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**ETP | STP | WWTP | BIOGAS**



# ABOUT CHOKHAVATIA ASSOCIATES

**CHOKHAVATIA ASSOCIATES [CA]** established in 1982 is ISO 9001 – 2015 certified full-fledged Civil and Environmental Engineering Consulting firm serving industry, private sectors, and government. The company with its remarkable performance has earned a high reputation in the Environmental and Pollution Control field in India.

With over 43 years of experience in providing consultancy customized solutions right from the concept, design, detailed engineering, construction supervision, and commissioning along with the operation of Water & Waste Water treatment plants, Sewage Treatment Plant, Sewerage and Conveyance systems, Water Distribution Networks works, Effluent Treatment Plant, Anaerobic Digesters, Biogas Energy Conserving Plant, Rain Water harvesting and Storm Water Management.

With its group company, "**ABHINAV ENTERPRISE** [AE]" established in 2008 is ISO 9001 – 2015 certified, it undertakes turnkey services including electro-mechanical supply works, installation, and erection works complying with the highest standards, governed by international norms prevailing in this sector of business.

With its Partnership company "**GULF CANADIAN ENGINEERING CONSULTANCY L.L.C.**" established in 2023, we pride ourselves on being at the forefront of cutting-edge technologies and sustainable practices in wastewater management.

# ABOUT CHOKHAVATIA ASSOCIATES

CA & AE together have a strong record of providing Turnkey Services including design, detail engineering, construction supervision, electro-mechanical equipment supply works, installation, erection, commissioning & operation of the plant successfully.

We have put up more than 1200 wastewater treatment plants in India and abroad for all types of industrial waste and sewage. Besides India, we have put up effluent treatment plants and operated the same in Africa, the Democratic Republic of Congo, Ethiopia, Eritrea, Nigeria, Maldives, Somalia, Somaliland, Djibouti, the Sultanate of Oman, UAE, Bahrain, and Bangladesh.

At the heart of Chokhavatia Associates is an extraordinary team whose unwavering dedication and tireless efforts drive our success. We assure you that our team consists of skilled and trained operating staffs, well experienced Engineers and Chemists.

We provide after sale service and troubleshooting. Working with CA and AE, you can be confident that you will get the highest standard of the industry and international standards for all requirements in technology, equipment, after sales service, spare parts and supplies and plant operations.

The success of CA is our strong commitment to clients on every project and is not limited to meeting requirements, but to outperform delivering innovative yet practical solutions.

# TECHNOLOGY SUPPORT FOR WASTEWATER SINCE (1982)

COMMON EFFLUENT TREATMENT PLANT



EFFLUENT RECYCLE PLANT



SEWAGE TREATMENT PLANT



BIOGAS PLANT



EFFLUENT TREATMENT PLANT



STORM WATER MANAGEMENT

# COMPANY STATISTICS

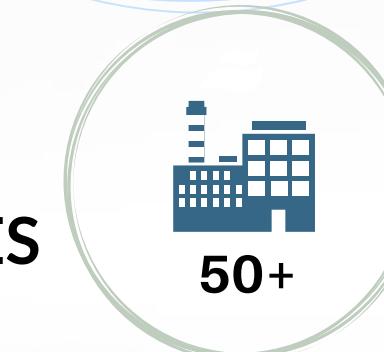
OUR CLIENT'S



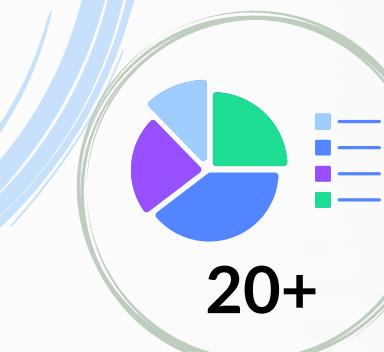
EXPERIENCE



TOP INDUSTRIES



PROJECTS COMPLETED



TOP SECTORS

# CONSULTANCY SERVICES & TURNKEY WORKS

**1** Wastewater Treatment Plant

**2** Sewage Treatment Plants

**3** Effluent Treatment Plant

**4** Common Effluent Treatment Plant

**5** Biogas Plant Design

**6** Package Treatment Plants

**7** Topographical and Geo-Technical Survey

**8** Wastewater Recycling Plants

**9** Zero Liquid Discharge Plants

**10** Conveyance Systems

**11** Water Supply & Distribution Network

**12** Sewerage Network and Distribution System

**13** Drainage & Disposal Networks

**14** Feasibility Study Reports

**15** Pilot Plant Treatability Studies

**16** Prebid Tendering Work

**17** Design & Detail Engineering

**18** Electro-mechanical Supply Works

**19** Commissioning and Operation works

**20** Storm Water Management Works

**21** Rain Water Harvesting Works

**22** Stream Pollution Assessment

**23** Hydrology Survey Works

# OUR SKILLS

## WASTEWATER TREATMENT PLANT

- 1. Cleaner Production
- 2. Hazardous Waste Management Services
- 3. Due Diligence
- 4. Environmental Audits
- 5. Environmental Compliance Audits
- 6. Environmental Impact Assessment Studies
- 7. Water Balance Audits
- 8. Environmental Management Plan
- 9. River Survey
- 10. Site Selection Surveys And Evaluations
- 11. Storm Water Management
- 12. Treatability Study
- 13. Solidwaste Management

## TREATMENT PROCESSES

- 1. Anaerobic Biological Treatment
- 2. Aerobic Biological Treatment
- 3. Anaerobic Sludge Digestion
- 4. Heavy Metals Removal
- 5. Physico Chemical Treatment
- 6. Primary Treatment
- 7. Polishing Treatment
- 8. Tertiary Treatment
- 9. Toxic Chemical Treatment

## OPERATION & MAINTENANCE

- 1. Effluent Treatment Contracts
- 2. Evaluation of Plant Performance
- 3. Manpower Training
- 4. O & M Contracts
- 5. Technical Workshop
- 6. Up gradation & Troubleshooting

# ISO CERTIFICATION

## ISO 9001:2015

Design, Commissioning, and Services for Environmental Pollution Control System.

A comprehensive suite of customized services designed to address the complexities of each project based on the unique characteristics of the wastewater and client requirements ensuring all systems meet the regulations and standards.

### Consultancy Services by Chokhavatia Associates

- Site Visit and Feasibility Study
- Design and Detailed Engineering
- Technology Selection
- Construction Supervision
- Successful Commissioning of Plants
- Operation and Maintenance Contracts
- Assessment of existing Wastewater Plants

TÜVNORD

# Certificate

Management system as per  
**ISO 9001:2015**

The Certification Body TÜV NORD CERT GmbH, hereby confirms as a result of the audit, assessment and certification decision according to ISO/IEC 17021-1:2015, that the organization

#### CHOKHAVATIA ASSOCIATES

1, Laxmikunj Society, Opp. Shankar Ashram, Museum,  
Paldi, Ahmedabad – 380 007, Gujarat,  
India

operates a management system in accordance with the requirements of ISO 9001:2015 and  
will be assessed for conformity within the 3 year term of validity of the certificate.

#### Scope

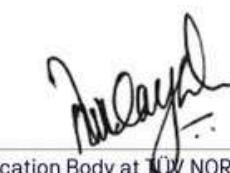
**Design, Commissioning and Service of Environment Pollution Control Systems.**

Certificate Registration No. 44 100 25396388  
Audit Report No. BAR/AUD/25-26/3234

Valid from 06.08.2025  
Valid until 05.08.2028  
Initial certification 06.08.2025

Mumbai, 06.08.2025

Certification Body at TÜV NORD CERT GmbH



Visit our database to  
verify the validity of  
this certificate.  
[www.tuev-nord-cert.com](http://www.tuev-nord-cert.com)

TÜV NORD CERT GmbH  
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[www.tuev-nord-cert.com](http://www.tuev-nord-cert.com)



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# ISO CERTIFICATION

## ISO 9001:2015

Purchase and Supply of Equipment for Wastewater Treatment Plants.  
ABHINAV ENTERPRISE

Undertakes turnkey services with electro-mechanical supply works and erection of the plant. The fabrication methods, procedures and processes comply with the highest standards, governed by international norms prevailing in this sector of business.

Turnkey Services with its group company [except civil works].

- Electro-Mechanical Procurement and Supply.
- Installation of Electro-mechanical Equipment.
- Erection of the Plants.

TÜVNORD

# Certificate

Management system as per  
**ISO 9001:2015**

The Certification Body TÜV NORD CERT GmbH, hereby confirms as a result of the audit, assessment and certification decision according to ISO/IEC 17021-1:2015, that the organization

**ABHINAV ENTERPRISE**  
2/B Laxmikunj Society, Op: Shankar Ashram,  
Paldi, Ahmedabad - 380 007,  
Gujarat,  
India

operates a management system in accordance with the requirements of ISO 9001:2015 and will be assessed for conformity within the 3 year term of validity of the certificate.

Scope

**Purchase & Supply of Equipment's for Waste Water Treatment Plant.**

Certificate Registration No. 44 100 25396406  
Audit Report No. BAR/AUD/25-26/3307

Valid from 14.08.2025  
Valid until 13.08.2028  
Initial certification 14.08.2025



Visit our database to verify the validity of this certificate.

Mumbai, 14.08.2025

Certification Body at TÜV NORD CERT GmbH



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Essen

[www.tuev-nord-cert.com](http://www.tuev-nord-cert.com)

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# CONSULTING ENGINEERS AND ASSOCIATION OF INDIA



Chokhavatia Associates

*is a Member (Organisation) of the  
Consulting Engineers Association of India,  
Pocket 9, Sector B, Vasant Kunj, New Delhi 110070*

*registered under the*

*Societies Registration Act*

*for the promotion of the profession of  
consulting engineering*

*and*

*rights and privileges of consulting engineers  
for the year 2025-2026.*

*The member has undertaken to comply with  
the MOA and Rules of Association and  
CEAI's Code of Ethics*

MEMBERSHIP No. M-809

Honorary Secretary

President

*"Creating Value Ethically for Engineers"*

# ECONOMIC TRADE LICENSE

# GULF CANADIAN CONSULTANCY

A pioneering partnership company between Gulf Canadian Consultancy Engineering and Chokhavatia Associates since 2023 at Abu Dhabi. We pride ourselves on being at the forefront of cutting-edge technologies and sustainable practices in wastewater management.

## Abu Dhabi Unified Licence رخصة أبوظبي الموحدة

تفاصيل الرخصة	
نوع الرخصة	مهنية
فئة الرخصة	عادية
رقم الرخصة الاقتصادية	CN-1100541
رقم التسجيل الموحد	101-2021-100094120
الرقم الجمركي	228250
رقم عضوية الغرفة	
بطاقة المنشأة - وزارة الموارد البشرية والتوطين	
بطاقة المنشأة - الهيئة الاتحادية للهوية والجنسية	
تاريخ التأسيس	26/04/2007
تاريخ الإصدار	21/10/2024
تاريخ الانتهاء	31/10/2025
شركة ذات مسؤولية محدودة	
الشكل القانوني	Limited Liability Company
الاسم التجاري	الخليج الكندي للاستشارات الهندسية ذ.م.م
Trade Name	GULF CANADIAN ENGINEERING CONSULTANCY L.L.C.

الملكية والممثلين			
ممثل عن Representative of	الدور المنصب Role/Position	الجنسية Nationality	الاسم Name
	شريك Partner	كندا Canada	مودي بادي مطر MOODIE BADIE MATTAR
	شريك Partner	الهند India	تشوكافاتيا و شركاه CHOKHAVATIA ASSOCIATES
	مدير Manager	كندا Canada	مودي بادي مطر MOODIE BADIE MATTAR

الأنشطة المرخصة	
- استشارات هندسية في التصميم الداخلي	7110201
- استشارات هندسية في الترميم والمحافظة على الآثار	7110918
- استشارات في الهندسة المدنية	7110205
- استشارات في الهندسة المعمارية	7110202
- استشارات هندسية في محططات الطاقة	7110107
- استشارات هندسية في الصرف الصحي وجمع المياه المهددة	7110112
والخلص منها	
- استشارات هندسية في الطرق	7110702



To verify the economic licence kindly visit the TAHAQAQ service on [www.tamm.abudhabi](http://www.tamm.abudhabi)

للتحقق من الرخصة الاقتصادية يرجى زيارة خدمة "تحقق" على

# MSME CERTIFICATION

Print : Udyam Registration Certificate

मारत सरकार  
Government of India  
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय  
Ministry of Micro, Small and Medium Enterprises

**UDYAM REGISTRATION CERTIFICATE**

UDYAM REGISTRATION NUMBER: UDYAM-GJ-01-0242977

NAME OF ENTERPRISE: CHOKHAVATIA ASSOCIATES

TYPE OF ENTERPRISE \*:

SNo.	Classification Year	Enterprise Type	Classification Date
1	2022-23	Micro	14/02/2023

MAJOR ACTIVITY: SERVICES

SOCIAL CATEGORY OF ENTREPRENEUR: GENERAL

NAME OF UNIT(S):

S.No.	Udyog Aadhaar Memorandum	Unit(s) Name
1	GJ01E0184537	Chokhavatia Associates

OFFICIAL ADDRESS OF ENTERPRISE:

Flat/Door/Block No.	1, Laxmikunj Society	Name of Premises/ Building	Vimal Chokhavatia
Village/Town	Narayannagar road, Museum, Pal	Block	-
Road/Street/Lane	1; Laxmi Kunj Society	City	AHMEDABAD
State	GUJARAT	District	AHMADABAD, Pin 380007
Mobile	9824051537	Email:	chokhavatia@hotmail.com

DATE OF INCORPORATION / REGISTRATION OF ENTERPRISE: 01/06/1982

DATE OF COMMENCEMENT OF PRODUCTION/BUSINESS: 01/06/1982

NATIONAL INDUSTRY CLASSIFICATION CODE(S):

SNo.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity
1	36 - Water collection, treatment and supply	3600 - Water collection, treatment and supply	36000 - Water collection, treatment and supply	Manufacturing
2	37 - Sewerage	3700 - Sewerage	37003 - Treatment of waste water or sewer by means of physical, chemical or biological processes	Manufacturing
3	37 - Sewerage	3700 - Sewerage	37001 - The operation and maintenance of sewer systems	Manufacturing
4	37 - Sewerage	3700 - Sewerage	37002 - Collecting and transporting of human or industrial waste water or rain water by means of sewerage networks, collectors, tanks and other means of transport (sewage vehicles etc.)	Manufacturing
5	74 - Other professional, scientific and technical activities	7490 - Other professional, scientific and technical activities n.e.c.	74909 - Other professional, scientific and technical activities n.e.c.	Services

DATE OF UDYAM REGISTRATION: 14/02/2023

\* In case of graduation (upward/reverse) of status of an enterprise, the benefit of the Government Schemes will be availed as per the provisions of Notification No. S.O. 2119(E) dated 26.06.2020 issued by the M/o MSME.

