## **ACTION PLAN**

## **FOR**

# RESTORATION OF ENVIRONMENTAL QUALITIES WITH REGARD TO THE IDENTIFIED POLLUTED INDUSTRIAL CLUSTER

OF

**KATTEDAN** 

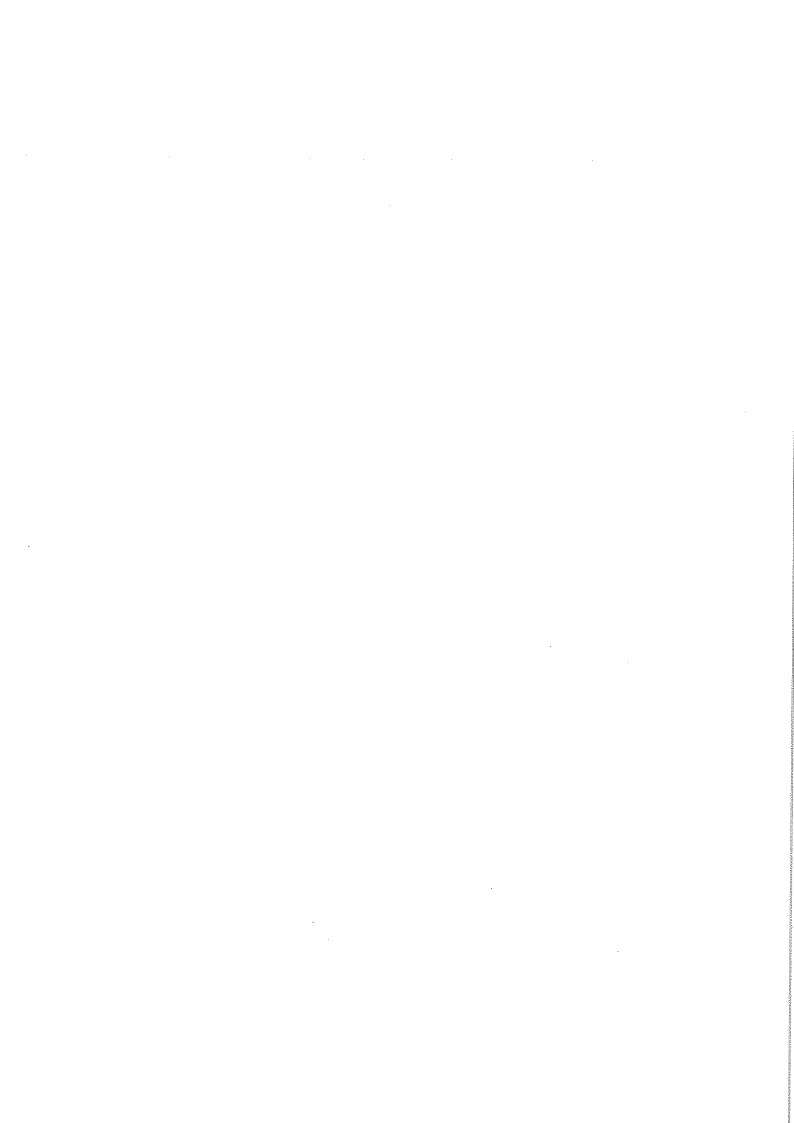


Telangana State Pollution Control Board, Hyderabad March, 2019

## **ACTION PLAN-KATTEDAN**

## Contents:

	1. Background	3
	2. Polluted Industrial Areas in Telangana State	5
	3. Constitution of the Committee	5
	4. Kattedan Industrial Cluster	
	Demographic details	6
	Status of industries in Kattedan Area	7
	Steps taken to reduce polluted problems in Kattedan Area	7
	Environmental Monitoring	8
4	Action Plan for Improvement of environmental parameters	11
5	Annexures-I to V	14 - 32



## 1.0 Background:

The Central Pollution Control Board (CPCB) has evolved a Comprehensive Environmental Pollution Index (CEPI) for polluted areas in the country. The CPCB during the year 2009-10 carried out assessment of 88 identified industrial areas / clusters across the country and ranked them based on the CEPI score.

Comprehensive Environmental Pollution Index (CEPI) is a rational number to characterize the environmental quality at a given location following the algorithm of source, pathway and receptor. Increasing value of CEPI indicates severe adverse effects on environment and also is an indication of large percentage of population experiencing health hazards. CEPI is calculated separately for air, water and land. CEPI is based on three factors namely pollutants, pathway and receptor.

The CEPI score of Kattedan Industrial cluster was 57.73. It is suggested that areas having aggregated CEPI scores of 70 and above should be considered as critically polluted industrial clusters/ areas, whereas the areas having CEPI between 60-70 should be considered as severely polluted areas and shall be kept under surveillance and pollution control measures should be efficiently implemented, whereas, the critically polluted industrial clusters/areas need further detailed investigations in terms of the extent of damage and an formulation of appropriate remedial action plan. As the CEPI score of the Kattedan Industrial area was below 60, no action plan was required.

The CPCB has revised CEPI concept in concurrence with MoEF & CC in 2016, which is formulated by eliminating the subjective factors but retaining the factors which can be monitored, in order to ensure greater transparency and objectivity in evaluating the environmental quality scenario in the industrial clusters. The CPCB vide Ir. Dt. 26.04.2016 issued directions to SPCBs communicating the 'Revised CEPI Concept 2016' wherein the CPCB has directed the SPCBs to carryout environmental quality monitoring in all the Critically Polluted Areas (CPAs), installation of Continuous Ambient Air Quality and Water Quality monitoring stations and action plans for restoring environmental quality and bring down CEPI Scores.

The CPCB has undertaken a project on monitoring, sampling and analysis for Ambient Air Quality, Surface Water Quality and Ground Water Quality in around 100 Polluted Industrial Areas (PIAs) for evaluation of CEPI Scores as per the revised concept – 2006.

The Hon'ble NGT, Principal Bench in OA No. 1038 of 2018 has taken up news item published in 'The Asian Age' titled 'CPCB to rank industrial units on pollution levels'.

The Hon'ble NGT vide above order directed as follows: -

i. An Action Plan has to be prepared with regard to identified Polluted Industrial Clusters in accordance with the revised norms laid down by CPCB by the State Government by the

- Committee constituted by the Chief Secretary within one month; as several Departments may be involved in the exercise.
- ii. Time Bound Action Plans shall be finalized within 3 months from the date of receipt of the copy of the order with regard to indentified polluted industrial clusters in accordance with the revised norms laid down by the CPCB to restore environmental qualities within norms.
- The final preparation of the action plan including its execution may be overseen by the Chief Secretary of the concerned State, along with the other connected major environmental issues of the States, such as pollution of river stretches, non-attainment cities in terms of air quality and solid waste management, utilization of treated sewage.
- iv. The Chief Secretary will take meetings in all these issues quarterly and forward the report to NGT by e-mail.
- v. The action plan furnished by the States may be thereafter be looked into by CPCB, which shall be the Nodal Agency and steps taken for implementation so as to ensure that all the industrial clusters comply with the parameters laid down as per Water & Air Acts.
- vi. CPCB shall forward Assessment Report for all 100 areas carried out during 2017 2018 to MoEF&CC by 28.02.2019 for appropriate action.
- vii. MoEF&CC may take necessary steps based on CPCB report for 100 areas in accordance with law.
- viii. The report on the action taken in the matter by the CPCB and MoEF&CC may be furnished to the Tribunal before 31.05.2019 by e-mail.

In view of the above, as per the directions of the Hon'ble NGT, the action plan for Kattedan Industrial Cluster is prepared by TSPCB.

## 2.0 Polluted Industrial Areas in Telangana State:

Telangana, as a geographical and political entity was born on June 2, 2014 as the 29th and the youngest state in Union of India. The state has an area of 1,12,077 Sq. Km. and has a population of 3.5 Crore. Hyderabad is the capital city of Telangana.



