



**GPCB**

# **GUJARAT POLLUTION CONTROL BOARD**

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**No. GPCB/JET/C-15/2020/58**

**Date: 05/11/2020**

**To,  
The Registrar,  
Hon'ble National Green Tribunal  
Principal Bench,  
Faridkot House,  
Copernicus Marg,  
New Delhi-110001.**

**Subject:** Submission of Compliance Report of joint committee of CPCB & GPCB in the O.A. No. 616/2019, Ramdevbhai Sanjva v/s State of Gujarat.

**Reference:** Hon'ble National Green Tribunal Order dated: 29-06-2020.

Respected Sir,

Hon'ble NGT has directed vide order dated: 29/06/2020 in para-10 "Let a compliance report be filed by the joint Committee comprising of CPCB and GPCB within three months"

In the above matter a direction was passed by Honourable National Green tribunal, to  
**IN COMPLIANCE:-**

THEREFORE, please find attached herewith compliance report of joint Committee comprising of CPCB and GPCB.

Thanking You,

**(A. V. Shah)**

**Member Secretary**

**Gujarat Pollution Control Board**

**Encl-As Above**

**CC To:**

- 1) Hon'ble Justice Shri B.C. Patel.....For Information.
- 2) CPCB, West Zone.....For Information.

***Clean Gujarat Green Gujarat***

**ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation**

**COMPLIANCE REPORT OF THE ORDER PASSED BY THE HON'BLE NATIONAL GREEN TRIBUNAL (PRINCIPAL BENCH), NEW DELHI IN THE MATTER ORIGINAL APPLICATION NO. 616/2019 (RAMDEVBHAI SAMATBHAI SANJVA VERSUS STATE OF GUJARAT & ORS.) RELATED TO POLLUTION IN RIVER BHADAR DUE TO DISCHARGES FROM TEXTILE UNITS IN JETPUR**

**1.0 BACKGROUND**

A Writ Petition was filed by Shri Ramdevbhai Samatbhai Sanjva before the Gujarat High Court on 14.06.2018 having Writ Petition (PIL) No. 114 of 2018 (Ramdevbhai Samatbhai Sanjva Vs. State of Gujarat & Ors.) alleging that dyeing and printing units in Jetpur Taluka were discharging pollutants having hazardous chemicals. The matter was transferred by Hon'ble Gujarat High Court vide order dated: 09.05.2019 to Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi with Original Application No. 616/2019.

Subsequently, Hon'ble National Green Tribunal (NGT) passed an order on 06.12.2019 in the said matter (i.e. Original Application No. 616/ 2019 (I.A. No. 463/ 2019) and directed CPCB and GPCB to jointly investigate the matter. Hon'ble Justice (Rtd.) B. C. Patel was appointed as the chairman of the oversight committee constituted by the Hon'ble NGT for this matter.

In pursuance to the above order, officials from Central Pollution Control Board (CPCB), Regional Directorate Vadodara and Gujarat Pollution Control Board (GPCB) including Regional Director of CPCB and Member Secretary of GPCB visited Jetpur area during 19.12.2019&20.12.2019. Three teams comprising of officials from CPCB and GPCB carried out monitoring of River Bhadar, CETPs, STPs and some industries in Jetpur area and a detailed joint report was submitted in the Hon'ble NGT. The matter was heard in Hon'ble NGT on 22.06.2020 and an order was passed on 29.06.2020. The said order asked CPCB and GPCB to submit a joint compliance report.

In compliance of the order, The Regional Directorate (west) of CPCB convened first meeting with Unit Head (Jetpur) and Regional Officer (Jetpur) of GPCB through Video Conferencing on 02.09.2020 and subsequent interaction were made from time to time and discussed the status of compliance with respect to the observations and findings of the joint committee visit during 19.12.2019 & 20.12.2019.

The status of the compliance is given in subsequent paragraph of this report.

## 2.0 COMPLIANCES STATUS BASED ON FINDINGS

### 2.1 STATUS OF WATER AND WASTEWATER MANAGEMENT IN INDUSTRIAL UNITS

The textile and related industrial units in Jetpur can be broadly classified in to following three categories:

- I. Printing Units
- II. Mercerizing Units (commonly known as Process House)
- III. Washing Ghats

As per GPCB record, there are 1818 industrial units in Jetpur which includes above three category of industries along with mining and other industrial activities. Out of 1818 units, 1809 are small scale (1729 Red category, 61 Orange category and 19 Green category), 06 are medium scale (04 Red category and 02Green category) and 03 are large category (02 Red category and 01 Orange category).

The effluent generated from printing and mercerizing units is conveyed to CETP of Jetpur Dying and Printing Association (JDPA) for treatment and the effluent from washing ghats is conveyed through closed pipeline to CETP of Washing Ghat of Bhatgam Suddhikaran Yojana Pvt. Ltd. (CETP of Bhatgam) for final treatment. The 0.091 MLD capacity CETP of Shri Dhreshwar GIDC Vistar Association, Jetpur receives and treats effluent generated from 23 dyeing and printing units located in the GIDC Vistar.

It is observed from the industrial inspection of 17 units (specific observations of individual units are compiled and given at **Annexure-1** of this report) carried out by GPCB during the month of September 2020 that;

- 13 units were found in operation, 02 units were found not in operation at the time of visit, 01 unit namely M/S. Washing Ghat of Gobarbhai Rajabhai Gondaliya was reportedly non-operational since last one year and 01 unit namely M/s. Ashwin textile printer was found closed and locked. Thus out of 17 units visited, 15 units were in operational status.
- As observed during the previous joint visit, the inspected units have not provided flow meters and not maintaining the record of water consumption or effluent disposal. In compliance to this, all 15 operational units have provided flow meters and maintaining the record of fresh water consumption and effluent disposal.
- All 15 operational units are maintaining the record of ETP sludge generation and disposal which was not maintained during previous joint visit. The record shows that only 03 units have disposed-off the ETP sludge during January to September 2020 and 12 operational units have not disposed any sludge during the said period and storing the sludge in their premises.

- Analysis results of primary treated effluent sample collected from 13 units (which were in operation during the visit) shows that only one unit namely M/S. Krishna Cotton Print was found meeting the CETP inlet norms with reference to all the monitored parameters and rest 12 units were found not meeting the CETP inlet norms with reference to one or other parameters, which may adversely affect the performance of CETP of JDPA. The non-complying parameters were observed to be pH, %Na, Sodium Adsorption Ratio (SAR), Fixed Dissolved Solids (FDS) and Colour.
- It was observed during the previous joint visit that units in Jetpur were abstracting the ground water without permission from Central Ground Water Authority (CGWA). However, during current visit 14 operational units which are abstracting ground water for industrial use have applied for permission in CGWA. However, only on the base of application without obtaining permission they can't draw the groundwater.

Other general observations with respect to the industrial operations in Jetpur are as follows:

- As per list submitted by JDPA dated 19/09/2020, 394 industries out of 1818 have applied for CGWA permission from 01/06/2020 to 19/09/2020 and others are drawing ground water without making even application to CGWA. GPCB has prescribed condition in CTE and CCA for obtaining CGWA permission for ground water extraction.
- One of the major observation during previous joint visit was that mercerizing units were disposing the treated effluent through tankers to newly constructed collection sump (1000 M<sup>3</sup> capacity) of CETP of JDPA since December 2019 onwards, however the printing units were disposing their effluent into open C-channels. The present record of units shows that the printing/dying units were discharging the primary treated effluent into the open C-channel up to August 2020 but shifted to tanker disposal from September 2020 onwards. Further, the effluent disposal record shows that these units have disposed minor part of treated effluent in C-channel during September 2020 also.
- Another CETP at Bhatgam receives primary treated wastewater from washing ghat units through underground pipeline and treated wastewater is utilizing for irrigation purpose.
- GPCB has so far issued closure directions to 73 units under section 33A of Water (Prevention and Control of Pollution) Act 1974 in Jetpur region during Jan-2020 to Aug-2020 for noncompliance observed with reference to wastewater management and recovered Rs. 83,23,000/- as Environment Damage Compensation (EDC) from 25 units including CETP and STP of JDPA, CETP of Bhatgam and CETP of Shri Dhadeshwar GIDC Vistar. So far legal cases against 29 units are initiated.

- The calculation of EDC is done based on Hon'ble NGT order in O.A. No. 593/2017, Dated: 19/02/2019 & Report of the CPCB in-house Committee on Methodology for Assessing Environmental Compensation and Action plan to Utilize the Fund as per below mention formula & value mention in table.

$$EC = PI \times N \times R \times S \times LF$$

**Where,**

**EC = Environmental Compensation**

**PI=Pollution Index of Industrial Sector**

**N=Number of days of violation took place**

**R= A factor in Rupees for EC**

**S= factor for scale of operation**

**LF=Location Factor**

**Sample table of Calculation for Environmental Compensation**

<b>Industrial Category</b>	<b>Red</b>	<b>Orange</b>	<b>Green</b>
Pollution Index (PI)	60-100	41-59	21-40
average PI	80	50	30
R-Factor	250		
L-Factor	1.00-2.00		
Deterrent Factor	on exponential basis, i.e.2,4,8,16.....times		
Environmental Compensation	10,000-60,000	6,250-37,500	5,000-22,500

**Location Factor Value**

<b>S. No.</b>	<b>Population *</b>	<b>Location Factor# (LF)</b>
1	Less than 1	1.0
2	1 to <5	1.25
3	5 to <10	1.5
4	10 and above	2.0

## **2.2 Action taken by District Collector & Task force as per Hon. High Court**

Demolition Drive has been carried out by the task force as per Hon. High Court in SCA 254/2009 for demolition of illegal washing ghats around River Bhadar which were found discharging wastewater to River Bhadar and total 207 illegal washing ghat were demolished by task force from January to August -2020 (List of washing ghats demolished is given at Annexure-4). Out of the 207 demolished illegal washing ghats, the District collector authority has filed 190 case under section 66 of The Bombay Land Revenue Code, 1879 and recover Rs. 2,89,579/- from the illegal washing ghat operated on agriculture land without Conversion to Non-agricultural land (List as per Annexure-5).

## **2.3 STATUS OF CETPs AND STPs**

The detailed descriptions about operational and upcoming CETPs and STPs in Jetpur area has already been provided in the earlier report submitted by Joint committee.

7 MLD capacity CETP of JDPA (Jetpur Dyeing and Printing Association) and 6 MLD capacity STP of JDPA are provided to receive and treat the mixture of sewage generated from the Jetpur city and effluent generated from 1424 dyeing and printing units. However, as per the data given by jetpur-Navagadh Nagarpalika 70 % of the underground drainage work for the new STP of capacity 23.5 MLD is completed and presently approximately 12 MLD sewage is being collected through this drainage system and pumped directly to River Bhadar. As per September 2020 record, CETP of JDPA and STP of JDPA have received average of 2.359 MLD & 2.743 wastewater respectively. Still open C-channel are in operation so some industrial effluent with domestic wastewater is still flowing in river Bhadar due to overflow/Breakage/Blockage of open C- Channel.

0.091 MLD capacity CETP of Shri Dhreshwar GIDC Vistar Association, Jetpur receives and treats effluent generated from 23 dyeing and printing units located in the GIDC Vistar.

30 MLD capacity CETP for Washing Ghat of Bhatgam receives and treated average of 23.0287 MLD during September 2020 generated from washing ghats located at Bhatgam, Sukhpur and Bavapipaliya.

20 MLD CETP at Derdi-Monpar is under construction for treating the effluent generated from the washing ghats located in the area of Derdi & Monpar and presently construction work of collection sump, RCC work of floor of aeration tank and Excavation work of Primary settling tank is completed. JDPA has submitted the action plan to complete the work by – December-2022.

23.5 MLD STP is under construction by Jetpur-NavagadhNagarpalika for treatment of

Sewage generated from Jetpur area. As per the information submitted by Jetpur-Navagadh Nanagarpalika construction work of the STP will be completed in December-2020. Present status of the upcoming STP is shown in the photographs below:



The analysis reports of the samples collected from all the operational CETPs (3 Nos.) and the STP during the previous visit of the Committee during December 2019 showed that the concentrations of monitored parameters of the treated effluent from all the CETPs and STP were not meeting the outlet norms prescribed by GPCB. Hence, it was concluded in the report that all CETPs and STP should be augmented/ operated properly for better treatability of effluent so as to meet the prescribed norms. GPCB has collected the samples from all operational CETPs and STP periodically from time to time (During January to August 2020) and the analysis results are given in **Annexure-2**.

The analysis results of samples collected from outlet of M/s. CETP of JDPA during the period 01.01.2020 to 31.08.2020 shows that out of 12 monitored parameters 06 parameters namely BOD, COD, NH<sub>3</sub>-N, O&G, PH, TSS and Temperature are meeting the CETP outlet norms and remaining 06 parameters namely % Na, Chlorides, colour, FDS, Suspended Solids (SS) and Sulphate found exceeding the CETP outlet norms prescribed in CCA during one or more time of sampling.

Further to reduce the shock load and improvement of CETP of JDPA, a performance pilot plant is installed for the separate treatment of wastewater received from mercerizing units. The pilot study is to recover the caustic by concentrating wash liquor and using the same back in Mercerizing units. Details of the pilot study are provided at **Annexure-6**.

The analysis results of samples collected from the outlet of M/s. STP of Jetpur Dyeing and Printing Association during 01.01.2020 to 31.08.2020 shows that out of 12 monitored parameters 05 parameters namely colour, NH<sub>3</sub>-N, O&G, pH and temperature are meeting the CETP outlet norms and remaining 07 parameters namely % Na, BOD, Chlorides, COD, Suspended Solids (SS), Sulphide and Sulphate found exceeding the CETP outlet norms prescribed in CCA during one or more time of sample collected and analysed. It is to mention that the analysis results are compared with the norms of CETP outlet standards in place of STP outlet standards prescribed in the CC&A, as STP also receives & treats the same mix stream of effluent and sewage which is being received & treated in CETP. Once the proposed STP of Nagarpalika will be commissioned, this STP of JDPA will be renamed as CETP as it will receive only industrial wastewater.

The analysis results of the sample collected from outlet of M/s. CETP of Bhatgam Washing Ghat Sudhdhikaran Yojan Pvt. Ltd. during 01.01.2020 to 31.08.2020 shows that out of 11 parameters 05 parameters namely colour, NH<sub>3</sub>-N, O&G, pH and temperature are meeting the CETP outlet norms and remaining 06 parameters namely BOD, Chlorides, COD, FDS, pH, Suspended Solids (SS) and Sulphate found exceeding the CETP outlet norms prescribed in CCA during one or more time of sampling.

The analysis results of the sample collected from CETP of Shri Dhareshwar Vistar Association during 01.01.2020 to 31.08.2020 shows that out of 11 monitored parameters 05 parameters namely Colour, NH<sub>3</sub>-N, O&G, pH and Temperature are meeting the CETP outlet norms and remaining 06 parameters namely COD, BOD, Chlorides, FDS, Suspended Solids (SS) and Sulphate found exceeding the CETP outlet norms prescribed in CCA during one or more time of sampling.

It was observed and concluded in the previous report of this committee that prescribed discharge standards for STP of JDPA should be same as CETP discharge standard, as the STP also receives & treats the same mix stream of effluent & sewage which is being received and treated in CETP. In compliance to this observation, GPCB is in the process of amending the CCA of STP with respect to its discharge standards.

It was also mentioned in the report that CETP of JDPA is receiving ETP sludge from member industries in Jetpur and storing in the premises of CETP and facilitating for its disposal at CHWTSDF namely M/s Saurashtra Enviro Projects Pvt. Ltd. (SEPPL), Kutch and M/s Ecocare Infrastructure Pvt. Ltd., Surendranagar. However, the same is not reflected in the CCA of the



CETP-JDPA issued by GPCB. In compliance to this, CETP of JDPA has applied for amendment of CCA and GPCB has granted the CCA amendment for the same. Also GPCB has started amendment of CCA of individual units for disposing their ETP sludge to CETP of JDPA as and when CCA renewal / amendment are being granted to the units.

It was observed and concluded in the previous report of this committee that there may be scope for reusing of treated wastewater back in the process as the quantity of treated wastewater generated from the CETPs and STP is huge compared to the land available for irrigation, which is the mode of disposal prescribed in the CC&A. JDPA has taken a land on lease approx. 2,41,192 meter square (149 bigha) land for utilization of treated wastewater into plantation. As the outlet of CETP is not meeting with the norms so it is not fit to use treated wastewater for irrigation. Looking to this JDPA should improve the performance of CETP and reuse the maximum quantity of wastewater back in the process.

#### 2.4 STATUS OF C-CHANNEL AND COLLECTION SUMPS/ PUMPING STATIONS

During the previous visit, it was observed that C-channel was constructed for the conveyance of industrial effluent. However, domestic sewage from the residential areas is also being discharged in the same C-channels. Therefore, the C-channel conveys the mixture of effluent and sewage to the collection sumps followed by a pumping sump from where it is pumped to CETP& STP of JDPA. The main collection sumps (5000m<sup>3</sup> x 2 nos.) and a pumping sump are located in the bed of Bhadar River. In this regard, GPCB has directed on dated: 29/07/2019 to JDPA for shifting the collection sumps located in the bed of Bhadar River to other environmentally safe location.