Disclaimer: This is computer generated statement, no signature required. Printed from <https://udyamregistration.gov.in> & Date of printing: 14/03/2023

For any assistance, you may contact:

1. District Industries Centre: AHMEDABAD (GUJARAT)
2. MSME-DFO: AHMEDABAD (GUJARAT)

Visit : [www.msme.gov.in](http://www.msme.gov.in) ; [www.dcmsme.gov.in](http://www.dcmsme.gov.in) ; [www.champions.gov.in](http://www.champions.gov.in)

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Print : Udyam Registration Certificate

भारत सरकार  
Government of India  
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय  
Ministry of Micro, Small and Medium Enterprises

**UDYAM REGISTRATION CERTIFICATE**

UDYAM REGISTRATION NUMBER: UDYAM-GJ-01-0136123

NAME OF ENTERPRISE: ABHINAV ENTERPRISE

TYPE OF ENTERPRISE \*:

SNo.	Classification Year	Enterprise Type	Classification Date
1	2022-23	Micro	26/06/2022
2	2021-22	Micro	08/02/2022

MAJOR ACTIVITY: TRADING  
[For availing benefits of Priority Sector Lending(PSL) ONLY]

SOCIAL CATEGORY OF ENTREPRENEUR: GENERAL

NAME OF UNIT(S):

S.No.	Name of Unit(s)
1	ABHINAV ENTERPRISE

OFFICIAL ADDRESS OF ENTERPRISE:

Flat/Door/Block No.	1/ 2 B	Name of Premises/ Building	LAXMIKUNJ SOCIETY
Village/Town	MUSEUM	Block	NARAYANNAGAR ROAD
Road/Street/Lane	PALDI	City	AHMEDABAD
State	GUJARAT	District	AHMADABAD, Pin 380007
Mobile	9824051537	Email:	chokhavatia@hotmail.com

DATE OF INCORPORATION / REGISTRATION OF ENTERPRISE: 04/12/1980

DATE OF COMMENCEMENT OF PRODUCTION/BUSINESS: 04/12/1980

NATIONAL INDUSTRY CLASSIFICATION CODE(S):

SNo.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity
1	47 - Retail trade, except of motor vehicles and motorcycles	4719 - Other retail sale in non-specialized stores	47190 - Other retail sale in non-specialized stores	Trade

DATE OF UDYAM REGISTRATION: 08/02/2022

In case of graduation (upward/reverse) of status of an enterprise, the benefit of the Government Schemes will be availed as per the provisions of Notification No. S.O. 2119(E) dated 26.06.2020 issued by the M/o MSME.

Disclaimer: This is computer generated statement, no signature required. Printed from <https://udyamregistration.gov.in> & Date of printing: 14/03/2023

any assistance, you may contact:

District Industries Centre: AHMEDABAD (GUJARAT)

MSME-DFO: AHMEDABAD (GUJARAT)

Visit : [www.msme.gov.in](http://www.msme.gov.in) ; [www.dcmsme.gov.in](http://www.dcmsme.gov.in) ; [www.champions.gov.in](http://www.champions.gov.in)

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# WE SERVE IN ALL SECTORS

Agro Chemical Industry

Dairy Industry

Oil Industries

Sugar Industry

Breweries Industry

Engineering Industry

Pesticide Industry

Starch Industry

Cement Industry

Fish Processing Plants

Pharmaceuticals Industry

Soft Drink Industry

Ceramic Industry

Food Industry

Pulp and Paper Industry

Textile Industry

Dye Industry

Mining Industry

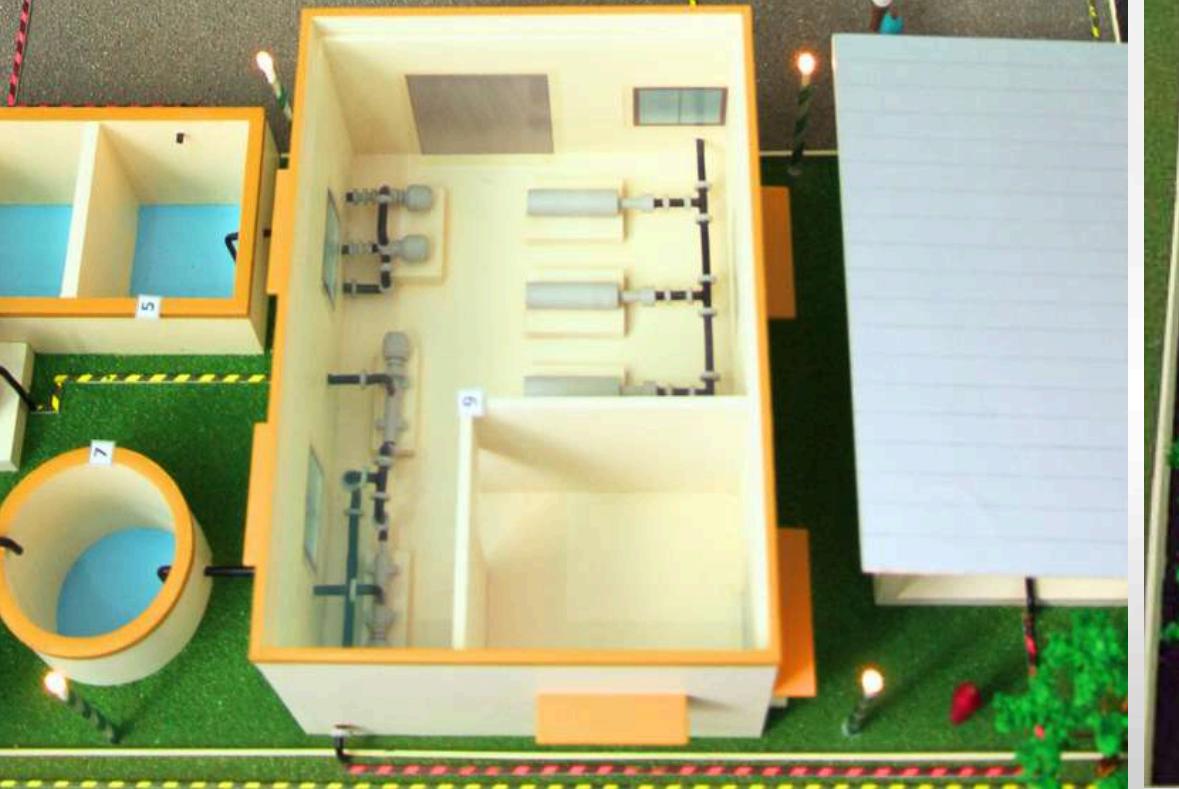
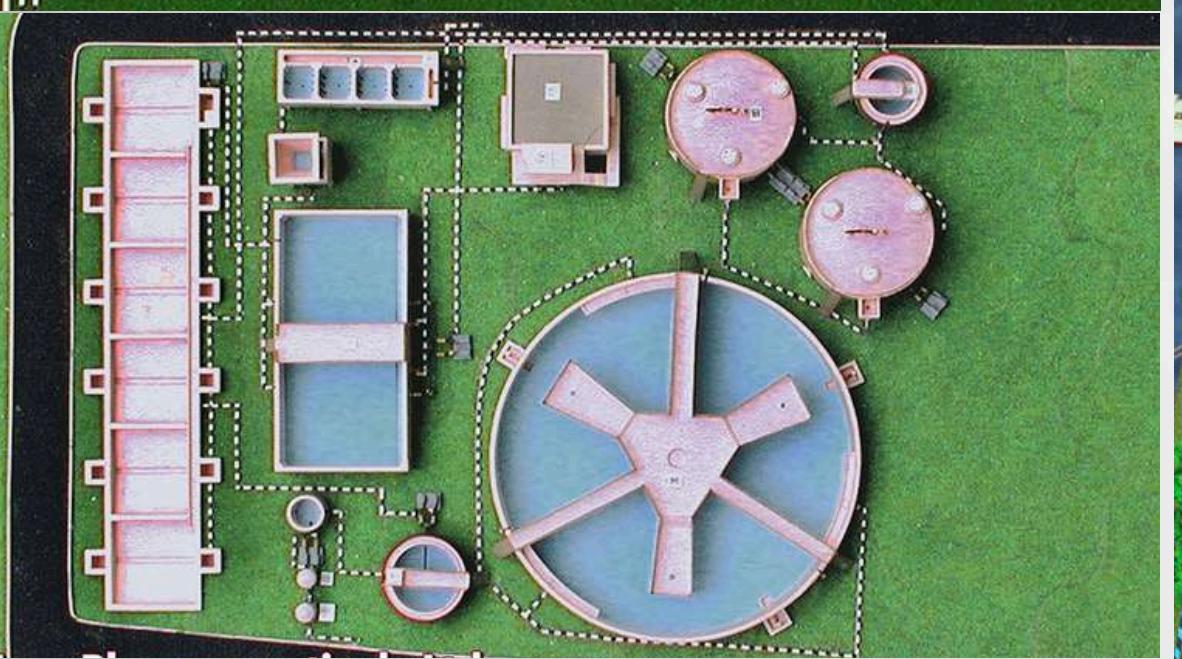
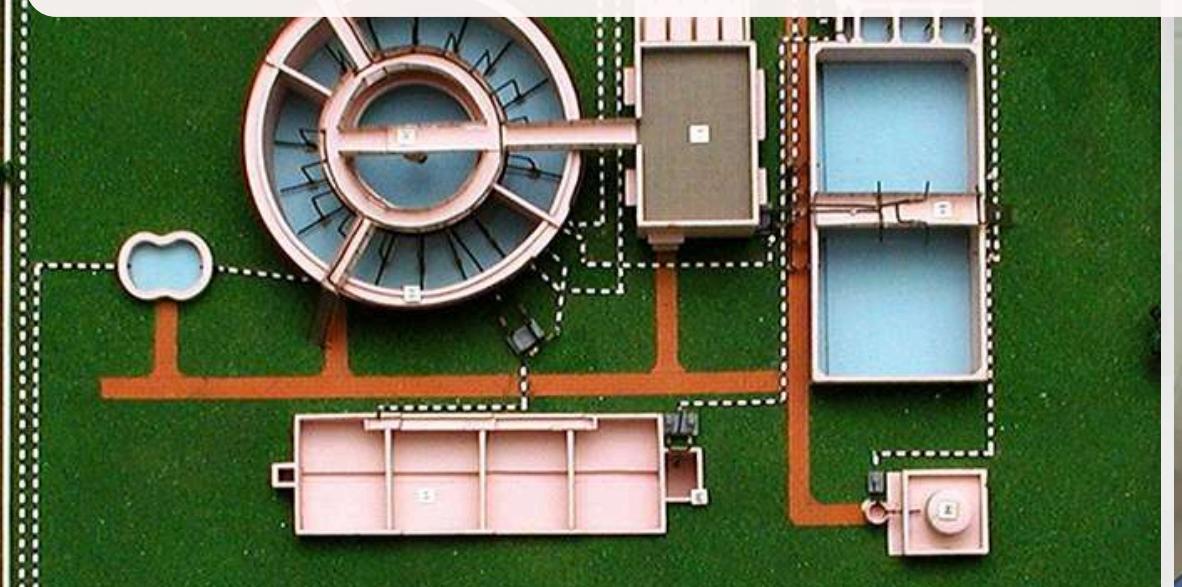
Petro Chemical Industry

Yeast Industry

# OUR CLIENTS



# WASTEWATER TREATMENT PLANT MODELS





INVISIBLE WATER UNITY

ENGINEERING  
MARKETING  
INTERFACE

ENGINEERS AND CUSTOMER  
SERVICE

ON GOING PROJECTS  
ETP | STP | WWTP | BIOGAS

# **400 CMD EFFLUENT TREATMENT PLANT, ERITREA, EAST AFRICA**

**CLIENT NAME :: RED SEA BOTTLES SHARE COMPANY**

## **PROJECT OVERVIEW**

To Carry out Turnkey work for design , Detailed Engineering , Electro - Mechanical supply , Installation , Erection , commissioning and Operation of 400 CMD Effluent Treatment Plant , Red sea bottlers, Eritrea , Africa.

### **TYPE OF WORK**

- To carry out the Consultancy Engineering Services
- Design and Detail Engineering
- Supply of Electro-mechanical Equipment.
- Installation and Commissioning of Effluent Treatment Plant for Coca-Cola Bottling Plant for Red Sea Bottler Share Co. at Asmara, Eritrea, East Africa

### **TYPE OF SERVICES**

- Design and Detailed Engineering
- Detailed Project Report Layout
- Hydraulic Flow Diagram
- Process Flow Diagram
- Piping & Instrumentation Diagram
- General Arrangement Drawings
- Electro-mechanical Supply works as per international standards,
- Installation of Electro-Mechanical works
- Erection of plant
- Commissioning of plant
- Operation of plant

# **FAECAL SLUDGE TREATMENT PLANT - ETHIOPIA**

**CLIENT NAME :: AMHARA WATER AND ENERGY BUREAU**



**Dynamic Planners  
PLC**

## **PROJECT OVERVIEW**

To Carry out Consulting Services for Integrated city-wide sanitation plan, feasibility study, and detailed design of wastewater management system for Ministry of Water and Energy 2nd Urban WSSP through Amhara National Regional State Water & Energy Beuro with, supported by World Bank Group at Ethiopia.

