROL BOARD VATAVARAN BHAVAN,
NABHA ROAD, PATIALA
GROUND WATER REPORT

1. Laboratory Sample No. GW 257-260/ H.O.Lab./ G.W. Monitoring/2023
 2. ULR Number ULR-TC70451800000005851
 3. Name of Industry Ground Water sample collected in the vicinity of M/s Matharu Chemical, Pvt Ltd, Tehsil Bhawanigarh, Distt Sangrur.
 4. Name of Sample collecting Officer Er. Mohit Singla, AEE
 5. Designation of authorizing Test EE, RO, Sangrur
 6. Date & Time of Sample collection 09.01.2023
 7. Date & Time of Sample receipt in Lab. 10.01.2023
 8. Period of Analysis 10.01.2023 to 27.01.2023
 9. Test Methods As per relevant parts of IS:3025/IS:1622 & Methods of APHA

Results

Sr. no.	Parameters	From Tubewell of Sh. Kulwinder Singh S/o Jang Singh	From Tubewell of Sh. Amrit Singh S/o Sh. Rajwant Singh	Farm Tubewell of Sh. Dilbag Singh S/o of Jagtar Singh	Tubewell of M/s Super Pipes, Right side of Matharu Chemicals
1	pH	7.4	7.3	8.1	7.8
2	Electrical Conductance $\mu\text{s/cm}$	1900	1846	729	88
3	Chemical Oxygen Demand mg/l	302	102	88	46
4	BOD mg/l	26	11	8	BDL
5	Total Hardness mg/l	660	484	204	280
6	Calcium mg/l	130	135	55	66
7	Magnesium mg/l	82	36	16	28
8	Chloride mg/l	103	62	18	36
9	Sulphate mg/l	185	172	65	81
10	Fluoride mg/l	0.3	0.2	0.1	0.1
11	Phosphate mg/l	0.6	0.5	BDL	0.1
12	Nitrate Nitrogen mg/l	0.7	0.7	0.2	0.2
13	Sodium mg/l	181	172	78	85
14	Pottassium mg/l	28	21	11	12
15	SAR	3.0	3.4	2.4	2.2
16	Phenolic Compound mg/l	BDL	BDL	BDL	BDL
17	Copper mg/l	BDL	BDL	BDL	BDL
18	Iron mg/l	0.61	0.60	0.13	0.14
19	Zinc mg/l	0.20	0.30	0.10	0.12
20	Magnesse mg/l	BDL	BDL	BDL	BDL
21	Selenium mg/l	BDL	BDL	BDL	BDL
22	Silver mg/l	BDL	BDL	BDL	BDL
23	Cadmium mg/l	BDL	BDL	BDL	BDL
24	Lead mg/l	BDL	BDL	BDL	BDL
25	Arsenic mg/l	BDL	BDL	BDL	BDL
26	Nickel mg/l	BDL	BDL	BDL	BDL
27	Total Chromium mg/l	BDL	BDL	BDL	BDL

BDL means below method Detection Limit.

--End of Report--

Scientific Officer
20/1/23

Endst. No: 2943-45

Dt. 30-1-23

A copy of the above is forwarded to the -

1. The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana
2. The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-2, Patiala.
3. The Environmental Engineer, Punjab Pollution Control Board, Regional Office, Sangrur.

Asst. Scientific Officer
27/1/23



Sophisticated Analytical Instruments Laboratories Society (Registered as Society with Registrar of Firms & Societies, Punjab, Chandigarh)
Thapar Technology Campus, Bhadson Road, Patiala-147 004 (India)