In compliance to the direction of GPCB dated: 29/07/2019, JDPA has constructed three collection sumps on following locations outside the river bed for collection of wastewater from member units through tankers of different capacity (ranging between 2 KL to 20 KL):

S. No.	Location of New Collection Sump	Commissioned Date	Capacity of the sump (m <sup>3</sup> )	Average effluent received in September-2020 through road tanker	
				Quantity (MLD)	Tanker/Day
1	Premises of CETP of JDPA	Dec-2019	1000	1.5	80
2	Rabarika Road, Near NH, Jetpur	05/09/2020	1000	0.997	192
3	Premises of proposed CETP for washing ghat of Derdi & Monpar	05/09/2020	1000	0.236	40

The effluent from these collection sumps is pumped to CETP of JDPA for further treatment. The photographs of the new collection sumps are given below:



*Collection Sump in the premises of CETP of JDPA*



*Collection sump at Rabarika Road, Near NH, Jetpur*



*Collection sump in the premises of proposed CETP for Washing Ghat of Derdi&Monpar*



Presently the wall of two main collection sumps (5000m<sup>3</sup> x 2 nos.) located in the bed of Bhadar River is broken due to heavy flow in the river and hence these collection sumps are not in use. At present only the collection well is operational in the bed of River Bhadar from where the wastewater is pumped to CETP and STP of JPA for further treatment. Present photographs of collection sumps are given below:



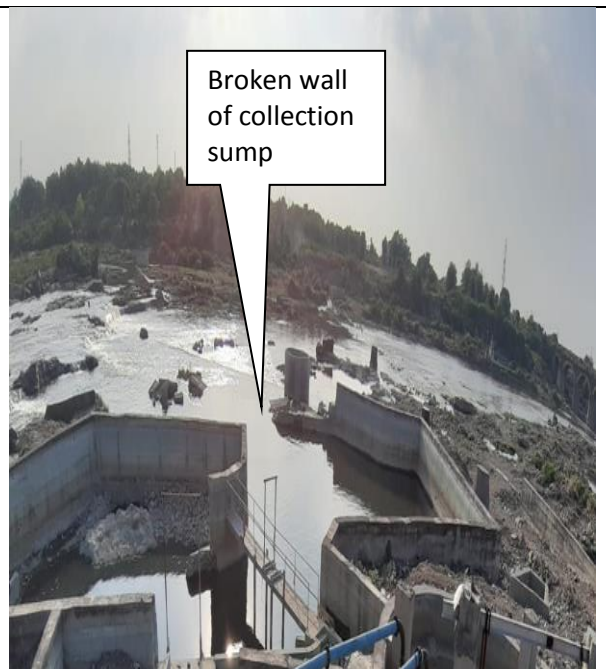
**Present condition of collection sump located in river Bhadar**



**Collection well located in River bed of Bhadar & in operating condition.**



Broken wall of collection sump



Broken wall of collection sump

**Broken wall of collection sump**

Once the new STP of Jetpur-Navagadh Nagarpalika becomes operational, the old collections sumps & its pumping station in the river bed as well as the open C-channel shall be dismantled.

It is observed from the industrial inspections that the textile units (dying/ printing) were discharging the primary treated effluent into the open C-channel up to August 2020 but shifted to tanker disposal from September 2020 onwards after the construction of new collection sumps. However, the effluent disposal record shows that these units have disposed minor part of treated effluent in C-channel during September 2020 also.

The textile units are mostly discharging the effluent through tankers to the newly constructed 03 collection sumps of CETP of JDPA. However, the sewage from the Jetpur area and primary treated effluent from textile units located in the residential area of Jetpur is still being discharged in open C-channel and gets collected at the collection sumps located in the bed of River Bhadar. In this regard, GPCB is in the process to amend the CCA of individual textile units for disposal of primary treated effluent only through tankers in place of discharge through C-channel.

## 2.5 STATUS OF RIVER BHADAR AND NATURAL DRAINS

The detailed descriptions about Bhadar River and natural drains and the identified sampling locations (8 locations in Bhadar River and from 6 natural drains converging into Bhadar River at various locations) have already been provided in the earlier report submitted by Joint committee. GPCB carried out sampling of identified 8 locations in Bhadar River and in 6 natural drains during September 2020 and the analysis results are given in **Annexure-3**.

The analysis results of the samples collected from the Bhadar River at various locations from Derdi area to the Bhadar Dam-II (8 locations) shows that there is slight contamination of water quality in few stretches. The samples collected from the six natural drains converging at various locations in Bhadar River in the Jetpur area shows contamination of industrial effluent/ sewage. However, some improvement in water quality is observed when compared to previous monitoring results of December 2019. It is worth to mention that due to rain during monitoring there is dilution impact on the water quality of River and Drains.

The Mercerizing unit has started disposal of wastewater through road tankers from December-19 onwards & remaining printing unit have started from September-2020. The monthly monitoring results of River Bhadar at Dublipat i.e. downstream of Jetpur during January 2020 to October 2020 show significant reduction of BOD and COD concentration as shown in the table below:

Sr. No.	Year 2020	Parameter	
		COD (mg/L)	BOD (mg/L)
1	January	173	42
2	February	147	34
3	March	818	238
4	April	411	88

5	May	<b>89</b>	13.33
6	June	<b>391</b>	108
7	July	<b>206</b>	65
8	August	<b>52</b>	6.66
9	September	<b>21</b>	7
10	October	<b>18</b>	5

### 3.0 CONCLUSION

JDPA has constructed 03 collection sumps outside the river bed for collection of wastewater from member textile units through tankers. The textile units have started discharging the effluent mostly through tankers to these newly constructed collection sumps. However, the sewage from the Jetpur area and primary treated effluent from textile units located in the residential area of Jetpur is still being discharged in open C-channel and gets collected at the collection sumps located in the bed of River Bhadar. Therefore, the collection sumps and receiving wells in the bed of River Bhadar are not dismantled.

Once the 23.5 MLD capacity STP by Jetpur-Navagadh Nagarpalika becomes operational, discharge of effluent from textile units in the C-channel is likely to stop completely and there would not be any direct source of wastewater discharge to the River Bhadar in Jetpur area.

The analysis results of samples collected from River Bhadar during September 2020 shows slight contamination of water quality in few stretch of river and the samples collected from all natural drains shows contamination of industrial effluent/ sewage. However, significant improvement in water quality of the River Bhadar at Dublipat i.e. downstream of Jetpur is observed from August 2020 onwards. The improvement in water quality may be due to reduced effluent discharge from textile units into C-channel, occurrence of rain during sampling period and also less industrial operation due to Covid-19 Lockdown.

The analysis results of inspected units show that they are not meeting the CETP inlet norms with reference to one or other parameters. Industrial units abstracting ground water are in the process of obtaining permission from Central Ground Water Authority (CGWA).

The analysis results of samples collected from outlet of 03 CETPs and STP during the period from 01.01.2020 to 31.08.2020 shows that the concentration of monitored parameters were found not meeting the CETP outlet norms prescribed in CCA by GPCB with reference to one or other parameters.

GPCB has amended the CCA of CETP of JDPA with reference to facilitating the central storage of ETP sludge from member industries and collective disposal to CHWTSDf. Also, GPCB is amending the CCA of STP of JDPA with reference to discharge standards of treated

effluent from STP as is receives and treats the same stream of effluent and sewage which is being received and treated in ETP.


The treated wastewater from all 03 CETPs and one STP is being used for irrigation in the agricultural land. However, the quantity of the treated wastewater generated from all three CETPs and one STP is huge compared to the land available for irrigation.

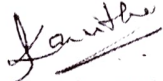
#### **4.0 RECOMMENDATION**


Based on the findings, it is recommended that;


1. The construction work of 23.5 MLD STP by Jetpur-Navagadh Nagarpalika should be completed at the earliest and made operational so that the sewage from the entire Jetpur area is treated in this STP and thereby discharge of sewage in the C-channel should be stopped completely.
2. GPCB and JDPA to ensure that industrial unit dispose their effluent only through tankers to the CETP of JDPA and no effluent is discharged in C-channel. CCA of individual textile units should be amended for disposal of primary treated effluent only through tankers in place of discharge through C-channel on priority. The tankers carrying effluent from member industries to CETP should be enabled with GPS tracking system and the tracking history should be submitted to GPCB on regular basis.
3. The tanker disposal record of individual unit should also be maintained at the respective collection sump by the CETP operators and the record should be submitted to GPCB on regular basis. These records may be cross verified from time to time with records maintained by individual units.
4. JDPA should dismantle the existing C-channel, collection sump & pumping station located in the bed of River Bhadar and GPCB should monitor and ensure the same.
5. STP of JDPA which is presently treating the mix of sewage and effluent, should be converted to CETP for treating only the industrial effluent, once the STP being constructed by Jetpur-Navagadh Nagarpalika become operational and all sewage is diverted to this STP.
6. The analysis reports of the samples from all the operational CETPs (3 Nos.) and the STP shows that the concentration of one or the other monitored parameters are not meeting the prescribed outlet standards. Hence, it is recommended CETPs and STP should meet the prescribed discharge standards through proper operation and maintenance.

7. JDPA may be asked to explore the possibility of recycle/ reuse of the treated wastewater in the industrial process as the quantity of wastewater generated from CETPs and STP is huge compared to the land available for irrigation. This will reduce the consumption of fresh water resource and disposal load in the environment. This issue needs to be addressed jointly by GPCB and JDPA on priority.
8. Industrial units to ensure that the primary treated effluent meets the CETP inlet norms and also ensure timely disposal of ETP sludge and GPCB will continue the compliance verification of the same.
9. GPCB will continue the monitoring of natural drains, river stretches and industrial units to identify illegal discharges and polluters

  
(N. Semwal)  
Sc.C, CPCB RD  
Vadodara

  
(Kavitha B.V.)  
Sc.D, CPCB RD  
Vadodara

  
(R. B. Solanki)  
I/c Regional Officer  
GPCB, RO - Jetpur

  
(G. A. Ram)  
AEE  
GPCB, RO - Jetpur


## ANNEXURE-1



S.N.	Name of unit	Observation
1.	M/S. NEW KHATAU TEXTILE PRINTERY (UNIT-3), S.NO. 802 P, PLOT NO. 18, OPP: BHADAR RIVER BANK, JETPUR	<ul style="list-style-type: none"> <li>➤ The unit was visited on 0909.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in printing activity with consented capacity of 693500 mtrs/month with average water consumption of 18200 ltrs/ day and wastewater generation @ 17000 Ltrs/day (Ind.) and 1000 Ltrs/day (Domestic).</li> <li>➤ As per record provided, average production during January to September 2020 was 459360 Meter / Month. There was no production during March and April 2020 due to COVID-19 lockdown.</li> <li>➤ Fresh water source is Bore well. Flowmeter is provided on the Bore well. The unit has applied for the permission from CGWA for abstraction of ground water. As per the record, average water consumption during January to September 2020 is 210 KL/ Month.</li> <li>➤ Wastewater is generated from flat belts, table and screen washing and is collected into u/g collection tank. For Primary ETP unit has provided u/g collection tank, HBST tank (MS Fabricated), Treated Water Tank and sludge drying beds (SDBs): 02nos. Wet sludge is observed in SDBs.</li> <li>➤ Unit has maintained records of generation and disposal of ETP Sludge. Treated wastewater from the final outlet of Primary ETP is being collected and transported through Tankers to collection sump of CETP of JDPA.</li> <li>➤ It is observed from the record that the unit is discharging average 102 KL /Month wastewater. The record shows that the unit was discharging the primary treated wastewater in the open C-channel up to August 2020 and started disposing through tankers in September 2020. In September 2020, out of 127 KL effluent, 100KL was disposed through tankers and 27 KL was disposed through open C-channel.</li> <li>➤ Analysis result of wastewater sample collected from the final disposal tank of ETP shows that all the monitored parameters are meeting the CETP inlet norms except for pH parameter.</li> <li>➤ As per record 140 kg sludge was generated from ETP during January to September 2020 but not disposed.</li> </ul>



*ETP sludge stored at site*



2.	M/S. TANISHKA PRINT, NEAR VASUKIDADA TEMPLE, AT OPP. BANK OF RIVER BHADAR, JETPUR	<ul style="list-style-type: none"> <li>➤ The unit was visited on 0909.2020. During visit unit was observed in operation.</li> <li>➤ This unit is having consented capacity of 625000 mtrs/month for printing and finishing activity with water consumption @ 5300 ltrs/ day and wastewater generation @ 5000Ltrs/day (Ind.) &amp; 200 Ltrs/day (Doms.).</li> <li>➤ Average production during January to September 2020 was 50085 Meter / Month. There was no production during April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Bore well provided with flowmeter and the unit has applied for the permission from CGWA. As per the record, average water consumption during January to September 2020 is 73 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater generated from flat belts and screen washing is collected into u/g collection tank. For Primary ETP unit has provided u/g collection tank, HBST tank (MS Fabricated), Treated Water Tank and SD beds: 02nos. Wet sludge is observed in SDBs.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being disposed to Collection Sump of CETP of JDPA.</li> <li>➤ As per the record provided, the unit is disposing average 4 tankers/Month (each tanker having capacity of about 20 KL) of effluent to CETP.</li> <li>➤ The unit has disposed 1.1 MT ETP sludge in February 2020. About 320 kg ETP sludge was found stored at unit.</li> <li>➤ Analysis result of wastewater sample collected from the final disposal tank of ETP shows that all the monitored parameters are meeting the CETP inlet norms except for pH parameter (7.14 &lt; 10.5-12).</li> </ul>	 <p style="text-align: center;"><i>ETP sludge stored at site</i></p>
3.	M/S. KRISHNA COTTON PRINT, PLOT NO:800/3, OPP. BANK OF RIVER BHADAR, JETPUR	<ul style="list-style-type: none"> <li>➤ The unit was visited on 0909.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in printing activity with consented capacity of 997500 mtrs/month with water consumption of 8800 ltrs/ day and wastewater generation @ 7000 Ltrs/day (Ind.) &amp; 600 Ltrs/day (Doms.).</li> <li>➤ Average production during January to September 2020 was 55832 Meter / Month. There was no production during April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA. As per the record, average water consumption during January to September 2020 is 135 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater is generated from flat belts, table and screen washing is collected into u/g collection tank. For Primary ETP unit has provided u/g collection tank, HBST tank (MS Fabricated), Filter Press, Treated Water Tank and SD beds:</li> </ul>	


		<p>02nos. Wet sludge is observed in SDBs.</p> <ul style="list-style-type: none"> <li>➤ As per record provided, average wastewater disposal during January to September 2020 was 137 KL / Month. The unit was discharging the effluent through open C-channel up to August 2020 and in September 2020 out of total 154 M<sup>3</sup>, about 36 M<sup>3</sup> was disposed through C-channel and about 118 M<sup>3</sup> was disposed through tankers.</li> <li>➤ The unit has not disposed any ETP sludge during January 2020 till September 2020. About 320 kg ETP sludge was found stored at site during the visit.</li> <li>➤ Analysis result of wastewater sample collected from the final disposal tank of ETP shows that all the monitored parameters are meeting the CETP inlet norms except for pH parameter.</li> </ul>	 <p style="text-align: center;"><i>ETP sludge stored at site</i></p>
4.	<p>M/S. A. D. TEXTILE, S.NO:- 802P, PLOT NO:- 12, TARAPARA NAGAR, BHADAR NA SAMA KANTHE - JETPUR</p>	<ul style="list-style-type: none"> <li>➤ The unit was visited on 0909.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in printing activity with consented capacity of 250000 mtrs/month with water consumption @ 2300 ltrs/ day and wastewater generation @ 2000Ltrs/day (Ind.) &amp; 200 Ltrs/day (Doms.).</li> <li>➤ As per record, average production during January 2020 to September 2020 is 65,056 meter/Month.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA.</li> <li>➤ As per the record, average water consumption during January to September 2020 is 42 KL/ Month.</li> <li>➤ Wastewater generated from flat belts and screen washing is collected into u/g collection tank. For Primary ETP unit has provided u/g collection tank, HBST tank (MS Fabricated), Treated Water Tank and SD beds: 02nos. Wet sludge is observed in SDBs.</li> <li>➤ Average wastewater disposal during January to September 2020 was 36 KL / Month. The unit was discharging the effluent through open C-channel up to August 2020 and in September 2020 out of total 31 KL, 12 Kl was</li> </ul>	

		<p>disposed through C-channel and 19 KL was disposed through tankers.</p> <ul style="list-style-type: none"> <li>➤ Analysis result of wastewater sample collected from the final disposal tank of ETP shows that 04 out of 13 monitored parameters namely pH (7.14 &lt; 10.5-12), Colour (500 &gt; 350 Pt Co scale), COD (1160 &gt; 1000 mg/l) and BOD (433 &gt; 350mg/l) are not meeting the CETP inlet norms.</li> <li>➤ The unit has disposed 240 kg ETP sludge in February 2020. About 50 kg sludge was found stored at the time of visit.</li> </ul>
5.	<p>M/S. VASUNDHARA TEXTILE D. &amp; P. WORKS (R.B. PRINTS), S.N.195/93, SBS ROAD-NAVAGADH, B/H OIL MILL, NAVAGADH</p>	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in printing activity with consented capacity of 312500 mtrs/month with water consumption @ 5000 liters/day and wastewater generation @ 5000Ltrs/day (Ind.) &amp; 300 Ltrs/day (Doms.).</li> <li>➤ Average production during January to September 2020 was 214213 Meter / Month. There was no production during March and April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA.</li> <li>➤ As per the record, average water consumption during January to September 2020 is 113 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater generated from felt belts and screen washing is collected into u/g collection tank of combined Primary ETP of its sister concern unit M/s Vipul Processors situated within premises. For Primary ETP, unit has provided u/g 2Nos. Collection tank, Chemical dosing channel (zigzag type), Clarifier, Filter Press, Sludge Collection Tank, Aeration tank and Treated Water Tank. Wet sludge is observed in SDBs.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being collected and transported through Tankers to Collection Sump of JDPA CETP. The unit has disposed average 6 tankers / month (each tanker of 20 KL capacity approx.) of effluent to CETP during January to September 2020.</li> <li>➤ The unit has not disposed any ETP sludge during January to September 2020. Current quantity of ETP sludge stored is approx. 1800 kg.</li> <li>➤ Analysis result of wastewater sample collected from the final disposal tank of ETP shows that all the monitored parameters are meeting the CETP inlet norms except for pH parameter (7.25 &lt; 10.5-12).</li> </ul>



