BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Original Application No. 360 of 2023

IN THE MATTER OF:

Ajay Shrivastava …Applicant

Versus

State of Haryana & Ors. …Respondents

INDEX

Place: New Delhi

Date: 14.02.2025

Through Counsels:



Alok Sangwan, Rajat Sangwan and Sumit Kumar Sharma
[D/678/2000] [D/4417/2019] [D/6028/2020]
Advocates for the Respondent
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NEW DELHI 110001
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Reply by way of affidavit of respondent i.e. HPGCL, FTPS, Faridabad

I, Arbind Kumar, Executive Engineer, FTPS, HPGCL, Faridabad do hereby solemnly affirm and declare as under:

1. That I am well conversant with the facts of the present case and competent to swear this affidavit.
2. That this Hon'ble Tribunal vide order dated 06.11.2024 in the captioned O.A. had directed the answering respondent, i.e., FTPS, HPGCL to file a fresh response explaining why the old ash dyke should not be cleared in view of the observations made in the aforesaid order.
3. It is deposed that the Old Ash Dyke situated at FTPS, Faridabad is spread over an area of 103.615 acres. The said ash dyke has not been put to use 1987. Since then, no ash has been dumped therein nor dug out/lifted from this site. It is now covered by an earth layer which stabilized with natural compaction over a span of nearly 38 years. At this juncture, there is growth of thick natural vegetation over the entire site and it cannot be stated as source of pollution in view of what has been stated above.

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Photographs of the Old ash dyke are annexed as **Annexure- R-1.** Photographs downloaded from Google Earth is annexed as **Annexure- R-2.** It is further submitted that:

- The Old Ash Dyke is covered with thick and dense vegetation/plantation.
- The boundary wall of this dyke is made from stone boulders and masonry reaching up to 10 ft. and surrounds the said site;
- This dyke is surrounded by densely populated residential areas such as Sainik Colony, Sector-49, Faridabad on its west side, Nehru Colony on its east side, SGM Nagar on north side and Village Nawada on its south side.

4. That Pursuant to this Hon'ble Tribunal's order dated 15.04.2024, the answering respondent duly applied for certification for the Old Ash Dyke as it has stabilized along with the reclamation of the land taken place with natural plantation in accordance with Clause A(5) of the MOEF&CC notification dated 31.12.2021 before the Regional Officer, Haryana Pollution Control Board, Faridabad vide its application dated 24.04.2024. A copy of the said application dated 24.04.2024 has already been furnished before this Hon'ble Tribunal vide affidavit dated 18.07.2024.

5. That accordingly, upon the application by the answering respondent, a joint visit of the Old Ash Dyke was carried out by the concerned officers of HSPCB and HPGCL on 25.06.2024 to ascertain the site conditions, make observations and take necessary actions towards the issuance of certificate so sought from the Regional Officer, Haryana Pollution Control Board, Faridabad. Succinctly, the following observations were made in the said joint visit:

"...Followings were observed during the site visit:

i. The old ash dyke was found to covered with thick vegetation.

ii. The concrete boundary wall of this dyke was found intact.

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iii. *This dyke is surrounded by Sainik Colony, Sector-49 on its west side, Nehru Colony on its east side, SGM Nagar on north side and Village Nawada on its south side. All these areas are thickly populated.*

iv. *Reclamation of the land of old ash dyke has taken place with plantation.*

...This dyke fulfills all necessary requirements of MOEF&CC required for certifying this dyke a stable dyke as per Clause A(5) of MOEF&CC Notification dated 31.12.2021..."

A copy of the observations made at the said joint visit dated 26.06.2024 has already been furnished before this Hon'ble Tribunal vide affidavit dated 18.07.2024. It is thus evident that no pollution is caused by the Old Ash dyke. Therefore, the complaint filed by the complainant before the Hon'ble Tribunal deserves to be dismissed.

6. That the answering respondent, in order to ensure timely certification of the Old Ash Dyke in accordance with Clause A(5) of the MOEF&CC notification dated 31.12.2021, sent reminders vide office memo no. Ch-49/FTPS/2020/74 dated 12.07.2024 and office memo no. Ch-51/FTPS/2020/74 dated 30.10.2024 to the Regional Officer, Haryana Pollution Control Board, Faridabad. Copy of said reminders are annexed herewith as **ANNEXURE R-3**. The answering respondent is still awaiting the certification from the HSPCB qua application for certification dated 24.04.2024 despite the joint visit and reminders sent as aforesaid.

7. That Ministry of Environment, Forest and Climate Change Vide Notification dated 31.12.2021 issued directions for restricting the excavation of top soil for manufacturing of bricks and promoting the utilization of fly ash in the manufacturing of building materials and in construction activity within a specified radius of three hundred kilometers from the coal or lignite based thermal power plants. The notification in

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Clause A provides for 'Responsibilities of thermal power plants to dispose fly ash and bottom ash'. Relevant portion of clause A is reproduced as under:

(1) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall be primarily responsible to ensure 100 per cent utilisation of ash (fly ash, and bottom ash) generated by it in an eco-friendly manner as given in sub-paragraph (2);

(2) The ash generated from coal or lignite based thermal power plants shall be utilised only for the following eco-friendly purposes, namely:-

(i). Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels;

X X X

(v). Filling up of low lying area;

(vi). Filling of mine voids;

The old ash dyke was a low-lying area where the ash was dumped, which is a permissible eco-friendly manner of ash utilization as mentioned at point no. (v) of sub-paragraph (2) of paragraph A of the "Ash Utilization Notification".

Moreover, as per "Ash Utilization Notification", ash shall be utilized for the eco-friendly purposes, like: Construction of road and fly over embankment, Filling up of low lying area, Filling of mine voids, In agriculture as soil conditioner etc. This indirectly implies that there is no significant risk of contamination of ground water from ash dyke or filling by ash. The respondent Corporation dumped ash clearly as per the instructions of the MOEF&CC and has not caused any violations, whatsoever.

8. That in the interregnum, in order to ensure abundant compliance of the order dated 06.11.2024 passed by this Hon'ble Tribunal to explore the option of clearing the legacy ash at the Old Ash Dyke, the answering respondent engaged M/s Ind Tech House Consult (hereinafter the

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'ITHC'), an environmental consultant organization for availing services *inter alia* environmental audit and for assessment condition of Old Ash Dyke. ITHC is a NABET accredited/ certified environmental consultant. The consultant prepared a comprehensive report after visiting the Ash dykes and by taking into consideration various analysis/surveys conducted by Government agencies (**Central Ground Water Board, Bureau of Indian Standards etc.**) Copy of the Environmental Study Report dated 16.01.2025 is annexed as **ANNEXURE R-4**. The aforesaid report has *inter alia* highlighted various possible ramifications if the clearing of ash from the Old Ash Dyke is proceeded with.

9. That the aforesaid report has exhaustively conducted a comparison of various parameters of the groundwater monitoring results conducted by the HSPCB as per their report dated 29.10.2024 (**ANNEXURE R-5**) near the Old Ash Dyke vis-à-vis the results of groundwater analysis conducted by the **Central Ground Water Board** (CGWB) in different areas of Faridabad district in the year 2023 (Source: Ground water quality data of GWMWs in India-2023 published by CGWB, **ANNEXURE R-6**)) **https://cgwb.gov.in/en/ground-water-quality**

A brief extract has been reproduced hereunder:

Table A: Ground water quality data of GWMWs in India-2023 published by CGWB

SN	Block	Location	Latitude	Longitude	Dist. & Direction from Old Ash Dyke	pH	EC (µS/cm)	TDS (mg/l)	Hardness (mg/l)	Chloride (mg/l)
1	Ballabgarh	Kabulpur	28.4081	77.3955	16 km E	7.78	1973	1480	472	236
2	Ballabgarh	Tigaon	28.3662	77.3896	12.1 km SE	7.53	3187	2390	587	472

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3	Ballabgarh	Ballabgarh	28.3470	77.3350	7.5 km SE	7.87	4559	3419	950	902
4	Faridabad	Pali	28.3809	77.2411	2.9 km WSW	7.64	3000	2250	1050	760
5	Ballabgarh	Sikri	28.2758	77.2882	13.1 km S	7.81	6426	4820	1860	1732
6	Ballabgarh	Jasana	28.4013	77.4203	14.1 km E	7.60	2104	1578	580	274
7	Faridabad	CGWB CHQ, NH-IV	28.4181	77.3139	4.1 km NE	8.09	5500	4125	910	1676
					Average	7.76	3821	2866	916	865

Table B: Comparison of Ground Water Monitoring Results of HSPCB (2024) and CGWB (2023)

S. No.	Parameter	Unit	Monitoring Results by HSPCB near Old Dyke (2024)		Monitoring Results by CGWB in Faridabad (2023)	
			Range	Average	Range	Average
1	pH	-	7.27 - 7.42	7.35	7.53 - 8.09	7.76
2	TDS	mg/l	1830 - 2920	2204	1480 - 4820	2866
3	Hardness	mg/l	596 - 836	661	472 - 1860	916
4	Chloride	mg/l	175 - 718	484	236 - 1732	865

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From the aforesaid comparison, it is evident that no significant difference is seen between the parameters from the results of HSPCB and the results of CGWB. The quality of groundwater is nearly similar for the Old Ash Dyke in juxtaposition to areas in far flung locations (about 7 to 16 km) from the Old Ash Dyke. In fact, the average TDS, Hardness and Chloride levels near old ash dyke is lesser than the corresponding levels in other areas of Faridabad which are far away from the Old Ash Dyke.