TEST REPORT

Sample ID	NN/22-23/557	Date:	14.11.2022
Service No.	NN/22-23/557 (01-03)	Customer's Ref.	Sample submitted by customer on dtd. 22.10.2022
Customer's name and address:			
Environmental Engineer Punjab Pollution Control Board Regional Office, Focal Point Sangrur(Pb)			
Sample Description	Ground Water (Sample Collected by PPCB RO Sangrur on 21.10.2022)		
Condition of the sample received	O.K.		
Customer's sample identification No. (if any)	Ground Water Samples collected From the Farm Tubewells located in the vicinity of site of M/s Matharu Chemical Pvt. Ltd. Village Alorakh, Teh. Bhawanigarh, Distt. Sangrur. 01-GW-1 02-GW-2 03-GW-5		
Quantity/number of samples	2 Liter each / 3		
Sampling Procedure (if any), Standard/ Specification	--		
Mode of Sampling/ Environmental Condition During Transport	Not Applicable		
Test parameters	Carbonate, Bicarbonate, Total Silica, Total Organic Carbon		
Method followed	As mentioned below		
Deviations (if any)	--		
Documents constituting this report (if any)	--		
Date of Receipt of Job	Date of Completion of Job	Total Number of Pages	
22.10.2022	11.11.2022	1	

TEST RESULTS

S. No.	Parameters	Test Method	Unit	Results		
				01	02	03
1	Carbonate as CaCO ₃	APHA 23rd Edn. 2320 B:2017	mg/l	Nil	Nil	Nil
2	Bicarbonate as CaCO ₃	APHA 23rd. Edn. 2320 B:2017	mg/l	175	222	209
3	Total Silica as SiO ₂	APHA 23rd. Edn.3120 B:2017	mg/l	15.1	12.8	15.6
4	Total Organic Carbon	Dichromate Method	mg/l	75.7	16.8	5.61

.....End of the report.....


M. Agarwal

Technical Manager
(Authorized Signatory)

- Note:
1. The results listed refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied
 2. Samples will be destroyed after one month (except water, wastewater) from the date of issue of the test report unless otherwise specified
 3. This report is not to be reproduced wholly or in part and cannot be used as an evidence in the products is neither inferred nor implied. court of law and should not be used in any advertising media without special permission in writing.
 4. In case any reconfirmation of contents of the test report is required, please contact the authorized signatory of the test report within 15 days of the issue of test report

Phone: +91(175) 2393552 Fax : +91(175) 2393548 Email: office.sailabs@thapar.edu, info@sailabs.org
URL: www.sailabs.org



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Sophisticated Analytical Instruments Laboratories
Society (Registered as Society with Registrar of Firms & Societies, Punjab, Chandigarh)
Thapar Technology Campus, Bhadson Road, Patiala-147 004 (India)

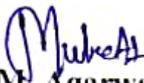
TEST REPORT

Sample ID	NN/22-23/613	Date:	08.12.2022
Service No	NN/22-23/613 (01-04)	Customer's Ref.	Sample submitted by PPCB RO Sangrur on dtd. 30.11.2022
Customer's name and address:			
Environmental Engineer Punjab Pollution Control Board Regional Office, Focal Point Sangrur(Pb)			
Sample Description	Ground Water (Tubewells Located in the vicinity of site of M/s Matharu Chemical Pvt. Ltd, Village Alorakh Teh. Bhawanigarh Distt. Sangrur)		
Condition of the sample received	O.K.		
Customer's sample identification No. (if any)	01- GW-1 Farm tubewell of Sh. Kulwinder Singh S/o Sh. Jang Singh, Alorakh 02- GW-2 Farm tubewell of Sh. Amrit Pal Singh S/o Sh. Rajwant Singh, Alorakh 03- GW-4 Farm tubewell of Sh. Dilbag Singh S/o Sh. Jagar Singh, Alorakh 04- GW-5 Tubewell of M/s Super Pipes, Right Side of Matharu Chemical Industry, Alorakh		
Quantity/number of samples	2 Liter each / 4		
Sampling Procedure (if any), Standard/ Specification	--		
Mode of Sampling/ Environmental Condition During Transport	Not Applicable		
Test parameters	Carbonate, Bicarbonate, Total Silica, Total Organic Carbon		
Method followed	As mentioned below		
Deviations (if any)	--		
Documents constituting this report (if any)	--		
Date of Receipt of Job	Date of Completion of Job	Total Number of Pages	
30.11.2022	08.12.2022	1	

