



GOVERNMENT OF THE PUNJAB  
**ENVIRONMENTAL PROTECTION AGENCY**  
National Hockey Stadium, Gate No. 10  
Ferozepur Road, Lahore



**CERTIFICATION AS AN ENVIRONMENTAL LABORATORY**

In exercise of power conferred by clause (k) of sub section (1) of section 6 of the Punjab Environmental Protection Act 1997 (XXXIV of 1997), the Provincial Agency is pleased to certify the laboratory mentioned below as an Environmental Laboratory, for conducting tests & Analysis.



**Name:** - Green Crescent Environmental Consultant (PVT) Ltd

**Address:** 368-B, Canal View Thokar Niazbaig Lahore.

**Certificate No.** 34 /DD(Lab)/EPA//2022

1. This certification is valid as described below subject to fulfillment to the conditions of certification placed at **Annex-F**.
  - (a) Municipal & Liquid effluents as per **Annexure-A**.
  - (b) Drinking Water Quality as per **Annexure-B**.
  - (c) Industrial and Gaseous Emissions as per **Annexure-C**.
  - (d) Motor Vehicle Exhaust and Noise for In Use Vehicles registered before 01.07.2012 (For Diesel vehicle) & 01.07.2009 (for Petrol Vehicle) as per **Annexure-D**.
  - (e) Ambient Air & Ambient Noise as per **Annexure-E**.
2. This certification is subject to the conditions laid down in regulation 9 of the Certification of Environmental Laboratories Regulations, 2000 and QA/QC conditions contained in **Annex-F**.
3. This certificate is valid until 13 /02 /2025 unless earlier suspended or revoked.

**Dated:** 14 /02 /2022

  
Director General  
  
DD(Lab)

**CC:**

1. The Deputy Director (Labs) shall personally ensure timely monitoring & compliance



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ANNEXURE-A

Environmental Laboratory dispatch no. / Certificate no **34 /DD(Lab)/EPA//2022** in respect of "Certification as an Environmental Laboratory" read with conditions at **Annex-F** in favor of Green Crescent Environmental Consultant (PVT) Ltd , 368-B, Canal View Thokar Niazbaig Lahore.

Municipal & Liquid Industrial Effluents

No.	Liquid Effluent/Waste Parameter	Standard Method / SOP	Capacity per Month (No. of Samples)
1.	Temperature	APHA 2350 -B	156
2.	pH Value (H <sup>+</sup> )	APHA 4500 H <sup>+</sup> B	200
3.	Biochemical Oxygen Demand (BODs) at 20°C	APHA 5210 D	30
4.	Chemical Oxygen Demand (COD)	APHA 5210 D COD Reactor, Photometer, Reflux	104
5.	Total Suspended Solids (TSS), Total Dissolved Solids(TDS)	APHA 2540 D, APHA 2540 C	100 of each
6.	Oil and Grease, Phenolic Compounds (as Phenol)	USEPA 1664B, APHA5530C	26 of each
7.	Chloride (as Cl <sup>-</sup> ), Fluoride (as F <sup>-</sup> ), Cyanide (as CN <sup>-</sup> ) total	APHA 4500 Cl <sup>-</sup> B, APHA 4500-F <sup>-</sup> B, APHA 4500 CN <sup>-</sup> F	100 of each and 52 for CN-1
8.	Anionic Detergents (as MBAS)	APHA 5540 C	26
9.	Sulphate (SO <sub>4</sub> <sup>2-</sup> ), Sulphide (S <sup>2-</sup> ), Ammonia (NH <sub>3</sub> ), Chlorine	APHA 4500 - SO <sub>4</sub> <sup>2-</sup> F, APHA 4500 S <sup>2-</sup> F, APHA 4500 NH <sub>3</sub> D, APHA 4500 Cl B & G	80 of each and 52 for chlorine
10.	Cadmium (Cd) Copper (Cu), Lead (Pb), Selenium (Se), Nickel, (Ni), Silver (Ag), Zinc (Zn), Arsenic (As), Barium (Ba), Iron (Fe), Manganese (Mn), Boron (B), Chromium (Cr) (trivalent and hexavalent), Total Toxic Metals	APHA 3111B, APHA 3111D	100 of Each