Central Pollution Control Board (CPCB) has identified 88 Polluted Industrial Clusters across the Country during the year 2009-10 and subsequently increased the Polluted Industrial Areas to around 100. As per CPCB, Telangana State is having three Polluted Industrial Areas viz. (Patancheru-Bollaram, Kukatpalli and Kattedan).

## 3.0 Constitution of the Committee:

The EFS&T Department, Government of Telangana vide G.O.Rt.No.2, dated: 10.01.2019 (Annexure-I) constituted the Committee for preparation of Action Plan for restoration of environmental qualities in respect of identified pollution industrial clusters with the following members.

Special chief secretary/Principal Secretary/Secretary to Govt,
 EFS&T, Dept
 Commissioner/Director of Industries, Hyd.

 Representative of Medical, Health & Family Welfare Department
 VC & MD, TSIIC, Govt. of Telangana
 MD, HMWS&SB, Govt. of Telangana.
 Commissioner, PR&RD Department
 Member
 Member

7. Member Secretary, Telangana State Pollution Control Board, Hyd. -Member-

Convenor

The committee is constituted for preparation of Action Plan for restoration of environmental qualities in respect of identified pollution industrial clusters viz. (Patancheru-Bollaram, Kukatpalli and Kattedan).

## 4.0 Kattedan Industrial Cluster



## **Demographic Details:**

Kattedan is a Industrial area developed in the early 1990's of in the Rangareddy District of Telangana state. It is located about 9 km from the city centre. Kattedan is located at soth west direction on Hyderabad-Benguluru Highway. It has an average elevation of 522 metres (1712 feet). The Kattedan industrial area was earlier part of the Rajendranagar Gram Panchayat and now merged into the Greater Hyderabad Municipal Corporation (GHMC).

The total demarcated area of industrial estate is 1.012 Sq.kms. The industrial cluster is surrounded by major residential colonies. As per 2011 census, the total population in the Kattedan and surrounding areas is 2,82,585.

#### Status of industries in Kattedan Industrial area:

- The total no. of industries identified in Kattedan Industrial Estate are 375. Out of this, the units falling under Red category are 78, Orange category are 30 and Green category are 267.
- The Hon'ble Supreme Court has issued certain directions in C.A. Nos. 368-373 of 1999 on 01.12.2000 to Government of A.P. "to identify the industries located within 10 km radius of Himayathsagar and Osmansagar lakes and to take action in consultation with the Pollution Control Board to prevent pollution to the drinking water in these two reservoirs. The State and the Board shall not permit any polluting industries within 10 km radius".
- T.S. Pollution Control Board is not permitting any new industries within 10 km radius
  of Himayathsagar and Osmansagar lakes and the relocation of the existing polluting
  industries is under progress. The Kattedan Industrial Estate is located within the 10
  Kms radius of Himayatsagar and Osmansagar lakes.
- There are no 17 category units in Kattedan Industrial area.
- The total Lead Processing units identified are 22. The Board has issued closure orders to all the lead processing units as these units are major air polluting industries in Kattedan area and directed to shift from present location.
- The major wastewater generating industries located in the estate are Textiles Printing and Dyeing units, Edible Oil Refineries, Oil reclamation units, Plastic scrap processing units (Washings) and Biscuit manufacturing units. The Board has closed the Textiles units, Edible oil units and Oil Reclamation units.
- Presently, only 2 Red category industries, 11 Orange category industries and 193
   Green category industries (majority plastic manufacturing units) are in operation in Kattedan Industrial Area.

Details of water and air pollution sources and control systems provided by the industries are enclosed as **Annexure-II**.

#### Steps taken to reduce the pollution problems in "Kattedan" area

The following measures were taken by the Board to control pollution in "Kattedan" area:

 T.S. Pollution Control Board is not permitting any new industries within 10 km radius of Himayathsagar and Osmansagar lakes and the relocation of the existing polluting industries is under progress. The Kattedan Industrial Estate is located within the 10 Kms radius of Himayatsagar and Osmansagar lakes.

- All Lead Processing units which are major air polluting industries in Kattedan area and the major wastewater generating industries located in the estate viz., Textiles Printing and Dyeing units, Edible Oil Refineries, Oil reclamation units are issued with closure directions in the year 2007 and directed to shift the units.
- The Board is not permitting any new industries in Kattedan area and regularly monitoring the industrial area.

### Ground water monitoring of Kattedan Industrial areas:

The Board Officials along with CPCB Officials have identified 4 borewells in Core-Zone of IDA Kattedan, 4 borewells in Impact - Zone of IDA Kattedan.

The analysis reports for the year 2018 are enclosed as Annexure – III.

### Monitoring of Surface water bodies/Lakes / Tanks in Kattedan area:

No surface water bodies are located in the Kattedan industrial area. However, the water bodies viz., Palle Cheruvu, Umda Sagar Lake, Noor Mohd. Kunta Lake and Yerrakunta Lake are located in the surroundings of the industrial Estate. The Board is monitoring the surface water quality in the above water bodies of Kattedan area. These monitoring stations are located in the Impact Zone of IE, Kattedan as per CEPI criteria. The water quality shows contamination of water bodies with untreated domestic discharges from the near by colonies.

The analysis reports are enclosed as Annexure - IV

## Monitoring of Air quality in Kattedan area:

The main sector of industries located in the Kattedan area Plastic scrap processing units (Washings) and Biscuit manufacturing units. The sources of air pollution in the Kattedan area are process emissions, boiler emissions from the industries and dust emissions from vehicular movement in the area and poor infrastructure of roads in the industrial area.

The Board has taken following measures to control air pollution in the area:

- > The industries provided scrubbers wherever there are process emissions.
- > All the industries installed air pollution control equipments such as dust collectors, cyclone separators, etc. to control emissions from fuel burning in the boilers.

The Board has installed Ambient Air Quality Monitoring stations at Kattedan area.

## Status of Solid waste Management in Kattedan areas:

 All the hazardous waste generating industries will be monitored regularly to ensure compliance with norms and conditions stipulated by the Board for treatment and disposal of hazardous waste.

- Action will be initiated against the non-complying industries.
- Night patrolling teams will be continued to check illegal dumping of hazardous waste.
- The Local Authorities will ensure that all the municipal solid waste generated in the area is lifted to Integrated Municipal Solid Waste treatment Facility for treatment and disposal regularly.
- The Local Authorities will monitor the areas to ensure no illegal dumping of municipal solid waste.
- The Local Authorities will ensure no dumping of municipal solid waste along the nallas and lakes by taking necessary measures such as providing fencing arrangement, awareness programs, etc.

## Status of Domestic effluent management in Kattedan area:

• Two drains carrying the domestic effluents from the nearby residential area are joining the Noor Mohd. Kunta. These drains are passing through Industrial Area. The Board has closed outlets of 22 major wastewater units with the assistance of TSIIC. A STP at Noor Mohd. Kunta was commissioned for treating the domestic waste water generated from the Kattedan and near by surrounding residential areas. The Board is monitoring the STP inlet and outlet steams regularly. The analysis results shows that the STP is meeting the standards. The analysis reports are placed at Annexure - V.

## Action Plan for improvement of Surface water quality:

- The industries to be monitored regularly to ensure compliance with norms and conditions stipulated by the Board for treatment and disposal of industrial effluents.
- Action tol be initiated against the non-complying industries.
- Night patrolling teams to be continued to check illegal dumping of effluents / solid waste into natural drains & nallah's.
- The STP at Noor Mohd. Kunta to be monitored regularly. The GHMC / HMWS & SB shall establish STPs of adequate capacities for treatment of domestic effluents so as to avoid discharge of untreated sewage into other lakes / nallahs.

### Action Plan for improvement of Ground water quality

- To carry out further study based on the ground water monitoring results.
- The Local Authority will encourage for establishment of rainwater harvesting structures.

## **Action Plan for improvement of Ambient Air Quality**

- The emission sources from the industries such as process emissions, boiler emissions will be monitored regularly to ensure compliance with norms and conditions stipulated by the Board.
- Action will be initiated against the non-complying industries.