10. That the aforesaid report also contains that the probable consequences of removal of legacy ash from the Old Ash Dyke *inter alia* are:

a. Destruction of all the vegetation and green area grown on the old ash dyke since the past 38 years;

b. Exposing the ash will create emission of ash into the air, thereby creating respiratory issues amongst the residents of the neighbourhood;

c. It will create air pollution in the surrounding area due to wind-blown ash;

11. That, the new ash dyke and the old ash dyke are distant about three kilometers from each other. The new ash dyke abuts the Aravali hills and is situated at a higher altitude than the old ash dyke. The geological conditions and rock formation of both the places are significantly different, so as the quality of ground water. Therefore, the comparison of groundwater quality based on samples from different depths cannot conclusively reflect groundwater pollution. It is vehemently asserted that the quality of ground water of old ash dyke is similar to the quality of water situated at same altitude and in same geological condition. The said assertion is substantially supported by the data made available by **Central Ground Water Board** (CGWB). Thus, no reliance can be placed on the submission of HSPCB " that the samples of ground water collected from

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near the old ash dyke have been found to be exceeding the prescribed limits much more than what has been found in respect of the samples from new ash dyke".

12. That, no easy approach is available to reach the Old Ash Dyke, uproot the thick vegetation which has grown over a span of 38 years, excavate the layer of earth for an area spanning over 103 acre and thereafter lift the legacy ash from this dyke through trucks/dumpers, especially while being surrounded by densely populated residential area. Therefore, it is most humbly submitted by the answering respondent that at this juncture it is not desirable to clear the Old Ash Dyke situated at FTPS, Faridabad.

13. That, it is amply clear from the aforesaid report as well as other depositions made herein that the Old Ash Dyke at this point is covered with thick vegetation and now totally stabilized. The natural ecosystem on the dyke has developed. There is no causal link of the air pollution and ground water contamination to the existence of the Old Ash Dyke as it stands. Therefore, there is no need to remove the legacy ash and destabilize the well-stabilized Old Ash Dyke.

DEPONENT

VERIFICATION:

Verified at Faridabad, Haryana on this 14 day of February, 2025 that the contents of above affidavit are true and correct to my knowledge derived from the officials records of the FTPS, Faridabad. Nothing material has been concealed therefrom.

ATTESTED AS IDENTIFIED

Notary Faridabad (Haryana)

DEPONENT

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Throw the Document and Hold to Thumb

Annexure-R1

Photograph of Old Ash Dyke of FTPS

Photograph of Old Ash Dyke of FTPS

Photograph of Old Ash Dyke of FTPS

Photograph of Old Ash Dyke of FTPS

(TRUE COPY)

Annexure-R2

(TRUE COPY)

Annexure R3 (Colly)

HARYANA POWER GENERATION CORPORATION LIMITED
Regd. Office: C-7, Urja Bhawan, Sector-6, Panchkula
Corporate Identity Number: U45207HR1997SGC033517
(An ISO: 9001, ISO:14001 & OHSAS: 45001 Certified Company)
Website: www.hpgcl.org.in Email: xenftps@hpgcl.org.in

From

Executive Engineer,
FTPS, HPGCL, Faridabad.

To

The Regional Officer,
HSPCB, Faridabad.

Gentle reminder

Memo. No: - Ch-49/FTPS/2020/74 Dated: -12/07/2024

Subject: Certification of old ash dyke of FTPS, Faridabad being a stable dyke as per Clause A (5) of MOEF& CC Notification dated 31.12.2021

Ref: - This office memo no. Ch-48/FTPS/2020/74 dated 26/06/2024

This is in continuation to this office above referred memo regarding subject cited matter. It is once again intimated that above mentioned certificate is required by this office for submission of same before Honorable National Green Tribunal, Principal Branch, New Delhi, in compliance to its order dated 15/04/2024 in OA 360 of 2023 titled Ajay Srivastava Vs State of Haryana. The next date of hearing in this case is 26.07.2024.

You are once again requested to issue a Certificate in respect of old ash dyke of FTPS, Faridabad being a stable dyke as per Clause A (5) of MOEF& CC Notification dated 31.12.2021

Executive Engineer,
FTPS, HPGCL, Faridabad.

CC to:

1. Chief Engineer/ PTPS, Panipat for kind information, please.
2. SE/ MM & Store, PTPS, Panipat for kind information, please.

Haryana State Pollution Control Board
Sr. No. .....
Dated .....
Faridabad Region, Faridabad
15/7/2024

HARYANA POWER GENERATION CORPORATION LIMITED
Regd. Office: C-7, Urja Bhawan, Sector-6, Panchkula
Corporate Identity Number: U45207HR1997SGC033517
(An ISO: 9001, ISO:14001 & OHSAS: 45001 Certified Company)
Website: www.hpgcl.org.in Email: xenftps@hpgcl.org.in

m

Gentle reminder

Executive Engineer,
FTPS, HPGCL, Faridabad.

o

The Regional Officer,
HSPCB, Faridabad.

Memo. No: - Ch-51/FTPS/2020/74 Dated: -30/10/2024

Subject: Certification of old ash dyke of FTPS, Faridabad being a stable dyke as per Clause A (5) of MOEF& CC Notification dated 31.12.2021.

Ref: - 1. This office memo no. Ch-48/FTPS/2020/74 dated 24/04/2024
2. This office memo no. Ch-49/FTPS/2020/74 dated 12/07/2024

This is in continuation to this office above referred memo regarding Certification of old ash dyke of FTPS, Faridabad being a stable dyke as per Clause A (5) of MOEF& CC Notification dated 31.12. 2021.Honorable National Green Tribunal, Principal Branch, New Delhi has, in its order dated 26/07/2024, directed your good office to file reply at least one week before the next date of hearing i.e.06.11.2024.
This is for your kind information and necessary compliance.

Executive Engineer,
FTPS, HPGCL, Faridabad.

CC to:

1. Chief Engineer/ PTPS, Panipat for kind information, please.
2. SE/ MM & Store, PTPS, Panipat for kind information, please.

(TRUE COPY)

Annexure-R4

ENVIRONMENTAL STUDY REPORT
FOR
OLD ASH DYKE OF FARIDABAD THERMAL POWER STATION (FTPS), FARIDABAD, HARYANA

SUBMITTED TO

M/S HARYANA POWER GENERATION CORPORATION LIMITED (HPGCL)

(A Govt. of Haryana Undertaking)

ENVIRONMENTAL CONSULTANT

IND TECH HOUSE CONSULT
G-8/6, Ground Floor, Sector 11, Rohini, Delhi – 110 085
Tel: +91 11 46570361
(NABET/EIA/23-26/RA 0309 Valid up to 29/04/2026)

February 2025 Rev.03

HPGCL	Report on Old Ash Dyke of Faridabad Thermal Power Plant (FTPS), Faridabad, Haryana	Environmental Assessment

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1.0 INTRODUCTION AND BACKGROUND

Faridabad Thermal Power Plant (FTPS) located at Faridabad, Haryana, belongs to Haryana Power Generation Corporation Limited (HPGCL), a Govt. of Haryana Undertaking. FTPS is an old thermal power plant which was closed and dismantled in the year 2010. But the ash dykes are still existing. HPGCL has engaged M/s Ind Tech House Consult (ITHC), an environmental Consultant organization, for providing services related to environmental audit and legal compliance for Faridabad Thermal Power Plant (FTPS). M/s Ind Tech House Consult is a NABET accredited/ certified Consultant, holding Accreditation Certificate No: NABET/EIA/23-26/RA 0309 which is valid up to 29/04/2026.

2.0 SITE VISIT AND FIELD RECONNAISSANCE

A team of environmental experts of ITHC along with the officials of FTPS have visited the ash dykes of FTPS on 16th January 2025, and made a field reconnaissance of the physical condition of the ash dykes. Photographs of the ash dykes are also been taken.

3.0 LOCATION OF THE OLD ASH DYKE OF FTPS

The old ash dyke of Faridabad Thermal Power Station (FTPS) of HPGCL is located in Sector-49 Faridabad, Haryana. The location of the old ash dyke on Google Map is shown below in **Figure-1**. The old ash dyke is surrounded by Sainik Colony & Aravali Vihar on the north side, Sector-49 & Indraprastha Colony on the west side, Nehru Colony on its east side and Nawada village on its south side.