Dated: 14/02/2022

Director General





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ANNEXURE-B

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DRINKING WATER QUALITY

No	Drinking Water Quality Parameter	Standard Method / SOP	Capacity per Month (No. of Samples)
<b>Bacteria Test</b>			
1.	Thermo tolerant Coliform, E. Coli, Total Coliform	APHA 9222 B, D,G	40 of each Test
<b>Physical</b>			
2.	pH, Colour, Taste, Odour, Turbidity,	APHA 4500 H <sup>+</sup> B, APHA 2120 C, APHA 2160 C, APHA 2150 B, APHA 2130 B,	200 of each Test but turbidity 100
3.	Total Hardness (as CaCO <sub>3</sub> ),	APHA 2340 C	100
4.	Total Dissolved Solids (TDS)	APHA 2540 C	100
<b>(Essential) Inorganic</b>			
6.	Chloride (Cl)	APHA 4500 Cl <sup>-</sup> B	100
5.	Cadmium (Cd), Copper (Cu), Lead (Pb), Selenium (Se), Nickel (Ni), Zinc (Zn), Arsenic (As), Barium (Ba), Manganese (Mn), Chromium (Cr), Aluminum (Al)	APHA 3111B & D	150
<b>Toxic Inorganic</b>			
7.	Cyanide (CN)	APHA 4500 - CN <sup>-</sup> F	50
8.	Fluoride (F <sup>-</sup> ), Nitrate (NO <sub>3</sub> ), Nitrite (NO <sub>2</sub> <sup>-</sup> ), Residual Chlorine	APHA 4500 - F <sup>-</sup> D, APHA 4500 - NO <sub>3</sub> <sup>-</sup> B, APHA 4500 - NO <sub>2</sub> <sup>-</sup> B, APHA 4500-Cl <sup>-</sup> B & G	100 of each Test and 60 for Cl2
<b>Organic</b>			
9.	Phenolic Compounds (as Phenols)	APHA 5530 D	30

Dated: / **14** / **02** / 2022

**3. Jafri**  
Director General



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ANNEXURE-C

Environmental Laboratory dispatch no. / Certificate No. **34** /DD(Lab)/EPA//2022 in respect of "Certification as an Environmental Laboratory" read with conditions at **Annex-F** in favor of Green Crescent Environmental Consultant (PVT) Ltd, 368-B, Canal View Thokar Niazbaig Lahore.

INDUSTRIAL GASEOUS EMISSIONS

No	Industrial and Gaseous Emissions	Standard Method / Equipment Name	Capacity per Month (No. of Samples)
1	Smoke Opacity	Visual method /Ringelmann Chart	30
3	Carbon Monoxide	CTM-34 / TESTO-350	20
4	Oxides of Nitrogen	CTM-34 / TESTO-350	20
5	Particulate Matter	USEPA Method 17 / Isokinetic PM Assembly	20

The lab shall also fulfill following QA/QC conditions imposed under regulation 9(c) along with conditions contained with Annex-F:-

- The permit of Lab for tests & monitoring from the reciprocating engines, compression turbines, boilers and process heaters under CTM-34 shall be limited to natural gas and oil (Petrol, Diesel) fired systems having dry pollution control system subject to fulfillment of sampling procedure, pre/ post calibration verification checks, repeatability checks as per CTM 34.
- Labs shall maintain QA/QC for PM testing as per USEPA Method 17 both in soft form and hard form for each and every test.
- Lab shall also ensure establishment of calibration check / verification facility for isokinetic stack PM assembly in accordance with Method 05 and shall keep its record in both hard & soft form of every performed test.

Dated : **14/02/2022**

**3. Jafri**  
Director General

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DD(Lab)



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ANNEXURE-D

Environmental Laboratory dispatch no. / certificate No. **34** /DD(Lab)/EPA//2022 in respect of "Certification as an Environmental Laboratory" read with conditions at **Annex-F** in favor of Green Crescent Environmental Consultant (PVT) Ltd , 368-B, Canal View Thokar Niazbaig Lahore.