- During the last few years, there is significant increase in urbanization in the Kukatpally area. More residential colonies were developed around the industrial areas. Apart from the industries, the vehicular traffic (movement) has become a major contributing factor for higher levels of dust in the air. Hence, the Local Authorities will maintain roads in proper condition and take measures for smooth vehicular movement.
- The Local Bodies to take up greenbelt development in the area for controlling air pollution.

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# ACTION PLAN FOR IMPROVOEMENT OF ENVIRONMENTAL PARAMETERS BY ALL THE STAKE HOLDER DEPARTMENTS IN THE KATTEDAN AREA.

ource			Implementa	Time frame for	Responsible
			tion period	implementation	Departments/
	S. No.	Action points	(short/mid/	from the date of	agency
			long) term	approval	
	1)	Monitoring of industries for	Short	Continue as	TSPCB
		compliance of emission	Under	regular activity.	
		standards and up- i	mplementatio		
		gradation of Air Pollution	n		
		Control equipments.		,	
	2)	Regular monitoring of	Short/Mid	60 days and	TSPCB
		individual industry	Under	continue as regular	
		emissions to ensure	mplementatio	activity.	
		standards and Initiating	n		
		action against the	11		
		industries for non-			
	L <sub>r</sub>	compliance of the			
		emission standards.			CUMC
ent	3)	Prepare plan for	Medium/	180 days	GHMC, TSIIC
muc		improvement of	Long		15110
virc		infrastructure of roads.		,	GHMC,
Air Environment	4)	Maintain pot holes free	Short	90 days	TSIIC
Ā		roads for free-flow of	Under		13110
		traffic	implementati		
			on	100 days	GHMC, TSIIC
	5)	Blacktopping of metalled	Medium/	180 days	Grillo, rollo
		roads, including pavement	Long		
		of road shoulders.	Partly		,
			implemented	Regular Activity	GHMC, TSIIC
	6)	Regular cleaning of the	Short	Negulal Activity	
		roads with mechanised			
		sweepers and removing		•	
		the silt from the roads			CHMC
	7)	Regular check and control	1	Within 90 days	GHMC,
		of burning of municipal	Under	continue as	13110 04



ource	S. No.	Action points solid wastes.	Implementa tion period (short/mid/ long) term implementati on	Time frame for implementation from the date of approval regular activity.	Responsible Departments/ agency TSPCB
	8)	Enforcement of Construction & Demolition Rules Control measures for	Short	30 days and continue as regular activity.  30 days and	TSPCB
		fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units of C&D Waste.		continue as regular activity	
	10)	Air quality index to be calculated and disseminated to the people through website and other media	Under implementati	Continue the activity	
	attaini	tion plan was submitted to the ng cities / towns. Hyderabad	is one of the no	on-attainment area	in the relativation
ronment	State in which Kattedan Industrial C  1) Regular operation of ZLI systems / ETPs c ensuring sending effluent		Short r Under	Continue tr   activity	ne TSPCB
Water Environment	2)	to CETP regularly  Establishment of STP' with adequate capacity t treat the domestic wast water.	s Medium/ o Long	180 days	HMWSSB, TSIIC
	3)	The Common Efflue		One year	TSIIC,



ource	, ,		Implementa	Time frame for	Responsible
Juice			tion period	implementation	Departments/
	S. No.	Action points	(short/mid/	from the date of	agency
			long) term	approval	
	4)	Treatment Plant to be upgraded to reuse the treated water by the member industries.  Ensure the industries to close all the outlets and provide separate storm water drains to avoid contamination of rain water	Short/Mid Under implementati on	60 days and continue as regular activity.	TSPCB TSIIC, TSPCB
	-	Water			
	1)	Ensure storing of effluents in the above ground level storage tanks to avoid contamination of ground due to leakages	Short/Mid Under implementati on	60 days and continue as regular activity	TSPCB
Land Environment	2)	Restrictions on extraction of ground water as per the guidelines issued by the Government.	Short/Mid Under implementati on	60 days and continue as regular activity.	TSPCB &
-	3)	Regular monitoring of the Industrial area to identify the unauthorized dumpings.	Under	Continue the activity	TSIIC,
	4)	Installation of CC cameras at the entry points of IDA and on the drains.	Officialisms	60 days and continue a regular activity.	TSPCB

Member Secretary

Special Chief Secretary

EFS&T



## GOVERNMENT OF TELANGANA ABSTRACT

EFS&T Department - Constitution of a Committee for preparation of Acton Plan for restoration of environmental Qualities with regard to the identified polluted industrial clusters - Orders - Issued.

ENVIRONMENT, FORESTS, SCIENCE & TECHNOLOGY (For.III) DEPARTMENT

G.O.Rt.No.2

Dated: 10.01.2019
Read the following.

- Orders of Hon'ble NGT, New Delhi, Dt.13-12-2018 in O.A.No.1038/2018.
- 2. From the MS,TSPCB, mail received, dt.8.1.2019.

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#### ORDER:

The Member Secretary, Telangana State Pollution Control Board (TSPCB) in his letter 2<sup>nd</sup> read above, has brought to the notice of the Government that, the Hon'ble NGT in its orders 1<sup>st</sup> read above, have directed to the State Pollution Control Boards /Committees to finalize the time bound action plans with regard to identified polluted industrial clusters in accordance with the revised norms laid down by the Central Pollution Control Board (CPCB) to restore environmental qualities within the norms. Such action plan be finalized within three months from the date of receipt of copy of the orders of the NGT. The action plan to be prepared in the States may be done by the Committee constituted by the Chief Secretary within one month. It is also laid down that the final preparation of the Action Plan including its execution may be overseen by the Chief Secretary of the State concerned.

- 2. Accordingly, the Member Secretary, Telangana State Pollution Control Board has requested to constitute the committee for preparation of Action Plan for restoration of environmental qualities in respect of identified pollution clusters with the following members:
  - Special Chief Secretary / Principal Chairman. Secretary / Secretary to Govt., EFS&T Department, Government of Telangana.
  - Commissioner / Director of Industries, Member Govt of Telangana.
  - Representative of Medical, Health & Member Family Welfare Department
  - (Y) VC&MD, TSIIC, Govt of Telangana. Member
  - MD, HMWS&SB, Govt of Telangana. Member
  - Vi ) Commissioner, PR&RD Department Member
  - Member Secretary, Telangana State Member Pollution Control Board, Hyderabad. Convenor

- 3. Government after careful consideration of the above request of the Member Secretary, Telangana State Pollution Control Board hereby constitute the committee for preparation of Action Plan for restoration of environmental qualities in respect of identified pollution clusters with the following members:
  - Special Chief Secretary/Principal Chairman.
    Secretary / Secretary to Government,
    EFS&T Department, Government of
    Telangana.
  - Commissioner / Director of Industries, Member Govt of Telangana.
  - Representative of Health, Medical, & Member Family Welfare Department
  - N VC&MD, TSIIC, Govt of Telangana. Member
  - V) MD, HMWS&SB, Govt of Telangana. Member
  - vi) Commissioner, PR&RD Dept. Member
  - Vii) Member Secretary, TSPCB, Hyderabad. Member Convenor

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

## AJAY MISRA SPECIAL CHIEF SECRETARY TO GOVERNMENT (FAC)

To

The Special Chief Secretary / Prl. Secretary / Secretary to Govt., EFS&T Department, Government of Telangana.

The Commissioner / Director of Industries, Government of Telangana.

The Health Medical, & Family Welfare Department, Telangana State Secretariat, Hyderabad.

The Vice Chairman & Managing Director, Telangana State Industrial Infrastructure Corporation, Government of Telangana, Hyderabad.

The Managing Director, Hyderabad Metropolitan Water Supply and Sewerage Board, Government of Telangana. Hyderabad.

The Commissioner, Panchayat Raj and Rural Development Department, Telangana State Secretariat, Hyderabad.