TEST RESULTS

S. No.	Parameters	Test Method	Unit	Results			
				01	02	03	04
1	Carbonate as CaCO ₃	APHA 23rd Edn. 2320 B:2017	mg/l	Nil	Nil	Nil	Nil
2	Bicarbonate as CaCO ₃	APHA 23rd. Edn. 2320 B:2017	mg/l	296	278	352	231
3	Total Silica as SiO ₂	APHA 23rd. Edn.3120 B:2017	mg/l	35.0	34.7	30.3	34.5
4	Total Organic Carbon	Dichromate Method	mg/l	343	157	71.4	85.4

.....End of the report.....


M. Agarwal

Technical Manager
(Authorized Signatory)

- Note:
1. The results listed refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied
 2. Samples will be destroyed after one month (except water, wastewater) from the date of issue of the test report unless otherwise specified
 3. This report is not to be reproduced wholly or in part and cannot be used as an evidence in the products is neither inferred nor implied. court of law and should not be used in any advertising media without special permission in writing
 4. In case any reconfirmation of contents of the test report is required, please contact the authorized signatory of the test report within 15 days of the issue of test report



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Sophisticated Analytical Instruments Laboratories
Society (Registered as Society with Registrar of Firms & Societies, Punjab, Chandigarh)
 Thapar Technology Campus, Bhadson Road, Patiala-147 004 (India)

TEST REPORT

Sample ID	NN/22-23/701	Date:	16.01.2023	
Service No.	NN/22-23/701 (01-04)	Customer's Ref.	Sample submitted by customer on dtd: 10.01.2023 as per letter no.62 dated 09-01-2023	
Customer's name and address:				
Environmental Engineer Punjab Pollution Control Board Regional Office, Focal Point Sangrur(Pb)				
Sample Description	Ground Water			
Condition of the sample received	O.K.			
Customer's sample identification No. (if any)	01- Farm tube well of Sh. Kulwinder Singh S/O Sh. Jang Singh, Alorakh-GW1 02- Farm tube well of Sh. Amrit Pal Singh S/O Sh. Rajwant Singh, Alorakh-GW-2 03- Farm tube well of Sh. Dilbag Singh S/O Sh. Jagar Singh, Alorakh-GW-4 04- Tube well of M/S Super Pipes, Right side of Matharu Chemical Industry, Alorakh-GW-5			
Quantity/number of samples	2 Liter each / 4			
Sampling Procedure (if any), Standard/ Specification	--			
Mode of Sampling/ Environmental Condition During Transport	Not Applicable			
Test parameters	Carbonate, Bicarbonate, Total Silica, Total Organic Carbon			
Method followed	As mentioned below			
Deviations (if any)	--			
Documents constituting this report (if any)	--			
Date of Receipt of Job	Date of Completion of Job	Total Number of Pages		
10.01.2023	17.01.2023	1		

TEST RESULTS

S. No.	Parameters	Test Method	Unit	Results	
				01(GW-1)	02(GW-2)
1	Carbonate as CaCO ₃	APHA 23rd Edn. 2320 B:2017	mg/l	Nil	Nil
2	Bicarbonate as CaCO ₃	APHA 23rd. Edn. 2320 B:2017	mg/l	283	301
3	Total Silica as SiO ₂	APHA 23rd. Edn.4500 SiO ₂ C:2017	mg/l	38.8	39.4
4	Total Organic Carbon	Dichromate Method	mg/l	107	30.6

S. No.	Parameters	Test Method	Unit	Results	
				03(GW-4)	04(GW-5)
1	Carbonate as CaCO ₃	APHA 23rd Edn. 2320 B:2017	mg/l	Nil	Nil
2	Bicarbonate as CaCO ₃	APHA 23rd. Edn. 2320 B:2017	mg/l	279	240
3	Total Silica as SiO ₂	APHA 23rd. Edn.4500 SiO ₂ C:2017	mg/l	33.5	42.3
4	Total Organic Carbon	Dichromate Method	mg/l	3.82	7.64

.....End of the report.....