Figure-1 Location of the FTPS Old Ash Dyke on Google Map

4.0 STABILIZATION OF THE OLD ASH DYKE

The old ash dyke is spread over an area of 103.615 acres. The ash dyke was abandoned in the year 1987. Since then, no ash is dumped or reclaimed. Thereafter, the ash dyke was covered with layer of earth and vegetation was grown on top of it. It is surrounded by more than 10 ft high wall made of boulders and masonry. As evident from the Google image given below in **Figure-2**, the old ash dyke is covered with thick vegetation.

Figure-2 Google Image of the FTPS Old Ash Dyke

The ash dyke was abandoned about 38 years ago. In this long period, the ash dyke is totally stabilized. The ash dyke is covered with soil layer and stabilized with natural compaction and growth of thick vegetation. It is covered with dense plantation full of Kikar (Acacia nilotica).

Surrounded by buildings and densely populated residential areas, it is now performing as green lung of the densely populated urban locality. The ecosystem of the stabilized ash dyke became the habitat of various kinds of birds and animals.

5.0 GROUNDWATER QUALITY MONITORING RESULTS

The results of groundwater quality monitoring conducted by HSPCB near the old ash dyke is given below in **Table-1**. The latitude and longitude of HSPCB monitoring locations is given below.

Point 1- Lat: 28.394572, long: 77.270158
Point 2- Lat: 28.39484, long: 77.270486
Point 3- Lat: 28.394572, long: 77.270158
Point 4- Lat: 28.394606, long: 77.270173
Point 5- Lat: 28.39484, long: 77.270486

Table-1 Ground Water Quality Monitoring Results of HSPCB Near Old Ash Dyke (Source: Test Report of HSPCB Regional Laboratory, Faridabad, dated 29.10.2024)

SN	Parameter	Unit	Monitoring Results					Range	Average	Max Limits as per IS-10500	
			Point 1	Point 2	Point 3	Point 4	Point 5			Acceptable	Permissible
1	pH	-	7.37	7.42	7.34	7.27	7.34	7.27 - 7.42	7.35	6.5-8.5	6.5-8.5
2	TDS	mg/l	2920	2440	1980	1850	1830	1830 - 2920	2204	500	2000
3	Hardness	mg/l	596	836	640	620	612	596 - 836	661	200	600
4	Chloride	mg/l	463	718	591	175	471	175 - 718	484	250	1000

Note: As per IS-10500 (2012) "Drinking Water Specification", it is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable limit' render the water not suitable, but still may be tolerated upto the limits indicated under 'permissible limit' in the absence of an alternative source.

From the above test results of groundwater near old ash dyke it is found that, the average TDS (average 2204 mg/l) is slightly above the permissible limit of 2000 mg/l and the average Hardness (average 661 mg/l) is slightly above the permissible limit of 600 mg/l. But the Chloride levels (range 175-718 mg/l) is well within the permissible limit of 1000 mg/l.

The groundwater monitoring results conducted by CGWB in 2021 in different areas of Faridabad which are located far away (about 7 to 16 km) from the old ash dyke is given in **Table-2**. The locations of the CGWB ground water quality monitoring locations on Google Image is shown in **Figure-3**.

Figure-3 Google Image Showing CGWB Groundwater Monitoring Locations

Table-2 Ground Water Quality Monitoring Results of CGWB (2021) in Faridabad District (Source: Ground water quality data of India-2021 published by CGWB)

https://cgwb.gov.in/en/ground-water-quality

SN	Block	Location	Latitude	Longitude	Dist. & Dir from Old Ash Dyke	pH	EC (µS/cm)	TDS (mg/l)	Hardness (mg/l)	Chloride (mg/l)
1	Ballabgarh	Kabulpur	28.394	77.439	16 km E	8.47	2001	1501	405	432
2	Ballabgarh	Tigaon	28.347	77.390	12.1 km SE	8.82	2830	2123	482	610
3	Ballabgarh	Ballabgarh	28.347	77.335	7.5 km SE	8.54	4010	3008	636	978
4	Faridabad	Pali	28.381	77.244	2.9 km WSW	8.12	2897	2173	1008	801
5	Ballabgarh	Sikri	28.275	77.288	13.1 km S	8.20	5674	4256	1216	1687
6	Ballabgarh	Ferozpur Kalan	28.303	77.238	10.5 km SW	8.84	3320	2490	318	652
7	Faridabad	CGWB CHQ, NH-IV	28.418	77.314	4.1 km NE	8.38	3901	2926	449	1120
					Average	8.48	3519	2640	645	897

Calculation of TDS: TDS = 0.75 x EC (as per page 3 of "Annual Ground Water Quality Report 2024" By CGWB)

Comparison of the monitoring results conducted by HSPCB near the FTPS old ash dyke with monitoring results conducted by CGWB in 2021 in different areas of Faridabad district, has been done in **Table-3** and Charts in **Figures-4, 5 and 6**.

Table-3 Comparison of Ground Water Monitoring Results of HSPCB (2024) and CGWB (2021)

SN	Parameter	Unit	Monitoring Results by HSPCB near Old Dyke		Monitoring Results by CGWB in Faridabad (2021)		Max Limits as per IS-10500	
			Range	Average	Range	Average	Acceptable	Permissible
1	pH	-	7.27 - 7.42	7.35	8.12 - 8.84	8.48	6.5-8.5	6.5-8.5
2	TDS	mg/l	1830 - 2920	2204	1501 - 4256	2640	500	2000
3	Hardness	mg/l	596 - 836	661	318 - 1216	645	200	600
4	Chloride	mg/l	175 - 718	484	432 - 1687	897	250	1000

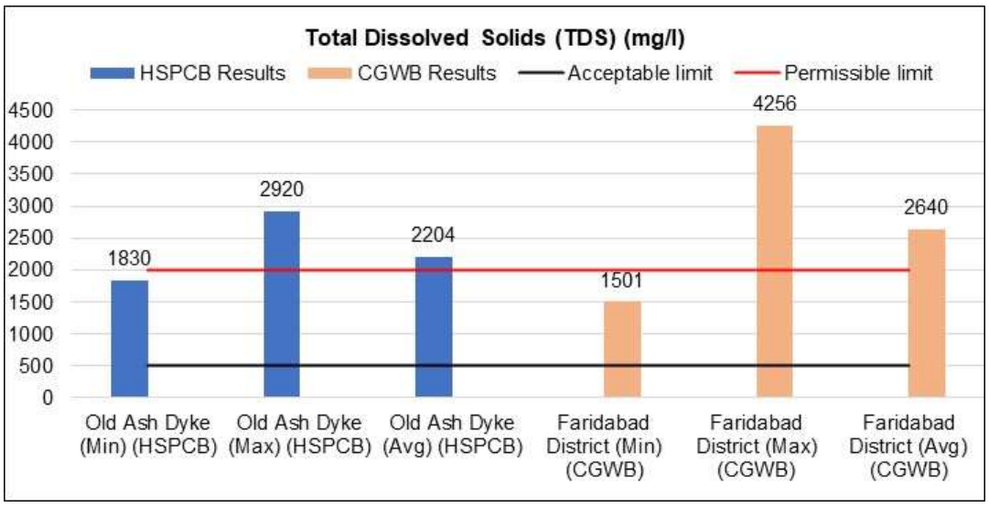

Figure-4 Chart for Comparison of TDS between HSPCB (2024) and CGWB (2021) Test Results

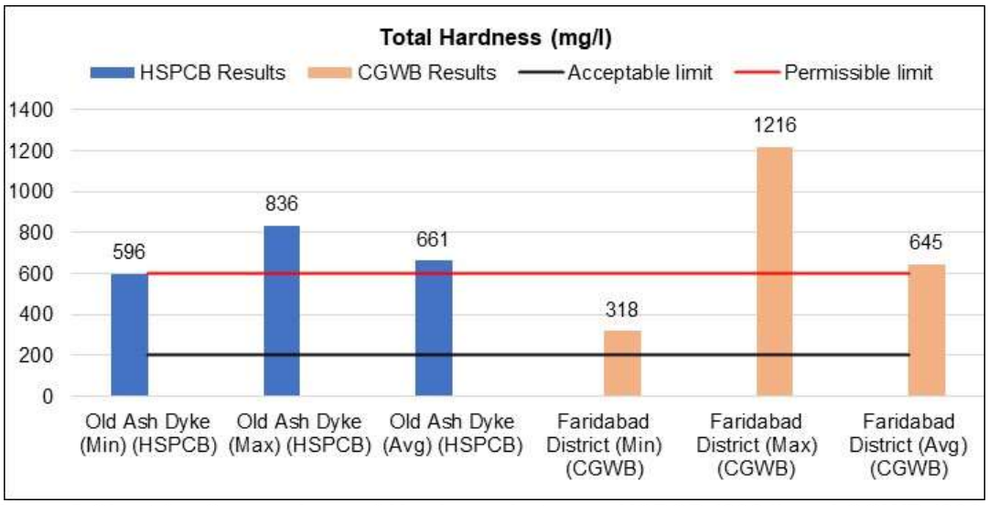

Figure-5 Chart for Comparison of Hardness between HSPCB (2024) and CGWB (2021) Test Results