*ETP sludge stored at site*

6.	M/S. VIPUL PROCESSORS (TENANT: R.B. PROCESSOR), S.N.195/93, SBS ROAD-NAVAGADH, B/H OIL MILL, NAVAGADH	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in mercerizing of grey cotton fabric and printing activity with consented capacity of 112500 mtrs/month with industrial water consumption @ 48.9 KLD and wastewater generation @ 48900Ltrs/day (Ind.) &amp; 300 Ltrs/day (Doms.).</li> <li>➤ As per record, average production during January to September 2020 was 166773 Meter / Month. There was no production during April 2020 due to COVID-19 lockdown.</li> <li>➤ Wastewater generated from Mercerising process and table &amp; screen washing is collected into u/g collection tank of combined Primary ETP with its sister concern unit M/s Vasundhara Textile D. &amp; P. Works. For Primary ETP unit has provided u/g 2 Nos. Collection tank, Chemical dozing channel (zigzag type), Clarifier, Filter Press, Sludge Collection Tank Aeration tank and Treated Water Tank. Wet sludge is observed in SDBs.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA.</li> <li>➤ As per the record, average water consumption during January to September 2020 is 857 M<sup>3</sup>/ Month.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being collected and transported through tankers to Collection Sump of CETP of JDPA. Unit had provided flowmeter at inlet as well as out let of the Primary ETP.</li> <li>➤ The unit has disposed average 45 tankers / month (each tanker of 20 KL capacity approx.) to CETP during January to September 2020.</li> <li>➤ The unit has not disposed any ETP sludge during January to September 2020 (ETP sludge storage is combined with the sister concern and photograph of sludge storage shown above).</li> <li>➤ Analysis result of wastewater sample collected from the final disposal tank of ETP shows that all the monitored parameters are meeting the CETP inlet norms except for pH parameter (7.25 &lt; 10.5-12).</li> </ul>
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7.	M/s. Vishwmurti Textile printery (unit-1) located at S.No.834, Opp. River Bhadar, Nr. Railway fatak, Nilkanth Udhog Nagar, Jetpur	<ul style="list-style-type: none"> <li>➤ The unit is visited on 10.09.2020. During visit unit was not operational.</li> <li>➤ This unit is involved in printing activity with consented capacity of 20000 mtrs/month with average water consumption of about 1300 ltrs/ day and wastewater generation @ 1000Ltrs/day (Ind.) &amp; 200 Ltrs/day (Doms.).</li> <li>➤ As per the record, the unit has processed average 8382 meters / month during January to September 2020. The unit was not in operation during April 2020 due to COVID-19 lockdown</li> <li>➤ Water source: Municipal Water Supply and were provided with flowmeter.</li> <li>➤ As per the record, average water consumption during January to September 2020 is 6.4 M<sup>3</sup>/ Month.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being collected and disposed to CETP of JDPA.</li> <li>➤ The unit has disposed average same quantity of wastewater as consumed as fresh water i.e. 6.4 M<sup>3</sup>/ Month. It is observed from the record that the unit was discharging wastewater in the open C-channel up to August 2020 and started disposing through tankers in September 2020. In September 2020, out of 6.36 M<sup>3</sup> effluent, 5.735 M<sup>3</sup> was disposed through tankers and 0.625 M<sup>3</sup> was disposed through open C-channel.</li> <li>➤ For Primary ETP unit has provided u/g collection tank, Settling Tank, Treated Water Tank and SD beds: 02nos. Unit had provided flowmeter at inlet as well as out let of the Primary ETP.</li> <li>➤ The unit has not disposed any sludge during January to September 2020.</li> </ul>	 <p style="text-align: center;">ETP sludge stored at site</p>
8.	M/s Shri Krishna D&P Works, S.N. 1416, Harijanwas, B/H Nagina Masjid, Fulwadi, Bhadar Road, Jetpur	<ul style="list-style-type: none"> <li>➤ The unit was visited on 09.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is having consented capacity of 35000 mtrs/month for printing activity with water consumption of 1700 ltrs/ day and wastewater generation @ 1400 Ltrs/day (Ind.) &amp; 200 Ltrs/day (Doms.).</li> <li>➤ As per record, the unit was not in operation during January to June 2020. Average production during July to September 2020 was 2400 mtr/month.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA.</li> <li>➤ As per record, average water consumption and wastewater discharge was 2.4 M<sup>3</sup>/Month.</li> <li>➤ Waste water generated from table and screen washing is collected in to u/g collection tank. For Primary ETP unit has provided u/g collection tank, HBST tank (MS Fabricated), Treated Water Tank and SD beds: 02nos.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being collected and disposed into Collection Sump of CETP of JDPA. The record shows that the unit was discharging primary treated effluent in the open C-channel up to August 2020 and started disposing through tankers in September 2020. During September 2020 out of total 4 M<sup>3</sup> effluent, 3.5 M<sup>3</sup> was disposed through tanker and 0.5 M<sup>3</sup> was disposed through open C-channel.</li> </ul>	




		<ul style="list-style-type: none"> <li>➤ As per record, the unit has stored 9.5 kg ETP sludge in the unit premises.</li> <li>➤ Analysis result of wastewater sample collected from final disposal tank of ETP shows that 02 out of 13 monitored parameters namely pH (6.8 &lt; 10.5-12) and % Na (67.20 &gt; 60) are not meeting the CETP inlet norms.</li> </ul>
9.	M/S. WASHING GHAT OF N. K. ENTERPRISE, S.NO.147, VILL: BAVAPIPALIA, TAL: JETPUR, BAVAPIPALIYA	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in washing of printed cotton fabrics having consented capacity of 1200000 mtrs/month with average water consumption of about 150000 ltrs/ day and Wastewater generation of @ 149000Ltrs/day (Ind.) &amp; 400 Ltrs/day (Doms.). The unit is having automatic washing facility comprising of a Soafer Machine, a Drying Range and a Stanter Machine.</li> <li>➤ Record of receiving the printed fabrics for washing which includes quantity, vehicle number and printing units detail are maintained by the unit.</li> <li>➤ As per the record, the unit has processed average 424568 meters / month during January to September 2020. The unit was not in operation during March and April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA.</li> <li>➤ As per the record, average water consumption during January to September is 1167 KL/ Month.</li> <li>➤ Wastewater generated from washing of printed fabric is collected into u/g RCC collection tank. For Primary ETP unit has provided u/g RCC collection tank, Overhead Holding tank, Sludge Drying Beds 04 nos., MS Hopper Bottom Settling tank and Filter press.</li> <li>➤ As per record, average wastewater disposal during January to September was 1070 KL / Month.</li> <li>➤ Unit is member of Bhatgaam Washing Ghat Sudhikaran Yojna Pvt Ltd. (CETP). Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam. A sample of wastewater is collected from Underground Tank near Filter press of the Primary ETP. <i>ETP sludge stored at site</i></li> <li>➤ Analysis result of wastewater sample collected from underground tank near filter press (ETP outlet) shows that 04 out of 13 monitored parameters namely Colour (500 &gt; 350 Pt Co scale), FDS (9872 &gt; 2100 mg/l), % Na (98.96 &gt; 60) and SAR (119.56 &gt; 26) are not meeting the CETP inlet norms.</li> <li>➤ As per record, 440 kg ETP sludge is generated during January to September but not disposed.</li> </ul>






ETP sludge stored at site

10.	M/S. WASHING GHAT OF SHRI DINESHBHAI KADWABHAI, PLOT NO:129P2, BAVAPIPALIYA, BAVAPIPALIYA	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in washing of printed cotton fabrics having consented capacity of 550000 mtrs/month with average water consumption of 95000 Ltrs/day and wastewater generation @ 95000Ltrs/day (Ind.) &amp; 0 Ltrs/day (Doms.). The unit is having manual washing facility.</li> <li>➤ There are 14 Kundi/ Tank for washing followed by manual sun drying.</li> <li>➤ Record of receiving the printed fabrics for washing which includes quantity, Vehicle number and printing units detail are maintained by the unit.</li> <li>➤ As per the record, the unit has processed average 34097 meters / month during January to September 2020. The unit was not in operation during April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA.</li> <li>➤ As per the record, average water consumption during January to September 2020 is 204 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater generated from washing of printed fabric is collected into u/g RCC collection tank. For Primary ETP unit has provided 2 nos. Collection/ Equalization tank, a Hopper bottom settling tank and Sludge drying beds-4 nos.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam.</li> <li>➤ Unit has maintained records of generation and disposal of ETP Sludge. Unit is member of Bhatgaam Washing ghat Sudhikaran Yojna Pvt Ltd. (CETP). Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam.</li> <li>➤ The unit has disposed average same quantity of wastewater as consumed as fresh water i.e. 204 M<sup>3</sup>/ Month.</li> <li>➤ Analysis result of wastewater sample collected final disposal tank of ETP shows that 03 out of 13 monitored parameters namely FDS (6780 &gt; 2100 mg/l), % Na (98.77 &gt; 60 ) and SAR (108.72 &gt; 26) are not meeting the CETP inlet norms.</li> <li>➤ The unit has not disposed any ETP sludge during January to September 2020. About 1240 kg sludge was found stored in the unit.</li> </ul>	 <p style="text-align: center;"><i>ETP sludge stored at site</i></p>
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11.	M/S. WASHING GHAT OF TANISHK PRINT, S.NO. 146/P1/P1, PLOT NO. 5,6,7, VILL: BAVAPIPALIYA, TAL: JETPUR, BAVAPIPALIYA	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. The unit was not in operation during visit, reportedly due to shortage of supply from printing units. The unit was not in operation during April 2020 due to COVID-19 lockdown.</li> <li>➤ This unit is involved in washing of printed cotton fabrics having consented capacity of 1017500 mtrs/month with water consumption of 203500 Ltrs/ day and wastewater generation @ 203500 Ltrs/day (Ind.) &amp; 0 Ltrs/day (Doms.).</li> <li>➤ The unit is having automatic washing facility comprising of a Soafer Machine and a Drying Range.</li> <li>➤ As per the record, the unit has processed average 242665 meters / month during January to September 2020.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA. As per the record, average water consumption during January to September 2020 is 1753 M<sup>3</sup>/ Month.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam.</li> <li>➤ The unit has disposed average same quantity of wastewater as consumed as fresh water i.e. 1753 M<sup>3</sup>/ Month.</li> <li>➤ The unit has not disposed any ETP sludge during January to September 2020. About 1350 kg sludge was found stored in the unit.</li> </ul>	 <p style="text-align: center;"><i>ETP sludge stored at site</i></p>
12.	M/S. WASHING GHAT OF KAMUBEN BHIKHUBHAI KHANT, S.NO. 119,, VILL: BHATGAM, BHATGAM	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in washing of printed cotton fabrics having consented capacity of 571250 mtrs/month with water consumption of 137100 ltrs/ day and wastewater generation of @ 137000Ltrs/day (Ind.) &amp; 0 Ltrs/day (Doms.).</li> <li>➤ The unit is having manual washing facility. There are 16 Kundi/ Tank for washing followed by manual sun drying.</li> <li>➤ Record of receiving the printed fabrics for washing which includes quantity, vehicle number and printing units detail are maintained by the unit.</li> <li>➤ As per the record, the unit has processed average 129947 meters / month during January to September 2020. The unit was not in operation during April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Dug well provided with flowmeter. The unit has applied for the permission from CGWA.</li> <li>➤ As per the record, average water consumption during January to September 2020 is 781 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater generated from washing of printed fabric is collected into u/g RCC collection tank. For Primary ETP, unit has provided a Collection tank, a Reaction tank and Sludge Drying Beds-4 nos.</li> <li>➤ Unit has maintained records of generation and disposal of ETP Sludge.</li> </ul>	



		<ul style="list-style-type: none"> <li>➤ The unit has disposed average same quantity of wastewater as consumed as fresh water i.e. 781M<sup>3</sup>/ Month.</li> <li>➤ The unit has not disposed any ETP sludge during January to September 2020. About 900 kg sludge was found stored at site.</li> <li>➤ Unit is member of Bhatgaam Washing ghat Sudhikaran Yojna Pvt Ltd. (CETP). Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam.</li> <li>➤ Analysis result of wastewater sample collected from final disposal tank of ETP shows that 03 out of 13 monitored parameters namely FDS (3290 &gt; 2100 mg/l), % Na (99.09 &gt; 60 ) and SAR (131.03 &gt; 26) are not meeting the CETP inlet norms.</li> </ul>	 <p style="text-align: center;"><i>ETP sludge stored at site</i></p>
13.	<p>M/S. WASHING GHAT OF PRAVINBHAI BHANUBHAI KHANT, S.NO. 120, VILL: BHATGAM, BHATGAM</p>	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in manual washing of printed cotton fabrics having consented capacity of 1171250 mtrs/month with average water consumption of 281000 Ltrs/ day and wastewater generation @ 281000Ltrs/day (Ind.) &amp; 0 Ltrs/day (Doms.).</li> <li>➤ As per the record, the unit has processed average 346097 meters / month during January to September 2020. The unit was not in operation during April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Bore well provided with flowmeter. The unit has applied for the permission from CGWA. As per the record, average water consumption during January to September 2020 is 2037 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater generated from washing of printed fabric is collected into u/g RCC collection tank. For Primary ETP, unit has provided a Collection tank, a Holding tank and Sludge drying beds-4 nos. Unit has maintained records of generation and disposal of ETP Sludge.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam.</li> <li>➤ The unit has disposed average same quantity of wastewater as consumed as fresh water i.e. 2037 M<sup>3</sup>/ Month.</li> <li>➤ The unit has disposed 3.5 MT ETP sludge in February 2020. About 1500 kg sludge was found stored in the unit.</li> <li>➤ Analysis result of wastewater sample collected from final disposal tank of ETP shows that 02 out of 13 monitored parameters namely Colour (500 &gt; 350 Pt Co scale) and FDS (4635 &gt; 2100 mg/l) are not meeting the CETP inlet norms.</li> </ul>	 <p style="text-align: center;"><i>ETP sludge stored at site</i></p>

14.	M/S. WASHING GHAT OF PRAVINBHAI UKABHAI RADADIYA, PLOT NO:246P1, BAVAPIPALIYA, BAVAPIPALIYA	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in washing of printed cotton fabrics having consented capacity of 1567500mtrs/month with water consumption of 300000 ltrs/ day and wastewater generation @ 300000Ltrs/day (Ind.). The unit is having automatic washing facility comprising of a Soafer Machine and a Drying Range.</li> <li>➤ As per the record, the unit has processed average 723025 meters / month during January to September 2020. The unit was not in operation during April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Dug well provided with flowmeter. The unit has applied for the permission from CGWA. As per the record, average water consumption during January to September 2020 is 3619 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater generated from washing of printed fabric is collected into RCC collection tank. For Primary ETP unit has provided 2 Nos. RCC collection tank, Reaction tank, Hopper bottom settling tank, Filter Press, Sludge Drying Beds 04 nos. Wet sludge is observed in SDBs.</li> <li>➤ Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam.</li> <li>➤ The unit has disposed average same quantity of wastewater as consumed as fresh water i.e. 2037 M<sup>3</sup>/ Month</li> <li>➤ Analysis result of wastewater sample collected from final disposal tank of ETP shows that 04 out of 13 monitored parameters namely Colour (400 &gt; 350 Pt Co scale), FDS (9910 &gt; 2100 mg/l), % Na (99.08 &gt; 60 ) and SAR (179.13 &gt; 26) are not meeting the CETP inlet norms.</li> <li>➤ The unit has not disposed any ETP sludge during January to September 2020. About 1700 kg sludge was found stored in the unit during visit.</li> </ul>	 <p style="text-align: center;"><i>ETP sludge stored at site</i></p>
15.	M/S. WASHING GHAT OF SHANTABEN JAGADISHBHAI PLOT NO:129P5, BAVAPIPALIYA, BAVAPIPALIYA	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020. During visit unit was observed in operation.</li> <li>➤ This unit is involved in manual washing of printed cotton fabrics having consented capacity of 775000 mtrs/month with water consumption of 150000 ltrs/ day and wastewater generation @ 150000Ltrs/day (Ind.) &amp; 0 Ltrs/day (Doms.).</li> <li>➤ As per the record, the unit has processed average 256780 meters / month during January to September 2020. The unit was not in operation during April 2020 due to COVID-19 lockdown.</li> <li>➤ Water source: Dug well provided with flowmeter and applied for the permission from CGWA. As per the record, average water consumption during January to September 2020 is 1522 M<sup>3</sup>/ Month.</li> <li>➤ Wastewater generated from washing of printed fabric is collected into u/g RCC collection tank. For Primary ETP unit has provided 2 nos. Collection tank, a Reaction tank, a Hopper bottom settling tank and Sludge drying beds-4 nos.</li> </ul>	