M. Agarwal
M. Agarwal

Technical Manager
(Authorized Signatory)

- Note:
- The results listed refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied
 - Samples will be destroyed after one month (except water, wastewater) from the date of issue of the test report unless otherwise specified
 - This report is not to be reproduced wholly or in part and cannot be used as an evidence in the products is neither inferred nor implied. court of law and should not be used in any advertising media without special permission in writing.
 - In case any reconfirmation of contents of the test report is required, please contact the authorized signatory of the test report within 15 days of the issue of test report



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केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

CP-26/15/2022-WM-I-HO-CPCB-HO 7436

December 26, 2022

To

The Member Secretary
Punjab Pollution Control Board
Vatavaran Bhawan, Nabha Road
Patiala – 147 001

Sub: Action Taken on remediation of contaminated site at "M/s Mahaluxmi Organo Chemical Industries, Nabha Road, Bhawanigarh, Sangrur" as per direction of Hon'ble NGT in O.A. No. 169 of 2021, vide order dated 31.03.2022- reg.

Ref.: PPCB letters No. 1201 dated 26.08.2022 and No. 2661 dated 21.09.2022

Sir,

This has reference to the contaminated site at "M/s Mahaluxmi Organo Chemical Industries, Nabha Road, Bhawanigarh, Sangrur. It is to mention that the site is confirmed contaminated site and detailed investigation of site is to be made which has also been highlighted in the 4th review meeting with SPCBs held on 04.05.2022. Further, PPCB vide letter dated 26.08.2022 conveyed that Expression of Interest has been published for carrying out assessment of said site.

In view of the above, it is requested to kindly provide us the status of remediation of contaminated site at/s Mahaluxmi Organo Chemical Industries, Nabha Road, Bhawanigarh, Sangrur.

Yours faithfully,

(V. P. Yadav)

Director & Head,
Waste Management Division-I

Encl.: As above

Copy to:

1. The Regional Director
Central Pollution Control Board – Chandigarh
BSNL Telephone Exchange, 2nd Floor,
Sector -49 C, Chandigarh – 160047

: For kind information and with request to
follow-up with PPCB, please

(V. P. Yadav)



EXECUTIVE ENGINEER W/S & SANITATION DIVISION SANGRUR
RANBIR CLUB ROAD, NEAR RED CROSS OFFICE, SANGRUR
E-mail id xenphsangrur@yahoo.in Phone No. :- 01672-234006

ਸੇਵਾ ਵਿਖੇ,

ਕਾਰਜਕਾਰੀ ਇੰਜੀਨੀਅਰ,
ਪੰਜਾਬ ਪ੍ਰਦੂਸ਼ਣ ਕੰਟਰੋਲ ਬੋਰਡ,
ਸੰਗਰੂਰ।

ਨੰ: 2846 ਮਿਤੀ 3/4/23
ਵਿਸਾ : ਪਿੰਡ ਆਲੋਅਰਖ ਬਲਾਕ ਭਵਾਨੀਗੜ੍ਹ ਵਿਖੇ ਪੀਣ ਵਾਲੇ ਪਾਣੀ ਸਬੰਧੀ।
ਹਵਾਲਾ: ਮਾਨਯੋਗ ਡਿਪਟੀ ਕਮਿਸ਼ਨਰ, ਸੰਗਰੂਰ ਜੀ ਨਾਲ ਅੱਜ ਮਿਤੀ: 03-04-2023 ਨੂੰ ਹੋਈ ਮੀਟਿੰਗ ਸਬੰਧੀ।