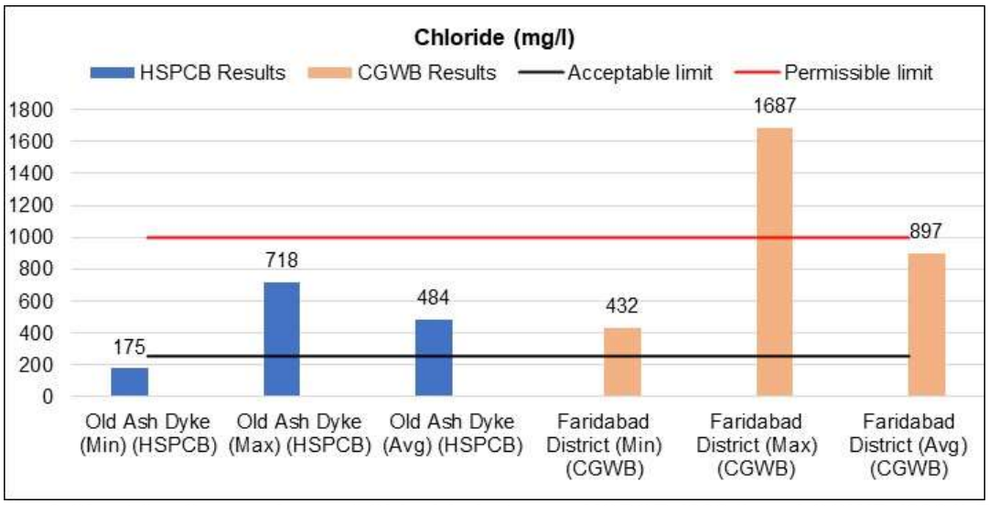

Figure-6 Chart for Comparison of Chloride between HSPCB (2024) and CGWB (2021) Test Results

The groundwater monitoring results conducted by CGWB in 2023 in different areas of Faridabad which are located far away (about 7 to 16 km) from the old ash dyke is given in **Table-4**. Comparison of the monitoring results conducted by HSPCB near the FTPS old ash dyke with monitoring results conducted by CGWB in 2021 in different areas of Faridabad district, has been done in **Table-5** and Charts in **Figures-7, 8 and 9**.

Table-4 Ground Water Quality Monitoring Results of CGWB (2023) in Faridabad District (Source: Ground water quality data of India-2023 published by CGWB)

https://cgwb.gov.in/en/ground-water-quality

SN	Block	Location	Latitude	Longitude	Dist. & Dir from Old Ash Dyke	pH	EC (µS/cm)	TDS (mg/l)	Hardness (mg/l)	Chloride (mg/l)
1	Ballabgarh	Kabulpur	28.4081	77.3955	16 km E	7.78	1973	1480	472	236
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3	Ballabgarh	Ballabgarh	28.3470	77.3350	7.5 km SE	7.87	4559	3419	950	902
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5	Ballabgarh	Sikri	28.2758	77.2882	13.1 km S	7.81	6426	4820	1860	1732
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7	Faridabad	CGWB CHQ, NH-IV	28.4181	77.3139	4.1 km NE	8.09	5500	4125	910	1676
					Average	7.76	3821	2866	916	865

Table-5 Comparison of Ground Water Monitoring Results of HSPCB (2024) and CGWB (2023)

SN	Parameter	Unit	Monitoring Results by HSPCB near Old Dyke		Monitoring Results by CGWB in Faridabad (2023)		Max Limits as per IS-10500	
			Range	Average	Range	Average	Acceptable	Permissible
1	pH	-	7.27 - 7.42	7.35	7.53 - 8.09	7.76	6.5-8.5	6.5-8.5
2	TDS	mg/l	1830 - 2920	2204	1480 - 4820	2866	500	2000
3	Hardness	mg/l	596 - 836	661	472 - 1860	916	200	600
4	Chloride	mg/l	175 - 718	484	236 - 1732	865	250	1000

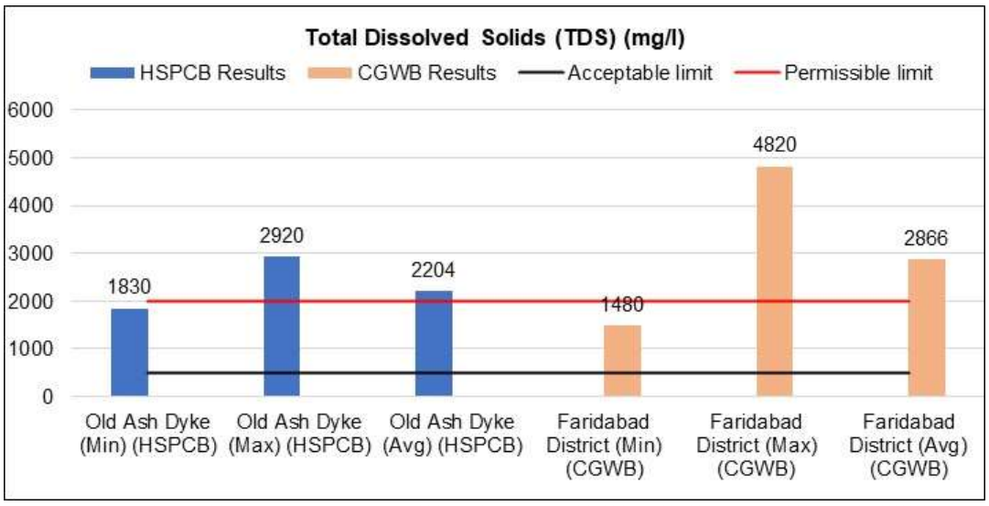

Figure-7 Chart for Comparison of TDS between HSPCB (2024) and CGWB (2023) Test Results

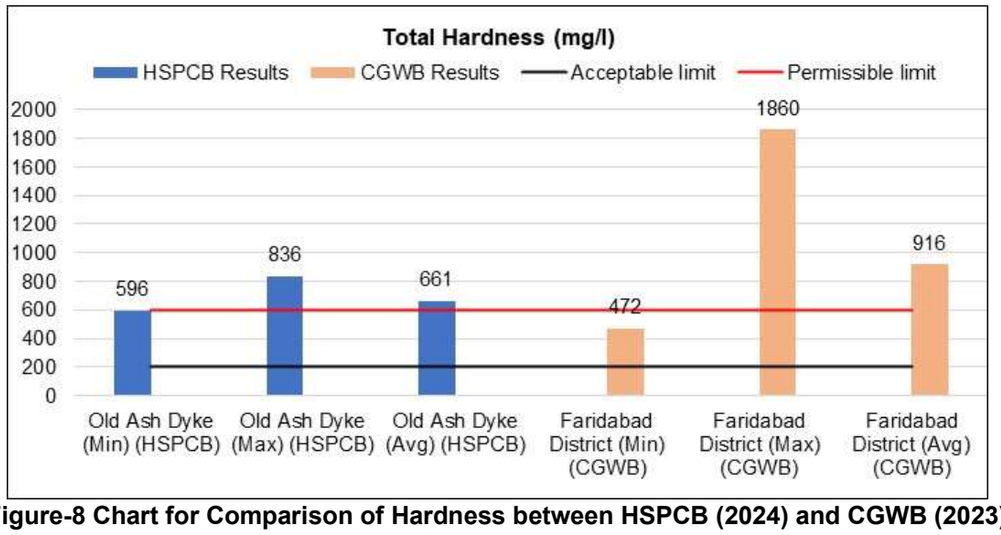

Figure-8 Chart for Comparison of Hardness between HSPCB (2024) and CGWB (2023) Test Results

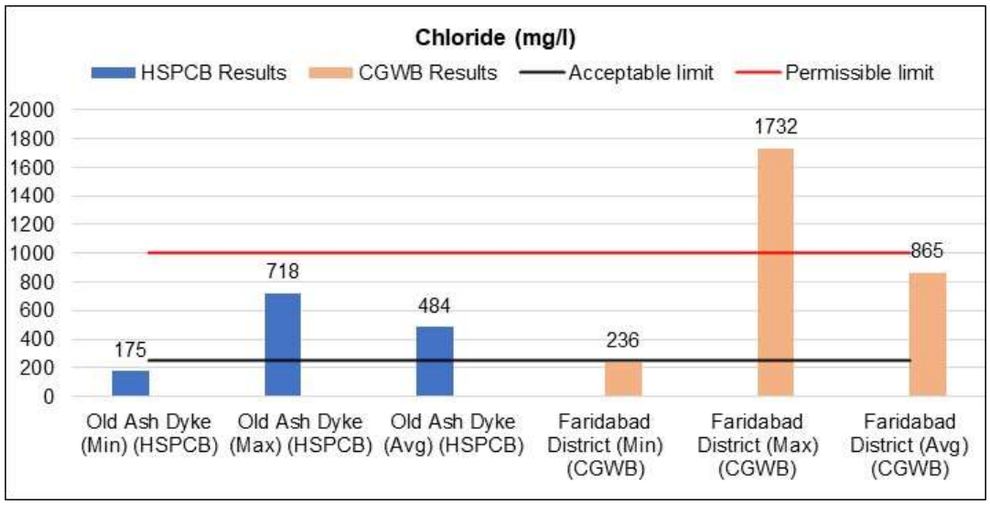

Figure-9 Chart for Comparison of Chloride between HSPCB (2024) and CGWB (2023) Test Results

From the comparison, it is found that there is no significant difference between the monitoring results of HSPCB and CGWB. The quality of groundwater is almost similar near the old ash dyke and in areas far away (about 7 to 16 km) from the old ash dyke. Rather the average TDS and Chloride level near old ash dyke is less than the respective level in other areas of Faridabad which are far away from the old ash dyke.