### **TYPE OF WORK**

- Construction Supervision.
- Contract Management.
- Operation and Maintenance.
- Capacity Building of Construction of Faecal Sludge Treatment Plants (FSTPs) for Gondar Dessie and Debebirhan Towns.

### **TYPE OF SERVICES**

- To undertake site survey & feasibility study Polishing Treatment.
- To undertake an Environmental Impact Assessment Study.
- To review the overall design in terms of process flow, design capacity, completeness, and drawing details of FSTP and Conveyance.
- To review Electro mechanical items in the system.
- To assist in material approval, especially in Electro-mechanical items.
- To provide manuals for the Operation and maintenance phase.
- To provide a Bill of quantity work.

# **2 MLD SBR BASED SEWAGE TREATMENT PLANT- MALDIVES**

**CLIENT NAME :: MOHAN MUTHA INFRASTRUCTURE PRIVATE LIMITED FOR  
MALDIVES AIRPORTS COMPANY LIMITED [ MACL ]**



## **PROJECT OVERVIEW**

To carry out the Consultancy Engineering Services along with SCADA system for Sewage Treatment Plant including Pumping Stations.

### **TYPE OF WORK**

- Design and detailed engineering of 2 MLD SBR based Sewage treatment plant along with the pumping stations.

### **TYPE OF SERVICES**

- Design and Detailed Engineering
- Detailed Project Report Layout
- Hydraulic Flow Diagram
- Process Flow Diagram
- Piping & Instrumentation Diagram
- General Arrangement Drawings
- Technical Bid Evaluation for Civil, Mechanical, Electrical & Instrumentation

# **255 MLD WATER TREATMENT PLANT, NIGERIA**

**CLIENT NAME :: PETROEXCEL TECHNOLOGY SERVICES PRIVATE LIMITED FOR  
IBOM DEVELOPERS FZE.**



## **PROJECT OVERVIEW**

To carry out Consultancy Engineering Services along with SCADA system or Water Treatment Plant including Intake Pump House.

### **TYPE OF WORK**

- Design and detailed engineering of 255 MLD Water Treatment Plant along with River water pumping and raw water treatment system.

### **TYPE OF SERVICES**

- Design and Detailed Engineering.
- Detailed Project Report.
- Layout.
- Hydraulic Flow Diagram.
- Process Flow Diagram.
- Piping & Instrumentation Diagram.
- General Arrangement Drawings.
- Technical Bid Evaluation for Civil, Mechanical, Electrical & Instrumentation.

# **200 CMD EFFLUENT TREATMENT PLANT, MAJANJI, UGANDA**

**CLIENT NAME :: TIDAL WAVE LIMITED**

## **PROJECT OVERVIEW**

To carry out Consultancy Engineering Services along with SCADA system or Water Treatment Plant including Intake Pump House.

### **TYPE OF WORK**

- Turnkey Services for 200 CMD Effluent generated from the fish Processing Plant

### **TYPE OF SERVICES**

- Design and Detailed Engineering.
- Detailed Project Report.
- Layout.
- Hydraulic Flow Diagram.
- Process Flow Diagram.
- Piping & Instrumentation Diagram.
- General Arrangement Drawings.
- Supply of electro-mechanical works.
- Installation and Erection of plant.
- Successful Commissioning of the Plant.

# **2 MLD WATER TREATMENT PLANT AT AHMEDABAD**

**CLIENT NAME :: INTAS PHARMACEUTICALS LTD.**



## **PROJECT OVERVIEW**

To carry out Design and detailed engineering including Data collection, site visit, survey, preparation of GA drawing, structural drawing, cost estimation, tender documents.

## **TYPE OF SERVICES**

- Design.
- Details Engineering.
- Supply of Electro Mechanical equipment.
- Periodic construction supervision.

## **UNITS OF WATER TREATMENT**

- Collection Sump.
- Aeration Fountain.
- Flash Mixer.
- Clari flocculator.
- Rapid Sand Filter.
- Clerical strom water.

# **200 KLD COMMON EFFLUENT TREATMENT PLANT AT JAMNAGAR**

**CLIENT NAME :: ELECTROPLATERS ENVIRO ASSOCIATION**

**COMPLETION YEAR :: 2022**

## **PROJECT OVERVIEW**

- To carry out Consultancy Engineering Services , Collection , Conveyance , Preliminary Treatment , Physico-chemical treatment and Sludge Dewatering System.

## **PROVIDED SERVICES**

- Composite sampling and analysis of the effluent for the relevant parameters.
- Quantification, characterization and calculation of effluent plant capacity and pollution load.
- Finalization of treatment scheme with treatment units and equipment.
- Preparation of Bill of Quantities (BOQ) and estimation of construction cost.
- Basic and Detailed Engineering design of the units and equipment including Detailed Equipment specifications, Designs and Drawings of Construction.
- Cost Estimate.

# BIOGAS PROJECTS

ETP | STP | WWTP | BIOGAS

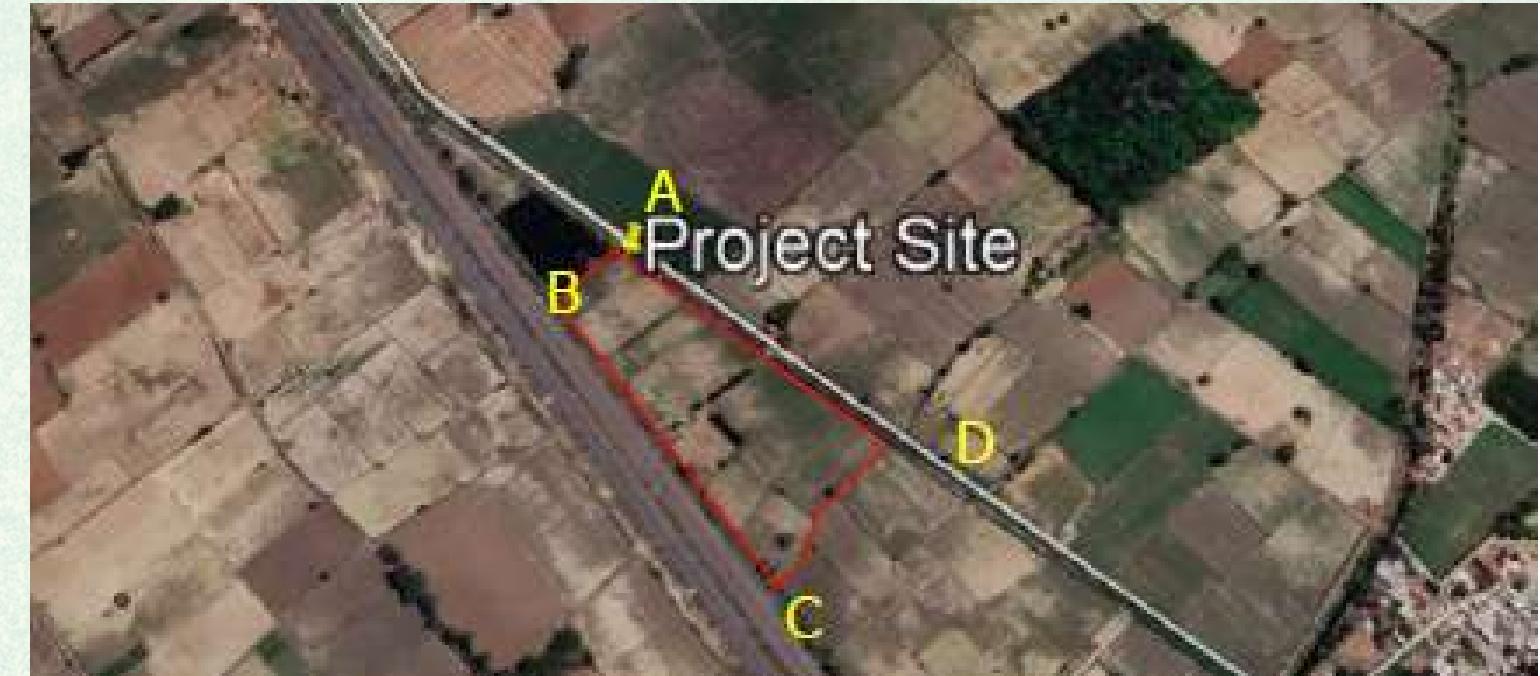


# **PALM GREEN PROJECTS PVT LTD**

**PROJECT :: CATTLE DUNG-BASED CBG PLANT.**

**BIOGAS GENERATION :: 25000 CU.M.**

**BIOGAS CAPACITY :: 4.5 TPD**



## **BRIEF DESCRIPTION OF PROJECT**

- The proposed project is being set up to generate CBG from the cattle dung using the anaerobic process for the degradation of cattle dung.
- This is generally a mixture of various gases depending on the chemical characteristic of the raw materials.
- However, 60 to 70 % of the gas produced is methane which can be collected and used as an energy source to generate heat, electricity, and CBG.
- Sludge and dry compost are the byproducts of the process, which can be sold separately.

## **PROVIDED SERVICES**

- Preparation of Detailed Project Report.
- Consultancy Service for Cattle Dung Based CBG.

## **RAW MATERIAL AVAILABILITY AND CHARACTERISTICS**

- The raw material for this proposed project is cattle dung as well as agricultural residues.
- The available feed for the proposed project will be 200 MT/day.

# **TIRHUTA URJA UDYOG PVT. LTD**

**PROJECT :: NAPIER GRASS BASED CGB PLANT & COW DUNG.**

**BIOGAS GENERATION :: 3000 KG/DAY.**

**BIOGAS CAPACITY :: 3 TPD.**

## **BRIEF DESCRIPTION OF PROJECT**

- The proposed project is being set up to generate CBG from the Napier & cattle dung using the anaerobic process for the degradation of the food stock.
- This is generally a mixture of various gases depending on the chemical characteristic of the raw materials.
- However, 60 to 70 % of the gas produced is methane which can be collected and used as an energy source to generate heat, electricity, and CBG.
- Sludge and dry compost are the byproducts of the process, which can be sold separately.

## **PROVIDED SERVICES**

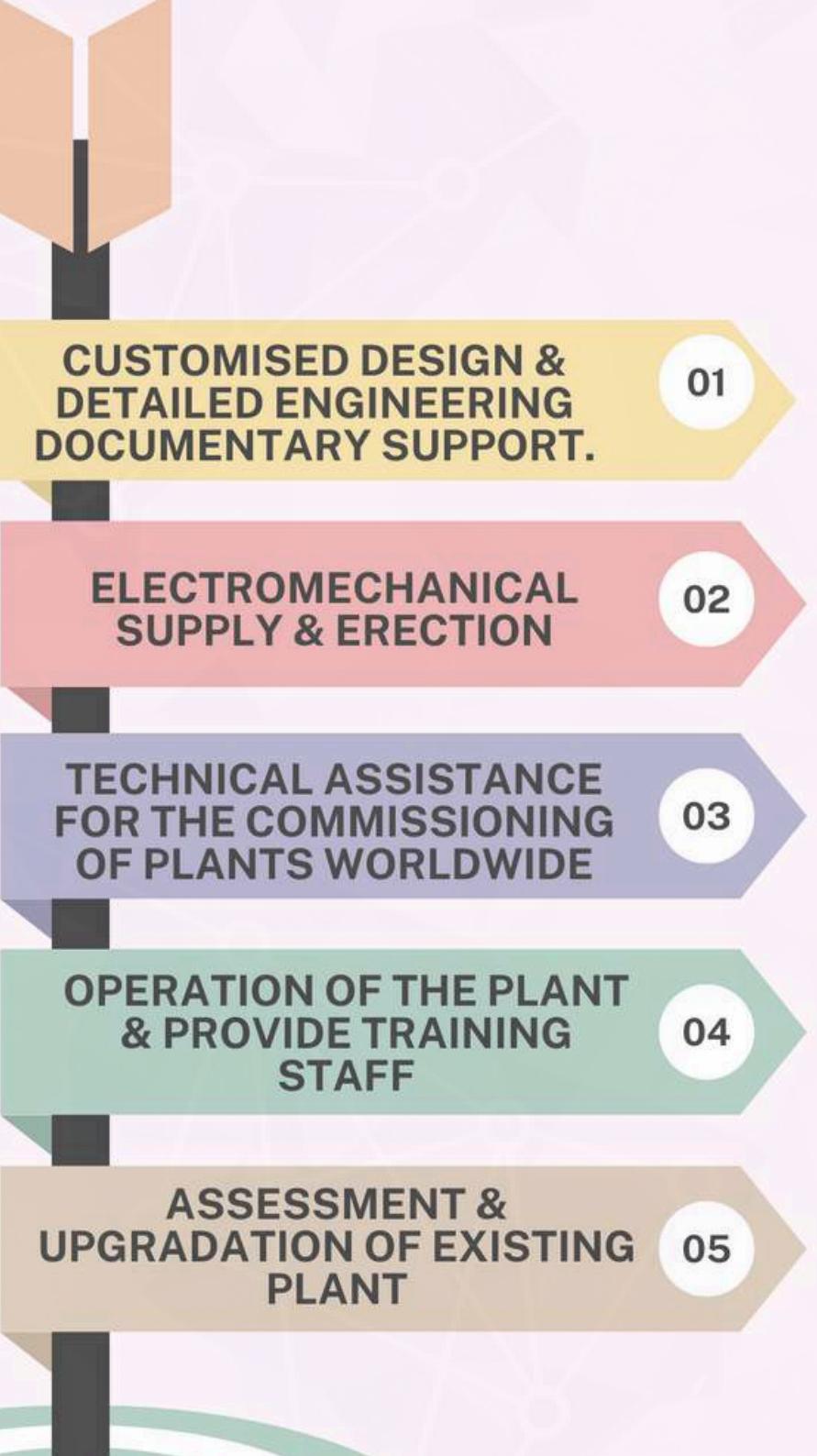
- To check the adequacy of the supplied design the cbg Plant for 3 ton Capacity with basis of raw material consuption , cbg production , method of pre - treatment of the feed-stock , capacity of the solid mass generation.
- Preparation of due diligence repair ,covering all the activities.

## **RAW MATERIAL AVAILABILITY AND CHARACTERISTICS**

- The raw material for this proposed project is Napier Grass as well as Dung.
- The available feed for the proposed project will be 70 MT/day.