ਉਪਰੋਕਤ ਵਿਸ਼ੇ ਅਧੀਨ ਪੱਤਰ ਦੇ ਸਬੰਧ ਵਿੱਚ ਆਪ ਜੀ ਨੂੰ ਸੂਚਿਤ ਕੀਤਾ ਜਾਂਦਾ ਹੈ ਕਿ ਪਿੰਡ ਆਲੋਅਰਖ ਬਲਾਕ ਭਵਾਨੀਗੜ੍ਹ ਵਿਖੇ ਜੋ ਦੋ ਟਿਊਬਵੈਲਾਂ ਵਿੱਚੋਂ ਪ੍ਰਦੂਸ਼ਿਤ ਪਾਣੀ ਆ ਰਿਹਾ ਹੈ, ਉਹਨਾਂ ਰਾਹੀਂ ਪਿੰਡ ਨੂੰ ਪੀਣ ਪਾਣ ਦੀ ਸਪਲਾਈ ਨਹੀਂ ਵਰਤੀ ਜਾ ਰਹੀ। ਪਿੰਡ ਵਿੱਚ ਜਲ ਸਪਲਾਈ ਮਹਿਕਮੇ ਦੁਆਰਾ 275 ਘਰਾਂ ਨੂੰ ਵਾਟਰ ਵਰਕਸ ਤੋਂ ਪਾਣੀ ਦੇ ਕੁਨੈਕਸ਼ਨ ਮੁਹੱਈਆ ਕਰਵਾਏ ਗਏ ਹਨ ਅਤੇ ਬਾਕੀ ਘਰਾਂ ਵਿੱਚ ਨਿੱਜੀ ਸਬਮਰਸੀਬਲ ਲੱਗੇ ਹੋਏ ਹਨ ਜਾਂ ਆਪਣੇ ਤੌਰ ਤੇ ਪੀਣ ਵਾਲੇ ਪਾਣੀ ਦਾ ਪ੍ਰਬੰਧ ਕੀਤਾ ਹੋਇਆ ਹੈ। ਨੱਥੀ ਟੈਸਟ ਰਿਪੋਰਟ ਵਾਟਰ ਵਰਕਸ ਅਤੇ ਇਕ ਘਰ ਦੇ ਪਾਣੀ ਦੇ ਸੈਪਲ ਚੈਕ ਕਰਵਾਏ ਗਏ (ਰਿਪੋਰਟ ਨੱਥੀ ਹੈ।) ਰਿਪੋਰਟ ਅਨੁਸਾਰ ਪਿੰਡ ਵਿੱਚ ਪਾਣੀ ਫਿਲਹਾਲ ਪੀਣ ਯੋਗ ਹੈ। ਇਹ ਆਪ ਜੀ ਦੀ ਸੂਚਨਾ ਅਤੇ ਅਗਲੀ ਯੋਗ ਕਾਰਵਾਈ ਹਿੱਤ ਹੈ ਜੀ।

ਨੱਥੀ/ ਰਿਪੋਰਟ

ਕਾਰਜਕਾਰੀ ਇੰਜੀਨੀਅਰ,
ਜ/ਸ ਅਤੇ ਸੈਨੀਟੇਸ਼ਨ ਮੰਡਲ,
ਸੰਗਰੂਰ।

ਪਿੱਠ ਅੰਕਣ ਨੰ:

ਮਿਤੀ:

ਉਪਰੋਕਤ ਦੀ ਨਕਲ ਨਿਗਰਾਨ ਇੰਜੀਨੀਅਰ, ਜ/ਸ ਅਤੇ ਸੈਨੀਟੇਸ਼ਨ ਹਲਕਾ, ਸੰਗਰੂਰ ਜੀ ਨੂੰ ਸੂਚਨਾ ਹਿੱਤ ਭੇਜੀ ਜਾਂਦੀ ਹੈ ਜੀ।

ਕਾਰਜਕਾਰੀ ਇੰਜੀਨੀਅਰ,
ਜ/ਸ ਅਤੇ ਸੈਨੀਟੇਸ਼ਨ ਮੰਡਲ,
ਸੰਗਰੂਰ।

REGIONAL WATER TESTING LAB, SANGRUR
Prem Basti, D. C Office Road, Opposite to Punjab Gramin Bank, Sangrur
rwtlsangrur@gmail.com

To,

Sub Division -2 Sangrur
Sangrur

No.: RWTL/SNG/2122/2223/00195 Dated : 29/08/2022

Subject : Testing Reports of Water Samples.