		<p>Unit has maintained records of generation and disposal of ETP Sludge.</p> <ul style="list-style-type: none"> <li>➤ Treated wastewater from the final outlet of Primary ETP is being discharged into Collection Channel of CETP of Bhatgam.</li> <li>➤ The unit has disposed average same quantity of wastewater as consumed as fresh water i.e. 1522 M<sup>3</sup>/ Month.</li> <li>➤ The unit has not disposed any ETP sludge during January to September 2020. Sludge was found stored in bags.</li> <li>➤ Analysis result of wastewater sample collected from final disposal tank of ETP shows that 02 out of 13 monitored parameters namely FDS (5758 &gt; 2100 mg/l) and % Na (96.75 &gt; 60 ) are not meeting the CETP inlet norms</li> </ul>
16.	M/s. Ashwin textile printery, Fulwadi, Harijanwas, Bhadar road, Jetpur	<ul style="list-style-type: none"> <li>➤ The unit was visited on 09.09.2020</li> <li>➤ During the time of visit unit is found closed and in locked condition. Therefore other detailed are not verified due to the absence of any representative of the unit.</li> <li>➤ This unit is having consented capacity of 11960mtrs/month for printing activity with average water consumption of about 600 ltrs/ day and Wastewater generation of @ 400Ltrs/day (Ind.) &amp; 100 Ltrs/day (Doms.).</li> </ul>
17.	M/S. Washing Ghat of Gobarbhai Rajabhai Gondaliya, Plot /S.No. 149/2/1,Vill:Derdi, Tal: Jetpur, Dist : Rajkot	<ul style="list-style-type: none"> <li>➤ The unit was visited on 10.09.2020</li> <li>➤ During inspection unit was found not in operation and lying in idle condition.</li> <li>➤ This unit have obtained CCA for washing of printed cotton fabrics-334800 Mtrs/month with average water consumption of about 66960 Ltrs/ day and Wastewater generation of @ 66960 Ltrs/day (Ind.) &amp; 0 Ltrs/day (Doms.). The unit has provided manual washing facility.</li> <li>➤ It is informed by the representative of the unit that plant is non-operational since past one year.</li> <li>➤ Water source: Bore well, not applied for the permission from CGWA.</li> </ul>



*ETP sludge stored at site*

## ANNEXURE-2

### Analysis results of Treated effluent collected from the outlet of M/s. CETP of JDP A from 01/01/2020 to 31/08/2020

<u>Sampling Date</u>	<u>% Na</u>	<u>BOD</u>	<u>Chloride</u>	<u>COD</u>	<u>Color</u>	<u>FDS</u>	<u>NH<sub>3</sub>-N</u>	<u>O&amp;G</u>	<u>pH</u>	<u>SS</u>	<u>Sulphate</u>	<u>TEMP</u>
31/01/2020	<b>87</b>	49	<b>1670</b>	193	<b>150</b>	--	9.19	1.2	7.27	84	750	24
15/05/2020	<b>83</b>	53	<b>2050</b>	185	30	<b>6114</b>	1.12	--	7.57	52	<b>1099</b>	30
09/06/2020	<b>82</b>	39	<b>1770</b>	122	20	58	3.34	--	7.71	1.2	<b>1113</b>	29
06/07/2020	<b>91.33</b>	31.5	<b>2803</b>	113	30	<b>5958</b>	12.88	--	8.07	40	987	28
23/07/2020	<b>88.03</b>	46	<b>3468</b>	163	20	--	19.32	5.2	7.84	<b>184</b>	<b>2917</b>	31
06/08/2020	<b>91.94</b>	34	<b>3182</b>	125	40	--	4.76	0.8	8.55	<b>172</b>	<b>1500</b>	31
Permissible limit prescribed by GPCB	60	100	600	250	100	2100	50	10	6.5-9.0	100	1000	< 40

**Note:** All concentrations are expressed in mg/l, except pH, colour, Temperature, % Na and SAR. Colour is expressed in Pt-Co scale and Temperature is expressed in °C.

### Analysis results of Treated effluent collected from the outlet of M/s. STP of Jetpur Dyeing and Printing Association from 01/01/2020 to 31/08/2020

<u>Sampling Date</u>	<u>% Na</u>	<u>BOD</u>	<u>CHLORIDE</u>	<u>COD</u>	<u>COLOR</u>	<u>NH<sub>3</sub>-N</u>	<u>O&amp;G</u>	<u>pH</u>	<u>SS</u>	<u>SULPHIDE</u>	<u>SULPHATE</u>	<u>TMP</u>
31/01/2020	<b>87</b>	<b>103</b>	<b>1490</b>	<b>529</b>	50	10.3	1.2	7.21	<b>234</b>	<b>3.04</b>	883	25
09/04/2020	<b>93</b>	60	<b>3250</b>	<b>356</b>	25	44.35	1.2	7.9	<b>128</b>	1.11	<b>1383</b>	31
18/04/2020	60	40	<b>990</b>	192	20	34.92	0.8	8.27	94	BDL	317	30
26/04/2020	51	21	<b>1270</b>	94	10	0.831	2	8.02	68	0.66	750	30
15/05/2020	56	60	<b>1830</b>	241	20	1.4	0.8	7.84	70	<b>2.17</b>	<b>1050</b>	30
09/06/2020	58	26	<b>1560</b>	80	30	4.45	1.2	7.64	62	0.3	<b>1183</b>	29
23/07/2020	<b>91.79</b>	32	<b>3135</b>	131	30	22.12	4.9	8.09	80	0.311	<b>2383</b>	31
* Permissible limit prescribed by GPCB	60	100	600	250	100	50	10	6.5-9	100	2	1000	< 40

**Note:** 1. All concentrations are expressed in mg/l, except pH, colour, Temperature, % Na and SAR. Colour is expressed in Pt-Co scale and Temperature is expressed in °C.

\* Analysis results are compared with the norms of CETP outlet standards in place of STP outlet standards as STP also treats the same mix stream of effluent and sewage is treated in STP

**Analysis results of Treated effluent collected from the outlet of M/s. CETP of Bhatgam Washing ghat Sudhdhikaran Yojan Pvt. Ltd. 01/01/2020 to 31/08/2020**

<u>Sampling Date</u>	<u>BOD</u>	<u>CHLORIDE</u>	<u>COD</u>	<u>COLOUR</u>	<u>FDS</u>	<u>NH<sub>3</sub>-N</u>	<u>O&amp;G</u>	<u>pH</u>	<u>SS</u>	<u>SULPHATE</u>	<u>TMP</u>
18-02-2020	42	600	193	10	4528	1.4	1.6	8.01	246	1383	30
06-08-2020	118	2507	364	20	6906	15.12	1.2	8.7	128	900	31.5
Permissible limit prescribed by GPCB	100	1000	250	100	2100	50	10	6.0 – 9.0	100	1000	< 40

**Note:** All concentrations are expressed in mg/l, except pH, colour, Temperature, % Na and SAR. Colour is expressed in Pt-Co scale and Temperature is expressed in °C.

**Analysis results of Treated effluent collected from the outlet of M/s. CETP of Shri Dhareshwar Vistar Association 01/01/2020 to 31/08/2020**

<u>Sampling Date</u>	<u>BOD</u>	<u>CHLORIDE</u>	<u>COD</u>	<u>COLOR</u>	<u>FDS</u>	<u>NH<sub>3</sub>-N</u>	<u>O&amp;G</u>	<u>pH</u>	<u>SS</u>	<u>SULPHATE</u>	<u>TMP</u>
31-01-2020	174	1080	639	40	3372	20.89	0.8	6.52	60	783	23
18-02-2020	101	1240	353	15	3816	25.76	1.2	6.55	94	717	28
30-05-2020	39	660	153	15	3522	4.45	1.2	7.19	102	1367	32
24-06-2020	61.83	800	210	20	2216	12.6	1.2	6.82	36	627	28
23-07-2020	62	451	198	30	1346	22.12	3.9	7.05	36	850	31
26-08-2020	34	291	116	20	974	7.84	0.4	7.93	97.4	267	29
Permissible limit prescribed by GPCB	30	600	100	100	2100	50	10	6.5-9.0	100	1000	40

**Note:** All concentrations are expressed in mg/l, except pH, colour, Temperature, % Na and SAR. Colour is expressed in Pt-Co scale and Temperature is expressed in °C.

### ANNEXURE-3

**Analysis results of the samples collected from Bhadar River on 08.09.2020**

Location code	Location description	Parameters											
		pH	Temp (°C)	Colour	TSS	TDS	COD	BOD	NH <sub>3</sub> -N	Phenols	PO <sub>4</sub> -P	Ca <sup>+2</sup>	Mg <sup>+2</sup>
R1	Check dam of Bhadar Dam Opp.Bhadar Stone crusher	8.17	29	5	30	706	8	3	0.56	BDL	0.273	56.11	34.05
R2	River Bhadar at Derdi Road(from causeway)	8.17	28	15	2	494	12	4	0.28	BDL	0.091	48.1	24.32
R3	Confluence point of SarangNallah&Bhadar River	7.76	29	5	16	662	8	3	0.28	BDL	0.273	49.7	21.4
R4	River Bhadar at Causeway of Jetpur City	7.82	28	5	2	496	9	3	0.28	BDL	0.091	51.3	20.43
R5	River Bhadar at Dublipat near NH Bridge	7.80	29	5	2	534	9	3	0.28	BDL	0.455	60.92	20.43
R6	River Bhadar near Coba Hanuman temple	8.00	28	15	4	586	10	3	0.56	BDL	0.182	48.1	26.27
R7	River Bhadar at Kerali Bridge	7.99	29	5	4	682	10	3	0.56	BDL	0.182	56.11	22.37
R8	River Bhadar at Dam-2, Doraji D/s of Jetpur	7.86	29	5	2	562	11	4	0.28	BDL	0.091	46.49	25.29

**Note:** Except pH, Temp & Colour, all other results expressed in mg/L. Temp is expressed in °C & colour is expressed in Hazen unit. \*BDL- Below detectable limit

**Analysis results of the samples collected from Bhadar River on 08.09.2020**

Location code	Location description	Parameters											
		T. Hard.	T.Alk.	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	S <sup>-2</sup>	Na <sup>+</sup>	K <sup>+</sup>	%Na	SAR	DO	TC	FC
R1	Check dam of Bhadar Dam Opp.Bhadar Stone crusher	280	224	131	56	BDL	5.9	14.05	4.16	0.15	7.2	<1.8	<1.8
R2	River Bhadar at Derdi Road(from causeway)	220	210	107	47	BDL	43.78	6.22	29.65	1.29	7.2	9.2	<1.8
R3	Confluence point of SarangNallah&Bhadar River	212	224	131	55	BDL	86.89	6.96	46.35	2.61	6.9	10	<1.8
R4	River Bhadar at Causeway of Jetpur City	212	156	97	50	BDL	48.33	6.16	32.54	1.45	7.1	<1.8	<1.8
R5	River Bhadar at Dublipat near NH Bridge	236	156	112	55	BDL	63.77	6.14	36.50	1.81	6.6	<1.8	<1.8
R6	River Bhadar near Coba Hanuman temple	228	152	121	50	BDL	58.02	6.53	35.00	1.68	7.1	<1.8	<1.8
R7	River Bhadar at Kerali Bridge	232	168	131	56	BDL	8.17	6.52	6.94	0.23	7.2	<1.8	<1.8
R8	River Bhadar at Dam-2, Doraji D/s of Jetpur	220	168	141	54	BDL	51.71	6.04	33.25	1.52	7.0	<1.8	<1.8

**Note:** Except %Na, SAR, TC & FC, all other results expressed in mg/L. TC & FC is expressed in MPN/100ml. \*BDL- Below detectable limit

**Analysis results of the samples collected from natural drains on 08.09.2020**

Location code	Location description	Parameters									
		pH	Temp (°C)	Colour	TDS	TSS	NH <sub>3</sub> -N	COD	BOD	Phenols	PO <sub>4</sub> -P
D1	Natural drain from Derdi area Opp. Bhadar Stone crusher	8.28	28	30	1108	132	0.56	26	8	BDL	0.273
D2	Sarang Nallah near pumping station of CETP -JDPA	8.06	29	5	1484	20	0.28	9	3	BDL	0.091
D3	Natural Drain behind Gondra area	8.80	29	200	1654	444	5.6	264	89	BDL	4.454
D4	Drain Maghedi Vokda near Shantivan Udhyognagar, Rabarika Road, Jetpur	7.14	29	40	7684	42	1.4	18	3	BDL	0.273
D5	Drain Behind Kabrastan	8.55	31	100	1534	8	23.8	272	81	0.14	3.545
D6	Drain Near Railway Bridge	7.09	28	300	2882	22	07	304	101	0.10	2.363

**Note:** Except pH, Temp & Colour, all other results expressed in mg/L. Temp is expressed in °C & colour is expressed in Hazen unit. \*BDL- Below detectable limit

**Analysis results of the samples collected from natural drains on 08.09.2020**

Location code	Location description	Parameters													
		T.Alk.	T.Hard.	Ca <sup>+2</sup>	Mg <sup>+2</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>-2</sup>	S <sup>-2</sup>	Na <sup>+</sup>	K <sup>+</sup>	%Na	SAR	DO	TC	FC
D1	Natural drain from Derdi area Opp. Bhadar Stone crusher	168	360	75.35	41.83	389	288	BDL	261	8.29	60.71	6.00	5.9	20	1.8
D2	Sarang Nallah near pumping station of CETP -JDPA	168	500	112.2	53.5	316	89	BDL	53.18	5.21	18.73	1.04	7.0	<1.8	<1.8
D3	Natural Drain behind Gondra area	328	188	12.83	37.94	583	447	0.13	18.46	22.12	15.68	0.59	4.2	21	3.7
D4	Drain Maghedi Vokda near Shantivan Udhyognagar, Rabarika Road, Jetpur	228	1780	336.7	228.61	2186	1300	BDL	716.75	20.35	46.52	7.42	6.4	110	14
D5	Drain Behind Kabrastan	328	160	22.44	25.29	500	427	0.22	49.61	6.04	39.28	1.71	4.3	94	12
D6	Drain Near Railway Bridge	280	500	136.3	38.91	1287	660	0.26	254.5	22.61	51.42	4.98	4.4	210	26

**Note:** Except %Na, SAR, TC & FC, all other results expressed in mg/L. TC & FC is expressed in MPN/100ml. \*BDL- Below detectable limit

**Annexure -4**

<b>Sr.No.</b>	<b>Date</b>	<b>Name of Washing Ghat/Unit</b>	<b>Landmark</b>	<b>Survey No.</b>	<b>Village</b>	<b>Taluka</b>	<b>District</b>	<b>Latitudes</b>	<b>Longitudes</b>
1	06-01-2020	Shree Bavakubhai Suragbhai Vank	Khirasara Vadasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 45.6"	E 70° 42' 55.6"
2	06-01-2020	Shree Jayrajbhai Bachubhai Vank	Khirasara Vadasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 44.38"	E 70° 42' 53.20"
3	06-01-2020	Shree Ranjitbhai Dadbhai Vank	Khirasara Vadasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 49.46"	E 70° 42' 54.52"
4	06-01-2020	Shree Bharatbhai Maganbhai Khunt	Khirasara Vadasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 32.7"	E 70° 42' 39.0"
5	06-01-2020	Shree Najabhai Aalabhai Rathod	Khirasara Vadasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 29.01"	E 70° 42' 50.60"
6	06-01-2020	Shree Amarabhai Palabhai Rathod	Khirasara Vadasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 29.5"	E 70° 42' 52.1"
7	06-01-2020	Shree Kashiben Kalubhai Ranpariya & Others	Bhadar River Bank	331	Khirasara	Jetpur	Rajkot	N 21° 45' 8.64"	E 70° 41' 49.96"
8	06-01-2020	Shree Kashiben Kalubhai Ranpariya & Others	Bhadar River Bank	331	Khirasara	Jetpur	Rajkot	N 21° 45' 1.54"	E 70° 41' 50.39"
9	06-01-2020	Shree Batukbhai Raghavbhai Ranpariya	Bhadar River Bank	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 6.44"	E 70° 41' 45.51"
10	06-01-2020	Unknown	Right side on Khirasara - Vadasara road	yet to be trace	khirasara	Jetpur	Rajkot	N 21° 45' 41.9904"	E 70° 42' 59.8608"
11	06-01-2020	Kanubhai mansurbhai Vank	On Khirasara - Vadasara road	yet to be trace	khirasara	Jetpur	Rajkot	N 21° 45' 42.7608"	E 70° 43' 6.3264"
12	06-01-2020	Hamirbhai Chanabhai	On Khirasara - Vadasara road	342P	khirasara	Jetpur	Rajkot	N 21° 45' 50.0652"	E 70° 43' 4.9404"
13	06-01-2020	Unknown	On Khirasara - Vadasara road	yet to be trace	khirasara	Jetpur	Rajkot	N 21° 45' 56.0808"	E 70° 43' 5.052"
14	06-01-2020	Unknown	Left side of Khirasara - Vadasara road	yet to be trace	khirasara	Jetpur	Rajkot	N 21° 45' 55.3824"	E 70° 43' 5.286"
15	06-01-2020	Bhanabhai Suragbhai	Left side of Khirasara - Vadasara road	yet to be trace	khirasara	Jetpur	Rajkot	N 21° 46' 1.5888"	E 70° 43' 10.3872"
16	06-01-2020	Unknown	Vadasara - Near Dam	yet to be trace	Vadasara	Jetpur	Rajkot	N 21° 48' 13.0356"	E 70° 46' 25.2408"
17	06-01-2020	Maheshbhai khechar Kandoriya	Left side of Khirasara - Vadasara road	yet to be trace	khirasara	Jetpur	Rajkot	N 21° 45' 25.1856"	E 70° 42' 29.2068"