In the "Ground Water Information Booklet of Faridabad District 2013" published by CGWB, regarding groundwater quality of the Faridabad district, it is stated that:

"The shallow ground water of the district is alkaline in nature (pH 7.75 to 8.62) and is moderately to highly saline (EC 693 to 3590 μS/cm). Among anions, bicarbonate predominates at some places, whereas at other places either none of the anion dominates or chloride is dominant. Among cations, by and large, sodium is the dominant cation. At some places mixed cationic character has been observed. Comparing the concentration values of major ions with the recommended desirable and permissible concentration limits for drinking waters (Bureau of

Indian Standards) it is found that more than half (75%) of the ground waters are not suitable for drinking purposes."

From the CGWB reports and monitoring results it is evident that the bad quality of groundwater in the entire Faridabad district is a natural phenomenon due to the rock formation and hydrogeological setting of the area in macro-level. The high salinity (high EC and TDS) in ground water is the inherent nature of the entire Faridabad district. The ground water of Faridabad district in general does not meet the drinking water quality standards as per IS-10500 (2012). It is not a localized phenomenon near the old ash dyke. The ash dyke is not the reason for the bad water quality of the entire district.

Moreover, abandoned about 38 years ago, whatever leaching had to occur, it had already occurred long ago and, at present there is nothing significant left in the ash dyke for further leaching. Due to nearly 10 feet height of the ash dyke, less rainfall and dense vegetation cover, there is rare possibility of percolation of rainwater into the groundwater aquifer. Therefore, it may be concluded that the there is no significant effect of the old ash dyke on the groundwater quality of the surrounding area.

Moreover, the domestic water in the area around the old ash dyke is supplied by HUDA (HSVP) through pipelines. Use of groundwater in the locality is minimal, and therefore, there is no risk to public health.

6.0 LEGAL ASPECTS OF THE OLD ASH DYKE

In sub-paragraph (5) of paragraph A of the "Ash Utilisation Notification" S.O. 5481(E) dated 31st December, 2021, as amended vide notification S.O. 6169(E) dated 30th December, 2022, it is stated that:

"(5) The unutilised accumulated ash i.e. legacy ash, which is stored before 1st April, 2022, shall be utilised progressively by the thermal power plants in such a manner that the utilization of legacy ash shall be completed fully within ten years from 1st April, 2022 and this will be over and above the utilisation targets prescribed for ash generation through current operations of that particular year:

Provided that the minimum quantity of legacy ash in percentages as mentioned below shall be utilised during the corresponding year and the minimum quantity of legacy ash is to be calculated based on the annual ash generation as per installed capacity of thermal power plant.

Year from date of publication	*1st*	*2nd*	*3rd -10th*
Utilisation of legacy ash (in percentage of Annual ash)	*At least 20 percent*	*At least 35 percent*	*At least 50 percent*

Provided further that the legacy ash utilisation shall not be required where ash pond or dyke has stabilised and the reclamation has taken place with greenbelt or plantation or solar power plant or wind power plant as per the guidelines issued by the Central Pollution Control Board (CPCB) as specified in sub-para (6) and the concerned State Pollution Control Board shall certify in this regard. Stabilisation and reclamation of an ash pond or dyke including certification by the State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be carried out within three years from 1st April, 2022. The ash remaining in all other ash ponds or dykes shall be utilised in progressive manner as per the above mentioned timelines.

Provided that ash stored in all ash ponds or dykes other than operational ash pond or dyke designated for temporary storage of ash as specified in sub-para (6) shall constitute the legacy ash and either to be reclaimed or stabilised or utilised.

Note: The obligations under sub-paragraph (4) and (5) above for achieving the ash utilisation targets shall be applicable from 1st April, 2022."

In sub-paragraph (1) and (2) of paragraph A of the "Ash Utilisation Notification" S.O. 5481(E) dated 31st December, 2021, it is stated that:

"A. Responsibilities of thermal power plants to dispose fly ash and bottom ash.

(1) Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall be primarily responsible to ensure 100 per cent utilisation of ash (fly ash, and bottom ash) generated by it in an eco-friendly manner as given in sub-paragraph (2);

(2) The ash generated from coal or lignite based thermal power plants shall be utilised only for the following eco-friendly purposes, namely:
- *(i) Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels;*
- *(ii) Cement manufacturing, ready mix concrete;*
- *(iii) Construction of road and fly over embankment, Ash and Geo-polymer based construction material;*
- *(iv) Construction of dam;*
- ***(v) Filling up of low lying area;***
- *(vi) Filling of mine voids;*
- *(vii) Manufacturing of sintered or cold bonded ash aggregate;*
- *(viii) Agriculture in a controlled manner based on soil testing;*
- *(ix) Construction of shoreline protection structures in coastal district;*
- *(x) Export of ash to other countries;*
- *(xi) Any other eco-friendly purpose as notified from time to time."*

The old ash dyke was a low-lying area where the ash was dumped, which is a permissible eco-friendly manner of ash utilization as mentioned at point no. (v) of sub-paragraph (2) of paragraph A of the "Ash Utilisation Notification".

Moreover, as per "Ash Utilisation Notification", ash shall be utilised for the eco-friendly purposes, like: Construction of road and fly over embankment, Filling up of low lying area, Filling of mine voids, In agriculture as soil conditioner etc. This indirectly implies that there is no significant risk of contamination of ground water from ash dyke or filling by ash.

Legal Interpretation:

The unutilised accumulated ash in the old ash dyke which is abandoned in the year 1987 is "legacy ash". As per Ash Utilisation Notification S.O. 5481(E) dated 31st December, 2021, as amended vide notification S.O. 6169(E) dated 30th December, 2022, the utilisation/ removal of this legacy ash is not required because the old ash dyke has stabilised and the reclamation has taken place with soil cover, greenbelt and dense plantation. However, a certificate shall be taken from the Haryana State Pollution Control Board (HSPCB) regarding stabilisation and reclamation of the old ash dyke within three years from 1st April, 2022, i,e, within 31st March 2025.

Moreover, the old ash dyke was a low-lying area where the ash was dumped, which is a permissible eco-friendly manner of ash utilization as mentioned in the "Ash Utilisation Notification".

7.0 PROBABLE CONSEQUENCES OF REMOVAL OF ASH

The old ash dyke is covered with thick vegetation and now totally stabilized. The natural ecosystem on the ash dyke has developed. There is no air pollution and chances of ground water contamination. Therefore, there is no need to remove the ash and destabilize the well stabilized ash dyke.

Following may be the probable consequences of removal of ash from the old ash dyke:

- Destruction of all the vegetation and green area grown on the old ash dyke
- Exposing the ash will create emission of ash into the air
- It will create air pollution in the surrounding area due to wind-blown ash
- It may create anger and protest among the residents of the neighbourhood

8.0 CONCLUSION

The old ash dyke is covered with thick vegetation and now totally stabilized. The natural ecosystem on the ash dyke has developed. There is no air pollution and chances of ground water contamination. Therefore, there is no need to remove the ash and destabilize the well stabilized ash dyke. Removal of ash from the old ash dyke will destroy the vegetation, will create air pollution in the surrounding area due to wind-blown ash, and it may create anger and agitation among the residents of the neighbourhood. Therefore, it would not be appropriate to remove the ash from the old ash dyke.

Photographs of the Old Ash Dyke

Photograph of Old Ash Dyke of FTPS

Photograph of Old Ash Dyke of FTPS

Photograph of Old Ash Dyke of FTPS

Photograph of Old Ash Dyke of FTPS

(TRUE COPY)

Annexure R5

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	401 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS Old ash dyke point 1, Lat.-28.394572, Long.-77.270158
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Hazy	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.37	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	2920	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	596	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	463.1	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	85	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	34.7	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.011	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.009	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.205	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

Notes:

1. The results relate only to the items tested.
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4. If sample not preserved, results may vary.