Reference: Your Letter/SRF No. 727 Dated: 08/07/2022

As per above cited subject and reference, Please find enclosed here with the report of 1 Water sample/s received on dated 09/07/2022. It is request to fill the attached feedback form and send it back to Regional Water Testing Lab, Sangrur

D/A : Test Report



Authorized Signatory
For, Regional Water Testing Lab, Sangrur

REGIONAL WATER TESTING LAB, SANGRUR
 Prem Basti, D. C Office Road, Opposite to Punjab Gramin Bank, Sangrur
 rwtlsangrur@gmail.com

TEST REPORT

Name & Address of Customer : Sub Division -2 Sangrur Sangrur			Customer Reference No.		No : 727 Dated : 08/07/2022	
			Sample Submitted by		Guriqbal Singh	
			Date of Sample Receipt		09/07/2022	
			Analysis Starting Date		09/07/2022	
			Analysis completion Date		12/07/2022	
Discipline : Chemical Testing, Bacteriological Testing			Group: Water			
ULR No.:				Sample Type :		Water
Test Report No.:		RWTL/SNG/2122/2223/00195		Date of Issue :		29/08/2022
Registration no.:		RWTL/SNG/2122/REG2223/00571		Condition of Sample :		Unsealed
Collection Point:		Water Works		Quantity/Type of Bottle:		1000 ml / Amber Colored Glass Bottle
Scheme/Source:		Aloarkh(TUBEWELL)		Location/Depth :		Tubewell Village Alloarkh / 459 ft
Village :		Aloarkh		Habitation :		Aloarkh
Block:		Bhawanigarh		District :		Sangrur
Latitude :		Not Mentioned		Longitude:		Not Mentioned
Sr. No	Parameter	Result	As per IS-10500:2012 (2nd Rev.)		Unit	Reference Method :
			Acceptable Limit	Permissible Limit		
1	Iron	BDL	1.0	No Relaxation	mg/l	Spectrophotometric Method
2	Sulphate	59	200	400	mg/l	Spectrophotometric Method
3	Fluoride	0.11	1.0	1.5	mg/l	APHA 4500 F-(23rd Ed. 2017)/IS-3025 (Part-60)
4	Nitrate	11.21	45	No Relaxation	mg/l	Spectrophotometric Method/ APHA 4500 NO3-(23rd Ed. 2017)
5	Arsenic	ND	0.01	No relaxation	mg/l	Spectrophotometric Method/ Colorimetric Method
6	Total Coliform	ND	Shall not be detectable in any 100 ml sample	No relaxation	MPN/100 ml.	IS-1622 MPN Method
7	E-Coli	ND	Shall not be detectable in any 100 ml sample	No relaxation	MPN/100 ml.	IS-1622 MPN Method

This Report is issued under the following terms & Condition :

1. The results apply to the sample as received only.
2. The sample will be destroyed after retention time unless otherwise specified specially.
3. This report is not to be reproduce wholly or in part and can't be used as evidence in court of law.
4. Abbreviation used (TDS = Total Dissolved Solids, mg/l = milligram per liter, BDL = Below detection limit, APHA = American Public Health Association, IS = Indian Standard, NT = Not Tested, NA = Not Applicable NTU = Nephelometric Turbidity Unit, RA = Reaffirmed), ND=Not Detected
5. * Value not available or test not performed for this parameter.
6. Temperature condition limit: 25±5°C and Humidity condition limit:50 ±20%

Ramesh Jhorar

Dr. Ramesh Jhorar
 Quality Manager
 Authorized Signatory
 For, Regional Water Testing Lab, Sangrur

----- End of the Test Report -----

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O/o Quality Manager
Regional Advance Water Testing Laboratory, DWSS
Phase-2, SAS Nagar, Punjab

Tel: 0172-4330340 (O)
Email: rawtlmohali@gmail.com

To

Sub Divisional Engineer,
W/S & Sanitation Sub Div No.2,
Distt. Sangrur,
Punjab

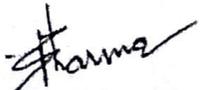
No. 2565

Date: 04/08/2021

Subject :- Test Reports of water samples.