The Member Secretary, Telangana State Pollution Control Board, Hyderabad. Copy to:

The Industries and Commerce Department, Telangana State Secretariat, Hyderabad.

The Health, Medical & Family Welfare Department, Telangana State Secretariat, Hyderabad.

The Panchayat Raj and Rural Development Department, Telangana State Secretariat, Hyderabad.

// FORWARDED :: BY ORDER //

Status of industries in Kattedan

	I	1
	Total	371
All categories	Closed	119
All c	Operating	252
	Total	27.1
Green	Closed	42
	Operating	229
	Total	22
Orange	Closed	12
0	Operating	10
Red	Total	78
	Closed	65
	Operating	13





## TELANGANA STATE POLLUTION CONTROL BOARD

Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018 Ph: 040-23887500

#### **CENTRAL LABORATORY**

## Analysis Report

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/3021-3024

Collected on: 28/02/2018

Test method: Standard Methods of APHA, 23rd Edition

Issue date: 12/03/2018

Collected by: Sri M. Venkanna, EE, RO.I-RRD

Received on: 02/03/2018

Quantity of the sample: 1 Ltr. Sample each

Page No.: 1 of 2

Source: Borewell samples.

Sample code : Sample details / collection point

3021 - M/s. Government of Telangana, Govt. Indian Medicine Pharmacy (Unani), Departmet of Ayush,

IDA, Kattedan.

3022 - Govt Herbarium Unani Department of Ayush, IDA Kattedan.

3023 - Calcutta Plastic Industry, IDA Kattedan.

- Power mak 6-8-322/A, Road No.25, Kattedan, Rajendranagar (M), Rangareddy District.

			Drinking water			
Parameters	Unit	Jnit 3021 3022		3023	3024	standards as per IS 10500: 2012
Ph	-	6.44	6.48	7.29	7.24	6.5-8.5
Electrical conductivity	μS/cm	2,750	3,110	3,290	3,390	-
Total Dissolved Solids	mg/L	1,652	1,852	1,962	2,036	500* (2000**)
Chemical Oxygen Demand	mg/L	28	99	127	48	-
Total Alkalinity as CaCO3	mg/L	272	336	288	496	200* (600**)
Total Hardness as CaCO3	mg/L	1040	1290	1170	860	200* (600**)
Calcium as Ca+2	mg/L	256	310	280	128	75* (200**)
Magnesium as Mg+2	mg/L	97	125	114	131	30* (100**)
Chlorides as Cl	mg/L	410	500	502	488	250* (1000**)
Sulphates as SO <sub>4</sub> -2	mg/L	349	470	425	447	200* (400**)
Fluoride	mg/L	0.37	0.5	0.45	0.94	1.0* (1.5**)
Nitrates as NO <sub>3</sub>	mg/L	40	40	40	41	45
Phosphates as PO <sub>4</sub> -3	mg/L	3	6	0.6	0.02	-
Sodium as Na	mg/L	116	158	174	400	
Potassium as K	mg/L	4	3.6	4.8	4.2	-
Sulphide as H₂S	mg/L	ND	ND	ND	ND	0.05
Phenolic compounds	mg/L	ND	ND	ND	ND	0.001* (0.002**)
Oil and Grease	mg/L	ND	ND	ND	ND	
Cyanide	mg/L	ND	ND	ND	ND	0.05
Heavy Metals						
Соррег	mg/L	ND	ND	ND	ND	0.05* (1.5**)
Nickel	mg/L	ND	ND	ND	ND	0.02*
Zinc	mg/L	1.1	1.2	0.8	1.0	5* (15**)
Cadmium	mg/L	ND	ND	ND	ND	0.003*
Lead	mg/L	ND	ND	ND	ND	0.01*
Total Chromium	mg/L	ND	ND	ND	ND	0.05*
Pesticides					<u></u>	Pesticide Residues Limit
Alpha BHC	ppb	ND -	ND	ND	ND	0.01
Beta BHC	ppb	ND	ND	ND	ND	0.04
Gama BHC (Lindane)	ppb	ND	ND	ND	ND	2
OP DDT	ppb	ND	ND	ND	ND	1
PP DDT	ppb	ND	ND	ND	ND	1
Alpha Endosulphan	ppb	DN	ND	ND	ND	0.4
Beta Endosulphan	ppb	ND	ND	ND	ND	0.4



Dieldrin	ppb	ND	ND	ND	ND	0.03
Carboryl (Carbamate)	ppb	ND	ND	ND	ND	•
2.4D	ppb	ND	ND	ND	ND	30
Aldrin	ppb	ND	ND	ND	ND	0.03
Malathian	ppb	ND	ND	ND	ND	190
Methyl Parathian	ppb	ND	ND	ND	ND	0.3
Anilophos	ppb	ND	ND	ND	ND	, н
Chloropyriphos	ppb	ND	ND	ND	ND	30

Note: Results related to sample as received.

\* Acceptable limit.

\*\* Permissible limit in the absence of alternate source

ND: Not detected

(P.VEERANNA)

Joint Chief Environmental Scientist (FAC)

18





## TELANGANA STATE POLLUTION CONTROL BOARD

Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018 Ph: 040-23887500

## CENTRAL LABORATORY

## Analysis Report

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/3025-3028

Collected on: 28/02/2018

Test method: Standard Methods of APHA, 23rd Edition

Issue date: 12/03/2018

Collected by: Sri M. Venkanna, EE, RO.I-RRD

Received on: 02/03/2018

Quantity of the sample: 1 Ltr. sample each

Page No.: 1 of 2

Source: Borewell samples.

Sample code : Sample details / collection point

3025 - ZPHS, Padmashalipuram, near Madhuban Colony, Rajendranagar (M), Rangareddy District.

3026 - ZPHS, Beside to Mailardevpally Police Station, Mailardevpally (V), Rajendranagar (M),

Rangareddy District.

3027 - Borewell in Noor Mohd Kunta STP, Rajendra nagar (M), Rangareddy District.

3028 - Urban Primary Health Center (UPHC), Shivarampally (V), (M), Rangareddy District.

:		A. AL AL	Res	ults		Drinking water	
Parameters	Unit	3025	3026	3027	3028	standards as per IS 10500: 2012	
pН	-	7.49	7.47	7.25	7.6	6.5-8.5	
Electrical conductivity	μS/cm	1,020	1,570	3,270	1,340	-	
Total Dissolved Solids	mg/L	610	852	1965	735	500* (2000**)	
Chemical Oxygen Demand	mg/L	36	20	76	4	-	
Total Alkalinity as CaCO3	mg/L	200	252	464	286	200* (600**)	
Total Hardness as CaCO3	mg/L	296	424	650	350	200* (600**)	
Calcium as Ca+2	mg/L	80	122	78	80	75* (200**)	
Magnesium as Mg+2	mg/L	23	29	110	36	30* (100**)	
Chlorides as Cl	mg/L	100	158	388	130	250* (1000**)	
Sulphates as SO <sub>4</sub> -2	mg/L	99	134	428	44	200* (400**)	
Fluoride	mg/L	0.66	0.79	0.93	0.75	1.0* (1.5**)	
Nitrates as NO₃	mg/L	37	40	41	39	45	
Phosphates as PO <sub>4</sub> -3	mg/L	0.01	0.02	0.05	0.23	10	
Sodium as Na	mg/L	74	96	402	79	-	
Potassium as K	mg/L	5.4	5.6	3.8	3	**	
Sulphide as H <sub>2</sub> S	mg/L	ND	ND	ND	ND	0.05	
Phenolic compounds	mg/L	ND	ND	ND	ND	0.001* (0.002**)	
Oil and Grease	mg/L	ND	ND	ND	ND	-	
Cyanide	mg/L	ND	ND	ND	ND	0.05	
Heavy Metals							
Copper	mg/L	ND	ND	ND	ND	0.05* (1.5**)	
Nickel	mg/L	ND	ND	ND	ND	0.02*	
Zinc	mg/L	1.1	0.5	1.3	1.4	5* (15**)	
Cadmium	mg/L	ND	ND	ND	ND	0.003*	
Lead	mg/L	ND	ND	ND	ND	0.01*	
Total Chromium	mg/L	ND	ND	ND	ND	0.05*	
Pesticides					,	Pesticide Residues Limits	
Alpha BHC	ppb	ND	ND	ИD	ND	0.01	
Beta BHC	ppb	ND	ND	ND	ND	0.04	
Gama BHC (Lindane)	ppb	ND	ND	ND	ND	2	
OP DDT	ppb	ND	ND	ND	ND	1	
PP DDT	ppb	ND	ND	ND	ND	1	
Alpha Endosulphan	ppb	ND	ND	ND	ND	0.4	