18	06-01-2020	Unknown	khirsara - KhajuriGundada Road	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 45' 10.35"	E 70° 42' 58.6728"
19	06-01-2020	Unknown	khirsara - KhajuriGundada Road	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 45' 4.842"	E 70° 42' 57.8916"
20	06-01-2020	Girishbhai Kalubhai Ranpariya	khirsara - KhajuriGundada Road	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 45' 2.4768"	E 70° 43' 9.1236"
21	06-01-2020	Unknown	Behind Gau-Shala	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 45' 15.9624"	E 70° 42' 19.98"
22	06-01-2020	Unknown	Behind Gau-Shala	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 45' 18.6408"	E 70° 42' 25.9056"
23	06-01-2020	Unknown	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 41' 28"	E 70° 41' 44"
24	06-01-2020	Unknown	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 11.1"	E 70° 44' 57.1"
25	06-01-2020	Unknown	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 09.6"	E 70° 44' 57.6"
26	06-01-2020	Unknown	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 09.5"	E 70° 44' 52.7"
27	06-01-2020	Unknown	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 07.5"	E 70° 44' 54.7"
28	06-01-2020	Unknown	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 06.0"	E 70° 44' 53.1"
29	06-01-2020	Shree Jethabhai Govabhai Katir	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 11.9"	E 70° 44' 58.1"
30	06-01-2020	Shree Shambhubhai Sadurbhai Katir	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 14.9"	E 70° 45' 02.4"
31	06-01-2020	Shree Shambhubhai Sadurbhai Katir	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 15.1"	E 70° 45' 0.3"
32	06-01-2020	Shree jethabhai Govabhai Karamshibhai Katir	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 16.8"	E 70° 45' 06.5"
33	06-01-2020	Shree Govabhai Karshanbhai Katir	Near Survo Dam	yet to be trace	KhajuriGundada	Jetpur	Rajkot	N 21° 42' 20"	E 70° 45' 09.4"
34	06-01-2020	Kalubhai Devabhai Parmar	Charaniya Village	yet to be trace	Charaniya	Jetpur	Rajkot	N 21° 41' 57.7"	E 70° 45' 31.2"
35	06-01-2020	Khodabhai Jethabhai Parmar	Charaniya Village	yet to be trace	Charaniya	Jetpur	Rajkot	N 21° 41' 56.6"	E 70° 45' 29.5"

36	06-01-2020	Ranjitbhai Bheda	Vavdi Village	yet to be trace	Vavdi	Jetpur	Rajkot	N 21° 44' 6.2"	E 70° 44' 54.9"
37	06-01-2020	Unknown	BehiendKhirasara Gau-shala	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 17.6"	E 70° 42' 17"
38	07-01-2020	Shree Bhabhalubhai Bhagubhai Dhadhal	Monapar Village	yet to be trace	Monapar	Jetpur	Rajkot	N 21° 46' 8.55"	E 70° 41' 20.24"
39	07-01-2020	Shree Dadbhai Bhimbhai Dhadhal	Monapar Village	yet to be trace	Monapar	Jetpur	Rajkot	N 21° 46' 16.3"	E 70° 41' 02.8"
40	07-01-2020	Shree Shantubhai Godadbhai & Others	Monapar Village	yet to be trace	Monapar	Jetpur	Rajkot	N 21° 46' 23.90"	E 70° 41' 7.89"
41	07-01-2020	Shree Virajbhai Dilubhai Dhadhal	Monapar Village	yet to be trace	Monapar	Jetpur	Rajkot	N 21° 45' 12.29"	E 70° 40' 59.54"
42	07-01-2020	Shree Kanubhai Ranighbhai Dhadhal	Monapar Village	yet to be trace	Monapar	Jetpur	Rajkot	N 21° 45' 55.11"	E 70° 41' 17.20"
43	07-01-2020	Shree Bhaveshbhai Mansurbhai Dhadhal	Monapar Village	yet to be trace	Monapar	Jetpur	Rajkot	N 21° 46' 0.02"	E 70° 41' 17.15"
44	07-01-2020	Shree Ravjibhai Bijalbai Baraiya	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 41"	E 70° 38' 56"
45	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 53.60"	E 70° 40' 0.65"
46	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 52.51"	E 70° 40' 3.25"
47	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 50.99"	E 70° 40' 3.57"
48	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 50.29"	E 70° 40' 1.28"
49	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 50.87"	E 70° 40' 0.65"
50	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 52.90"	E 70° 40' 0.23"
51	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 45' 9.01"	E 70° 39' 49.95"
52	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 50.21"	E 70° 39' 53.84"
53	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 49.19"	E 70° 39' 17.83"
54	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 47.55"	E 70° 39' 56.31"
55	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 48.31"	E 70° 39' 58.17"
56	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 46.59"	E 70° 40' 2.01"

57	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 50.91"	E 70° 40' 1.17"
58	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 51.66"	E 70° 40' 4.05"
59	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 51.66"	E 70° 40' 6.81"
60	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 55.41"	E 70° 40' 10.10"
61	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 53.60"	E 70° 40' 0.65"
62	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 57.42"	E 70° 40' 13.54"
63	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 46.69"	E 70° 39' 16.49"
64	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 45' 0.04"	E 70° 40' 11.36"
65	07-01-2020	Devajibhai Lavabhai Gondaliya	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 45' 11.60"	E 70° 40' 18.64"
66	07-01-2020	Devajibhai Lavabhai Gondaliya	Bhadar River Bank	151/2 & 152/3 P	Deradi	Jetpur	Rajkot	N 21° 44' 52.78"	E 70° 40' 18.91"
67	07-01-2020	Chandubhai Bijalbai Baraiya	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 44' 57.74"	E 70° 40' 29.93"
68	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 45' 0.86"	E 70° 40' 42.44"
69	07-01-2020	Unknwon	Bhadar River Bank	yet to be trace	Deradi	Jetpur	Rajkot	N 21° 45' 1.51"	E 70° 40' 21.40"
70	07-01-2020	Unknown	Monpar-kagvad Road	148 Paiki 1	Monpar	Jetpur	Rajkot	N 21° 45' 57.0816"	E 70° 45' 57.078"
71	07-01-2020	Bhavnaben Jagubhai Dhandhal	Monpar village	135Paiki	Monpar	Jetpur	Rajkot	N 21° 46' 15.1212"	E 70° 41' 44.0952"
72	07-01-2020	Gajaraben Babubhai Dhandhal	Monpar village	132 Paiki	Monpar	Jetpur	Rajkot	N 21° 46' 20.262"	E 70° 41' 31.3116"
73	07-01-2020	Unknown	Monpar village	133	Monpar	Jetpur	Rajkot	N 21° 46' 24.348"	E 70° 41' 26.0088"
74	07-01-2020	Bishubhai Hathibhai	Monpar village	133	Monpar	Jetpur	Rajkot	N 21° 46' 24.348"	E 70° 41' 26.0088"
75	07-01-2020	Unknown	Near AnusaranTalav	yet to be trace	Monpar	Jetpur	Rajkot	N 21° 46' 22.4148"	E 70° 41' 48.2172"
76	07-01-2020	Unknown	Near AnusaranTalav	yet to be trace	Monpar	Jetpur	Rajkot	N 21° 46' 18.03"	E 70° 41' 44.9952"
77	07-01-2020	Amrubhai Bhimbhai	Monpar village	134	Monpar	Jetpur	Rajkot	N 21° 47' 20.1552"	E 70° 42' 40.9788"
78	07-01-2020	Jaysukhbhai Bhimjibhai	Derdi village	135P	Derdi	Jetpur	Rajkot	N 21° 44' 51.1548"	E 70° 40' 7.9788"
79	07-01-2020	Unknown	Derdi village near vokda	yet to be trace	Derdi	Jetpur	Rajkot	N 21° 44' 45.2796"	E 70° 39' 45.342"

80	07-01-2020	Unknown	Derdi village simtal	yet to be trace	Derdi	Jetpur	Rajkot	N 21° 44' 58.3476"	E 70° 39' 48.5496"
81	07-01-2020	Unknown	Derdi village simtal	yet to be trace	Derdi	Jetpur	Rajkot	N 21° 47' 0.0456"	E 70° 41' 28.9824"
82	07-01-2020	Unknown	Jetpur village simtal	583	jetpur	Jetpur	Rajkot	N 21° 44' 35.2392"	E 70° 39' 29.97"
83	07-01-2020	Unknown	Jetpur village simtal	583P	jetpur	Jetpur	Rajkot	N 21° 44' 29.2236"	E 70° 39' 33.4476"
84	07-01-2020	Unknown	Derdi village simtal	yet to be trace	Derdi	Jetpur	Rajkot	N 21° 44' 57.084"	E 21° 44' 57.084"
85	07-01-2020	Unknown	op. Wg of Gobarbhai Rajabhai Gondaliya	yet to be trace	Derdi	Jetpur	Rajkot	N 21° 44' 57.2316"	E 70° 40' 27.2424"
86	07-01-2020	Hasubhai Valabhai Parmar	Monpar Village	yet to be trace	Monpar	Jetpur	Rajkot	N 21° 46' 19.1"	E 70° 41' 26.7"
87	07-01-2020	Unknown	Near Kagvad Road	yet to be trace	Monpar	Jetpur	Rajkot	N 21° 46' 50"	E 70° 41' 18.9"
88	07-01-2020	Unknown	Near Kagvad Road	yet to be trace	Monpar	Jetpur	Rajkot	N 21° 46' 56.2"	E 70° 41' 35.2"
89	07-01-2020	Dadubhai Hathibhai Dhadhal	Near Kagvad Road	yet to be trace	Monpar	Jetpur	Rajkot	N 21° 46' 52.4"	E 70° 41' 05.2"
90	07-01-2020	Bhavesbhai Jagani	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 39.6"	E 70° 39' 31.7"
91	07-01-2020	Bhavesbhai Jagani	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 41.9"	E 70° 39' 31.9"
92	07-01-2020	Bhavesbhai Jagani	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 42.1"	E 70° 39' 32.4"
93	07-01-2020	Jivrajbhai Manjibhai	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 42.3"	E 70° 39' 29.6"
94	07-01-2020	Unknown	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 40.8"	E 70° 39' 25.9"
95	07-01-2020	Unknown	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 43"	E 70° 39' 29.3"
96	07-01-2020	Vallabhbhai Madhabhai	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 46"	E 70° 39' 20.8"
97	07-01-2020	Unknown	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 45.4"	E 70° 39' 17.7"
98	07-01-2020	Maganbhai Madhabhai Korat	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 45.6"	E 70° 39' 31.9"
99	07-01-2020	Maganbhai Madhabhai Korat	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 45"	E 70° 39' 30.5"

100	07-01-2020	Unknown	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 45.4"	E 70° 39' 30.9"
101	07-01-2020	Maganbhai Madhabhai Korat	BehiendVraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 45	E 70° 39' 29.2"
102	07-01-2020	Unknown	In front of Vraj Processors	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 52.1"	E 70° 39' 25.9"
103	08-01-2020	Shree Baghubhai Rambhai Lalu	RabarikaPremgadh Road	yet to be trace	Rabarika (Jambudi)	Jetpur	Rajkot	N 21° 49' 58.79"	E 70° 35' 51.31"
104	08-01-2020	Unknwon/(On Government Waste Land)	RabarikaPremgadh Road	yet to be trace	Rabarika (Jambudi)	Jetpur	Rajkot	N 21° 49' 59.21"	E 70° 35' 49.80"
105	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 46.16"	E 70° 36' 1.554"
106	08-01-2020	Shree Vaghubhai Nathubhai Lalu	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 51.27"	E 70° 36' 2.37"
107	08-01-2020	Shree Jaydeepbhai Bahadurbhai Lalu & Bahadurbhai Nathubhai Lalu	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 53.88"	E 70° 33' 28.49"
108	08-01-2020	Shree Haribhai Khant	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 50' 5.07"	E 70° 35' 0.85"
109	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 51' 11.71"	E 70° 35' 43.63"
110	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 46.77"	E 70° 35' 42.80"
111	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 48.99"	E 70° 33' 44.53"
112	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 51.28"	E 70° 35' 28.69"
113	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 48.81"	E 70° 35' 35.77"
114	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 6.31"	E 70° 36' 54.62"
115	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 52.86"	E 70° 53' 27.94"
116	08-01-2020	Unknwon	RabarikaPremgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 30.22"	E 70° 36' 58.68"
117	08-01-2020	Shree Keshubhai Bijalbhai Makwana	Chhapparwadi dam	yet to be trace	Jepur	Jetpur	Rajkot	N 21° 52' 40.51"	E 70° 38' 9.57"
118	08-01-2020	Deepakbai Bhanubhai Lalu	Rabarika Village	7P	Rabarika	Jetpur	Rajkot	N 21° 48' 38.196"	E 70° 37' 0.7428"
119	08-01-2020	Unknown	Rabarika Village	7p	Rabarika	Jetpur	Rajkot	N 21° 48' 34.5744"	E 70° 37' 5.196"
120	08-01-2020	Unknown	Rabarika Village	7p	Rabarika	Jetpur	Rajkot	N 21° 48' 46.7028"	E 70° 37' 5.8728"
121	08-01-2020	Unknown	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 42.1164"	E 70° 36' 53.3412"

122	08-01-2020	Unknown	Rabarika Village	319-320	Rabarika	Jetpur	Rajkot	N 21° 48' 36.6084"	E 70° 36' 36.54"
123	08-01-2020	Unknown	Nankubhaia Rmjibhai Lalu's Farm	322	Rabarika	Jetpur	Rajkot	N 21° 48' 48.3696"	E 70° 36' 40.572"
124	08-01-2020	Unknown	Near KhodiyarTample	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 54.5148"	E 70° 36' 47.7504"
125	08-01-2020	Unknown	Near KhodiyarTample	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 6.9852"	E 70° 35' 32.478"
126	08-01-2020	Unknown	Near KhodiyarTample	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 51.9084"	E 70° 36' 48.9636"
127	08-01-2020	Anakbhai Bhagubhai Lalu	Rabarika -Mevasa Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 18.3972"	E 70° 36' 52.0992"
128	08-01-2020	Unknown	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 49' 26.724"	E 70° 36' 47.1816"
129	08-01-2020	Unknown	Vadadungra village	yet to be trace	Vadadungr a	Jetpur	Rajkot	N 21° 53' 38.5656"	E 70° 37' 26.1552"
130	08-01-2020	Unknown	Near Chhaparwadi dam	yet to be trace	Vadadungr a	Jetpur	Rajkot	N 21° 53' 28.2408"	E 70° 41' 44.9304"
131	08-01-2020	Unknown	Near Chhaparwadi dam	yet to be trace	Vadadungr a	Jetpur	Rajkot	N 21° 53' 37.5612"	E 70° 37' 32.7972"
132	08-01-2020	Jagdishbhai Bavabhai	Vada Dungra village	yet to be trace	Vadadungr a	Jetpur	Rajkot	N 21° 53' 30.0732"	E 70° 37' 8.2128"
133	08-01-2020	Kurjibhai Bhanabhai Pipadiya	Vada Dungra village	yet to be trace	Vadadungr a	Jetpur	Rajkot	N 21° 53' 26.0268"	E 70° 40' 48.612"
134	08-01-2020	Karanbhai Barot	Vada Dungra village	yet to be trace	Vadadungr a	Jetpur	Rajkot	N 21° 53' 35.196"	E 70° 37' 0.9984"
135	08-01-2020	Karanbhai Barot	Vada Dungra village	yet to be trace	Vadadungr a	Jetpur	Rajkot	N 21° 53' 43.5696"	E 70° 37' 6.582"
136	08-01-2020	Dilubhai Jagubhai Lalu	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 31.8"	E 70° 36' 55.4"
137	08-01-2020	Dilubhai Jagubhai Lalu	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 32.2"	E 70° 36' 54.2"
138	08-01-2020	Dilubhai JagubhaiLalu	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 35"	E 70° 36' 57.9"
139	08-01-2020	PratapbhaiBaghabhai Lalu	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 35.4"	E 70° 36' 48.9"
140	08-01-2020	Kishorbhai Baghabhai Lalu	Near bhadar Riverbank, Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 23.2"	E 70° 36' 38.2"
141	08-01-2020	Kishorbhai Baghabhai Lalu	Near bhadar Riverbank, Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 23.5"	E 70° 36' 37.0"

142	08-01-2020	Kanubhai Jagubhai Lalu	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 33.8"	E 70° 36' 37.2"
143	08-01-2020	Kanubhai Jagubhai Lalu	Rabarika Village	yet to be trace	Rabarika	Jetpur	Rajkot	N 21° 48' 34.7"	E 70° 36' 37.5"
144	08-01-2020	Pradipbhai Jivabhai Dhadhal	behiendChhapparva di Dam Irrigation Office	yet to be trace	Mevasa	Jetpur	Rajkot	N 21° 53' 20.9"	E 70° 37' 04.0"
145	08-01-2020	Unknown	behiendChhapparva di Dam	yet to be trace	Mevasa	Jetpur	Rajkot	N 21° 53' 15.7"	E 70° 36' 55.9"
146	09-01-2020	Shree Harsukhbhai Bachubhai Gujarati	Bavapipaliya Road	250 P 19 P3	Bavapipaliya	Jetpur	Rajkot	N 21° 38' 57.00"	E 70° 36' 53.23"
147	09-01-2020	Shree Harsukhbhai Bachubhai Gujarati	Bavapipaliya Road	250 P 19 P3	Bavapipaliya	Jetpur	Rajkot	N 21° 38' 57.01"	E 70° 36' 53.21"
148	09-01-2020	Unknwon	Bavapipaliya Road	yet to be trace	Bavapipaliya	Jetpur	Rajkot	N 21° 38' 53.14"	E 70° 36' 46.10"
149	09-01-2020	Unknwon	Bavapipaliya Road	yet to be trace	Bavapipaliya	Jetpur	Rajkot	N 21° 38' 43.59"	E 70° 37' 13.36"
150	09-01-2020	Unknwon	Bavapipaliya Road	yet to be trace	Bavapipaliya	Jetpur	Rajkot	N 21° 35' 48.16"	E 70° 36' 46.95"
151	09-01-2020	Shree Laljibhai Chakubhai Thummar	Bavapipaliya	155/1P P1 P1P1	Bavapipaliya	Jetpur	Rajkot	N 21° 38' 1.43"	E 70° 37' 45.84"
152	09-01-2020	Unknown	behind Jodiya Hanuman	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 28.104"	E 70° 39' 0.3852"
153	09-01-2020	Raj nibhai Vajubhai Vadaliya	jetpur village	565	jetpur	Jetpur	Rajkot	N 21° 44' 25.0584"	E 70° 40' 24.1572"
154	09-01-2020	Raj nibhai Vajubhai Vadaliya	jetpur village	566	jetpur	Jetpur	Rajkot	N 21° 44' 27.6"	E 70° 40' 21.972"
155	09-01-2020	Vinodbhai Bachubhai Vadaliya	jetpur village	565p	jetpur	Jetpur	Rajkot	N 21° 44' 25.7604"	E 70° 40' 34.23"
156	09-01-2020	Vajubhai Chhaganbhai Thummar	jetpur village	563 & 564	jetpur	Jetpur	Rajkot	N 21° 44' 29.868"	E 70° 40' 25.4748"
157	09-01-2020	Jerambhai Manjibhai Ambaliya	jetpur village	577p2	jetpur	Jetpur	Rajkot	N 21° 44' 45.0816"	E 70° 40' 10.5168"
158	09-01-2020	Jerambhai Manjibhai Ambaliya	jetpur village	577p3	jetpur	Jetpur	Rajkot	N 21° 44' 46.1868"	E 70° 40' 12.3744"
159	09-01-2020	Premjibhai Dudhabhai Nandanniya	jetpur village	577Paiki	jetpur	Jetpur	Rajkot	N 21° 44' 42.342"	E 70° 39' 54.0936"
160	09-01-2020	Rameshbhai Devshi Vekariya	jetpur village	576	jetpur	Jetpur	Rajkot	N 21° 44' 45.4416"	E 70° 40' 19.6536"
161	09-01-2020	Dilipbhai Devshi Vekariya	jetpur village	576	jetpur	Jetpur	Rajkot	N 21° 44' 42.6372"	E 70° 40' 8.994"
162	09-01-2020	Dilipbhai Devshi Vekariya	jetpur village	577	jetpur	Jetpur	Rajkot	N 21° 44' 41.1792"	E 70° 40' 13.062"
163	09-01-2020	Unknown	Jetpur Khirasara Road	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 44' 43.7496"	E 70° 41' 15.036"
164	09-01-2020	Maheshbhai Basiya	Jetpur Khirasara Road	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 44' 53.1492"	E 70° 41' 32.262"
165	09-01-2020	Maheshbhai Basiya	Jetpur Khirasara Road	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 44' 37.4424"	E 70° 41' 36.2076"
166	09-01-2020	Maheshbhai Basiya	Jetpur Khirasara Road	yet to be trace	khirasra	Jetpur	Rajkot	N 21° 44' 42.1044"	E 70° 41' 45.816"