Please find the enclosed here with the report no. RAWTL/19.235/1994
dated 04/08/2021 samples received on 26.07.2021. You are requested to fill the
attached feedback form and send it to Regional Advance Water Testing Laboratory, Phase
2, SAS Nagar, Mohali

D/A Test Report


Quality Manager
RAWTL, DWSS, Punjab

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**Regional Advance Water Testing Laboratory (RAWTL)
Phase- 2, SAS Nagar**

ULR-TC638821000000224F

ID No. RAWTL/19235/ 1994

Dated 04/08/2021

**TEST REPORT
Chemical Testing**

Sr. No	Group	Sample Tested in Group (✓)
1.	Residues in Water	✓
2.	Water	✓

Sample Registration No. : RAWTL/19235
Sample code given by customer : Not Applicable

Issued to:-

Sub Divisional Engineer,
W/S & Sanitation Sub Div No.2,
Distt. Sangrur,
Punjab.

SAMPLE PARTICULARS

Ref. Letter No.	: Letter No.855 dated 16.07.2021
Date of Receipt	: As per Annexure 1 attached
Sample code given by customer	: Not Applicable
Name / Nature of sample	: Water
Condition of the sample	: Un-Sealed samples
Qty/Pkg	: 500 ml Amber Colored Glass bottle
Sampling Method	: Sample not drawn by RAWTL
Test Start Date	: 27.07.2021
Test Completion Date	: 03.08.2021

Sharma
Er. Veenakshi Sharma
Quality Manager
Authorized Signatory
For Regional Advance Water Testing Laboratory

Note:

- The enclosed results pertain only to the sample tested.
- The report shall not be used for advertising or any legal purpose without written permission from the Head, DWSS.
- This report cannot be re-produced, except when in full, without the written permission from the Head, DWSS.
- The sample shall be destroyed after one month from the date of issue of the report.

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R-TC638821000000224F

ID No. RAWTL/19235/ 1774

Dated 09/08/2021

Sample Registration No. : RAWTL/19235
 Sample code given by customer : Not Applicable
Test Results
Chemical Testing

Radioactive Elements (Residues in Water)						
Sr. No	Parameter	WHO limit (ppb)	AERB limit (ppb)	Method Detection Limit (MDL) (ppb)	Result	Standard / Specification / Method Followed
1.	Uranium (U ²³⁸)	30	60	5	As per Annexure Attached	APHA-3125B - By ICPMS

Heavy Metals (As per IS 10500 : 2012) (Residues in Water)						
Sr. No.	Parameter	Acceptable limit mg/l	Permissible Limit mg/l	Method Detection Limit (MDL) (mg/l)	Result	Standard / Specification / Method Followed
1	Aluminum (Al)	0.03	0.2	0.01	As per Annexure Attached	APHA-3125B - By ICPMS
2	Chromium (Cr)	0.05	No relaxation	0.005		
3	Iron (Fe)	1.0	No relaxation	0.01		
4	Nickel (Ni)	0.02	No relaxation	0.005		
5	Mercury (Hg)	0.001	No relaxation	0.0005		
6	Arsenic (As)	0.01	No relaxation	0.005		
7	Selenium (Se)	0.01	No relaxation	0.005		
8	Cadmium (Cd)	0.003	No relaxation	0.001		
9	Lead (Pb)	0.01	No relaxation	0.005		
10	Copper (Cu)	0.05	1.5	0.01		