Beta Endosulphan	ppb	ND	ND	ND	ND	0.4
Dieldrin	ppb	ND	ND	ND	ND	0.03
Carboryl (Carbamate)	ppb	ND	ND	ND	ND	-
2.4D	ppb	ND	ND	ND	ND	30
Aldrin	ppb	ND	ND	ND	ND	0.03
Malathian	ppb	ND	ND	ND	ND	190
Methyl Parathian	ppb	ND	ND	ND	ND	0.3
Anilophos	ppb	ND	ND	ND	ND	-
Chloropyriphos	ppb	ND	ND	ND	ND	30

Note: Results related to sample as received.

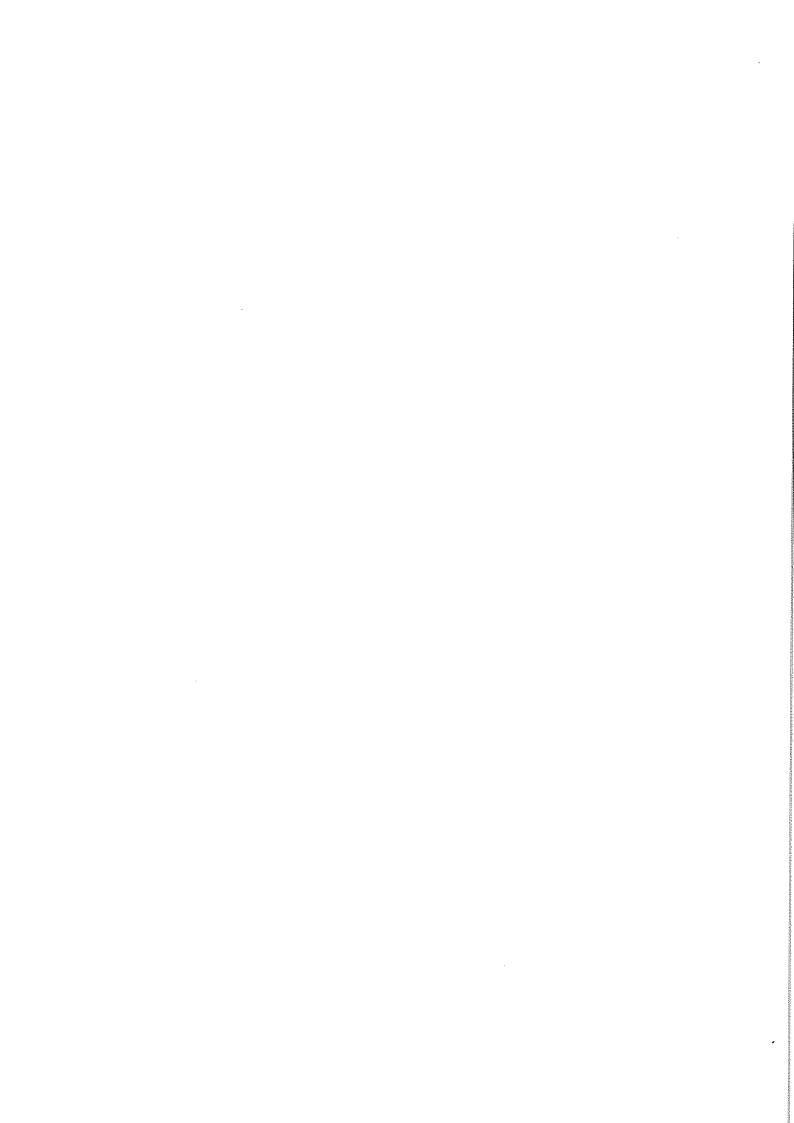
\* Acceptable limit.

\*\* Permissible limit in the absence of alternate source.

ND: Not detected

(P. VEERANNA)

Joint Chief Environmental Scientist (FAC)





## TELANGANA STATE POLLUTION CONTROL BOARD

Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018 Ph: 040-23887500

#### CENTRAL LABORATORY

#### Analysis Report

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/3043-3046

Collected on: 02/03/2018

Test method: Standard Methods of APHA, 23rd Edition

Issue date: 14/03/2018

Collected by: Sri M. Venkanna, EE, RO.I-RRD

Received on: 03/03/2018

Quantity of the sample: 1 Ltr. sample each

Page No.: 1 of 2

Source: Borewell samples.

Sample code : Sample details / collection point

- M/s. Government of Telangana, Govt. Indian Medicine Pharmacy (Unani), Departmet of Ayush,

IDA, Kattedan.

- Govt Herbarium Unani Department of Ayush, IDA Kattedan.

3045 - Calcutta Plastic Industry, IDA Kattedan.

- Power mak 6-8-322/A, Road No.25, Kattedan, Rajendranagar (M), Rangareddy District.

			Res	sults		Drinking water
Parameters	Unit	3043	3044	3045	3046	standards as per IS 10500: 2012
pН	_	6.5	6.6	7.4	7.32	6.5-8.5
Electrical conductivity	μS/cm	2,744	3,224	3,312	3,438	-
Total Dissolved Solids	mg/L	1,646	1,924	1,986	2,062	500* (2000**)
Chemical Oxygen Demand	mg/L	32	102	136	52	-
Total Alkalinity as CaCO3	mg/L	236	340	271	415	200* (600**)
Total Hardness as CaCO3	mg/L	992	1269	1101	852	200* (600**)
Calcium as Ca+2	mg/L	244	304	264	126	75* (200**)
Magnesium as Mg+2	mg/L	93	129	107	128	30* (100**)
Chlorides as Cl	mg/L	390	472	486	465	250* (1000**)
Sulphates as SO <sub>4</sub> -2	mg/L	312	454	436	424	200* (400**)
Fluoride	mg/L	0.3	0.45	0.41	0.92	1.0* (1.5**)
Nitrates as NO <sub>3</sub>	mg/L	36	42	44	40	45
Phosphates as PO4-3	mg/L	2.8	5.5	0.05	0.03	-
Sodium as Na	mg/L	114	144	160	416	
Potassium as K	mg/L	3.5	3.2	4.5	4.1	_
Sulphide as H <sub>2</sub> S	mg/L	ND	ND	ND	ND	0.05
Phenolic compounds	mg/L	ND	ND	ND	ND	0.001* (0.0002**)
Oil and Grease	mg/L	ND	ND	ND	ND	_
Cyanide	mg/L	ND	ND	ND	ND	0.05
Heavy Metals		•••••••••••••••••••••••••••••••••••••••	.1	· ·		
Copper	mg/L	ND	ND	ND	ND	0.05* (1.5**)
Nickel	mg/L	ND	ND	ND	ND	0.02*
Zinc	mg/L	1.2	1.1	1.0	1.4	5* (15**)
Cadmium	mg/L	ND	ND	ND	ND	0.003*
Lead	mg/L	ND	ND	ND	ND	0.01*
Total Chromium	mg/L	ND	ND	ND	ND	0.05*
Pesticides						Pesticide Residues Limits
Alpha BHC	ppb	ND	ND	ND	ND	0.01
Beta BHC	ppb	ND	ND	ND	ND	0.04
Gama BHC (Lindane)	ppb	ND	ND	ND	ND	2
OP DDT	ppb	ND	ND	ND	ND	1
PP DDT	ppb	ND	ND	ND	ND	1



Alpha Endosulphan	ppb	ND	ND	ND	ND	0.4
Beta Endosulphan	ppb	ND	ND	ND	ND	0.4
Dieldrin	ppb	ND	ND	ND	ND	0.03
Carboryl (Carbamate)	ppb	ND	ND	ND	ND	-
2.4D	ppb	ND	ND	ND	ND	30
Aldrin	ppb	ND	ND	ND	ND	0.03
Malathian	ppb	ND	ND	ND	ND	190
Methyl Parathian	ppb	ND	ND	ND	ND	0.3
Anilophos	ppb	ND	ND	ND	ND	-
Chloropyriphos	ppb	ND	ND	ND	ND	30

Note: Results related to sample as received.