**MOTOR VEHICLE EXHAUST AND NOISE for IN USE VEHICLES REGISTERED BEFORE 01.07.2012 (For Diesel vehicle) & 01.07.2009 (for Petrol Vehicle)**

No	MOTOR VEHICLE EXHAUST AND NOISE	Standard Method / Equipment Name	Capacity per Month (No. of Samples)
1	Noise	Noise Meter with Leq Function	100
2	Smoke Opacity	Ringelmann Scale	100
3	CO	NDIR Method	100

The lab shall also fulfill following QA/QC conditions imposed under regulation 9(c) along with conditions contained with Annex-F:-

- The Lab shall ensure calibration of noise calibrator.
- The Lab shall maintain calibration & calibration verification record of vehicular emission CO analyzer of each & every test both in hard and soft form:-

Dated : **14/02/2022**

**3. Jafri**  
Director General

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DD(Lab)





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ANNEXURE-E

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AMBIENT AIR AND AMBIENT NOISE

No	Ambient Air	Standard Method / Equipment Name	Capacity per Month (No. of Samples)
1	Respirable Particulate Matter PM <sub>10</sub>	Gravimetric Method / AMS Analytica	12
2	Suspended Particulate Matter (SPM)	Gravimetric Method / AMS Analytica	12
3	Lead	Gravimetric Method / AMS Analytica & AAS	12
No	Ambient Noise	Standard Method / Equipment Name	Capacity per Month (No. of Samples)
1	Ambient Noise	Noise Meter with Leq calculation Method	50

The lab shall also fulfill following QA/QC conditions imposed under regulation 9(c) along with conditions contained with Annex-F:-

- The Lab shall be bound to ensure compliance of mandatory requirements of QA/QC like Traceable and repeatable calibrations checks and verification as mentioned in the operating manual / USEPA protocol for permitted ambient testing for PM<sub>10</sub>, SPM, Pb. The quarterly calibration & annual performance shall be duly validated by EPA Lab, Lahore.

Dated : 14 / 02 / 2022

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Director General

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DD(Lab)



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**ANNEXURE-F**

Environmental Laboratory Certificate No. **34** /DD(Lab)/EPA//2022 in respect of "Certification as an Environmental Laboratory" in favor of Green Crescent Environmental Consultant (PVT) Ltd , 368-B, Canal View Thokar Niazbaig Lahore.

**CONDITIONS OF CERTIFICATION**

**(1) The environmental laboratory shall:**

- a. Carry out all tests and analyses, measurements, experimental studies and investigations with due diligence and in accordance with such guidelines, procedures, and methods as may be stipulated by the Provincial Agency;
- b. Carry out and maintain record of calibration of its equipment and apparatus;
- c. Follow the quality control and quality assurance procedures established by the Provincial Agency and participate in performance, system audits, quality control and quality assurance programs organized by the Provincial Agency;
- d. Keep its premises neat and clean at all times;
- e. allow any member of the Committee or any officer of the Provincial Agency, duly authorized in this behalf, to enter and inspect equipment and apparatus used in conducting tests and analyses and the reports and records in respect thereof;
- f. Retain records of all tests and analyses and measurements conducted by it for a period of three years from the date thereof;
- g. Take adequate safety measures and precautions against fire hazards and accidents including provision of first-aid facilities;
- h. Ensure availability in its store of adequate stocks of chemicals, back-up equipment and apparatus, and spare parts;
- i. Ensure that it fulfils the criteria laid down in regulation 5 at all times, and that if at any stage any equipment, apparatus or staff is required to be replaced, the ensure that it fulfils the criteria laid down in regulation 5 at all times, and that if at any stage any equipment, apparatus or staff is required to be replaced, the replacement equipment, apparatus or replacement staff is of equivalent, or better, specifications, or qualifications and experience, respectively;
- j. Display the certificate issued to it under regulation 8 and a list of its fees for various tests and analyses and measurements, at a prominent place in its premises; and
- k. Submit to the Provincial Agency an annual report including a list of all tests and analyses conducted by it relating to the environment.