Sample analyzed by:

Varsha Sehrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7969- 7970 **Dated** 29/10/24

c/c

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	397 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS Old ash dyke point 2, Lat.-28.39484, Long.-77.270486
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.42	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	2440	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	836	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	717.9	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	72	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	29.4	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.004	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	BDL (DL=0.03)	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.117	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

Notes:

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Sample analyzed by:

Varsha Sehrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7961- 7962

Dated 29/10/24

A/C

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	400 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS Old ash dyke point 3, Lat.-28.394572, Long.-77.270158
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.34	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	1980	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	640	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	590.9	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	76	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	31.4	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.027	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.233	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

Notes:

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Sample analyzed by:

Varsha Sehrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7967- 7968 **Dated** 29/1/24

Ole

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	399 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS Old ash dyke point 4, Lat.-28.394606, Long.-77.270173
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.27	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	1850	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	620	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	174.9	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	72	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	28.4	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.029	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.149	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

Notes:

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Sample analyzed by:

Varsha Schrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7965- 7966 **Dated** 29/10/24

o/e

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	398 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS Old ash dyke point 5, Lat.-28.39484, Long.-77.270486
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.34	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	1830	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	612	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	471.4	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	68	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	25.2	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.034	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.290	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

Notes:

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4. If sample not preserved, results may vary.

Sample analyzed by:

Varsha Sehrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7963- 7964 **Dated** 29/10/24

Q/C

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	402 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS New ash dyke point 1, Lat.-28.399195, Long.-77.258904
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.32	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	1110	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	394	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	132.8	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	64	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	11.8	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.058	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

Notes:

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Sample analyzed by:

Varsha Sehrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7971- 7972 **Dated** 29/10/24

O/C

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	403 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS New ash dyke point 2, Lat.-28.405436, Long.-77.258904
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.38	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	720	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	424	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	298.6	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	70	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	14.6	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.231	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

Notes:

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Sample analyzed by:

Varsha Sehrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7973 - 7974 **Dated** 29/10/24

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REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	404 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS New ash dyke point 3, Lat.-28.406903, Long.-77.282775
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24^{th} Edition 2023)	7.22	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24^{th} Edition 2023)	510	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24^{th} Edition 2023)	264	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	149.4	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24^{th} Edition 2023)	55	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24^{th} Edition 2023)	10.2	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24^{th} Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24^{th} Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24^{th} Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24^{th} Edition 2023)	ND	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24^{th} Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24^{th} Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.074	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

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Sample analyzed by:

Varsha Schrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7975 - 7976 **Dated** 29/10/24

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REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No. : 405 M
Date : 29/10/2024
Issued To : Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type : Ground Water Sample
Sample collected on dated : 22/10/2024
Sample Collected by : Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated : 22/10/2024
Sample Location : FTPS New ash dyke point 4, Lat.-28.397839, Long.-77.265711
Sample Quantity : 2 Litre
Date of Analysis started : 22/10/2024
Dated of analysis completed : 29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.08	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	2080	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	698	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	556.1	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	110	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	42.7	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.015	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.014	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	1.475	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

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Sample analyzed by:

Varsha Sehrawat/Mohit Kumar/Narender Hooda
Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7977- 7978 **Dated** 29/10/24

O/C.

REGIONAL LABORATORY
Haryana State Pollution Control Board
Sector-16A, Opp. HEWO Apartment, Faridabad

TEST REPORT

Test Report No.	:	406 M
Date	:	29/10/2024
Issued To	:	Regional Officer, Faridabad/Member Secretary HSPCB
Sample Type	:	Ground Water Sample
Sample collected on dated	:	22/10/2024
Sample Collected by	:	Sh. Jatin Barwala, AEE & Sh. Pardeep Kumar, JEE
Sample received on dated	:	22/10/2024
Sample Location		FTPS New ash dyke point 5, Lat.-28.397416, Long.-77.26523
Sample Quantity	:	2 Litre
Date of Analysis started	:	22/10/2024
Dated of analysis completed	:	29/10/2024

Sr. No.	Parameter	Protocol used	Result	Prescribed Limits	Unit
1.	Colour	----	Colorless	-----	
2.	Odour	----	Odourless	-----	
3.	pH	APHA 4500 H^+ B (24th Edition 2023)	7.43	6.5-8.5	----
4.	Dissolved Solids	APHA 2540-C (24th Edition 2023)	2090	500	mg/L
5.	Total Hardness as $CaCO_3$	2340-C-Titrimetric Method (24th Edition 2023)	744	300	mg/L
6.	Chloride as Cl	IS 3025 (Part-32) :1988 (Reaffirmed 2014) Argentometric method	564.4	250	mg/L
7.	Sulphate as SO_4	4500 SO_4^{2-} - E-Turbidimetric Method (APHA 24th Edition 2023)	115	200	mg/L
8.	Nitrate as NO_3	4500- NO_3^- B-UV Spectrophotometric Method (APHA 24th Edition 2023)	44.6	45	mg/L
9.	Arsenic as As	3120-As- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
10.	Cadmium as Cd	3120-Cd Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.01	mg/L
11.	Hexavalent Chromium as Cr^{+6}	APHA 3500-Cr (B) (24th Edition 2023)	BDL (DL=0.005)	0.05	mg/L
12.	Copper as Cu	3120-Cu- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.008	0.05	mg/L
13.	Lead as Pb	3120-Pb Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.05	mg/L
14.	Mercury as Hg	3120-Hg Inductively Coupled Plasma Method (APHA 24th Edition 2023)	ND	0.001	mg/L

15.	Nickel as Ni	3120-Ni- Inductively Coupled Plasma Method (APHA 24th Edition 2023)	0.005	-----	mg/L
16.	Iron as Fe	3120-Fe ICP-OES Method (APHA 24th Edition 2023)	ND	0.3	mg/L
17.	Zinc as Zn	3120-Zn Inductively Coupled Plasma Method (APHA 24th Edition 2023)	1.044	5.0	mg/L
18.	Phenolic Compounds as C_6H_5OH mg/l	IS 3025 (Part-43) Sec 1-2022	BDL (DL=0.0006)	0.001	mg/L

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Sample analyzed by:

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Analyst / Analyst / Sc-'B'

Dr. S.K Sheoran, Sc-'C'
Lab Incharge
Regional Laboratory Faridabad

HSPCB/LAB/F/2024/ 7979-7980

Dated 29/10/24.

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Ground Water Quality of Unconfined Aquifers, Central Ground Water Board (CGWB), 2023