\* Acceptable limit.

\*\* Permissible limit in the absence of alternate source
ND: Not detected

(P.VEERANNA)

Joint Chief Environmental Scientist (FAC)





## TELANGANA STATE POLLUTION CONTROL BOARD

Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad -- 500 018 Ph: 040-23887500

#### CENTRAL LABORATORY

#### **Analysis Report**

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/3047-3050

Collected on: 02/03/2018

Test method: Standard Methods of APHA, 23rd Edition

Issue date: 14/03/2018

3048

Collected by: Sri M. Venkanna, EE, RO.I-RRD

Received on: 03/03/2018

Quantity of the sample: 1 Ltr. sample each

Page No.: 1 of 1

Source: Borewell samples.

Sample code Sample details / collection point

3047

ZPHS, Padmashalipuram, near Madhuban Colony, Rajendranagar (M), Rangareddy District.

ZPHS, Beside to Mailardevpally Police Station, Mailardevpally (V), Rajendranagar (M),

Rangareddy District.

3049 Borewell in Noor Mohd Kunta STP, Rajendra nagar (M), Rangareddy District.

3050 Urban Primary Health Center (UPHC), Shivarampally (V), (M), Rangareddy District.

			Re	sults		Drinking water
Parameters	Unit	3047	3048	3049	3050	standards as per IS 10500: 2012
рН	-	7.52	7.45	7.3	7.7	6.5-8.5
Electrical	μS/cm	1,018	1,558	3,284	1.260	
conductivity	μονομι	1,010	1,556	3,284	1,360	-
Total Dissolved Solids	mg/L	610	934	1,968	816	500* (2000**)
Chemical Oxygen Demand	mg/L	38	24	68	4	-
Total Alkalinity as CaCO3	mg/L	210	282	446	272	200* (600**)
Total Hardness as CaCO3	mg/L	314	432	624	360	200* (600**)
Calcium as Ca+2	mg/L	82	124	65	86	75* (200**)
Magnesium as Mg+2	mg/L	24	30	112	35	30* (100**)
Chlorides as Cl	mg/L	92	154	364	115	250* (1000**)
Sulphates as SO <sub>4</sub> -2	mg/L	86	140	426	45	200* (400**)
Fluoride	mg/L	0.6	0.64	0.84	0.7	1.0* (1.5**)
Nitrates as NO <sub>3</sub>	mg/L	40	44	42	41	45
Phosphates as PO <sub>4</sub> -3	mg/L	0.04	0.02	0.03	0.02	
Sodium as Na	mg/L	76	92	410	84	
Potassium as K	mg/L	5.6	4.8	3.7	3.1	•
Sulphide as H <sub>2</sub> S	mg/L	ND	ND	ND	ND	0.05
Phenolic compounds	mg/L	ND	ND	ND	ND	0.001* (0.002**)
Oil and Grease	mg/L	ND	ND	ND	ND	
Cyanide	mg/L	ND	ND	ND	ND	0.05
Heavy Metals	- 1	******		L		J 0.05
Copper	mg/L	ND	ND	ND	ND	0.05* (1.5**)
Nickel	mg/L	ND	ND	ND	ND	0.02*
Zinc	mg/L	1.2	1.4	1.2	1.0	5* (15**)
Cadmium	mg/L	ND	ND	ND	ND	0.003*
Lead	mg/L	ND	ND	ND	ND	0.01*
Total Chromium	mg/L	ND	ND	ND	ND	0.05*
Pesticide	············			<del></del> -		Pesticide Residues Limits
Alpha BHC	ppb	ND	ND	ND	ND	0.01
Beta BHC	ppb	ND	ND	ND	ND	0.04
Gama BHC (Lindane)	ppb	ND	ND	ND	ND	2
OP DDT	ppb	ND	ND	ND	ND	1
PP DDT	ppb	ND	ND	ND	ND	1
Alpha Endosulphan	ppb	ND	ND	ND	ND	0.4
Beta Endosulphan	ppb	ND	ND	ND	ND	0.4
Dieldrin	ppb	ND	ND	ND	ND	0.03



Carboryl (Carbamate)	ppb	ND	ND	ND	ND	¥
2.4D	ppb	ND	ND	ND	ND	30
Aldrin	ppb	ND	ND	ND	ND	0.03
Malathian	ppb	ND	ND	ND	ND	190
Methyl Parathian	ppb	ND	ND	ND	ND	0.3
Anilophos	ppb	ND	ND	ND	ND	-
Chloropyriphos	ppb	ND	ND	ND	ND ·	30

Note: Results related to sample as received.

\* Acceptable limit.

\*\* Permissible limit in the absence of alternate source.

ND: Not detected

Joint Chief Environmental Scientist (FAC)





Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018 Ph: 040-23887500

#### CENTRAL LABORATORY

#### **Analysis Report**

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/3029-3032

Collected on: 28/02/2018

Test method: Standard Methods of APHA, 23rd Edition

Issue date: 12/03/2018

Collected by: Sri M. Venkanna, EE, RO.I-RRD

Received on: 02/03/2018

Quantity of the sample: 1 Ltr. sample each

Page No.: 1 of 2

Source: Lake Samples

Sample code : Sample details / collection point

3029 - Palle Cheruvu, Near Aurora Engineering College, Bandlaguda, Rajendranagar (M), Rangareddy Dist.

3030 - Umda Sagar Lake, Jalpally (V), Rajendranagar (M), Rangareddy Dist.

3031 - Noor Mohd Kunta Lake, Rajendranagar (M), Rangareddy Dist.

3032 - Yeerakunta Lake, Rajendranagar (M), Rangareddy Dist.

n	Unit		R	esults	
Parameters	UBIE	3029	3030	3031	3032
pН	-	7.46	7.96	7.60	7.38
Electrical conductivity	μS/cm	1,860	920	3,120	1,870
Total Dissolved Solids	mg/L	1,116	552	1,709	1,255
Total Suspended Solids	mg/L	8	44	5	18
Chemical Oxygen Demand	mg/L	60	16	139	151
BOD	mg/L	10	Nil	20	22
Dissolved Oxygen	mg/L	4.2	6	3.5	3.8
SAR	-	3,9	2.1	4.2	3.4
Boron	mg/L	ND	ND	ND	ND
T.Coli (MPN)	_	3250	4500	2625	40000
F. Coli (MPN)	_	Nil	Nil	Nil	Nil
Sulphide as S <sub>2</sub>	mg/L	ND	ND	ND	ND
Phenolic compounds	mg/L	ND	ND	ND	ND
Oil and Grease	mg/L	ND	ND	ND	ND
Cyanide	mg/L	ND	ND	ND	ND
Heavy Metals					- A
Copper	mg/L	ND	ND	ND	ND
Nickel Nickel	mg/L	ND	ND	ND	ND
Zinc	mg/L	0.15	0.2	0.1	0.14
Cadmium	mg/L	ND	ND	ND	ND
Lead	mg/L	ND	ND	ND	ND
Total Chromium	mg/L	ND	ND	ND	ND
Pesticides			•		
Alpha BHC	ppb	ND	ND	ND	ND
Beta BHC	ppb	ND	ND	ND	ND
Gama BHC (Lindane)	ppb	ND	ND	ND	ND
OP DDT	ppb	ND	ND	ND	ND
PP DDT	ppb	ND	ND	ND	ND
Alpha Endosulphan	ppb	ND	ND	ND	ND
Beta Endosulphan	ppb	ND	ND	ND	ND
Dieldrin	ppb	ND	ND	ND	ND
Carboryl (Carbamate)	ppb	ND	ND	ND	ND
2.4D	ppb	ND	ND	ND	ND
Aldrin	ppb	ND	ND	ND	ND
Malathian	ppb	ND	ND	ND	ND
Methyl Parathian	ppb	· ND	ND	ND	ND
Anilophos	ppb	ND	ND	ND	ND
Chloropyriphos	ppb	ND	ND	ND	ND

Note: Results related to sample as received.