167	09-01-2020	Arajanbhai Malabhai Bharvad	Derdi Road,	yet to be trace	Mevasa	Jetpur	Rajkot	N 21° 45' 02.0"	E 70° 38' 02.3"
168	09-01-2020	Arajanbhai Malabhai Bharvad	Derdi Road,	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 45' 02.0"	E 70° 38' 02.2"
169	09-01-2020	Unknown	GondaraVistar	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 45' 20.4"	E 70° 37' 54.3"
170	09-01-2020	Manubhai Bhavanbhai Chauhan	BehiendShamshan	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 45' 05.7"	E 70° 38' 07.1"
171	09-01-2020	Unknown	Near Bhadar RiverDerdi Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 57.6"	E 70° 38' 15.9"
172	09-01-2020	Unknown	Near Bhadar RiverDerdi Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 57.2"	E 70° 38' 16.7"
173	09-01-2020	Kasam Jakharabhai Lakhani (Mansukhbhai Khachariya's Farm)	Opposite side of Bhadar River Derdi Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 45' 10.2"	E 70° 38' 12.6"
174	09-01-2020	Ashish Jagdishbhai Gonadaliya (Jivatiben Amarabhai Khachariya)	Opposite side of Bhadar RiverDerdi Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 48' 34.7"	E 70° 36' 37.5"
175	09-01-2020	Punabhai Amaarabhai Khachariya (Jivatiben Amarabhai Khachariya)	Opposite side of Bhadar RiverDerdi Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 45' 27.0036"	E 70° 38' 3.0876"
176	09-01-2020	Nileshbhai Harbhambhai Khachariya (Harbhambhai Ghelabhai Khachariya)	Opposite side of Bhadar RiverDerdi Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 45' 29.2"	E 70° 38' 0.4"
177	09-01-2020	Sureshbhai Kanjibhai Vekariya	Amarnagar Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 42.4"	E 70° 40' 18.1"
178	09-01-2020	Sureshbhai Kanjibhai Vekariya	Amarnagar Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 42.6"	E 70° 40' 18.36"
179	09-01-2020	Kanjibhai Mavajibhai Vekariya	Amarnagar Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 45.1"	E 70° 40' 21"
180	09-01-2020	Alpeshbhai Parsottambhai Vekariya	Amarnagar Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 46.1"	E 70° 40' 26.2"
181	09-01-2020	Unknown	Amarnagar Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 45.6"	E 70° 40' 33.2"
182	09-01-2020	Unknown	Amarnagar Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 48.1"	E 70° 40' 31"
183	09-01-2020	Kantibhai Jerambhai Vekariya	Amarnagar Road	yet to be trace	Jetpur	Jetpur	Rajkot	N 21° 44' 46.6"	E 70° 41' 06"
184	29-01-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21°49'48.67"	E 70° 35'44.83"
185	29-01-2020	Unknown	Rabarika	yet to be	Rabarika	Jetpur	Rajkot	N 21°49'54.92"	E 70° 35'28.16"



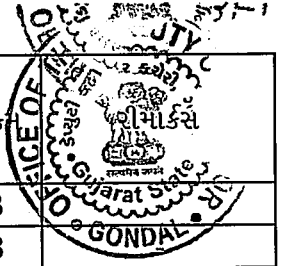
			Premgadh Road	trace					
186	29-01-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21°45'05.67"	E 70° 40'55.88"
187	30-01-2020	Shri Bhagvanji Ukabhai	Derdi Monpar Road	yet to be trace	Derdi	Jetpur	Rajkot	N 21°45'06.49"	E 70° 40'47.80"
188	30-01-2020	Shri Valkubhai	Derdi Monpar	yet to be trace	Derdi	Jetpur	Rajkot	N 21°45'15.21"	E 70° 40'48.94"
189	30-01-2020	Shri Arvindbhai Jagani & Shri Raghubhai Jagani	Derdi Monpar	yet to be trace	Derdi	Jetpur	Rajkot	N 21°45'08.64"	E 70° 41'18.84"
190	30-01-2020	Shri Rambhai Darbar	Derdi Monpar	yet to be trace	Derdi	Jetpur	Rajkot	N 21°45'09.70"	N 70°41'08.38"
191	30-01-2020	Shri Rambhai Darbar	Derdi Monpar	yet to be trace	Derdi	Jetpur	Rajkot	N 21°45'07.87"	E 70° 41'08.73"
192	19-02-2020	Shree Rambhai Gokalbhai Gohel	Khirasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 10.3"	E 70° 43'22.3"
193	19-02-2020	Shree Rambhai Gokalbhai Gohel	Khirasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21° 45' 10.33"	E 70° 43'22.74"
194	19-02-2020	Unknown	khirasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21°45'11.69"	E 70° 43'12.40"
195	19-02-2020	Unknown	khirasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21°45'12.03"	E 70° 43'12.52"
196	19-02-2020	Unknown	khirasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21°45'22.0"	E 70° 43'11.9"
197	19-02-2020	Unknown	khirasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21°45'19.80"	E 70° 43'10.07"
198	19-02-2020	Unknown	khirasara Road	yet to be trace	Khirasara	Jetpur	Rajkot	N 21°45'19.84"	E 70° 43'7.12"
199	20-06-2020	Jayeshbhai Rayabhai Bhuya	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8320056	E 70.5911701
200	20-06-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8299876	E 70.5953289
201	20-06-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8299378	E 70.5971695
202	20-06-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8299029	E 70.5947133

203	20-06-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8329994	E 70.5976399
204	20-06-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8317031	E 70.6007805
205	20-06-2020	Jethsurbhai Rambhai Lalu	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8340161	E 70.6030070
206	20-06-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21.8351864	E 70.6028236'
207	20-06-2020	Unknown	Rabarika Premgadh Road	yet to be trace	Rabarika	Jetpur	Rajkot	N 21°49'47.45"	E 70° 35'49.25''

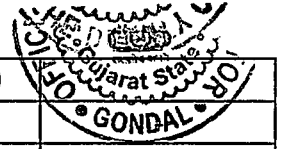
કલમ-૬૬ હેઠળના કેસોનું રજીસ્ટર

**સર્વે : ૨૦૨૦**

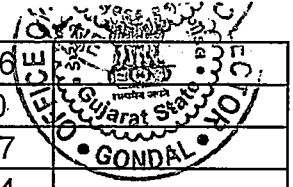
**(જેતપુર - તાલુકા)**



કેસ નં.	પક્ષ કારનુ નામ	ગામનુ નામ	સર્વે નં.	દાખલ તારીખ	ક્ષેત્રફળ	આખરી હુકમની તારીખ	દંડની રકમ	
૧	શાંતુભાઈ ગોદળભાઈ વિગેરે-૬	મોણપર	98P1	19-02-20	2-84-28	18-07-20	2843	
૨	માણસુરભાઈ રાણીગભાઈ	મોણપર	56p1/p2	19-02-20	1-56-82	18-07-20	1568	
૩	કનુભાઈ રાણીગભાઈ	મોણપર	56P1/P3	19-02-20	1-56-81	18-07-20	1568	-
૪	ભાવનાબેન જગુભાઈ ઘાઘલ	મોણપર	135	19-02-20	0-88-49	18-07-20	885	-
૫	ગજરાબેન બાબુભાઈ ઘાઘલ	મોણપર	132	19-02-20	7-79-03	18-07-20	7790	-
૬	અમરુભાઈ ભીમભાઈ વિગેરે-૯	મોણપર	134	19-02-20	1-13-75	18-07-20	1138	-
૭	ભાભલુભાઈ જગુભાઈ	મોણપર	102	19-02-20	1-62-89	18-07-20	1629	-
૮	ઉજીબેન વાલાભાઈ વિગેરે-૬	મોણપર	106/1	19-02-20	1-73-00	18-07-20	1730	-
૯	બીસુભાઈ હાથીયાભાઈ ઘાઘલ	મોણપર	133	19-02-20	2-87-33	18-07-20	2873	-
૧૦	દુડુભાઈ હાથીયાભાઈ ઘાઘલ	મોણપર	73P3/P1	19-02-20	2-45-85	18-07-20	2459	-
૧૧	શાંતુભાઈ ગોદળભાઈ વિગેરે-૬	મોણપર	97/1P2	19-02-20	2-83-28	18-07-20	2833	-
૧૨	દાદભાઈ ભીમભાઈ વીગેરે-૫	મોણપર	100	19-02-20	1-07-24	18-07-20	1072	-
૧૩	દેવજીભાઈ લવાભાઈ ગોંડલીયા	દેરડી	152/3	19-02-20	0-89-03	18-07-20	890	-
૧૪	ચંદુલાલ બીજલભાઈ	દેરડી	149/1	19-02-20	0-52-62	18-07-20	526	-
૧૫	સુરેશભાઈ જેરામભાઈ બરવાડીયા	દેરડી	145P1	19-02-20	1-16-35	18-07-20	1164	-
૧૬	લુપતભાઈ જેરામભાઈ બરવાડીયા	દેરડી	145P2	19-02-20	0-53-62	18-07-20	536	-
૧૭	ગોવાભાઈ કરશનભાઈ	ખજુરીગુંદાળા	198	19-02-20	0-69-81	18-07-20	698	-
૧૮	દિલુભાઈ જગુભાઈ	રબારીકા	8P1	19-02-20	3-59-16	18-07-20	3592	-
૧૯	દિલુભાઈ જગુભાઈ લાલુ વિગેરે-૨	રબારીકા	8P2	19-02-20	0-03-08	18-07-20	31	-
૨૦	કનુભાઈ જગુભાઈ લાલુ	રબારીકા	8P3	19-02-20	1-37-59	18-07-20	1376	-
૨૧	કનુભાઈ જગુભાઈ લાલુ	રબારીકા	316P2	19-02-20	3-56-13	18-07-20	3561	-
૨૨	બાઘાભાઈ બચુભાઈ	રબારીકા	9	19-02-20	0-06-07	18-07-20	61	-
૨૩	અનકભાઈ બાઘાભાઈ લાલુ	રબારીકા	328	19-02-20	1-47-71	18-07-20	1477	-
૨૪	બહાદુરભાઈ નથુભાઈ લાલુ	રબારીકા	266	19-02-20	0-59-69	18-07-20	597	-
૨૫	વાઘુભાઈ નથુભાઈ લાલુ વીગેરે	રબારીકા	265	19-02-20	0-72-84	18-07-20	728	-
૨૬	મગનભાઈ માઘાભાઈ કોરાટ	જેતપુર-૩	583P10	19-02-20	2-75-13	18-07-20	6878	-
૨૭	મીશાભાઈ મલાભાઈ ટોળીયા વીગેરે-૯	જેતપુર-૩	719P2	19-02-20	0-80-94	18-07-20	2024	-



૨૮	મનુભાઈ ભવાનભાઈ ચૌહાણ	જેતપુર-૩	720P3	19-02-20	1-01-17	18-07-20	2529	-
૨૯	સુરેશભાઈ કાનજીભાઈ વેકરીયા	જેતપુર-૩	576/1P5	19-02-20	1-41-64	18-07-20	3541	-
૩૦	કાનજીભાઈ માવજીભાઈ વેકરીયા	જેતપુર-૩	576/1P1	19-02-20	1-21-41	18-07-20	3035	-
૩૧	અલ્પેશભાઈ પરસોતમભાઈ વેકરીયા વિ.૨	જેતપુર-૩	575P1	19-02-20	2-57-99	18-07-20	6450	-
૩૨	કાંતિલાલ જેરામભાઈ આંબલીયા	જેતપુર-૩	526P1	19-02-20	4-45-16	18-07-20	11129	-
૩૩	રમેશભાઈ દેવશીભાઈ વેકરીયા	જેતપુર-૩	576/1P3	19-02-20	1-49-73	18-07-20	3743	-
૩૪	વલ્લભભાઈ માધાભાઈ કોરાટ	જેતપુર-૩	588P2	19-02-20	1-74-02	18-07-20	4351	-
૩૫	દિલીપભાઈ વૃજલાલ વડાલીયા વીગેરે-૨	જેતપુર-૩	565P2	19-02-20	0-80-94	18-07-20	2024	-
૩૬	વજુભાઈ છગનભાઈ હુંમર વિગેરે-૩	જેતપુર-૩	563P2	19-02-20	2-52-93	18-07-20	6323	-
૩૭	જેરામભાઈ મનજીભાઈ આંબલીયા	જેતપુર-૩	577/2	19-02-20	3-21-73	18-07-20	8043	-
૩૮	દિલીપભાઈ દેવશીભાઈ વેકરીયા	જેતપુર-૩	576/1P4	19-02-20	1-49-73	18-07-20	3443	-
૩૯	પ્રેમજીભાઈ દુદાભાઈ નંદાણીયા	જેતપુર-૩	577/1P2	19-02-20	1-38-61	18-07-20	3465	-
૪૦	બાવકુભાઈ સુરગભાઈ કાઠી	ખીરસરા	316/P3	19-02-20	1-21-41	18-07-20	1214	-
૪૧	ભરતભાઈ મગનભાઈ ખુંટ	ખીરસરા	342P74	19-02-20	0-80-94	18-07-20	809	-
૪૨	કાશીબેન કાળુભાઈ રાણપરીયા વીગેરે-૩	ખીરસરા	331P5	19-02-20	1-29-50	18-07-20	1295	-
૪૩	ગીરીશભાઈ કાળુભાઈ રાણપરીયા	ખીરસરા	216/P2	19-02-20	0-63-74	18-07-20	637	-
૪૪	ભુપતભાઈ ભાણાભાઈ વાંક	ખીરસરા	311P2	19-02-20	0-74-88	18-07-20	749	-
૪૫	રણછોડભાઈ રાઘવભાઈ રાણપરીયા વી-૭	ખીરસરા	331P4, Hq.1-30-51 Sq.mt. & 331p6	19-02-20	1-29-50	18-07-20	2600	-
૪૬	ભાણભાઈ સુરગભાઈ વાંક વિગેરે	ખીરસરા	330	28-02-20	5-46-33	29-08-20	0	નોટીસ પરત ખેંચતા
૪૭	રણછોડભાઈ રાઘવભાઈ રાણપરીયા	ખીરસરા	216/P1	28-02-20	0-63-74	29-08-20	0	નોટીસ પરત ખેંચતા
૪૮	ગીરીશભાઈ કાળુભાઈ રાણપરીયા	ખીરસરા	216/P2	28-02-20	0-63-74	23-07-20	637	-
૪૯	શાંતાબેન જશાભાઈ રાણપરીયા વીગેરે	ખીરસરા	216/P3	28-02-20	0-67-78	23-07-20	678	-
૫૦	વાલજીભાઈ શામજીભાઈ કથીરીયા	ખીરસરા	314P1	28-02-20	1-15-34	23-07-20	1153	-
૫૧	શાંતીલાલ બચુભાઈ કથીરીયા	ખીરસરા	314P2	28-02-20	1-15-33	23-07-20	1153	-
૫૨	માણસુરભાઈ સુરગભાઈ કાઠી	ખીરસરા	316/P1	09-03-20	1-13-31	29-08-20	0	નોટીસ પરત ખેંચતા
૫૩	દેવકુભાઈ સુરગભાઈ કાઠી	ખીરસરા	316/P2	09-03-20	0-97-13	29-08-20	0	નોટીસ પરત ખેંચતા
૫૪	બાવકુભાઈ સુરગભાઈ કાઠી	ખીરસરા	316/P3	09-03-20	1-21-41	23-07-20	1214	-
૫૫	ખોડભાઈ સુરગભાઈ કાઠી	ખીરસરા	316/P4	09-03-20	1-18-37	23-07-20	1184	-
૫૬	પ્રકાશભાઈ બાઘાભાઈ લાલુ	રબારીકા	275P1	28-02-20	1-87-75	23-07-20	1878	-