Anions (Water)						
Sr. No.	Parameter	Acceptable limit mg/l	Permissible Limit mg/l	Method Detection Limit (MDL) (mg/l)	Result	Standard / Specification / Method Followed
1.	Fluoride (F)	1.0	1.5	0.1	As per Annexure Attached	APHA-4110 - By IC
2.	Chloride (Cl)	250	1000	0.5		
3.	Nitrate (NO ₃)	45	No relaxation	0.5		
4.	Sulphate (SO ₄)	200	400	0.5		

Cations (Water)						
Sr. No.	Parameter	Acceptable limit mg/l	Permissible Limit mg/l	Method Detection Limit (MDL) (mg/l)	Result	Standard / Specification / Method Followed
1.	Calcium (Ca)	75	200	2.0	As per Annexure Attached	ISO 14911
2.	Magnesium (Mg)	30	100	1.0		

Note 1: ppb: parts per billion mg/l: milligram per litre
 MDL - method detection limit
 BDL - Below Detection Limit

Note 2: The parameters marked with an * are not accredited by NABL

[Signature]
 Deputy Quality Manager

[Signature]
 Authorized Signatory

U.R-TC638821000000224F
 ID No : RAWTLU19235/1994
 Dated : 04/09/2021

Sr No.	Registration No	District	Block	Name of Village	Sample Receipt Date	Source	Depth	ALUMINIUM		LEAD		SELENIUM		Chromium		MERCURY		ARSENIC		CADMIUM		NICKEL		IRON		Copper		URANIUM		Fluoride		Chloride		Nitrate		Sulphate	
								UM	(limit 0.03 relaxation 0.2)	no relaxation	(limit 0.01 relaxation)	no relaxation	(limit 0.05 relaxation)	no relaxation	(limit 0.001 relaxation)	no relaxation	(limit 0.003 relaxation)	no relaxation	(limit 0.02 relaxation)	no relaxation	(limit 4.0 relaxation)	no relaxation	(limit 0.05 relaxation)	no relaxation	(limit 30 µg/l-no relaxation)	0.75 µg/l	Limit 1.0 - 1.5 ppm	0.014	0.1	Limit 250 ppm	0.12	0.5	Limit 45 - No Relaxation	0.07	0.5	Limit 200 - 400 ppm	0.07
As per IS 10500:2012 (Rev 2): Requirement (Acceptable limit - Presmissible limit) mg/L								0.0015	0.0006	0.0007	0.0009	0.0001	0.0005	0.0005	0.005	0.0002	0.0003	0.0025	0.010	0.0008	5 µg/l	0.014	0.1	0.12	0.5	0.07	0.5	18.03	587.90								
Method detection limit (mg/L)								0.010	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.010	0.072	54.36	0.25	49.75	18.03	587.90												
Measurement Uncertainty(±)(mg/l)								0.050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.102	0.072	54.36	0.25	49.75	18.03	587.90														
1	RAWTLU19235	Sangrur	Shakamgah	Aloarth	26/07/2021	Scheme TW	330 ft																														

Signature
 Regional Advance Water Testing Laboratory
 DWSS, Phase-2, S.A.S Nagar, Punjab

Signature
 Er. Veerakshi Sharma
 Quality Manager
 Authorised Signatory
 For Regional Advance Water Testing
 Laboratory, SAS Nagar (Mohali)

3 of 4

ID No : RAWTL/19235/1994
Dated : 04/08/2021

Sr No.	Registration No	District	Block	Name of Village	Sample Receipt Date	Source	Depth	pH	TDS	Calcium	Magnesium
As per IS 10500:2012 (Rev 2): Requirement (Acceptable limit - Permissible limit) mg/L								Limit 6.5-8.5	Limit 500-2000	Limit 75 - 200	Limit 30 - 100
1	RAWTL/19235	Sangrur	Bhawanigarh	Aloarkh	26.07.2021	Scheme T/w	330 ft	8.33	1130	90	58

S. J. Singh
Regional Advance Water Testing Laboratory
DWSS, Phase-2, S.A.S Nagar, Punjab

Sharma
Er. Veenakshi Sharma
Quality Manager
Authorised Signatory
For Regional Advance Water Testing
Laboratory, SAS Nagar (Mohall)