

# Ground Water Quality of L B Nagar, Hyderabad and Impact of Industries Closure, India

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## I. INTRODUCTION

Impacts on ground water quality were carried out in the L B Nagar, Hyderabad by many of the researchers previously. As Environmental Act has forced to close sum of the Industries in the LB Nagar area, would like to observe the present status on the natural system in the area. About 30 water representative

ground water samples will be collected from different stations to monitor the water chemistry of various Physical, Chemical and Trace Metals status. The study was carried out by collecting some ground water samples during Aug 2014 to Sep 2014. The results were compared with standards prescribed by IS 10500:2012.



## II. OBJECTIVES & GOAL OF THE STUDY

This study includes the assessment of ground water quality of L.B.Nagar Hyderabad during Rainy, winter and Summer Seasons.

The principal objective of the present study is to understand the hydrochemistry of ground waters in the study area and the Post Industrialization impact on ground water quality of the investigated area. The study area is situated on thickly populated area of Hyderabad district. Collected ground water samples different locations in study area will be studied for various Physical & Chemical parameters such as pH, Electrical Conductivity, Turbidity, Total Dissolved Solids, Alkalinity, Total Hardness, Calcium, Magnesium, Chlorides, Sulphates, Fluorides, Sodium, Potassium, Nitrate, Iron, Manganese, Zinc, Total Chromium, Copper, etc....

## III. METHODOLOGY

It includes field work and laboratory analysis. The field work consists of collection of water samples from 30 wells for one year period in the study area. The ground water samples collected from the study area bore wells/Dug wells and analyzed for various Physical and chemical parameters described by the standard methods. These parameters include pH, Electrical Conductivity, Total Dissolved Solids, Alkalinity, Total Hardness, Calcium, Magnesium, Chlorides, Sulphates, Fluorides, Sodium and Potassium etc....

## IV. PLANNING



S.NO.	Activity	Time Schedule
1	The total numbers of 30 samples will be collected from wells.	August - 2014
2	Both Physical & Chemical parameters will be analyzed using standard laboratory techniques.	September – October , 2014
3	Trace metals analysis on AAS with appropriate treatment	November - December, 2014
4	Data collection and literature collection	December – January, 2015
5	Preparation and analysis of data for Submission	January - February , 2015

**Table 1**  
**Laboratory findings**

Test	Value	Reference range	Units
PT	12.5	10-13	seconds
aPTT	70	25-36	seconds
Fibrinogen	145	130-330	mg/dL
Hemoglobin	11	12-15	g/dL
Hematocrit	34	36-44	percent
WBC	9,000	4,000-10,000	per L
Platelet count	145,000	150,000-450,000	per L

Contaminant	Contaminant Concentration in Feed (ppm)	TDS of Feed Water (ppm)	Maximum Contaminant Concentration in Product (ppm)	NSF/ ANSI 53 MCL (ppm)	Minimum % Contaminant Reduction	Minimum % TDS Reduction
Arsenic V	0.056	350	0.004	0.010	92.7%	94%
Barium	10.5	50	0.029	2.0	>99%	88%
Cadmium	0.037	48	<0.00008	0.005	>99%	89%
Chromium VI	0.300	35	<0.010	0.100	>99%	91%
Copper	2.99	50	0.005	1.3	>99%	90%
Fluoride	8.17	386	0.61	1.5	92.5%	96%
Lead	0.152	48	0.0007	0.010	>99%	87%
Selenium	0.121	33	0.0017	0.050	>99%	95%

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