ND: Not detected

<sup>\*</sup> Acceptable limit.

<sup>\*\*</sup> Permissible limit in the absence of alternate source.



CPCB Water Quality Criteria								
Parameters	A	В	C	D	E			
Ph	6.5 - 8.5	6.5 - 8.5	6.0 – 9.0	6.5 – 8.5	6.0 - 8.5			
Electrical conductivity		-		-	Max 2250			
Dissolved oxygen	6 or >6	5 or >5	4 or >4	4 or >4	-			
BOD 3 at 27°C	2 or < 2	3 or < 3	3 or < 3	•	-			
SAR	-	-	-	-	Max 26			
Boron	-	н	-	-	Max 2			
Total coliform	50 or < 50	500 or < 500	5000 or < 5000	-	-			

Water quality criteria as per CPCB: Below E: Not Meeting A,B,C,D & E Criteria.

(P.VEERANNA)

Joint Chief Environmental Scientist (FAC)





Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018 Ph: 040-23887500

#### CENTRAL LABORATORY

#### Analysis Report

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/3051-3054

Collected on: 02/03/2018

Test method: Standard Methods of APHA, 23rd Edition

Issue date: 14/03/2018

Collected by: Sri M. Venkanna, EE, RO.I-RRD

Received on: 03/03/2018

Quantity of the sample: 1 Ltr. sample each

Page No.: 1 of 1

Source: Lake Samples.

Sample code : Sample details / collection point

3051 - Palle Cheruvu, Near Aurora Engineering College, Bandlaguda, Rajendranagar (M), Rangareddy Dist.

3052 - Umda Sagar Lake, Jalpally (V), Rajendranagar (M), Rangareddy Dist

3053 - Noor Mohd Kunta Lake, Rajendranagar (M), Rangareddy Dist

3054 - Yeerakunta Lake, Rajendranagar (M), Rangareddy Dist

Parameters	Unit -			esults	
r at affected 8	Onit	3051	3052	3053	3054
pН	-	7.6	7.69	7.9	7.4
Electrical conductivity	μS/cm	1884	946	3164	1856
Total Dissolved Solids	mg/L	1124	558	1730	1244
Total Suspended Solids	mg/L	8	46	6	16
Chemical Oxygen Demand	mg/L	54	16	146	174
BOD	mg/L	9	Nil	22	24
Dissolved Oxygen	mg/L	4.3	6.1	3.5	3.6
Boron	mg/L	ND	ND	ND	ND
SAR	- 1	3.2	2.4	4.1	3.6
T.Coli (MPN)		1125	23500	43250	23000
F. Coli (MPN)	-	Nil	Nil	750	Nil
Sulphide as S <sub>2</sub>	mg/L	ND	ND	ND	ND
Phenolic compounds	mg/L	ND	ND	ND	ND
Oil and Grease	mg/L	ND	ND	ND	ND
Cyanide	mg/L	ND	ND	ND	ND
Heavy Metals		·			
Copper	mg/L	ND	ND	ND	ND
Nickel	mg/L	ND	ND	. ND	ND
Zinc	mg/L	0.1	0.15	0.13	0.2
Cadmium	mg/L	ND	ND	ND	ND
Lead	mg/L	ND	ND	ND	ND
Total Chromium	mg/L	ND	ND	ND	ND
Pesticide					
Alpha BHC	ppb	ND	ND	ND	ND
Beta BHC	ppb	ND	ND	ND	ND
Gama BHC (Lindane)	ppb	ND	ND	ND	ND
OP DDT	ppb	ND	ND	ND	ND
PP DDT	ppb	ND	ND	ND	ND
Alpha Endosulphan	ppb	ND	ND	ND	ND
Beta Endosulphan	ppb	ND	ND	ND	ND
Dieldrin	ppb	ND	ND	ND	ND
Carboryl (Carbamate)	ppb	ND	ND	ND	ND
2.4D	ppb	ND	ND	ND	ND
Aldrin	ppb	ND	ND	ND	ND
Malathian	ppb	ND	ND	ND	ND
Methyl Parathian	ppb	ND	ND	ND	ND
Anilophos	ppb	ND	ND	ND	ND
Chloropyriphos	ppb	ND	ND	ND	ND

Note: Results related to sample as received.

ND: Not detected



	CPCB	Water Quality	Criteria		
Parameters	A	В	С	D	E
Ph	6.5 - 8.5	6.5 - 8.5	6.0 - 9.0	6.5 - 8.5	6.0 - 8.5
Electrical conductivity	-	1-	-	-	Max 2250
Dissolved oxygen	6 or >6	5 or >5	4 or >4	4 or >4	
BOD 3 at 27°C	2 or < 2	3 or < 3	3 or < 3	-	l e
SAR		-	÷ •		Max 26
Boron	1 <del>-</del>	-	-	-	Max 2
Total coliform	50 or < 50	500 or < 500	5000 or < 5000	-	-

Water quality criteria as per CPCB: Below E: Not Meeting A,B,C,D & E Criteria.

(P. VEERANNA)

Joint Chief Environmental Scientist (FAC)

28





Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018 Ph: 040-23887500

#### CENTRAL LABORATORY

#### **Analysis Report**

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/3099-3102

Collected on: 06/03/2018

Test method: Standard Methods of APHA, 23rd Edition

Issue date: 17/03/2018

Collected by: Sri M. Venkanna, EE, RO.I-RRD

Received on: 07/03/2018

Quantity of the sample: 1 Ltr. sample each

Page No.: 1 of 1

Source: Lake Samples.

Sample code : Sample details / collection point

3099 - Palle Cheruvu, Near Aurora Engineering College, Bandlaguda, Rajendranagar (M), Rangareddy Dist.

3100 - Umda Sagar Lake, Jalpally (V), Rajendranagar (M), Rangareddy Dist.

3101 - Noor Mohd Kunta Lake, Rajendranagar (M), Rangareddy Dist.

3102 - Yeerakunta Lake, Rajendranagar (M), Rangareddy Dist.