# SCOPE OF SERVICES

## INTERNATIONAL STANDARDS



- 01 CUSTOMISED DESIGN & DETAILED ENGINEERING DOCUMENTARY SUPPORT.
- 02 ELECTROMECHANICAL SUPPLY & ERECTION
- 03 TECHNICAL ASSISTANCE FOR THE COMMISSIONING OF PLANTS WORLDWIDE
- 04 OPERATION OF THE PLANT & PROVIDE TRAINING STAFF
- 05 ASSESSMENT & UPGRADATION OF EXISTING PLANT

PROJECT COMPLETION

Ensuring works as per International Standards

# INTERNATIONAL PROJECTS

ETP | STP | WWTP | BIOGAS

# **TURNKEY SERVICES FROM CONCEPT TO COMMISSIONING AND OPERATION FOR EFFLUENT TREATMENT PLANT**

**CLIENT'S NAME :: PWANI OIL MILLS LIMITED | MOMBASA | KENYA**

**TYPES OF PRODUCT :: EDIBLE OILS**

**FLOW :: 500 CU.M/DAY**



## **TYPE OF SERVICES**

- Design.
- Details Engineering.
- Supply of Electro - Mechanical equipment.
- Periodic construction supervision.
- Commissioning and Operation of Plant.

## **RAW EFFLUENT PARAMETER**

- Ph : 4-10.
- COD : 15000 mg/l.
- BOD : 7000 mg/l.
- Suspended Solids : 1300 mg/l.
- TDS : 7000 mg/l.
- Oil & Grease : 2000 mg/l.

## **TREATED EFFLUENT PARAMETER**

- Ph : 6.5 to 8.0.
- COD : < 150 mg/l.
- BOD : < 30 mg/l.
- Suspended Solids : < 30 mg/l.
- TDS : 8000 mg/l.
- Oil & Grease : NIL.

## **UNITS OF WATER TREATMENT**

- Collection Sump.
- Aeration Fountain.
- Flash Mixer.
- Clari flocculator.
- Rapid Sand Filter.

EFFLUENT TREATMENT PLANT

**PWANI OIL MILLS LIMITED – MOMBASA, KENYA**



## **TYPES OF PRODUCT :: CONSTRUCTION OF CHEMICAL COMPLEX FOR PRODUCTION OF COMPLEX MINERAL FERTILIZERS IN SAMARKAND REGION WASTEWATER TREATMENT STATION**

### **PROJECT OVERVIEW**

To carry out Calculations, Process Design, Engineering, Consultancy, and Process Design Guarantee of Effluent Treatment Plant for Construction of Chemical Complex For Production of Complex Mineral Fertilizers In the Samarkand Region Treatment station are to be put up for the production of the complex mineral fertilizers to be constructed in Samarkand, Republic of Uzbekistan.

### **CONSULTANCY INCLUDED THE FOLLOWING WORKS**

- Design Bases
- Mass Balance report
- Mass Balance Sheet
- Line Diagram
- Layout
- Piping & Instrumentation Drawings
- General Arrangement Drawings

- Type of industry: **Fruit Juice**

**Parameters :**

- Activated Sludge Process
- Flow: 450 cu.m/day
- Raw Effluent COD 5000 mg/l
- Treated Effluent COD 100 mg/l

**Supply Cost:**

- Total Cost USD 0.38 Million.
- Commissioned in 2015.

- Type of industry: **Pharmaceuticals Industry**

**Parameters :**

- Activated Sludge
- Flow: 300 cu.m/day
- Raw Effluent COD 30000 mg/l
- Treated Effluent COD 1000 mg/l

**Supply Cost:**

- Total Cost USD 1.0 Million.
- Commissioned in 1992.

- Type of industry: **Soft Drinks**

**Parameters :**

- Activated Sludge Process
- Flow: 100 cu.m/day
- Raw Effluent COD 1500 mg/l
- Treated Effluent 60 mg/l

**Supply Cost:**

- Total Cost USD 0.16 Million.
- Commissioned in 2012.

- Type of industry: **Food Industry.**

**Parameters :**

- Activated Sludge
- Flow: 175 cu.m/day
- Raw Effluent COD 1200 mg/l
- Treated Effluent COD 100 mg/l

**Supply Cost:**

- Total Cost BD 5.0 Million.
- Commissioned in 2007.

## NYANZA BOTTLING LIMITED, MWANZA, TANZANIA

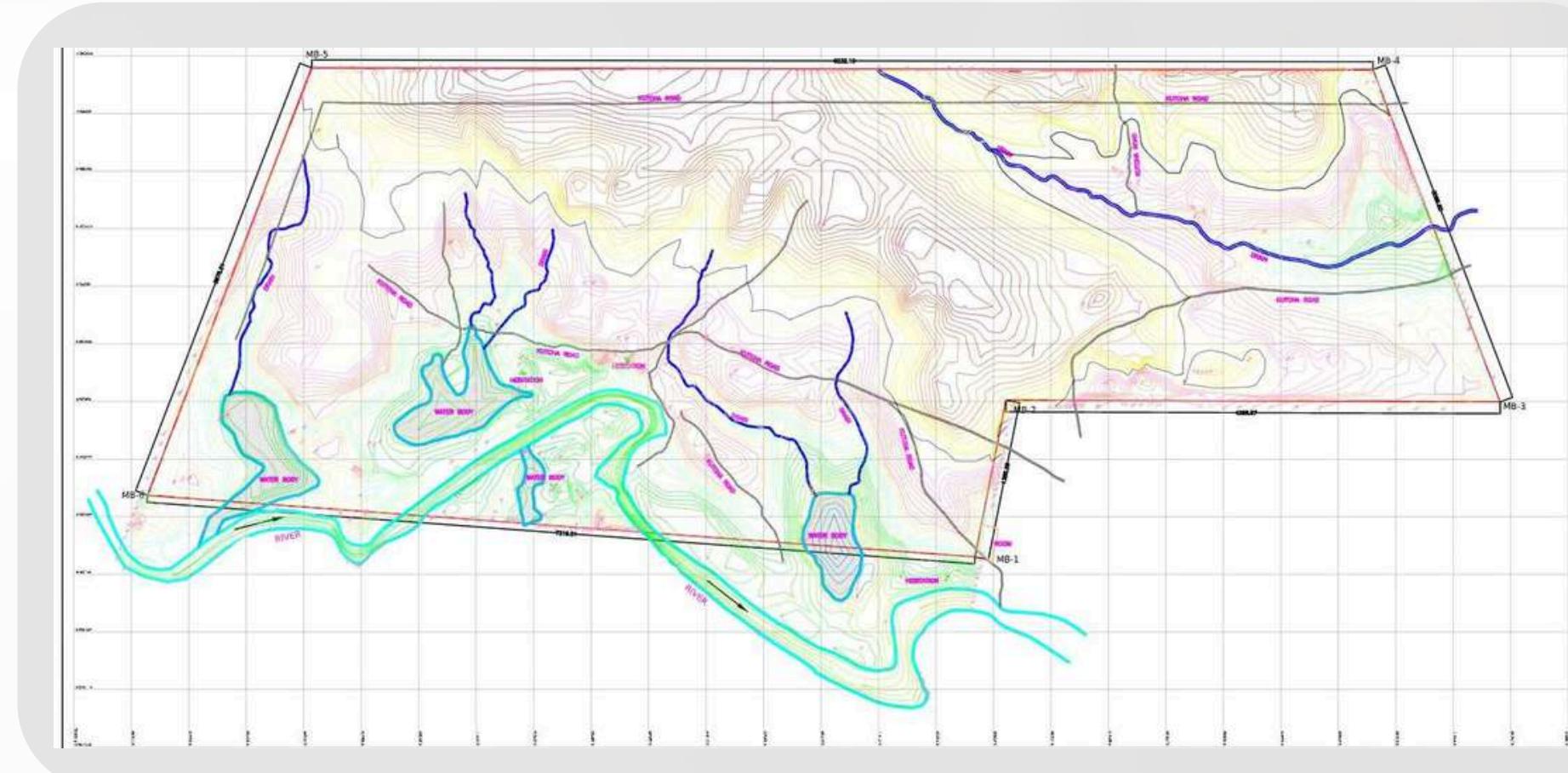
- Type of industry: **Soft Drink Industry**

### Parameters :

- Activated Sludge
- Flow: 800 cu.m/day
- Raw Effluent COD 1500 mg/l
- Treated Effluent COD 60 mg/l

### Supply Cost:

- Total Cost USD 0.18 Million.
- Commissioned in 2008.



## STORM WATER MANAGEMENT AND COLLECTION OF FLOOD WATER FOR IRRIGATION PURPOSE

- Client : **Temba Global Industries**
- Location : **East Africa**
- Total Area: 35 sq. km.
- Total Water Requirement: 180 MLD
- Total Project Cost: Rs. 6700 million

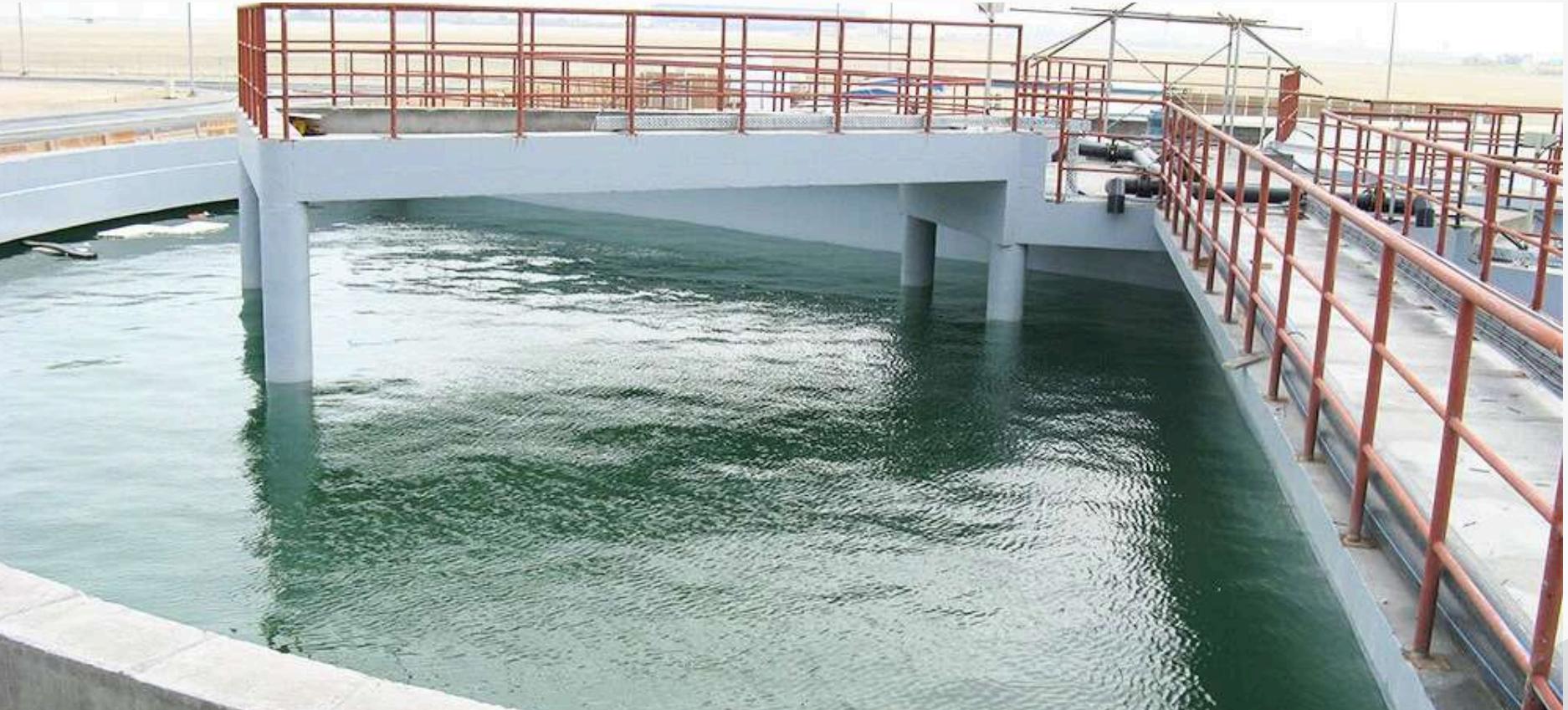
- Type of industry: **Dairy Industry.**

## Parameters :

- Activated Sludge
- Flow: 500 cu.m/day
- Raw Effluent: COD 5000 mg/l
- Treated Effluent: COD 50 mg/l

## Supply Cost:

- Total Cost: USD 0.28 Million.
- Commissioned in 2008.



- Type of industry: **Beer Industry.**

## Parameters :

- Activated Sludge.
- Flow: 1200 cu.m/day.
- Raw Effluent: COD 4000 mg/l.
- Treated Effluent : COD 100 mg/l.

## Supply Cost:

- Total Cost USD 0.3 Million.
- Commissioned in 2010.



# UNITED BOTTLING COMPANY, SOMALIA

- Type of industry: **Soft Drink Industry.**

## Parameters :

- Activated Sludge
- Flow: 100 cu.m/day .
- Raw Effluent : COD 1500 mg/l.
- Treated Effluent : COD 60 mg/l.

## Supply Cost:

- Total Cost USD 0.16 Million.
- Commissioning in 2012.



# SOMALILAND BEVERAGE INDUSTRY, SOMALILAND

- Type of industry: **Soft Drinks.**

## Parameters :

- Activated Sludge
- Flow: 250 cu.m/day.
- Raw Effluent: COD 1500 mg/l.
- Treated Effluent: COD 60 mg/l.

## Supply Cost:

- Total Cost USD 0.22 Million.
- Commissioned in 2013.



