Analysis and comparative study of Lahore domestic water

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ANALYSIS AND COMPARATIVE STUDY OF LAHORE DOMESTIC WATER

Submitted to University of Management and Technology Lahore

In partial fulfillment of the requirements

For the award of degree of

BS
IN
CHEMISTRY

BY

AFSAH MUNIR

ID

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In the name of

Allah,

The most Beneficent,

The most merciful

DECLARATION

I **AFSAH MUNIR**D/O**MUHAMMAD MUNIR**

ID: 13003067001, Session 2013-2017hereby declare that the matter printed in the thesis titled "***Analysis and Comparative study of Lahore domestic water"*** Ismy own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research institution etc. in Pakistan or Abroad.

Dated: _____ _____

(AFSAH MUNIR)

RESEARCH COMPLETION CERTIFICATE

Certified that the research work contained in this thesis titled,"**Analysis and Comparative study of Lahore domestic water**" has been carried out and completed by **AFSAH MUNIR, ID: 13003067001.**

The quantum and the quality of the work contained in this thesis is adequate for the award of Degree of BS in Chemistry.

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_____

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Dedication

This research is dedicated to my

Mother, Father, sibling, Teachers, friends,

All family

And those who pray for me

They always blessed me with their countless prayers.

AFSAH MUNIR

ACKNOWLEDGEMENT

In the name of Allah Almighty Who has given me the knowledge and will Power to complete the most intricate chore. I would like to thank associate Prof. **Dr. Sammia Shahid**, the supervisor **Urooj Fatima** of my thesis to inspire me day and night openly as well as with their silent prayers to complete the work. Without her visionary guidance and silent instigation, it is impossible for me to succeed. My parents and family deserve my thanks, especially my **parents** who sacrificed the sources of time and money and energize me with silent prayers to dive into deep sea of knowledge. My Sisters who are always with me in the need of hour deserve special thanks. Today I feel myself at that stage of knowledge which is self-actualization. I pray to God to give me the enthusiasm to devote myself in serving the humanity towards the right path.

Highly qualified faculty of my department, associate Prof. **Dr. Ayesha Mohyuddin,** assistant **Prof. Dr. Khurram Shahzad,** assistant **Prof. Muhammad Harron Shah,** lab attendants **Sir Rizwan** and **Sir Umair**, Specially supervisor **Urooj Fatima** deserve special thanks whose expert guidance made me successful.

I would like to pay best compliments to my father **Muhammad Munir**. All those persons who participated and decorated the work in different ways earn special thanks.

ABSTRACT

Water Quality is monitored by many different test for kidney and carcinogenic components in water. The most prominent carcinogens in water supplies are hexavalent chromium and chlorine. As many other tests are also detected likeTDS, TUDS is done by filtration. Specific gravity, Density is done by gravity bottle. Chloride ions, phosphate ions, Sulphate ions are checked by titration apparatuses and instrumentation. Chlorine component is monitored and the highest component detected in domestic water is in area Lahore cantonment. After that gulberg and upper mall. This research also involves the analysis of samples for many other parameters .instrumentation is being used in this research is mainly UV spectrophotometer and the peaks identified the amount of carcinogenic component in water.

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INTRODUCTION

One of the major threats to the public health in Pakistan is Water Pollution. Water quality is being monitored very poorly. Among 122 nations, Pakistan ranks at number 88 regarding poor drinking water quality. Lahore's drinking water source is 100% ground water. Drinking water sources, both groundwater and surface are contaminated with different elements. The contaminations may include petrochemical, organic solvents, pesticides, arsenic, lead and fluoride *etc.* The contaminated ground water would require hundreds to thousands of years to clean itself of degradable wastes due to the slow flow rate. Public health authorities are concerned about quality of drinking water. Drinking water supply must pass through strict monitoring and certain defined physiochemical and biological standards in the developing Countries.