૫૭	કુંવરબેન નથુભાઈ	રબારીકા	273P1	28-02-20	1-56-61	23-07-20	1566	-
૫૮	રાવતભાઈ મુથુભાઈ	રબારીકા	280P2	28-02-20	0-82-96	23-07-20	830	-
૫૯	ભનુભાઈ ભીમભાઈ લાલુ	રબારીકા	320	28-02-20	3-10-16	23-07-20	3107	-
૬૦	દિપકભાઈ ભનુભાઈ લાલુ	રબારીકા	322/1P1	09-03-20	1-24-44	23-07-20	1244	-
૬૧	રાવતભાઈ બદરુભાઈ વીગેરે	રબારીકા	322/1P2	09-03-20	1-24-44	23-07-20	1244	-
૬૨	નનકુભાઈ રામભાઈ	રબારીકા	322/1P3	09-03-20	1-45-69	23-07-20	1457	-
૬૩	ગુલાબબેન ભુપતભઈ લાલુ વીગેરે	રબારીકા	322/1P4	09-03-20	1-04-21	28-09-20	0	નોટીસ પરત ખેંચતા
૬૪	ભનુભાઈ ભીમભાઈ લાલુ	રબારીકા	322/2	09-03-20	0-42-49	28-09-20	0	નોટીસ પરત ખેંચતા
૬૫	બાવકુભાઈ જીવાભાઈ વાંક	રબારીકા	259P1/P1	09-03-20	1-53-78	23-07-20	1538	-
૬૬	માણસુરભાઈ રામભાઈ લાલુ	રબારીકા	259P1/P2	09-03-20	0-40-47	23-07-20	405	-
૬૭	રમજુબેન ભનુભાઈ વાંક વીગેરે	રબારીકા	259P2	09-03-20	3-23-75	23-07-20	3238	-
૬૮	રાવતભાઈ રાણીગભાઈ વાંક	રબારીકા	259P3	09-03-20	3-00-48	23-07-20	3005	-
૬૯	ભનુભાઈ ભીમભાઈ લાલુ	રબારીકા	7P1	28-02-20	2-98-46	28-09-20	0	નોટીસ પરત ખેંચતા
૭૦	દિપકભાઈ ભનુભાઈ લાલુ	રબારીકા	7P2	28-02-20	0-64-75	23-07-20	648	-
૭૧	કિશોરભાઈ મણિલાલ વિગેરે	રબારીકા	262P1 Hq.7-87-06 cm. & 262P2	28-02-20	3-23-76	28-09-20	0	નોટીસ પરત ખેંચતા
૭૨	ભનુભાઈ બચુભાઈ લાલુ	રબારીકા	239/P1	28-02-20	2-37-77	28-09-20	0	નોટીસ પરત ખેંચતા
૭૩	બાધાભાઈ બચુભાઈ લાલુ	રબારીકા	239/P2	28-02-20	2-40-77	28-09-20	0	નોટીસ પરત ખેંચતા
૭૪	ભનુભાઈ બચુભાઈ લાલુ	રબારીકા	316P1/P1	28-02-20	3-57-14	28-09-20	0	નોટીસ પરત ખેંચતા
૭૫	બબાભાઈ બચુભાઈ	રબારીકા	316/1P2	28-02-20	1-88-17	28-09-20	0	નોટીસ પરત ખેંચતા
૭૬	કનુભાઈ જગુભાઈ લાલુ	રબારીકા	316P2	28-02-20	3-56-13	23-07-20	3561	-
૭૭	મુકેશભાઈ નથુભાઈ કોયાણી વી.	બાવા પીપળીયા	35P1/P1	28-02-20	0-80-94	23-07-20	809	-
૭૮	વલ્લભભાઈ ડાયાભાઈ પાઘડાબ	બાવા પીપળીયા	35P1/P2	28-02-20	0-48-56	23-07-20	486	-
૭૯	જશુભાઈ નારણભાઈ ગુજરાતી	બાવા પીપળીયા	35P2	28-02-20	0-84-98	23-07-20	850	-
૮૦	ચંપાબેન મોહનભાઈ ચાવડા	બાવા પીપળીયા	35P2/P1	28-02-20	0-64-75	23-07-20	648	-
૮૧	વાલજીભાઈ નારણભાઈ ગુજરાતી	બાવા પીપળીયા	35P3	28-02-20	1-45-69	23-07-20	1457	-
૮૨	હરિભાઈ નારણભાઈ ગુજરાતી	બાવા પીપળીયા	35P4	28-02-20	1-57-83	23-07-20	1578	-
૮૩	ડાયાભાઈ ભીમજીભાઈ સાદરીયા	વાળાહુંગરા	131P11	06-02-20	0-80-94	23-07-20	809	-
૮૪	ભનુભાઈ ગોવિંદભાઈ મકવાણા	વાળાહુંગરા	149P1/P1	09-03-20	1-51-76	23-07-20	1518	-
૮૫	હીરભાઈ ગોવિંદભાઈ મકવાણા	વાળાહુંગરા	149P1/P2	09-03-20	1-35-57	23-07-20	1356	-



૮૬	કિરણબેન ગીરધરભાઈ મકવાણા વીગેરે	વાળાડુંગરા	149P1/P3	09-03-20	1-19-38	28-09-20	0	
૮૭	નરશીભાઈ ગોવિંદભાઈ મકવાણા	વાળાડુંગરા	149P1/P4	09-03-20	1-19-38	23-07-20	1194	
૮૮	માઘાભાઈ ગોવિંદભાઈ મકવાણા	વાળાડુંગરા	149P1/P6	09-03-20	1-52-77	23-07-20	1528	
૮૯	સુરેશભાઈ ગોરધનભાઈ હિરપરા	મેવાસા	205P1/P1	28-02-20	5-34-19	23-07-20	5342	-
૯૦	દિપનભાઈ મગનભાઈ પટેલ	મેવાસા	205P2 Hq.1-19-38 cm. & 205p3	28-02-20	0-96-12	23-07-20	2155	-
૯૧	પરબતભાઈ આબાભાઈ વિગેરે	મોણપર	81/1 Hq.0-78-91 cm. & 81/2P1	28-02-20	0-47-55	23-07-20	1265	-
૯૨	ચંદ્રેશકુમાર કિશનચંદ ધાંધા	મોણપર	116P1 Hq.1-15-34 cm. & 116P2	28-02-20	1-14-32	23-07-20	2297	-
૯૩	મનુભાઈ હકાભાઈ બારૈયા	દેરડી	153/1P1/P1	28-02-20	0-46-54	23-07-20	465	-
૯૪	ભુપતભાઈ વિરકુભાઈ જળુ	દેરડી	153/1P1/P2	28-02-20	0-46-54	23-07-20	465	-
૯૫	ભુપતભાઈ હકાભાઈ બારૈયા	દેરડી	153/1P1/P3	28-02-20	0-46-54	23-07-20	465	-
૯૬	પાંચભાઈ જાદવભાઈ	દેરડી	153/1P2	28-02-20	1-37-60	23-07-20	1376	-
૯૭	હેમીબેન દેવશીભાઈ બારૈયા વીગેરે	દેરડી	153/1P3	28-02-20	1-37-60	23-07-20	1376	-
૯૮	જીવાભાઈ જાદવભાઈ	દેરડી	153/1P4	28-02-20	1-37-60	23-07-20	1376	-
૯૯	હસમુખભાઈ ભીમાભાઈ વીગેરે	દેરડી	153/1P5	28-02-20	2-42-81	23-07-20	2428	-
૧૦૦	બીજલભાઈ પુનાભાઈ	દેરડી	153/2	28-02-20	3-19-70	23-07-20	3197	-
૧૦૧	બટુકભાઈ બાવાભાઈ બરવાડીયા	દેરડી	155/1P1	28-02-20	1-45-69	23-07-20	1457	-
૧૦૨	બાબુભાઈ ચકુભાઈ	દેરડી	155/1P2	28-02-20	3-56-13	23-07-20	3561	-
૧૦૩	રસીકભાઈ ચકુભાઈ	દેરડી	155/2, Hq.0-22-26 cm & 155/4	28-02-20	2-07-39	23-07-20	2297	-
૧૦૪	ભગાભાઈ દેશાભાઈ	દેરડી	155/3P1, Hq.1-50-75 cm & 155/5	28-02-20	0-37-43	28-09-20	0	નોટીસ પરત ખેંચતા
૧૦૫	જેન્તીભાઈ દેશાભાઈ ગોડલીયા	દેરડી	155/3P2	28-02-20	0-48-56	28-09-20	0	નોટીસ પરત ખેંચતા
૧૦૬	મણીબેન એભલભાઈ વિગેરે	દેરડી	162/1, Hq.2-42-81 cm & 162/3	28-02-20	1-10-28	23-07-20	3531	-
૧૦૭	રેખાબેન રણછોડભાઈ રામાણી	દેરડી	162/2p1	28-02-20	0-58-68	23-07-20	587	-
૧૦૮	ચંદ્રીકાબેન કલાભાઈ રૂપાપરા વા/આ. ભરતભાઈ મગનભાઈ કોરાટ	દેરડી	162/2p1/p1	28-02-20	0-73-86	28-09-20	0	નોટીસ પરત ખેંચતા
૧૦૯	કાંતાબેન હરિભાઈ ગોડલીયા	દેરડી	162/2p2	28-02-20	1-42-65	28-09-20	0	નોટીસ પરત ખેંચતા



૧૧૦	ખીમજીભાઈ માવજીભાઈ તારપરા	દેરડી	152/1	28-02-20	0-79-93	23-07-20	799	
૧૧૧	ચનાભાઈ માવજીભાઈ તારપરા	દેરડી	152/2/P1	28-02-20	0-46-54	23-07-20	465	
૧૧૨	બાબુભાઈ માવજીભાઈ તારપરા	દેરડી	152/2/P2	28-02-20	0-46-54	23-07-20	465	
૧૧૩	પરસોતમભાઈ નારણભાઈ	દેરડી	164/1	28-02-20	0-86-00	23-07-20	860	
૧૧૪	કડવાભાઈ જેરામભાઈ	દેરડી	164/2	28-02-20	0-42-49	29-08-20	0	નોટીસ પરત ખેંચતા
૧૧૫	ખીમાભાઈ ચકાભાઈ ખાંટ	જેતપુર	122/1-2-3	28-02-20	1-53-78	28-09-20	0	નોટીસ પરત ખેંચતા
૧૧૬	સંજયભાઈ બાબુભાઈ રાંક વી.	જેતપુર-૩	607P1	28-02-20	0-95-10	29-08-20	0	નોટીસ પરત ખેંચતા
૧૧૭	પોપટભાઈ મોહનભાઈ હરખાણી વી.	જેતપુર-૩	607P2	28-02-20	2-42-81	29-08-20	0	નોટીસ પરત ખેંચતા
૧૧૮	ભરતભાઈ છગનભાઈ વિગેરે	જેતપુર-૩	607P6	28-02-20	1-61-88	23-07-20	4047	
૧૧૯	વજીબેન ધનજીભાઈ કોરાટા વી.	જેતપુર-૩	584P1	28-02-20	1-34-56	28-09-20	0	નોટીસ પરત ખેંચતા
૧૨૦	વજુભાઈ વાલજીભાઈ આંબલીયા	જેતપુર-૩	584P2	28-02-20	4-22-90	29-08-20	0	નોટીસ પરત ખેંચતા
૧૨૧	બાબુભાઈ માઘાભાઈ કોરાટ	જેતપુર-૩	584P3	28-02-20	2-02-34	23-07-20	5059	
૧૨૨	કમલેશભાઈ મોહનભાઈ કોરાટ	જેતપુર-૩	584P4	28-02-20	1-21-41	23-07-20	3035	
૧૨૩	નરશીભાઈ માઘાભાઈ કોરાટ	જેતપુર-૩	584P5	28-02-20	1-94-25	23-07-20	4856	
૧૨૪	રંભાબેન બાબુભાઈ વિગેરે	જેતપુર-૩	588P1	09-03-20	2-70-13	29-08-20	0	નોટીસ પરત ખેંચતા
૧૨૫	વલ્લભભાઈ માઘાભાઈ કોરાટ	જેતપુર-૩	588P2, Hq.1-74-02 cm. & 588p3	09-03-20	1-74-02	23-07-20	8701	
૧૨૬	ભીખાભાઈ ઉકાભાઈ પાદરીયા	જેતપુર-૩	588P4/P2	09-03-20	1-31-76	29-08-20	0	નોટીસ પરત ખેંચતા
૧૨૭	રત્નાભાઈ ઉકાભાઈ પાદરીયા	જેતપુર-૩	588P4/P3	09-03-20	1-04-97	29-08-20	0	નોટીસ પરત ખેંચતા
૧૨૮	દામભાઈ ઉકાભાઈ પાદરીયા	જેતપુર-૩	588P4/P4	09-03-20	1-21-27	29-08-20	0	નોટીસ પરત ખેંચતા
૧૨૯	હરસુખભાઈ વાલાભાઈ આંબલીયા	જેતપુર-૩	588P5	09-03-20	0-80-94	29-08-20	0	નોટીસ પરત ખેંચતા
૧૩૦	ઉમરખા આલમખા વિગેરે	જેતપુર-૩	583P1	09-03-20	0-02-02	23-07-20	51	
૧૩૧	મગનભાઈ માઘાભાઈ કોરાટ	જેતપુર-૩	583P10	09-03-20	2-75-13	23-07-20	6878	
૧૩૨	કિશોરભાઈ જીવરાજભાઈ ઠુંમર વીગેરે	જેતપુર-૩	583P11	09-03-20	1-64-91	29-08-20	0	નોટીસ પરત ખેંચતા
૧૩૩	રમેશભાઈ જસમતભાઈ ગોડલીયા	જેતપુર-૩	583P13	09-03-20	0-34-40	29-08-20	0	નોટીસ પરત ખેંચતા
૧૩૪	અરવિંદભાઈ ઠાકરશીભાઈ ગોડલીયા	જેતપુર-૩	583P14	09-03-20	0-98-20	23-07-20	2455	
૧૩૫	રમેશભાઈ જસમતભાઈ ગોડલીયા	જેતપુર-૩	583P14/P1	09-03-20	0-63-68	29-08-20	0	નોટીસ પરત ખેંચતા
૧૩૬	શોભનાબેન રમેશભાઈ ગોડલીયા	જેતપુર-૩	583P16	09-03-20	2-02-34	29-08-20	0	નોટીસ પરત ખેંચતા
૧૩૭	ધીરજલાલ મનજીભાઈ જાગાણી	જેતપુર-૩	583P17	09-03-20	0-80-94	23-07-20	2024	
૧૩૮	જયોત્સનબેન મગનલાલ ગોડલીયા વીગેરે	જેતપુર-૩	583P15/P1	09-03-20	1-27-48	23-07-20	3187	



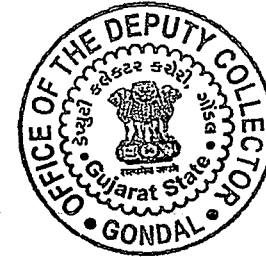
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નોંધીસ પરત ખેંચતા  
નોંધીસ પરત ખેંચતા

૧૩૯	હુશેનખા આલમખા	જેતપુર-૩	583P15/P2	09-03-20	0-08-10	23-07-20	203	
૧૪૦	રામજીભાઈ વેલજીભાઈ તારપરા	જેતપુર-૩	583P2	09-03-20	1-64-92	29-08-20	0	
૧૪૧	રેખાબેન ભરતભાઈ તારપરા વીગેરે	જેતપુર-૩	583P20	09-03-20	1-36-59	29-08-20	0	
૧૪૨	મુકેશભાઈ જીણાભાઈ તારપરા	જેતપુર-૩	583P21	09-03-20	0-88-02	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૪૩	જેન્તીભાઈ ગીગાભાઈ તારપરા	જેતપુર-૩	583P22	09-03-20	1-65-93	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૪૪	જગદિશભાઈ જીણાભાઈ તારપરા	જેતપુર-૩	583P23/P1	09-03-20	1-72-34	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૪૫	શૈલેષભાઈ જીણાભાઈ તારપરા	જેતપુર-૩	583P23/P2	09-03-20	0-72-34	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૪૬	જેન્તીભાઈ ગીગાભાઈ તારપરા	જેતપુર-૩	583P3	09-03-20	0-58-68	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૪૭	રમેશભાઈ જસમતભાઈ ગોડલીયા	જેતપુર-૩	583P4	09-03-20	0-95-48	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૪૮	અરવિંદભાઈ ઠાકરશીભાઈ ગોડલીયા	જેતપુર-૩	583P4/P1	09-03-20	0-66-40	23-07-20	1660	-
૧૪૯	વિઠ્ઠલભાઈ હરિભાઈ ગોડલીયા	જેતપુર-૩	583P6	09-03-20	1-08-86	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૫૦	જાદવભાઈ લાલજીભાઈ ગોડલીયા	જેતપુર-૩	583P6/P1	09-03-20	0-53-02	23-07-20	1326	-
૧૫૧	બાબુભાઈ હરિભાઈ ગોડલીયા	જેતપુર-૩	583P7/P1	09-03-20	0-48-56	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૫૨	જાદવભાઈ લાલજીભાઈ ગોડલીયા	જેતપુર-૩	583P7/P2	09-03-20	0-80-94	23-07-20	2024	-
૧૫૩	બાબુભાઈ હરિભાઈ ગોડલીયા	જેતપુર-૩	583P7/P2/P1	09-03-20	0-32-38	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૫૪	બાબુભાઈ હરિભાઈ ગોડલીયા	જેતપુર-૩	583P8/P1	09-03-20	0-80-94	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૫૫	જાદવભાઈ લાલજીભાઈ ગોડલીયા	જેતપુર-૩	583P8/P2	09-03-20	0-53-01	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૫૬	બાબુભાઈ હરિભાઈ ગોડલીયા	જેતપુર-૩	583P8/P2/P1	09-03-20	0-27-93	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૫૭	ગીરધરભાઈ છગનભાઈ કોરાટ	જેતપુર-૩	583P9/P1	09-03-20	0-89-03	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૫૮	ધીરજલાલ છગનભાઈ કોરાટ	જેતપુર-૩	583P9/P2	09-03-20	1-94-25	23-07-20	4856	-
૧૫૯	જીવરાજભાઈ મનજીભાઈ જાગાણી	જેતપુર-૩	583P5	09-03-20	1-45-69	23-07-20	3642	-
૧૬૦	મગનલાલ મનજીભાઈ જાગાણી	જેતપુર-૩	583P5/P1	09-03-20	1-61-88	23-07-20	4047	-
૧૬૧	બાવનજીભાઈ કાળાભાઈ	જેતપુર-૩	565P1/P1	09-03-20	0-68-80	23-07-20	1720	-
૧૬૨	હરસુખભાઈ કાળાભાઈ	જેતપુર-૩	565P1/P2	09-03-20	1-62-88	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૬૩	દિલીપભાઈ વૃજલાલ વડાલીયા વીગેરે-૨	જેતપુર-૩	565P2	09-03-20	0-80-94	23-07-20	2024	-
૧૬૪	રમેશભાઈ બચુભાઈ વડાલીયા વીગેરે	જેતપુર-૩	565P3/P1/P1/P1	09-03-20	0-40-47	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૬૫	વિનુભાઈ બચુભાઈ વડાલીયા	જેતપુર-૩	565P3/P1/P2	09-03-20	2-11-45	23-07-20	5286	-
૧૬૬	શાંતાબેન નાનજીભાઈ પાઘડાળ	જેતપુર-૩	565P3/P2	09-03-20	1-13-31	29-08-20	0	નોંધીસ પરત ખેંચતા
૧૬૭	શર્માલાબેન બાબુભાઈ લુણાગરીયા	જેતપુર-૩	723P1	09-03-20	1-10-28	23-07-20	2757	-
૧૬૮	લાલુબેન છગનભાઈ પાંભર વીગેરે	જેતપુર-૩	723P2	09-03-20	0-92-07	29-08-20	0	નોંધીસ પરત ખેંચતા