# INTERNATIONAL FISH PROCESSING PLANT PROJECTS

## 1. KENGAD LIMITED AT BUKAKATA, AFRICA. ( INTERNATIONAL )

- Total Project Cost: Rs. 2.8 Million
- Completion year :: 2005
- Design Flow :: 300 cu.m/day

### Raw Effluent Parameters

- pH : 7
- COD : 2200 mg/l

### Treated Effluent Parameters

- pH : 7
- COD : 60 mg/l

## 2. Kengad Limited at Majanji, Africa. ( INTERNATIONAL )

- Total Project Cost: Rs. 2.8 Million
- Completion year : 2005
- Design Flow : 300 cu.m/day

### Raw Effluent Parameters :

- pH : 7
- COD : 2200 mg/l

### Treated Effluent Parameters :

- pH : 7
- COD : 60 mg/l

## 3. Kengad Limited at Tampa, Uganda. ( INTERNATIONAL )

- Total Project Cost: Rs. 26.0 Million ( USD 40000 ).
- Completion year : 2006.
- Design Flow : 100 cu.m/day

### Raw Effluent Parameters :

- pH : 7
- COD : 7700 mg/l

### Treated Effluent Parameters :

- pH : 7
- COD : 30 mg/l

## 4. Oakwood Invest Limited at Kasaksaro ( INTERNATIONAL )

- Total Project Cost: Rs. 26.0 Million( USD 40000 )
- Completion year : 200
- Design Flow : 250 to 400 cu.m/day

### Raw Effluent Parameters

- pH : 7
- COD : 2200 mg/l

### Treated Effluent Parameters

- pH : 7
- COD : 60 mg/l

## 5. Wild Catch Fisheries Limited at Butiaba, Africa ( INTERNATIONAL )

- Total Project Cost: Rs. 26.0 Million( USD 40000 )
- Completion year : 2007
- Design Flow : 300 cu.m/day

### Raw Effluent Parameters :

- pH : 7
- COD : 2200 mg/l

### Treated Effluent Parameters :

- pH : 7
- COD : 60 mg/l

## 6. Wild Catch Fisheries Limited at Butiaba, Africa ( INTERNATIONAL )

- Total Project Cost: Rs. 2.8 Million
- Completion year : 2007
- Design Flow : 300 cu.m/day

### Raw Effluent Parameters :

- pH : 7
- COD : 2200 mg/l

### Treated Effluent Parameters :

- pH : 7
- COD : 60 mg/l



# COMPLETED PROJECTS

ETP | STP | WWTP | BIOGAS

# PANCHAMRUT DAIRY – UJJAIN



**TYPES OF PRODUCT :: MILK PROCESSING AND DAIRY PRODUCTS**

**FLOW :: 500 CU.M/DAY**

## **PROJECT OVERVIEW**

The Panchmahal Milk Union has built its own brand product "Panchamrut" Milk, Ghee, Buttermilk within the district and selling its products like Milk, Ghee, Butter, Skim Milk Powder, Flavoured Milk and Shrikhand outside the District in the name of AMUL through GCMMF. To treat the wastewater, the Dairy has put up an effluent treatment plant consisting of primary, secondary treatment facilities, polishing treatment and sludge handling facilities.

## **PROVIDED SERVICES**

- Design
- Detailed Engineering
- Tender Preparation

## **TREATMENT UNITS**

- Traveling Bridge Oil Skimmer
- Physicochemical Treatment
- Anaerobic Treatment
- Polishing Treatment
- Biological Treatment

### **Raw Effluent Parameter**

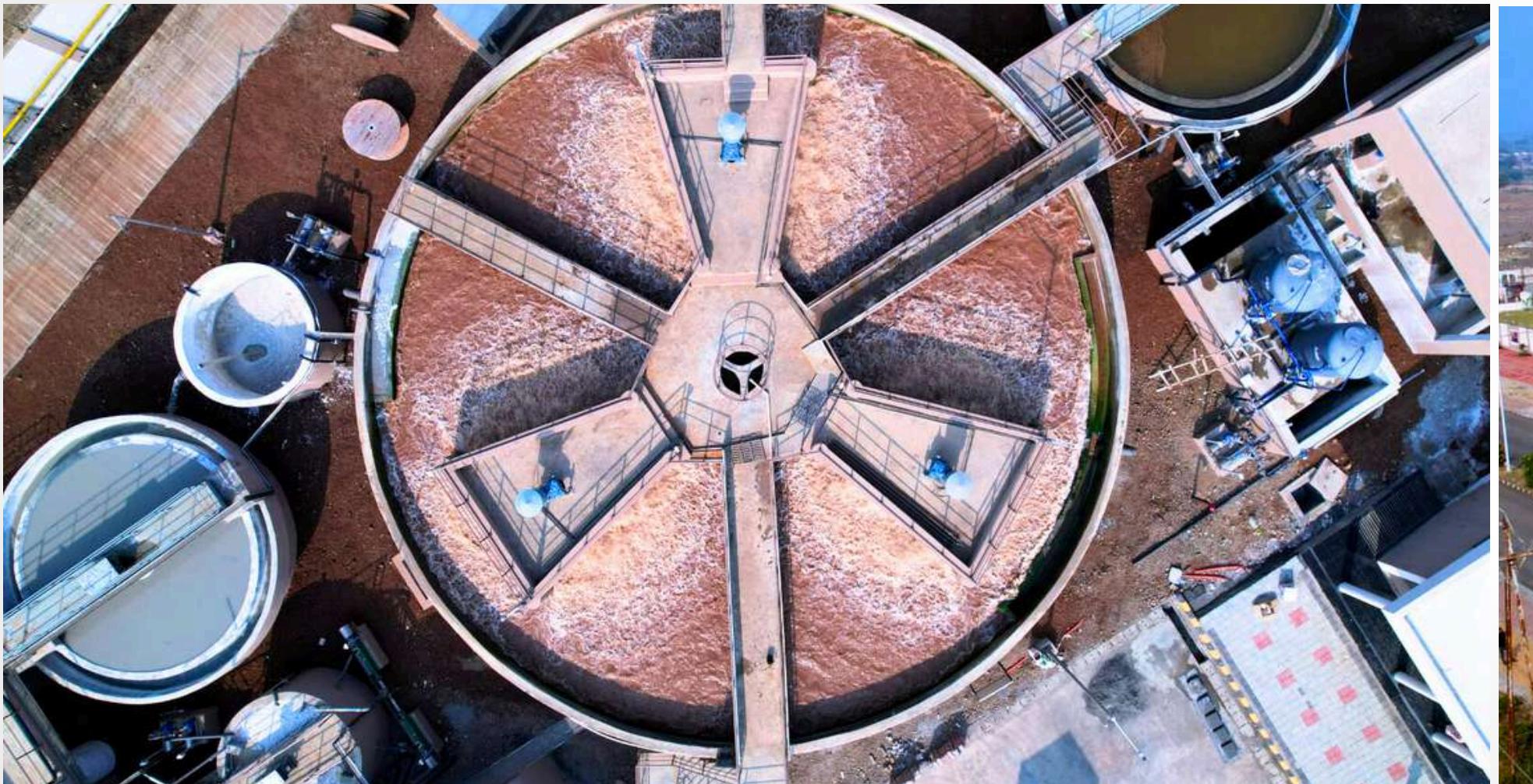
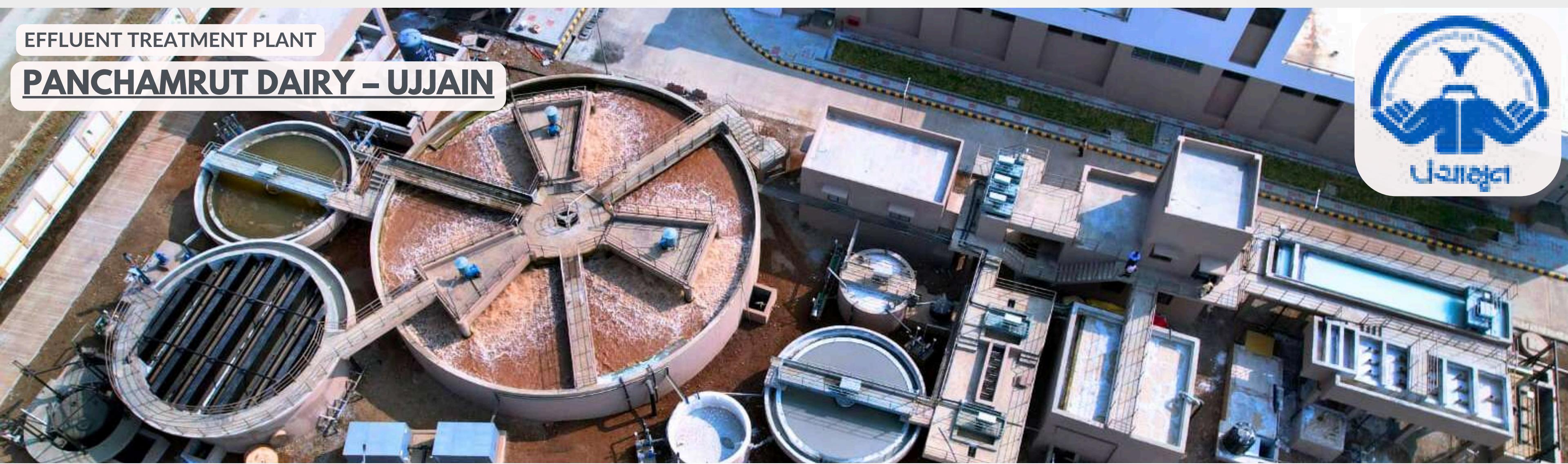
PH	4 TO 10
COD	7000 MG/L
BOD	4000 MG/L
SUSPENDED SOLIDS	1000 MG/L
OIL & GREASE	300MG/L

### **Treated Effluent Parameter**

PH	6.5 TO 8.0
COD	< 100 MG/L
BOD <sub>3</sub> @27° C	< 30 MG/L
SUSPENDED SOLIDS	< 100 MG/L
OIL & GREASE	< 10 MG/L

EFFLUENT TREATMENT PLANT

## PANCHAMRUT DAIRY – UJJAIN



# **PANCHAMRUT DAIRY | FATEPURA**

**TYPES OF PRODUCT :: CHILLING CENTRE**

**FLOW :: 20 KL/DAY**



## **PROVIDED SERVICES**

- Design
- Detailed Engineering
- Tender Preparation
- Supply of pre-fabricated ETP
- Erection
- Testing
- Commissioning of Effluent Treatment

## **TREATMENT UNITS**

- Physicochemical Treatment
- Polishing Treatment
- Biological Treatment

### **Raw Effluent Parameters**

<b>pH</b>	<b>7-8</b>
<b>Suspended Solids</b>	<b>200 mg/l</b>
<b>BOD</b>	<b>200 mg/l</b>
<b>COD</b>	<b>600 mg/l</b>
<b>OIL &amp; GREASE</b>	<b>50 mg/l</b>

### **Treated Effluent Parameters**

<b>pH</b>	<b>8</b>
<b>Suspended Solids</b>	<b>10 mg/l</b>
<b>BOD</b>	<b>10 mg/l</b>
<b>COD</b>	<b>50 mg/l</b>
<b>Oil &amp; grease</b>	<b>&lt; 10 mg/l</b>

EFFLUENT TREATMENT PLANT

## PANCHAMRUT DAIRYI – FATEPURA



- Raw Effluent Quantity: **1000 cu.m/day.**

Raw Effluent Characteristics	
PH	6 TO 7.5
COD	20000 MG/L
BOD	10000 MG/L
TDS	5000 MG/L
SUSPENDED SOLIDS	300 MG/L
AMMONICAL NITROGEN	200 MG/L

Treated Effluent Characteristics	
PH	6 TO 7.5
COD	20000 MG/L
BOD	10000 MG/L
TDS	5000 MG/L
SUSPENDED SOLIDS	300 MG/L
AMMONICAL NITROGEN	200 MG/L

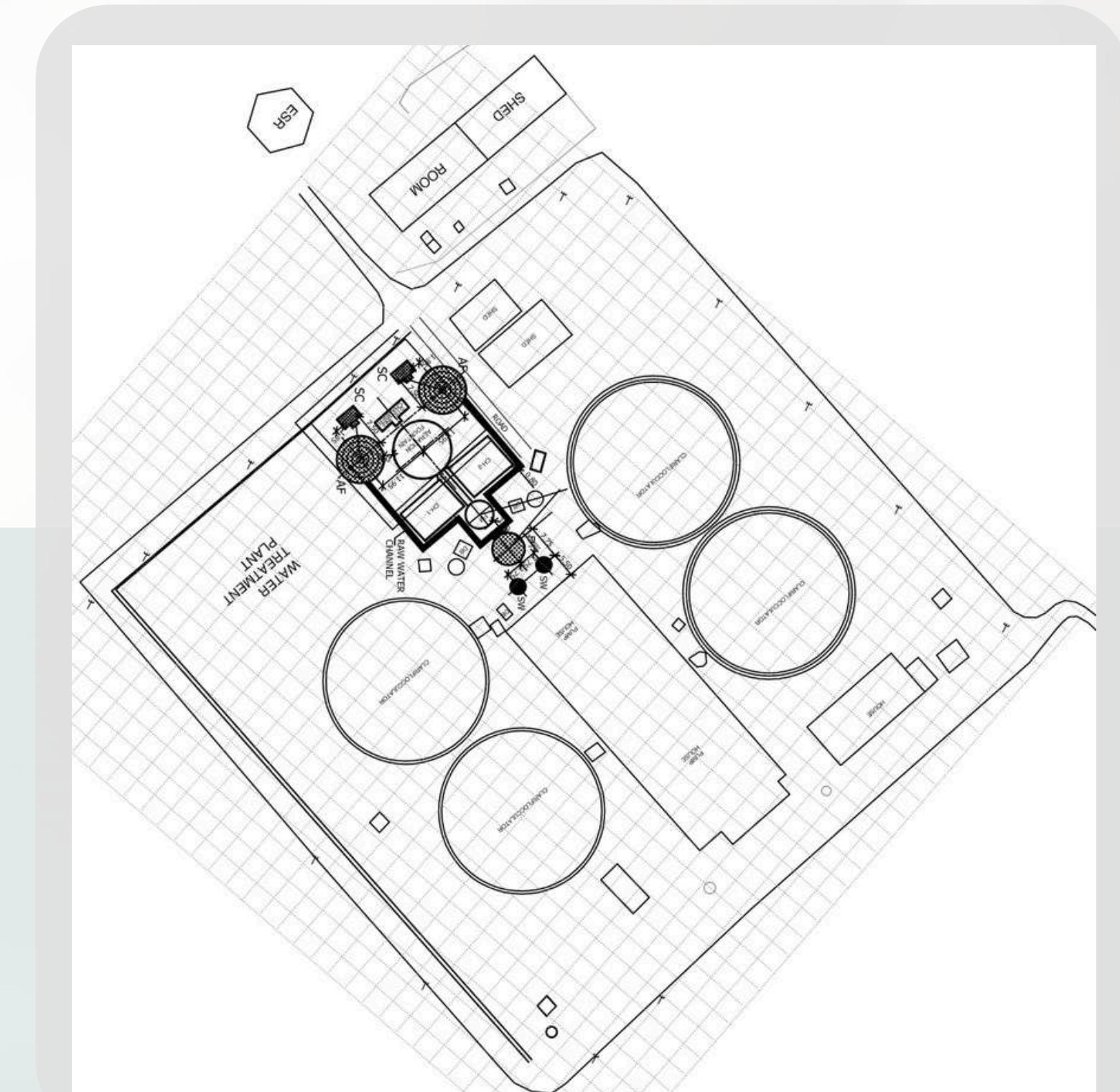


# **H. N. CONSTRUCTION, BOKARO, JHARKHAND.**

- PROJECT :: AUGMENTATION OF RAW WATER INTAKE SYSTEM OF BOKARO STEEL CITY
- FLOW FOR RAW WATER CONVEYANCE :: 27 MGD
- FLOW FOR AUGMENTATION OF WTP :: 24 MGD TO 27 MGD
- RAW WATER INTAKE :: POND
- RAW WATER CONVEYANCE LENGTH :: 8 KM
- DIA. OF RAW WATER PIPE :: 800 MM DIA. PIPE
- MOC OF RAW WATER PIPE :: SPIRALLY WELTED CRLA MS PIPE