S. No.	State	District	Location	Longitude	Latitude	Year	pH	EC (µS/cm at	CO3 (mg/L)	HCO3	Cl (mg/L)	F (mg/L)	SO4	NO3	PO4	Total Hardness	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	Fe (ppm)	As (ppb)	U (ppb)
10669	Haryana	Charkhi Dadri	Badrai	76.0211	28.4206	2023	7.87	825	0	366	99	0.70	0	24	0.00	140	32	12	157	2	0.01	0.60	2.02
10670	Haryana	Charkhi Dadri	Berla	76.0107	28.5112	2023	7.96	816	0	342	71	1.00	16	24	0.00	140	32	15	132	1	0.01	0.59	4.37
10671	Haryana	Charkhi Dadri	Dhanasari	75.9756	28.4517	2023	7.86	898	0	305	135	0.76	0	12	0.00	170	48	12	128	2	0.01	0.77	3.23
10672	Haryana	Charkhi Dadri	Hansawas Khurd	75.9436	28.4967	2023	7.85	2907	0	586	440	1.10	173	14	0.00	400	40	73	416	3	0.01	0.69	3.59
10673	Haryana	Charkhi Dadri	Kari Dharni	75.8812	28.5256	2023	7.60	7127	0	305	2308	1.50	120	14	0.00	1850	184	338	739	41	0.02	0.45	14.36
10674	Haryana	Charkhi Dadri	Rampura	76.0645	28.6322	2023	7.77	3017	0	549	774	0.48	83	24	0.00	410	28	83	570	5	0.19	0.13	7.12
10675	Haryana	Charkhi Dadri	Pentawas Khurd	76.1931	28.6669	2023	7.82	1109	0	366	185	3.00	0	0	0.00	350	37	63	110	2	0.05	0.34	3.99
10676	Haryana	Charkhi Dadri	Ranila	76.3420	28.7087	2023	7.62	5980	0	451	1193	1.30	601	25	0.00	1720	160	321	441	7	0.01	0.70	7.88
10677	Haryana	Charkhi Dadri	Rawaldhi	76.2819	28.6176	2023	7.64	647	0	212	135	0.59	0	7	0.00	280	51	37	36	4	0.02	0.14	20.81
10678	Haryana	Charkhi Dadri	Balrod	76.2039	28.4521	2023	7.92	438	0	183	43	0.39	0	2	0.00	180	41	19	14	4	0.03	0.68	3.52
10679	Haryana	Charkhi Dadri	Beejna	76.1417	28.4623	2023	7.81	694	0	305	78	0.48	0	19	0.00	250	68	19	61	4	0.06	0.20	1.02
10680	Haryana	Charkhi Dadri	Kheri Bura	76.1915	28.5939	2023	7.55	2505	0	256	738	1.10	58	11	0.00	650	152	66	329	3	0.01	0.73	8.74
10681	Haryana	Charkhi Dadri	Mandola	76.2183	28.5234	2023	8.06	1073	0	598	43	2.80	0	14	0.00	230	32	36	164	0	0.00	0.00	0.00
10682	Haryana	Charkhi Dadri	Chhapaar	76.1253	28.6287	2023	7.69	4365	0	305	1321	0.42	52	24	0.00	550	100	73	760	6	0.47	0.22	7.57
10683	Haryana	Charkhi Dadri	Dudiwala Nandkaran	76.0440	28.6277	2023	7.75	731	0	227	107	0.85	68	3	0.00	290	36	49	61	1	0.06	0.22	8.56
10684	Haryana	Charkhi Dadri	Naurangabad Jattan	76.0704	28.4228	2023	7.91	712	0	274	99	0.60	0	22	0.00	100	40	2	123	2	0.02	0.12	3.57
10685	Haryana	Charkhi Dadri	Neemriwali	76.1448	28.7145	2023	7.52	5556	0	305	1825	1.10	129	24	0.00	1300	256	161	745	1	0.03	0.23	14.40
10686	Haryana	Faridabad	Ballabgarh	77.3350	28.3470	2023	7.87	4559	0	744	902	1.10	336	29	0.00	950	168	129	563	114	0.00	0.37	52.22
10687	Haryana	Faridabad	Chhainsa	77.3166	28.3393	2023	7.82	1242	0	309	135	0.69	97	66	0.00	405	42	73	91	15	0.43	0.33	4.68
10688	Haryana	Faridabad	Immamuddinpur	77.4501	28.3209	2023	7.92	588	0	215	35	0.66	0	97	0.00	184	36	23	49	7	0.25	0.17	3.66
10689	Haryana	Faridabad	Kabulpur	77.3955	28.4081	2023	7.78	1973	0	397	236	0.67	224	103	0.00	472	49	85	223	22	0.27	0.20	10.87
10690	Haryana	Faridabad	Ladholi	77.3748	28.2654	2023	8.10	1545	0	467	135	1.00	188	23	0.00	435	48	77	149	7	0.33	0.23	11.80
10691	Haryana	Faridabad	Sikri	77.2882	28.2758	2023	7.81	6426	0	366	1732	0.35	336	17	0.00	1860	268	289	533	116	0.01	0.13	7.46
10692	Haryana	Faridabad	Tigaon	77.3896	28.3662	2023	7.53	3187	0	489	472	0.71	476	15	0.00	587	69	101	459	17	1.60	0.06	11.55
10693	Haryana	Faridabad	Bhopani	77.3917	28.4292	2023	7.89	1096	0	116	85	0.79	279	19	0.00	165	40	16	152	11	0.05	0.69	12.04
10694	Haryana	Faridabad	Cgwb Chq Nh-Iv	77.3139	28.4181	2023	8.09	5500	0	293	1676	0.50	38	1	0.00	910	168	119	796	20	0.00	0.06	0.76
10695	Haryana	Faridabad	Dadsia	77.3696	28.4644	2023	7.40	1569	0	479	113	1.40	184	22	0.00	487	77	72	129	4	0.05	0.42	19.18
10696	Haryana	Faridabad	Jasana	77.4203	28.4013	2023	7.60	2104	0	489	274	1.10	237	16	0.00	580	77	94	227	8	1.12	0.07	14.88
10697	Haryana	Faridabad	Pali	77.2411	28.3809	2023	7.64	3000	0	403	760	0.42	58	29	0.00	1050	236	112	214	2	0.01	0.19	2.39
10698	Haryana	Fatehabad	Samain	75.9373	29.6191	2023	7.32	2651	0	1172	302	1.01	12	33	0.00	550	92	78	210	355	0.86	47.80	9.35
10699	Haryana	Fatehabad	Talwara	75.8060	29.7880	2023	7.88	682	0	398	28	1.61	0	26	0.00	120	20	17	116	4	0.02	2.00	12.88
10700	Haryana	Fatehabad	Sadalpur	75.4493	29.3126	2023	7.84	3646	0	561	845	0.85	84	20	0.00	430	20	92	605	11	0.02	0.90	30.03
10701	Haryana	Fatehabad	Chabarwal	75.4270	29.3537	2023	7.57	5071	0	481	604	1.57	1227	34	0.00	1191	104	226	654	24	0.05	0.17	42.53
10702	Haryana	Fatehabad	Mehuwala	75.3278	29.4133	2023	7.39	4560	0	433	590	1.09	1108	19	0.00	1251	240	158	515	29	0.10	0.23	37.88
10703	Haryana	Fatehabad	Bighar	75.4541	29.4466	2023	7.89	3861	0	626	302	8.71	981	34	0.00	350	28	68	789	8	0.01	1.23	52.77
10704	Haryana	Fatehabad	Jandli Kalan	75.6376	29.4950	2023	7.98	306	0	177	14	0.64	0	2	0.00	110	28	10	24	2	0.10	0.41	2.97
10705	Haryana	Fatehabad	Maghanwali Ghotdu	75.6462	29.5944	2023	8.23	750	0	401	49	0.90	0	15	0.00	180	24	29	100	8	0.06	1.23	11.72
10706	Haryana	Fatehabad	Nahla	75.7415	29.4368	2023	7.61	432	0	218	28	0.81	0	5	0.00	200	48	19	12	3	0.05	0.32	2.47
10707	Haryana	Fatehabad	Ayalki	75.4940	29.5670	2023	7.75	885	0	474	49	1.31	0	8	0.00	200	28	32	114	8	0.02	0.77	17.33
10708	Haryana	Fatehabad	Badopal	75.5500	29.4458	2023	7.66	959	0	497	77	1.31	0	1	0.00	280	68	27	99	16	0.07	0.36	6.09
10709	Haryana	Fatehabad	Bangaon	75.4242	29.4493	2023	7.68	5231	0	658	667	3.67	1247	18	0.00	430	40	80	1113	9	0.01	0.57	59.29
10710	Haryana	Fatehabad	Bannawali	75.4300	29.3986	2023	7.71	4901	0	289	512	0.92	1472	94	0.00	1291	409	66	614	25	0.08	0.16	15.53
10711	Haryana	Fatehabad	Dariyapur	75.3516	29.5322	2023	7.82	1100	0	674	35	0.93	13	11	0.00	400	44	71	95	27	0.02	0.45	17.18
10712	Haryana	Fatehabad	Dhani Isher	75.4165	29.5753	2023	7.32	1796	0	535	232	0.51	124	44	0.00	550	80	85	183	8	0.03	0.13	28.80
10713	Haryana	Fatehabad	Dher	75.7699	29.7034	2023	7.65	695	0	314	21	0.87	0	127	0.00	250	24	46	66	8	0.05	0.97	15.56
10714	Haryana	Fatehabad	Haroli	75.4631	29.6533	2023	7.78	3480	0	1172	330	1.82	437	32	0.00	260	36	41	784	10	0.02	0.53	61.68
10715	Haryana	Fatehabad	Khajuri Jatti	75.6114	29.4933	2023	7.71	443	0	241	21	0.07	0	3	0.00	190	44	19	12	5	0.06	1.06	7.36
10716	Haryana	Fatehabad	Kirdhan	75.4022	29.4016	2023	7.55	961	0	321	77	0.63	46	49	0.00	360	60	51	48	8	0.12	0.61	6.60
10717	Haryana	Fatehabad	Majra	75.5181	29.5250	2023	7.71	1064	0	449	140	0.44	0	33	0.00	310	44	49	116	9	0.07	0.89	18.95
10718	Haryana	Fatehabad	Ahrawan	75.5372	29.6066	2023	7.62	1080	0	514	77	0.63	18	27	0.00	390	56	61	82	10	0.02	0.38	25.00
10719	Haryana	Fatehabad	Alawalwas	75.4867	29.7155	2023	8.00	726	0	412	35	2.16	0	11	0.00	70	8	12	157	4	0.02	1.29	11.60
10720	Haryana	Fatehabad	Inda Chhoi	75.7909	29.6371	2023	7.74	4932	0	530	870	1.09	753	54	0.00	600	56	112	889	21	0.03	0.31	35.01
10721	Haryana	Fatehabad	Nagpur	75.4228	29.6417	2023	7.56	15540	0	995	2401	0.67	3125	30	0.00	1311	116	248	2904	38	0.01	0.06	68.32
10722	Haryana	Fatehabad	Pirthala	75.8563	29.5959	2023	7.69	557	0	241	35	1.41	16	6	0.00	130	16	22	66	7	0.17	2.64	7.97
10723	Haryana	Fatehabad	Ratia	75.5608	29.6570	2023	7.72	795	0	401	49	0.81	0	36	0.00	240	36	36	81	6	0.00	1.52	11.57
10724	Haryana	Fatehabad	Buwan	75.7877	29.5934	2023	7.53	2441	0	353	421	0.71	367	14	0.00	701	92	114	279	15	0.06	0.74	18.74
10725	Haryana	Fatehabad	Dhabi Kalan	75.3277	29.3288	2023	6.95	1821	0	96	175	1.29	437	11	0.00	600	144	58	96	7	0.44	0.77	6.37
10726	Haryana	Fatehabad	Nangla	75.8914	29.6134	2023	8.07	512	0	273	21	2.83	0	2	0.00	80	12	12	85	4	0.05	7.45	12.48
10727	Haryana	Fatehabad	Nikhatia	75.3425	29.5879	2023	7.34	4161	0	546	730	0.49	661	18	0.00	1261	160	209	433	17	0.07	0.10	24.30
10728	Haryana	Fatehabad	Dhangar	75.5154	29.4730	2023	7.70	415	0	209	28	0.85	0	2	0.00	160	32	19	26	4	0.01	4.70	7.74
10729	Haryana	Fatehabad	Parbhuwala	75.9075	29.4866	2023	7.64	598	0	289	42	0.66	0	17	0.00	250	56	27	20	7	0.22	0.44	10.73
10730	Haryana	Gurugram	Basonda Tripati	76.6764	28.3847	2023	8.06	2483	0	476	511	0.72	72	25	0.00	380	52	61	393	4	0.00	0.30	6.88
10731	Haryana	Gurugram	Chandu	76.9167	28.4750	2023	8.39	1699	48	244	405	0.66	24	18	0.00	240	32	39	290	8	0.00	1.45	2.37
10732	Haryana	Gurugram	Fazilpur Badli	76.8583	28.4250	2023	8.52	1280	156	415	71	0.60	24	29	0.00	270	76	19	220	3	0.00	0.94	7.06
10733	Haryana	Gurugram	Khera Khurrampur	76.7861	28.4450	2023	7.76	7371	0	537	2187	0.56	48	29	0.00	2580	312	438	491	6	0.00	0.11	5.85
10734	Haryana	Gurugram	Mubarakpur	76.8416	28.4728	2023	8.05	3010	0	219	806	0.20	81	141	0.00	1301	277	148	108	8	-	-	-
10735	Haryana	Gurugram	Siwari	76.7277	28.4632	2023	7.98	1275	0	610	107	0.75	0	14	0.00	450	56	75	99	2	0.00	1.43	6.29
10736	Haryana	Gurugram	Wazirpur	76.9179	28.4220	2023	8.00	2035	0	866	206	1.40	24	30	0.00	270	100	5	376	2	0.00	0.59	15.05
10737	Haryana	Gurugram	Wapcos	77.0208	28.4750	2023	8.05	2321	0	378	554	0.47	24	28	0.00	410	160	2	342	8	0.02	0.24	3.83
10738	Haryana	Gurugram	Halley Mandi	76.7710	28.3130	2023	8.00	3250	0	781	582	0.88	38	29	0.00	340	68	41	556	2	0.00	0.28	5.59
10739	Haryana	Gurugram	Kasan	76.9034	28.3600	2023	7.67	2000	0	415	213	0.75	288	40	0.00	900	248	68	42	4	0.03	0.79	71.34
10740	Haryana	Gurugram	Khori Kalan	77.0569	28.2358	2023	8.61	960	46	156	145	0.30	0	114	0.00	320	44	51	91	4	0.01	0.10	4.28
10741	Haryana	Gurugram	Lokara	76.7780	28.2736	2023	8.44	982	48	464	57	0.61	0	17	0.00	150	24	22	180	2	0.00	0.16	3.95
10742	Haryana	Gurugram	Manesar	76.9247	28.3587	2023	7.71	1050	0	561	71	0.65	0	31	0.00	260	60	27	150	3	0.01	0.43	5.67
10743	Haryana	Gurugram	Meoka	76.9192	28.4089	2023	8.71	1220	61	531	85	0.81	0	54	0.00	160	24	24	236	2	0.00	1.11	8.70
10744	Haryana	Gurugram	Mouzabad	76.6903	28.2966	2023	7.83	3535	0	598	980	0.46	14	28	0.00	610	124	73	600	4	0.01	0.11	6.10
10745	Haryana	Gurugram	Nurgard	76.6766	28.3566	2023	8.24	2545	0	293	568	1.20	216	4	0.00	530	68	88	350	2	0.01	0.82	5.45
10746	Haryana	Gurugram	Pataudi	76.7829	28.3241	2023	7.95	1628	0	598	156	0.48	134	30	0.00	230	48	27	305	3	0.00	0.20	3.76
10747	Haryana	Gurugram	Bhondsi	77.0615	28.3510	2023	7.91	1479	0	312	312	0.41	21	27	0.00	310	60	39	184	7	0.01	0.32	2.28
10748	Haryana	Gurugram	Kherla	77.1153	28.3139	2023	8.70	130	31	16	12	0.18	0	1	0.00	60	8	10	21	1	0.00	0.07	0.09
10749	Haryana	Gurugram	Sohna	77.0684	28.2429	2023	7.71	3035	0	469	540	0.58	397	70	0.00	681	128	88	395	108	0.00	0.30	1.99
10750	Haryana	Gurugram	Rangla Dhani	76.8683	28.2146	2023	8.18	672	0	328	55	0.32	0	55	0.00	250	52	29	63	2	0.00	0.65	2.44
10751	Haryana	Gurugram	Goshgarh	76.7490	28.3510	2023	8.02	635	0	172	163	0.27	0	0	0.00	290	76	24	33	9	0.01	0.16	2.54
10752	Haryana	Gurugram	Ikbalpur	76.9164	28.4720	2023	8.19	2046	0	903	163	3.90	10	28	0.00	430	56	71	266	8	-	-	-