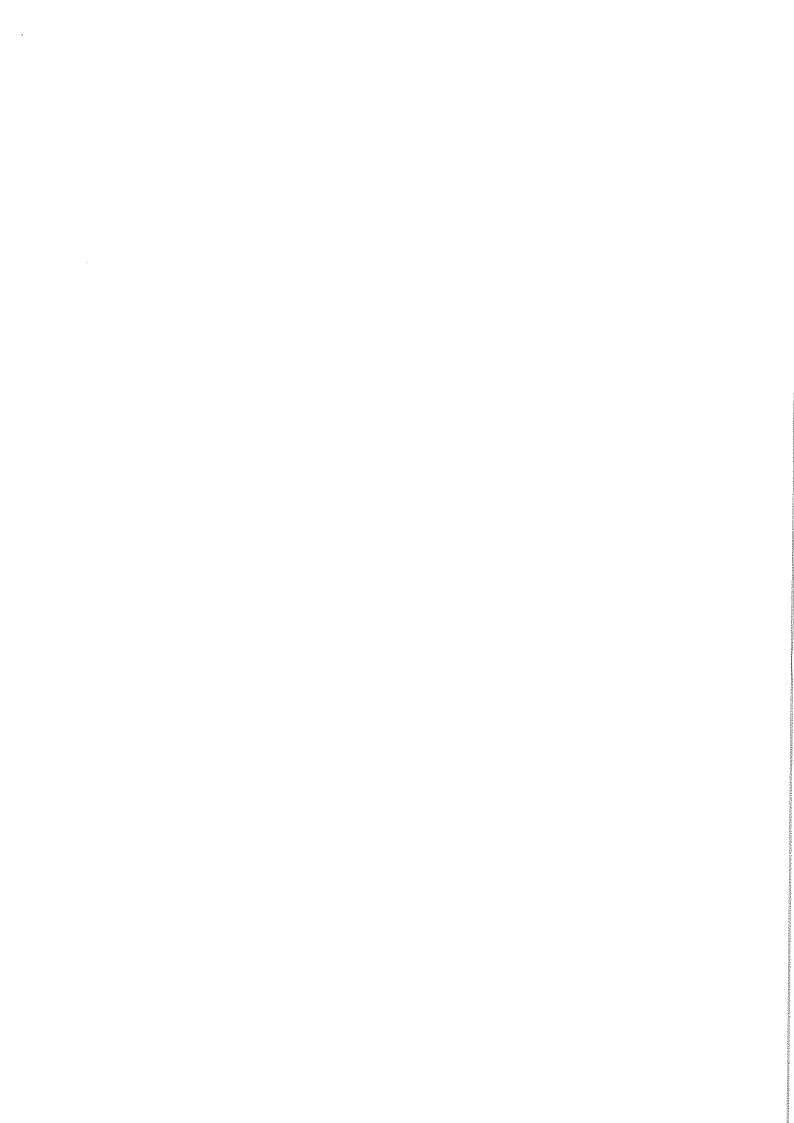
D .	TT 24		Res	ults	
Parameters	Unit	3099	3100	3101	3102
pН	-	7,5	7.8	7.7	7.44
Electrical conductivity	μS/cm	1,848	962	3,212	1,866
Total Dissolved Solids	mg/L	1116	576	1,734	1,212
Total Suspended Solids	mg/L	6	42	5	14
Chemical Oxygen Demand	mg/L	56	20	141	162
BOD	mg/L	9	Nil	24	23
Dissolved Oxygen	mg/L	4.2	6.4	3.6	3.7
SAR	-	3.6	2.2	4.1	3.5
Boron	mg/L	ND	ND	ND	ND
Sulphide as S₂	mg/L	ND	ND	ND	ND
T.Coli ( MPN)	-	3,050	1,250	5,375	2,125
F. Coli (MPN)	-	NiI	Nil	Nil	Nil
Phenolic compounds	mg/L	ND	ND	ND	ND
Oil and Grease	mg/L	ND	ND	ND	ND
Cyanide	mg/L	ND	ND	ND	ND
Heavy Metals					
Copper	mg/L	ND	ND	ND	ND
Nickel	mg/L	ND	ND	ND	ND
Zinc	mg/L	0.14	0.12	0.2	0.11
Cadmium	mg/L	ND	ND	ND	ND
Lead	mg/L	ND	ND	ND	ND
Total Chromium	mg/L	ND	ND	ND	ND
Pesticide					
Alpha BHC	ppb	ND	ND	ND	ND
Beta BHC	ppb	ND	ND	ND	ND
Gama BHC (Lindane)	ppb	ND	ND	ND	ND
OP DDT	ppb	ND	ND	ND	ND
PP DDT	ppb	ND	ND	ND	ND
Alpha Endosulphan	ppb	ND	ND	ND	ND
Beta Endosulphan	ppb	ND	ND	ND	ND
Dieldrin	ppb	ND	ND	ND	ND
Carboryl (Carbamate)	ppb	ND	ND	ND	ND
2.4D	ppb	ND	ND	ND	ND
Aldrin	ppb	ND	ND	ND	ND
Malathian	ppb	ND	ND	ND	ND
Methyl Parathian	ppb	ND	ND	ND	ND
Anilophos	ppb	ND	ND	ND	ND
Chloropyriphos	ppb	ND	ND	ND	ND

Note: Results related to sample as received.

\* Acceptable limit.

\*\* Permissible limit in the absence of alternate source.

ND: Not detected



CPCB Water Quality Criteria								
Parameters	A	В	С	D	Е			
Ph	6.5 – 8.5	6.5 - 8.5	6.0 – 9.0	6.5 – 8.5	6.0 - 8.5			
Electrical conductivity	_	-		-	Max 2250			
Dissolved oxygen	6 or >6	5 or >5	4 or >4	4 or >4	-			
BOD 3 at 27°C	2 or < 2	3 or < 3	3 or < 3	_	-			
SAR	-	-	-	-	Max 26			
Boron	-	-	-	-	Max 2			
Total coliform	50 or < 50	500 or < 500	5000 or < 5000	+	-			

Water quality criteria as per CPCB: Below E: Not Meeting A,B,C,D & E Criteria

(P.VEERANNA)

Joint Chief Environmental Scientist (FAC)





Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500 018 Ph: 040-23887500

#### CENTRAL LABORATORY

# **Analysis Report**

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/5263-5266

Collected on: 15/05/2018

Test method: Standard Methods of APHA, 22<sup>nd</sup> Edition

Issue date: 23/05/2018

Collected by: M. Venkanna, EE, RO, RR-I

Received on: 16/05/2018

Quantity of the sample: 1 Ltr. sample each

Page No: 1 of 1

Sample code : Sample details / collection point

5263 - Inlet Samples collected from Noor Mohammad Kunta 4.0 MLD STP

5264 - Outlet Samples collected from Noor Mohammad Kunta 4.0 MLD STP

5265 - Inlet Samples collected from Khajaguda 4.5 MLD STP

5266 - Outlet Samples collected from Khajaguda 4.5 MLD STP

Parameters '	Unit		STP standards			
		5263	5264	5265	5266	
pH	-	6.61	7.50	6.62	7.00	5.5 - 9.0
Electrical conductivity	μS/cm	2874	2422	1784	1978	_
Total Suspended Solids	mg/L	192	19	418	80	100
Total Dissolved Solids	mg/L	2080	1272	877	842	••
Dissolved oxygen	mg/L	_	4.6	-	Nil	_
Chemical Oxygen Demand	mg/L	844	251	268	138	250
BOD 3 at 27°C	mg/L	297	90	92	36	30
Total coliform	MPN/100ml	-	9250	-	11,000	List Control of the C
Fecal coliform	MPN/100ml	-	500	-	Nil	-

Note: Results related to sample as received.

(Mohd. Sadiq Ali)

Joint Chief Environmental Scientist (FAC)

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





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#### CENTRAL LABORATORY

# **Analysis Report**

Reg. No.SR/05/TSPCB/HO/R00/LAB/2018/5025-5026

Collected on: 30/04/2018

Test method: Standard Methods of APHA, 22<sup>nd</sup> Edition

Issue date: 08/05/2018

Collected by: M. Venkanna, EE, RO, RR-I

Received on: 01/05/2018

Quantity of the sample: 1 Ltr. sample each

Page No.: 1 of 1

Sample code

Sample details / collection point

5025

Inlet Samples collected from Noor Mohammad Kunta 4.0 MLD STP

5026

Outlet Samples collected from Noor Mohammad Kunta 4.0 MLD STP

Parameters	Unit	Res	sults	STP standards
4	3	5025	5026	
рН	:#	6.72	7.35	5.5 - 9.0
Electrical conductivity	μS/cm	2867	2212	<u>=</u>
Total Suspended Solids	mg/L	1503	24	100
Total Dissolved Solids	mg/L	1382	1294	<b>司</b>
Dissolved oxygen	mg/L	H1	4.3	-
Chemical Oxygen Demand	mg/L	619	,194	250
BOD 3 at 27°C	mg/L	210	63	30
Total coliform	MPN/100ml	-0	250	-
Fecal coliform	MPN/100ml	<b>#</b> 0	Nil	<b>=</b> )(

Note: Results related to sample as received.

(P.VEERANNA)

Joint Chief Environmental Scientist (FAC)

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