## **UNITS OF WATER TREATMENT PLANT**

- Stilling Chamber
- Aeration Fountain
- Flash Mixer
- Side well
- Conveyance Line
- Connecting Chamber



# PREFABRICATED PACKAGED TREATMENT PLANT, FATEPURA – 30 KL STP



## Pre-fabricated ETP – STP

**The Panchmahal District Milk Producers Union Limited, Fatepura, Panchmahal [Wastewater Treatment Plant – 20 KL per day]**

**Groz Beckert Asia Private Limited, Chandigarh, Punjab [Sewage Treatment Plant – 50KL per day]**

**Gujarat Themis biosyn limited, Vapi, Gujarat [Sewage Treatment Plant – 60 KL per day]**

# **BALCO | VEDANTA GROUP**

- CLIENT NAME: BHARAT ALUMINUM COMPANY LIMITED ( BALCO )
- LOCATION: KORBA, CHHATISGARH, INDIA
- TOTAL WASTEWATER: 4000 CU.M/DAY
- TOTAL CONVEYANCE LENGTH: 7 KM



## **PROJECT OVERVIEW**

Collection and conveyance of wastewater separated from the Ash dyke and re-use the water at power plant.



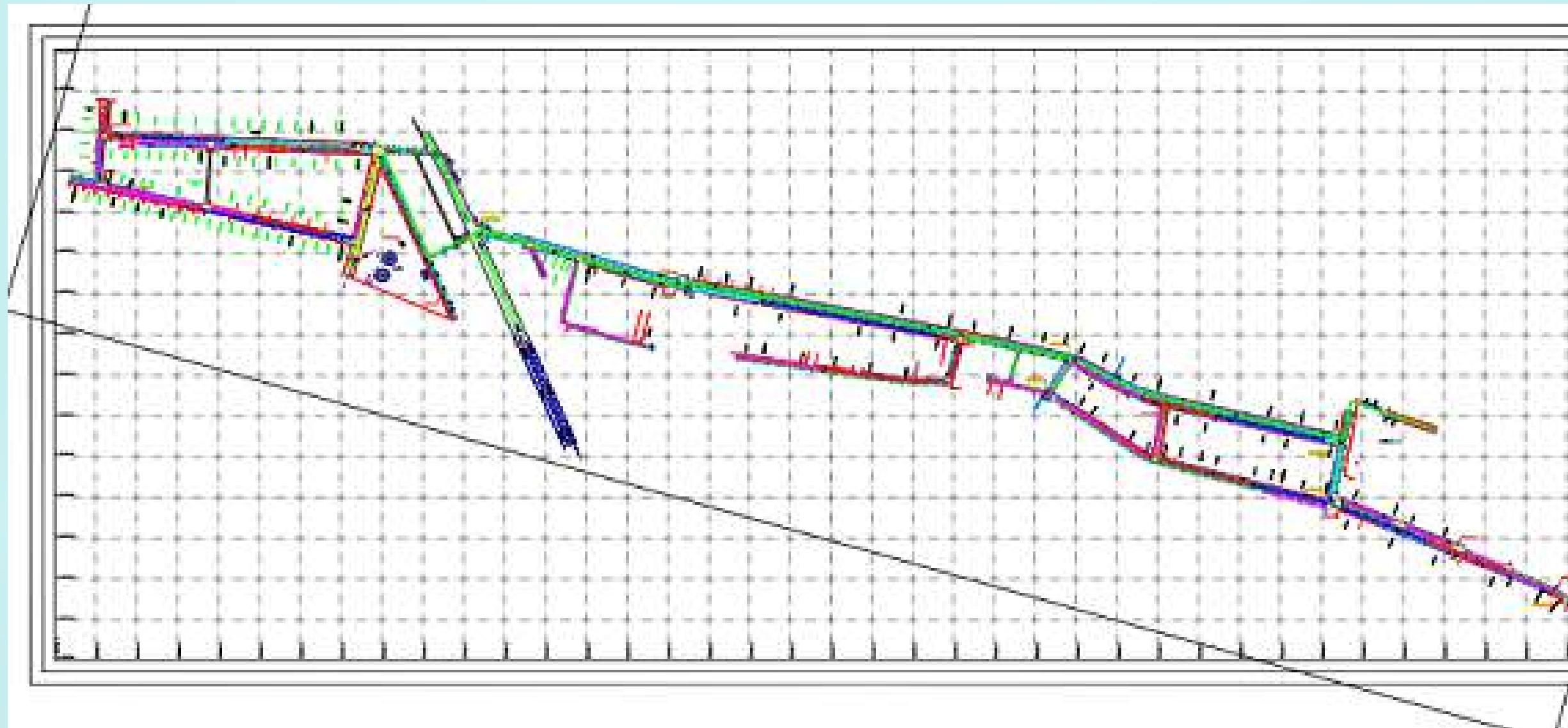
# **TRIVENI ENGINEERS**

- CLIENT NAME: TRIVENI ENGINEERS ( TEIL )
- LOCATION: PALI, RAJASTHAN, INDIA
- TOTAL WASTEWATER: 1300 CU.M/DAY
- TOTAL CONVEYANCE LENGTH: 10.50 KM



## **PROJECT OVERVIEW**

Collection and conveyance of treated water from the CETP and re-use the water to the industrial members.



# SOLID WASTE MANAGEMENT : GLIA (LODHIKA) INDUSTRIAL ASSOCIATION

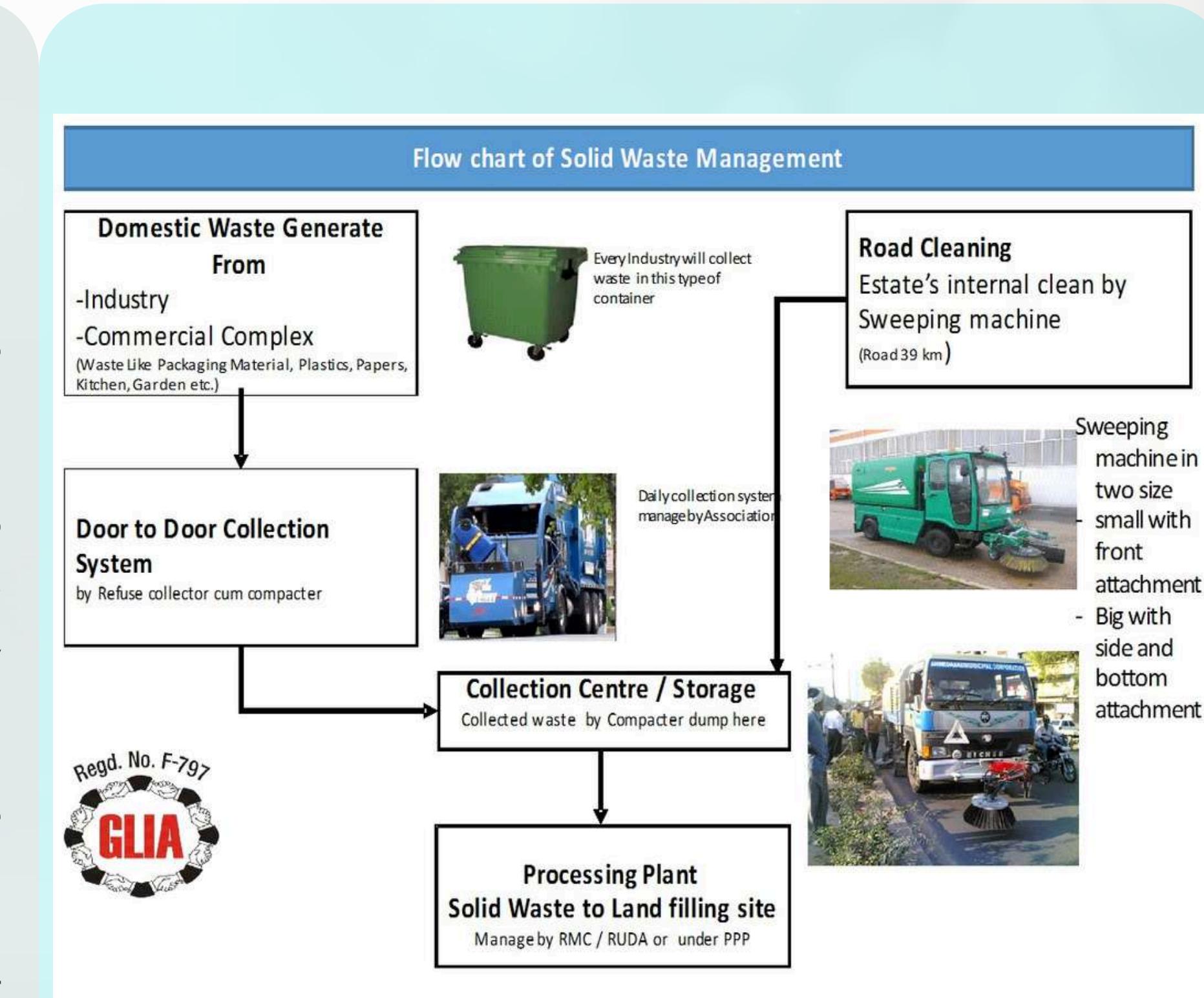
- SOLID WASTE GENERATION: 26.8 MT/DAY

## PROVIDED SERVICES

- Preparation of Detailed Project Report.

## BRIEF DESCRIPTION OF THE PROJECT

- For a collection of solid waste from the source, modern transport vehicles have been proposed for waste collection, volume reduction, and transportation.
- The design has also been developed for waste to compost plants. For design due consideration has been given to the basis of compost plant design, curing shed, compost drying area, sizing and refinement tower, packing and baggage area, finished product go-down, control room, administrative building, roads and other facilities, water supply and sprinkling system, electric power, weighbridge, green belt, and garden area, compost rejects, etc The cost estimates are prepared and area requirement worked out.



# **CONVEYANCE OF TREATED EFFLUENT TO DEEP-SEA DISPOSAL OF JETPUR DYING AND PRINTING ASSOCIATION AT JETPUR**

- **CLIENT'S NAME :: JETPUR DYING AND PRINTING ASSOCIATION**
- **APPROVED BY GOVT. AUTHORITY:: GPCB & GWIL**
- **TYPES OF INDUSTRIES :: TEXTILE INDUSTRIES**
- **FLOW :: 80 MLD**
- **TOTAL PROJECT COST :: 700 CR. INR.**
- **YEAR :: 2020**