૧૬૯	જમનભાઈ ચકુભાઈ પાંભર	જેતપુર-૩	723P3	09-03-20	1-78-06	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૦	વિવેકભાઈ દિનેશભાઈ માલવીયા વીગેરે	જેતપુર-૩	723P4/P1	09-03-20	1-06-23	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૧	દુદાભાઈ વેલજીભાઈ માલવીયા વીગેરે	જેતપુર-૩	723P4/P2	09-03-20	1-06-23	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૨	મગનભાઈ ચકાભાઈ પાંભર	જેતપુર-૩	723P5/P1	09-03-20	0-80-94	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૩	ભુપતભાઈ ચકાભાઈ પાંભર	જેતપુર-૩	723P5/P2	09-03-20	0-80-94	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૪	મગનલાલ ચકાભાઈ પાંભર	જેતપુર-૩	723P6	09-03-20	1-61-88	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૫	અમૃતલાલ ઘેલાભાઈ ખાચરીયા	જેતપુર-૩	747/1P1	09-03-20	1-48-72	23-07-20	3718	-
૧૭૬	પ્રભાબેન વજુભાઈ ખાચરીયા વીગેરે	જેતપુર-૩	747/1P2	09-03-20	1-48-72	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૭	જીવતીબેન હેમરાજભાઈ વીગેરે	જેતપુર-૩	747/2	09-03-20	3-62-20	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૮	જીજ્ઞેશભાઈ કાંતિલાલ કાલરીયા વીગેરે	જેતપુર-૩	747/3	09-03-20	2-89-35	29-08-20	0	નોટીસ પરત ખેંચતા
૧૭૯	અલ્પેશભાઈ પરસોતમભાઈ વેકરીયા વીગેરે	જેતપુર-૩	575P1	09-03-20	2-57-99	29-08-20	0	નોટીસ પરત ખેંચતા
૧૮૦	રમેશભાઈ દેવશીભાઈ વેકરીયા	જેતપુર-૩	575P2	09-03-20	1-71-99	29-08-20	0	નોટીસ પરત ખેંચતા
૧૮૧	અલ્પેશભાઈ પરસોતમભાઈ વેકરીયા	જેતપુર-૩	575P2/P1	09-03-20	0-86-00	29-08-20	0	નોટીસ પરત ખેંચતા
૧૮૨	ચંદુભાઈ હંસરાજભાઈ આંબલીયા વીગેરે	જેતપુર-૩	721P1	09-03-20	0-48-56	29-08-20	0	નોટીસ પરત ખેંચતા
૧૮૩	ભાવેશકુમાર અમૃતલાલ ભુવા વીગેરે	જેતપુર-૩	721P2	09-03-20	0-80-94	23-07-20	2024	-
૧૮૪	વિજયાબેન રવજીભાઈ આંબલીયા વીગેરે	જેતપુર-૩	721P3	09-03-20	0-79-93	29-08-20	0	નોટીસ પરત ખેંચતા
૧૮૫	જસ્મીનભાઈ રવજીભાઈ આંબલીયા વીગેરે	જેતપુર-૩	721P4	09-03-20	0-60-70	29-08-20	0	નોટીસ પરત ખેંચતા
૧૮૬	હરસુખભાઈ આંબાભાઈ ગોડલીયા	પીઠડીયા	151P1	28-02-20	0-80-94	23-07-20	809	-
૧૮૭	જેન્તીભાઈ લવાભાઈ ગોડલીયા	પીઠડીયા	151P2	28-02-20	2-33-70	23-07-20	2337	-
૧૮૮	પ્રતાપભાઈ જીલુભાઈ ઘાઘલ	પીઠડીયા	136/P1	28-02-20	4-04-70	23-07-20	4047	-
૧૮૯	ઉમેદભાઈ જીલુભાઈ ઘાઘલ	પીઠડીયા	136/2	28-02-20	4-98-77	23-07-20	9888	-
૧૯૦	મધુભાઈ વશરામભાઈ મઢવી	વાડાસડા	23/1P3	04-04-20	0-80-94	23-07-20	809	-

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નારણ ૬/૩/૨૨  
મો. ૬

Pre-Feasibility PILOT TRIAL for Wash Liquor of  
32 Industries Recovery and re-use by NF Membranes  
Jetpur Dyeing & Printing Association  
a sustainable environment solution for  
textile industrial cluster

By M/S Aquarius H2O Dynamics Pvt. Ltd, Ahmedabad

## CETP-JDPA

- \* Jetpur Dyeing & Printing Association has setup a common facility centre (CFC) for all dyeing and printing industries , mercerization process waste water i.e. common effluent treatment plant (CETP). There are 2 numbers of CETPs and these facilities have a capacity to handle 6 million litres per day and 7 million litres per day . Total 13 MLD plant capacity installed and maintaining as per GPCB norms.
- Out of 13 MLD load 4 MLD Load is of Grey Cotton mercerization process with caustic and starch in it which is comes with Grey cloth. Which increases TDS and COD load on CETP. 4 MLD is Printing waste and 5 MLD is City Sewage.

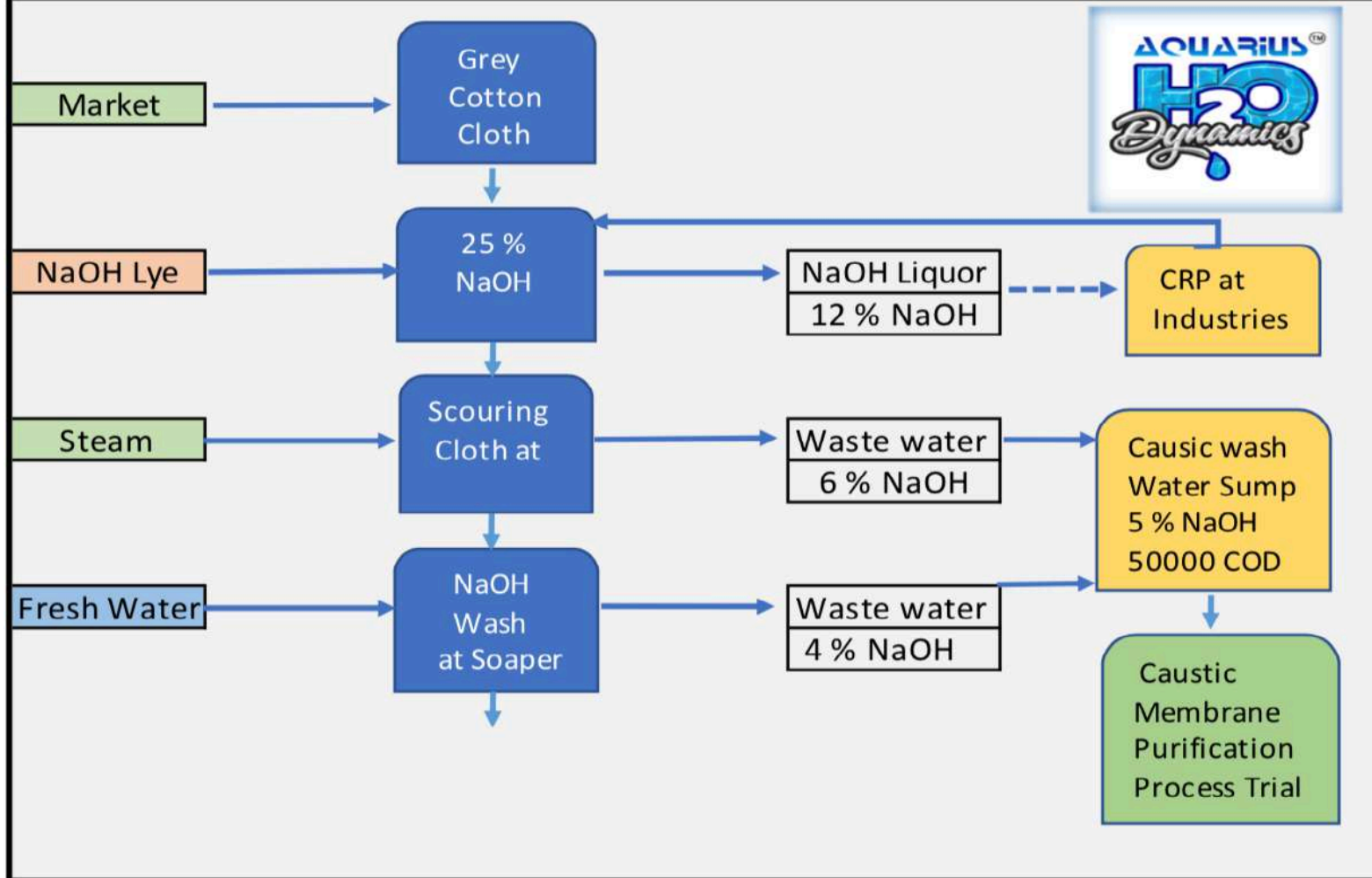
## Mercerization in Cotton textiles

- Mercerizers for Textile Mills generate dilute caustic wash liquor, which if drained to effluent treatment plant, will create considerable problems in meeting the environmental standards , Weak lye from Mercerizers (around 5 % ) is taken to an ETP where it has to be neutralized with addition of huge amount of acid and generate TDS.
- This results in increase in TDS & harming the functioning of CETP posing a great challenge to the textile industry.
- JDPA had 32 Units for caustic process, draining there waste water to CETP after neutralization. This is increasing load of COD and TDS on CETP in both ways as above.
- caustic recovery plant by concentrating wash liquor and using the same back in **Mercerizer is the only feasible solution for JDPA.**
- We suggested following scheme for JDPA in line with above.

- Instead of mixing of printing and mercerize process waste water, both is already segregated from industries and mercerize waste is collected separate by separate sump and pump system or By tankers as of now.
- 1 MLD mercerized effluent waste contains valuable materials caustic , and starch which can be separated and purified by membrane system and caustic recovery plant and reuse in same industries Back on sale basis . so TDS generation at CETP will be prevented on great way. 4 MLD Wash water from same will be treated in ETP MBR RO MEE and reused , so complete ZLD will be implemented.
- Sizing materials starch which impart COD/BOD will also be separated by MF+NF membrane system from mixed waste water containing caustic and Organics send to anaerobic treatment system to produce biogas and than this biogas will be reused in caustic recovery evaporation system which reduce fuel consumption also.
- So instead of wasting energy in CETP in aerobic treatment it will give back fuel value and save energy in CETP also.

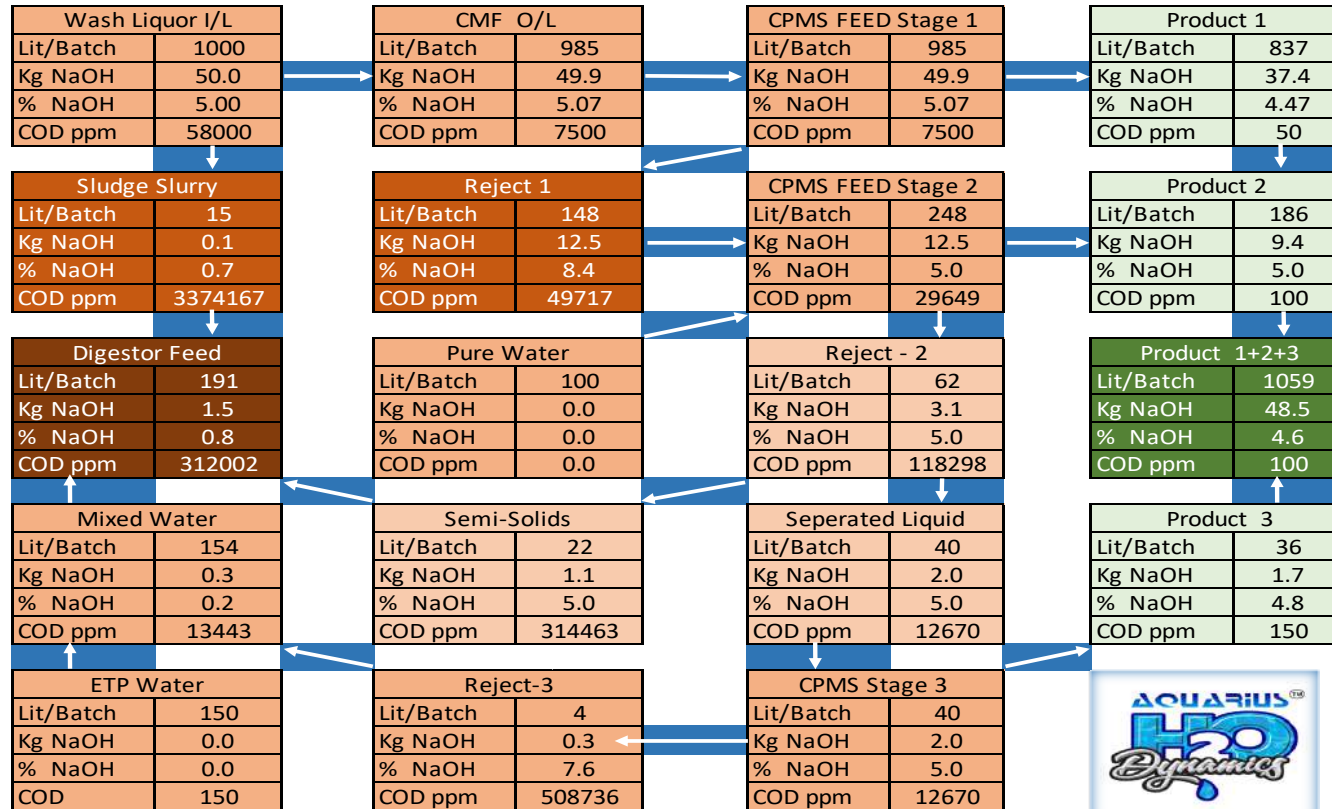
- By this way we worked out sustainable solution for textiles for ever and nullify pollution load.
- The recovered water is also reused by same industries and project will be complete ZLD concept with resource recovery . Such type of plants at global level is running since a decade.
- Toward a step for implementation we installed a Pilot plant and studied the Wash liquor Caustic recovery by membrane system by M/S Aquarius H2O Dynamics Pvt. Ltd, Ahmedabad, a Technology Provider and EPC Company.
- The steps of Mercerization were the samples collected and trials done as Below.
- The detailed Mass balance is also made and analysis done as below.

At 32 Nos Process Industrial Units of Mercerization





Summary of Caustic Purification by Membranes for Re use : Balance Trial Date : 20-08-2020 to 10-09-2020



Caustic Recovery by NF Membranes	
Base : Wash Liquor of Caustic will collected separately from every industries	
1000	Litre Batch
5.0	% NaOH in Wash liquor Effluent of 32 Industries Composite
50	Kg NaOH (100 %) Base
48.5	Kg Pure white 97 % Recovered NaOH (100%) Base
1455	Savings in Rs of NaOH (100%) @ 30 Rs/Kg
1455	Total Direct savings at Industry Rs per 1000 Litre Batch

Indirect Savings is also many more which is not counted here as of now. That will be covered in detailed DPR.

Photos of site trials



# Conclusion

- We are successful in separating starch, lignin, color like materials from Wash liquor Caustic by NF membranes and will be reused after concentrating with CRP.
- This scheme is self sustained and profitable as saving of caustic in Mercerization.
- We will now prepare a detailed scheme on this results and will go forward now.
- We are now confident that we had got a sustainable solution which can be a great benefit to environment and our Industries in Jetpur belt .
- We are grateful for M/s Aquarius H2O Dynamics Pvt. Ltd, for showing us a way.