VAKALATNAMA

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH, NEW DELHI

O.A. NO. 360 OF 2023

In the matter of:

Ajay Shrivastava …APPELLANT

VERSUS

State of Haryana and ORS …RESPONDENTS

KNOW ALL to whom these present shall come that I / We Arbind Kumar, Executive Engineer, FTPS, HPGCL, Faridabad The above named Respondent do hereby appoint

Alok Sangwan, Rajat Sangwan and Sumit Kumar Sharma
[D/678/2000] [D/4417/2019] [D/6028/2020]
Advocates for the Respondent
10, Babar Lane, 2nd Floor, Bengali Market
NEW DELHI 110001
E-mail: sangwanalok@gmail.com, Phone: 9810364929

(herein after called by advocate/s) to be my/our Advocate in the above-noted case authorise him:-

To act, appear and plead in the above-noted case in this court or in any other Court in which the same may be tried or heard and also in the appellate court including High Court subject to payment of fees separately for each court by me/us.

To sign file, verify and present pleadings, appeals cross-objections or petitions for executions review, revision, withdrawal, compromise or other petitions or affidavits or other documents as may be deemed necessary or proper for the prosecution of the said case in all its stages subjects to payment of fees for each stage.

To file and take back documents, to admit and /or deny the documents of opposite party.

To withdraw or compromise the said case or submit to arbitration any differences or disputes that may arise touching or in any manner relating to the said case.

To take execution proceedings.

The deposit, draw and receive money, cheques, case and grant receipts hereof and to do all other acts and things which may be necessary to be done for the progress and in the course of the prosecution of the said case.

To appoint and instruct any other Legal Practitioner authorising him to exercise the power and authority hereby conferred upon the Advocate whenever he may think fit to do so and to sign the power of attorney on our behalf.

And I/We the undersigned do hereby agree to ratify and confirm all acts done by the Advocate or his substitute in the matter as my/our own acts, as if done by me/us to all intents and purpose.

And I/We undersigned that I/We or my/our duly authorised agent would appear in court on all hearings and will inform the Advocate for appearance when the case is called.

And I/We undersigned do hereby agree not to hold the advocate of his substitute responsible for the result of the said case. The adjournment costs whenever ordered by the court shall be of the Advocate which he shall receive and retain for himself.

And I/We undersigned do hereby agree that in the event of the whole or part of the fee agreed by me/us to be paid to the advocate remaining unpaid he shall be entitled to withdraw from the prosecution of the said case until the same is paid up. The fee settled is only for the above case and above Court. I/We hereby agree that once the fee is paid, I/We will not be entitled for the refund of the same in any case whatsoever and if the case prolongs for more than 3 years the original fee shall be paid again by me/us.

IN WITNESS WHERE OF I/We do hereunto set my/our hand to these presents the contents of which have been understood by me/us on this _____ day of _____ 2025

Accepted, Identified & Certified subject to the terms of the fees

Alok Sangwan, Rajat Sangwan and Sumit Kumar Sharma
[D/678/2000] [D/4417/2019] [D/6028/2020]
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Executive Engineer
FTPS, HPGCL, FARIDABAD