## **PROVIDED SERVICES**

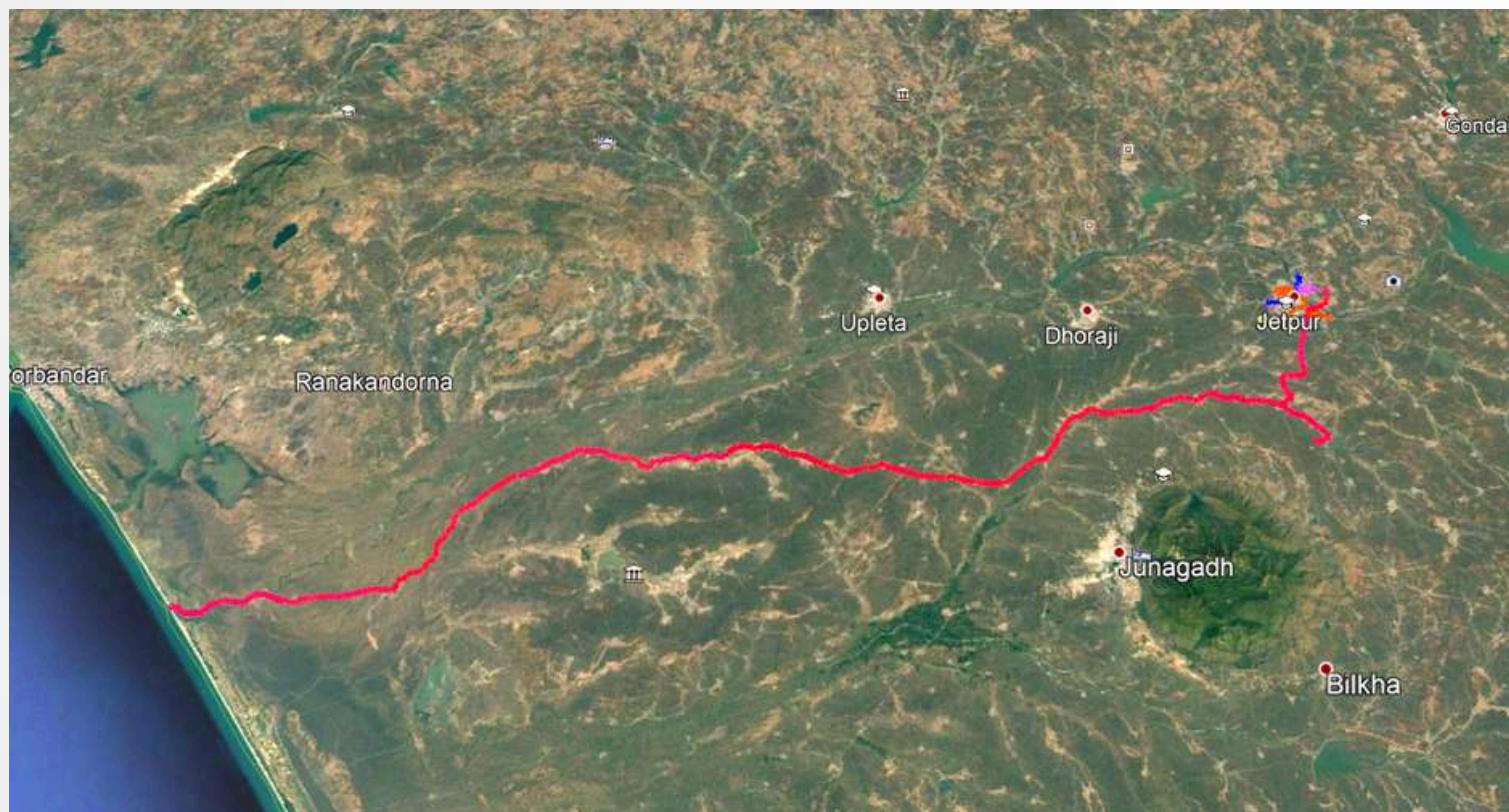
- Detailed Project Report.
- Pipeline Alignment Selection.
- Topographical & Cadastral Survey.
- Longitudinal Section Drawing.
- Selection Criteria of MOC.
- Design & Engineering of Civil.
- The pipeline, Electro-Mechanical, PLC & SCADA.
- Bill of Quantity & Estimate.
- Operation & Maintenance Contract.
- Co-ordination with Marine Works.
- Project Coordination with Various Government Department and their Consultant for Project Approval.

## **TREATMENT UNITS**

- 133 km On-shore & 12 km off-shore pipeline.
- Common Stamp for Collection of Treated Effluent from 3 nos. of CETP.
- Head Works with Arrangement of Sump, Pump House, Switch Board, Service Building, and Infrastructure Facilities.
- List of Crossing and its Permissions.
- Thrust Blocks & Anchor Blocks.

# CONVEYANCE OF TREATED EFFLUENT TO DEEP-SEA DISPOSAL OF JETPUR DYING AND PRINTING ASSOCIATION AT JETPUR

CETP	BOD mg/l	COD mg/l	SS mg/l	DS mg/l
JETPUR	100	250	100	3000
MONPAR DERDI	100	250	100	3000
BHAT GAM	30	100	50	>5000



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**TREATED EFFLUENT FROM 3 NOS. OF  
CETP**

# CONVEYANCE OF TREATED EFFLUENT TO DEEP-SEA DISPOSAL OF JETPUR DYING AND PRINTING ASSOCIATION AT JETPUR



# **STP 66 MLD FOR MSK ENGINEERING LIMITED FOR VADODARA MUNICIPAL CORPORATION AT VADODARA**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Assistance in Construction Supervision and Erection
- Commissioning
- Operation & Maintenance For 5 years

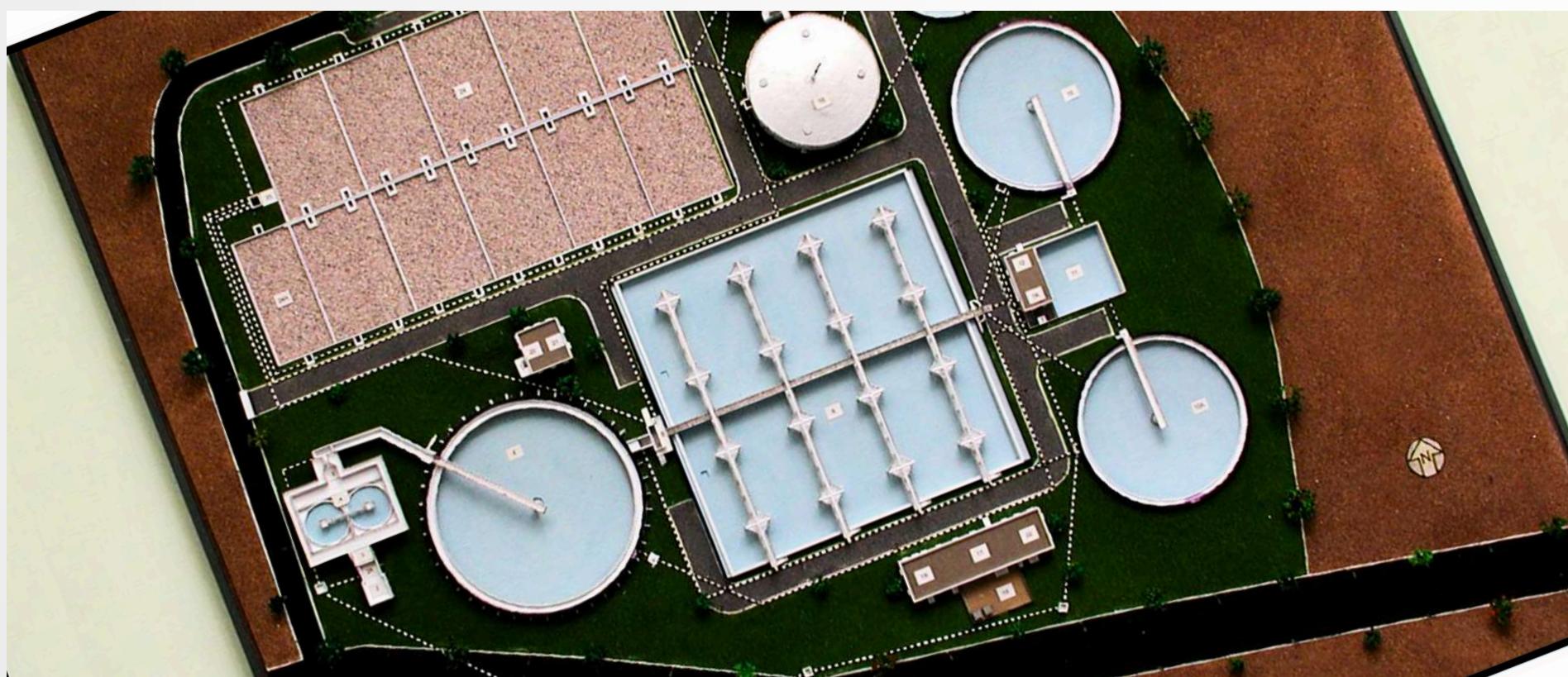
## **TREATMENT UNITS**

- Collection Sump
- Screen Channel
- Grit Chamber
- Primary Clarifier
- Biological Activated Sludge Process
- Chlorination
- Anaerobic Digester with Gas mixing for Sludge Digestion
- Sludge Dewatering through Sludge drying Beds

<b>Raw Effluent Parameters</b>		
<b>pH</b>		<b>8</b>
<b>Suspended Solids</b>		<b>500 mg/l</b>
<b>BOD</b>		<b>200 mg/l</b>
<b>COD</b>		<b>600 mg/l</b>
<b>Treated Effluent Parameters</b>		
<b>pH</b>		<b>8</b>
<b>Suspended Solids</b>		<b>10 mg/l</b>
<b>BOD</b>		<b>10 mg/l</b>
<b>COD</b>		<b>50 mg/l</b>

SEWAGE TREATMENT PLANT

# **STP 66 MLD FOR MSK ENGINEERING LIMITED FOR VADODARA MUNICIPAL CORPORATION AT VADODARA**



# **STP 30 MLD FOR MSK ENGINEERING LIMITED FOR JAIPUR DEVELOPMENT AUTHORITY AT GAJADHARPURA | RAJASTHAN**

- **TOTAL PROJECT COST – RS. 280 MILLION**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Assistance in Construction Supervision and Erection
- Commissioning
- Operation & Maintenance For 5 years.

## **TREATMENT UNITS**

- Screen Channel
- Grit Chamber
- Primary Clarifier
- Biological Activated Sludge Process
- Anaerobic Digester with pump mixing for Sludge Digestion
- Sludge Dewatering through Belt press filter entire Operation with SCADA

<b>Raw Effluent Parameters</b>		
<b>pH</b>		<b>8</b>
<b>Suspended Solids</b>		<b>400 mg/l</b>
<b>BOD</b>		<b>350 mg/l</b>
<b>COD</b>		<b>800 mg/l</b>

<b>Treated Effluent Parameters</b>		
<b>pH</b>		<b>8</b>
<b>Suspended Solids</b>		<b>20 mg/l</b>
<b>BOD</b>		<b>30 mg/l</b>
<b>COD</b>		<b>150 mg/l</b>

SEWAGE TREATMENT PLANT

**STP 30 MLD FOR MSK ENGINEERING LIMITED FOR JAIPUR**

**DEVELOPMENT AUTHORITY AT GAJADHARPURA | RAJASTHAN**



# **CETP 30 MLD FOR JETPUR DYING AND PRINTING ASSOCIATION**

- **TOTAL PROJECT COST:: RS. 440 MILLIONS.**
- **COMPLETION YEAR :: 2015**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Assistance in Construction Supervision and Erection
- Commissioning

## **TREATMENT UNITS**

- Screen Channel
- Grit Chamber
- Equalization Tanks
- Physico Chemical Treatment
- Biological Activated Sludge Process
- Sludge Dewatering Through Filter Press
- Entire Operation With SCADA

<b>Raw Effluent Parameters</b>	
<b>pH</b>	<b>10</b>
<b>Suspended Solids</b>	<b>1000 mg/l</b>
<b>COD</b>	<b>500 mg/l</b>
<b>Color</b>	<b>300 pt.co.Units</b>

<b>Treated Effluent Parameters</b>	
<b>pH</b>	<b>8</b>
<b>Suspended Solids</b>	<b>100 mg/l</b>
<b>COD</b>	<b>100 mg/l</b>
<b>Color</b>	<b>&lt; 50 pt.co.Units</b>

COMMON EFFLUENT TREATMENT PLANT

## **CETP 30 MLD FOR JETPUR DYING AND PRINTING ASSOCIATION**



# **PANCHAMRUT DAIRY | GODHRA**

- **TYPES OF PRODUCT :: MILK PROCESSING AND DAIRY PRODUCTS**
- **FLOW :: 2000 CU.M/DAY.**
- **TOTAL PROJECT COST :: RS. 50 MILLION**
- **TOTAL SUPPLY COST :: RS. 25 MILLION**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Tender Preparation
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plant with Operation & Maintenance for period of 24 Months.

## **TREATMENT UNITS**

- Travelling Bridge type Oil Skimmer
- Physico Chemical Treatment
- Biological Treatment
- Polishing Treatment

<b>Raw Effluent Parameters</b>	
<b>BOD</b>	<b>2000 mg/l</b>
<b>O&amp;G</b>	<b>500 mg/l</b>
<b>COD</b>	<b>4500 mg/l</b>
<b>Treated Effluent Parameters</b>	
<b>BOD</b>	<b>30 mg/l</b>
<b>O&amp;G</b>	<b>10 mg/l</b>
<b>COD</b>	<b>100 mg/l</b>

EFFLUENT TREATMENT PLANT

# PANCHAMRUT DAIRY | GODHRA



# **PANCHAMRUT DAIRY | TADWA**

- **TYPES OF PRODUCT :: MILK PROCESSING AND DAIRY PRODUCTS**
- **FLOW :: 200 CU.M/DAY.**
- **TOTAL PROJECT COST :: RS. 20 MILLION**
- **TOTAL SUPPLY COST :: RS. 12 MILLION**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Tender Preparation
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plant with Operation & Maintenance for period of 24 Months.

## **TREATMENT UNITS**

- Travelling Bridge type Oil Skimmer
- Physico Chemical Treatment
- Biological Treatment
- Polishing Treatment

<b>Raw Effluent Parameters</b>		
<b>BOD</b>		<b>800 mg/l</b>
<b>O&amp;G</b>		<b>100 mg/l</b>
<b>COD</b>		<b>2500 mg/l</b>
<b>Treated Effluent Parameters</b>		
<b>BOD</b>		<b>30 mg/l</b>
<b>O&amp;G</b>		<b>10 mg/l</b>
<b>COD</b>		<b>100 mg/l</b>

EFFLUENT TREATMENT PLANT

# PANCHAMRUT DAIRY | TADWA



# **JRS PHARMA MICROWAX LIMITED**

- **TYPES OF PRODUCT :: CRYSTALLINE MICRO CELLULOSE POWDER**
- **FLOW :: 600 CU.M/DAY.**
- **TOTAL PROJECT COST :: RS. 30 MILLION**
- **TOTAL SUPPLY COST :: RS. 13.2 MILLION**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Tender Preparation
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants.