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**(2) An environmental laboratory shall not, without the prior permission, in writing of the Provincial Agency:**

- a. Shift its location or remove any equipment or apparatus from its premises but the equipment or apparatus requiring repair or maintenance outside the premises may be removed for this purpose for a specific period under intimation to the Provincial Agency;
- b. Sub-contract any work to any other laboratory.

**(3) Certification of an environmental laboratory shall not be transferable to any other laboratory.**

**(4) The Environment Laboratory Shall:-**

- a. Lab shall ensure treatment of wastewater and air emission to bring within PEQS limits. EPA shall timely and randomly regulate the compliance of PEQS.
- b. EPA testing rates are prepared on the basis of fulfillment of complete QA/QC protocol and on no profit & no loss basis. Therefore, the Laboratory shall not charge less rates than the approved and notified rates of EPA for testing. The charging of less rates will be taken as compromise on QA/QC which is tantamount to the violation of Regulations 9(1)(c). The Labs shall maintain complete traceability of its business against each and every test in the form of P.O, Invoice and shall be bound to submit the same to EPA Lab, Lahore on monthly basis.
- c. Lab shall ensure compliance to regular supply or generation of reagent water to meet reagent water grade of Type-I & Type-II in accordance with latest ASTM Standards.
- d. Laboratory is certified for conducting tests and analysis under section 6(k) of PEPA 1997. The sampling will be conducted under Environment Sampling Rules, 2001. The sampling of wastewater will be validated by authorize officer of EPA which include Inspectors, RAs, ROs, Ads, DDs of EPA. The field tests of wastewater like pH, Temperature, etc will only be validated by EPA lab representative not

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below the rank of RA. Similarly, the sampling, tests and analysis of ambient air monitoring, stack emission monitoring shall be validated only by EPA Lab representative not below the rank of RA. Validated results may be used in base line study of EIA / IEE, SMART Rules, 2000, industrial periodic reporting under conditions of EIA / IEE. The reports, tests analysis conducted by Labs shall not be utilized for any other regulatory purposes.

- e. The sampling / monitoring person of certified laboratory shall not be below the rank of Assistant /Deputy Analyst.
- f. The tests and analysis of every tests shall be submitted by the Lab to EPA Lab Lahore. The EPA Lab, Lahore may verify reported tests and analysis which may include re-testing of preserved sample or re-sampling & then re-testing, etc.
- g. Laboratories will be bound to keep their auditable five years testing record and record backup of ICP, AAS, Spectrophotometer, stack emission equipment, ambient air Lab, dead stock items, soft record saved into instrument memory, etc and same will be audited by EPA Laboratory / advisory committee.
- h. Laboratory will maintain auditable record of procurement of spares and consumable for 5 years which will be checked / audited by EPA Lab / Advisory Committee.
- i. The Lab shall only conduct tests and analysis under the scope of certification. No tests reports will be issued against those notified PEQS for which scope of certificate is not certified. Out of scope testing & reporting will be taken as serious violation of regulations and agency will suspend / revoke the certificate.
- j. Lab shall submit original analysis reports of all parameters to EPA Punjab in 1<sup>st</sup> week of each month along with a certificate on letter head that capacity per month/number of samples of different parameters conducted by the lab is within the limits approved by EPA.
- k. Pictorial evidences of visits / sample collected for analysis shall be prepared with GPS map camera (App on Google play) and shall be

*[Signature]*  
DD (Lab)

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made part of each analysis report (backside of report) to determine location, Latitude, Longitude, date and time of sampling for verification by EPA.

- l. Lab shall be liable for compliance of Regulations 03,05,10,12 and 14 of Certification of Environmental Laboratories regulations, 2000.
- m. This certification shall be treated as null and void if all or any of the conditions is / are not complies with.
- n. This certification can be withdrawn at any time without any prior notice if deemed necessary in the public / national interest.

Dated: 14/02/2022

  
Director General

  
DD (Asst)