## **TREATMENT UNITS**

- Equalization Tank
- Physico Chemical Treatment
- Biological Treatment
- Polishing Treatment

<b>Raw Effluent Parameters</b>	
<b>BOD</b>	<b>800 mg/l</b>
<b>Ammonical Nitrogen</b>	<b>200 mg/l</b>
<b>COD</b>	<b>2500 mg/l</b>
<b>Treated Effluent Parameters</b>	
<b>BOD</b>	<b>30 mg/l</b>
<b>Ammonical Nitrogen</b>	<b>20 mg/l</b>
<b>COD</b>	<b>100 mg/l</b>

EFFLUENT TREATMENT PLANT

# JRS PHARMA MICROWAX LIMITED



# **BANAS DAIRY | BANASKATHA DISTRICT CO-OPERATED MILK PRODUCERS UNION LIMITED**

- **TYPES OF PRODUCT: MILK PROCESSING AND DAIRY PRODUCTS**
- **FLOW :: 3500 CU.M/DAY.**
- **TOTAL PROJECT COST :: RS. 50 MILLION [2011]**
- **FIRST OF ITS KIND PLANT IN INDIA FOR DIGESTING PRIMARY AND SECONDARY SLUDGE FOR DAIRY WASTE WITH ANAEROBIC SLUDGE DIGESTER WITH GAS MIXING**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Tender Preparation
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants.

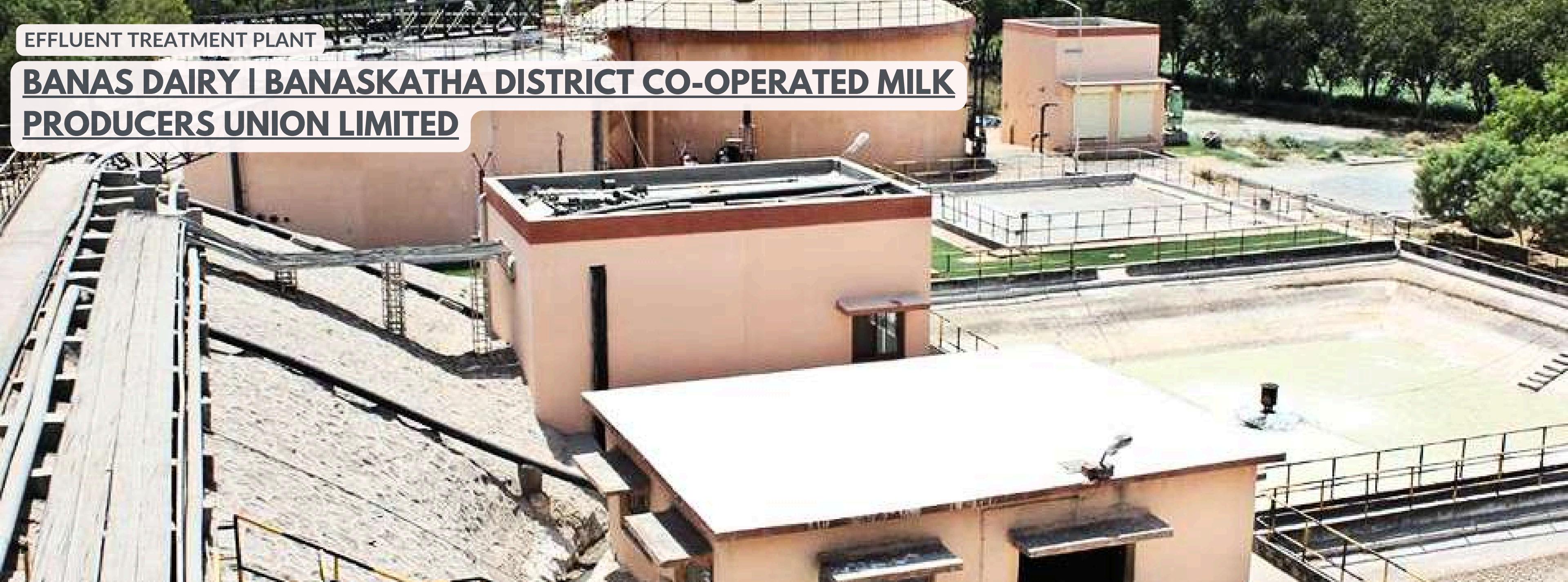
## **TREATMENT UNITS**

- Equalization Tank
- Physico Chemical Treatment
- Biological Treatment
- Polishing Treatment

<b>Raw Effluent Parameters</b>		
<b>BOD</b>		<b>2000 mg/l</b>
<b>O&amp;G</b>		<b>300 mg/l</b>
<b>COD</b>		<b>4500 mg/l</b>
<b>Treated Effluent Parameters</b>		
<b>BOD</b>		<b>3 mg/l</b>
<b>O&amp;G</b>		<b>Nil</b>
<b>COD</b>		<b>20 mg/l</b>

EFFLUENT TREATMENT PLANT

## BANAS DAIRY | BANASKATHA DISTRICT CO-OPERATED MILK PRODUCERS UNION LIMITED



# AMAR DAIRY | AMRELI - GUJARAT

- TYPES OF PRODUCT :: MILK PROCESSING AND DAIRY PRODUCTS
- FLOW :: 650 CU.M/DAY.
- TOTAL PROJECT COST :: RS. 30 MILLION [2013]
- TOTAL SUPPLY COST :: RS. 13 MILLION

## PROVIDED SERVICES

- Design
- Detailed engineering
- Tender Preparation
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants.

## TREATMENT UNITS

- Equalization Tank
- Physico Chemical Treatment
- Biological Treatment

<b>Raw Effluent Parameters</b>	
<b>BOD</b>	<b>1200 mg/l</b>
<b>O&amp;G</b>	<b>200 mg/l</b>
<b>COD</b>	<b>3000 mg/l</b>
<b>Treated Effluent Parameters</b>	
<b>BOD</b>	<b>30 mg/l</b>
<b>O&amp;G</b>	<b>10 mg/l</b>
<b>COD</b>	<b>100 mg/l</b>

EFFLUENT TREATMENT PLANT

# AMAR DAIRY | AMRELI - GUJARAT



# PARAKHS OIL & FATS LIMITED | KHOPOLI - MAHARASHTRA

- **TOTAL PROJECT COST :: RS. 25 MILLION [2016] FOR EFFLUENT TREATMENT PLANT]**
- **TOTAL PROJECT COST :: RS. 10 MILLION [2016] FOR EFFLUENT RECYCLE PLANT**
- **TOTAL SUPPLY COST :: RS.15 MILLION**
- **TYPES OF INDUSTRIES :: EDIBLE OIL**

## **PROVIDED SERVICES**

- Design
- Detailed engineering
- Tender Preparation
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants.

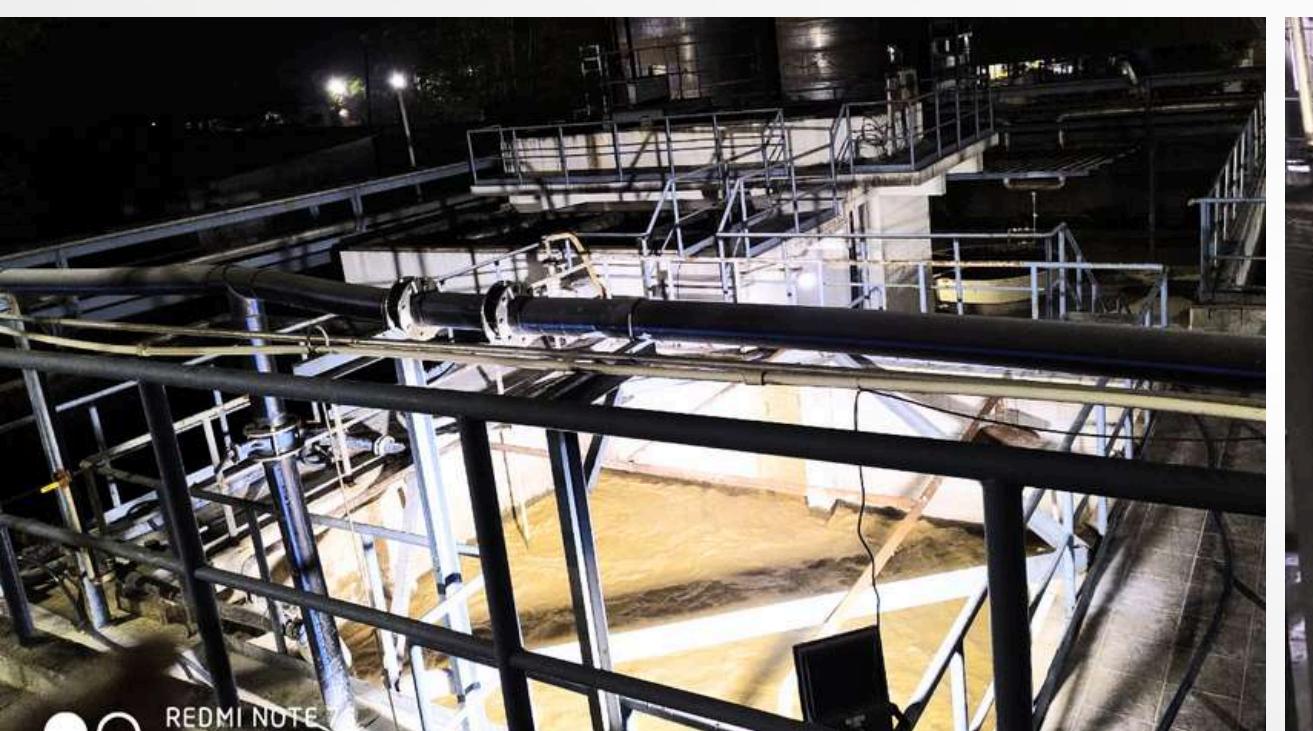
## **TREATMENT UNITS**

- Equalization Tank
- Physico Chemical Treatment
- Biological Treatment

<b>Raw Effluent Parameters</b>	
<b>BOD</b>	<b>1200 mg/l</b>
<b>O&amp;G</b>	<b>200 mg/l</b>
<b>COD</b>	<b>3000 mg/l</b>
<b>Treated Effluent Parameters</b>	
<b>BOD</b>	<b>30 mg/l</b>
<b>O&amp;G</b>	<b>10 mg/l</b>
<b>COD</b>	<b>100 mg/l</b>

EFFLUENT TREATMENT PLANT

# AMAR DAIRY | AMRELI - GUJARAT



REDMI NOTE 7S  
1080P HD DUAL CAMERA

CHOKHAV  
ASSOCIATE 2020/2/10 21

- Types of Industries : **Edible Oil**
- Flow : **300 cu.m/day**

**Provided Services :**

- Design
- Detailed Engineering
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants

**Treatment Units :**

- Equalization Tank
- Physico Chemical Treatment
- Biological Treatment
- Polishing Treatment

- Flow: **650 cu.m/day**

**Parameters :**

- Design
- Detailed engineering
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants.

Raw Effluent Parameters		Treated Effluent Parameters	
Suspended Solids	2000 mg/l	Suspended Solids	100 mg/l

Raw Effluent Parameters	
BOD	6000 mg/l
O&G	500 mg/l
COD	15000 mg/l

Treated Effluent Parameters	
BOD	30 mg/l
O&G	10 mg/l
COD	100 mg/l

**GVK THERMAL POWER PLANT**

- Project : **Feasibility of Reusing Treated Sewage for Cooling Tower makeup.**
- Flow : **50 MLD.**
- Total pipeline length : **50 km.**
- Total Project cost : **Rs. 3500 Million.**

**Provided Services :**

- Preparation of Detailed Project Report.

- Project : **Effluent conveyance and Deep Sea disposal.**
- Flow : **60 MLD.**
- Total Project cost : **Rs. 6700 million.**

## Provided Services :

- Design
- Detailed Engineering
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants

## Treatment Units :

- Equalization Tank
- Physico Chemical Treatment
- Biological Treatment
- Polishing Treatment

- Flow: **650 cu.m/day**

## Parameters :

- Design
- Detailed engineering
- Supply of Electromechanical Equipments
- Erection
- Testing
- Commissioning of Effluent Treatment Plants.

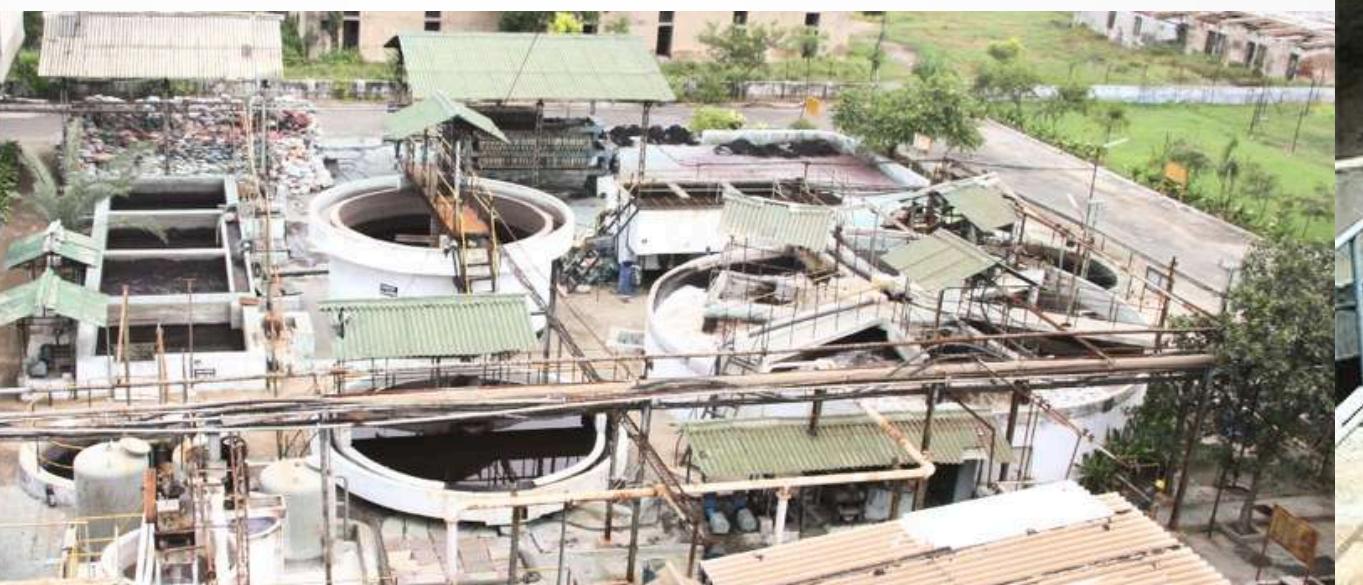
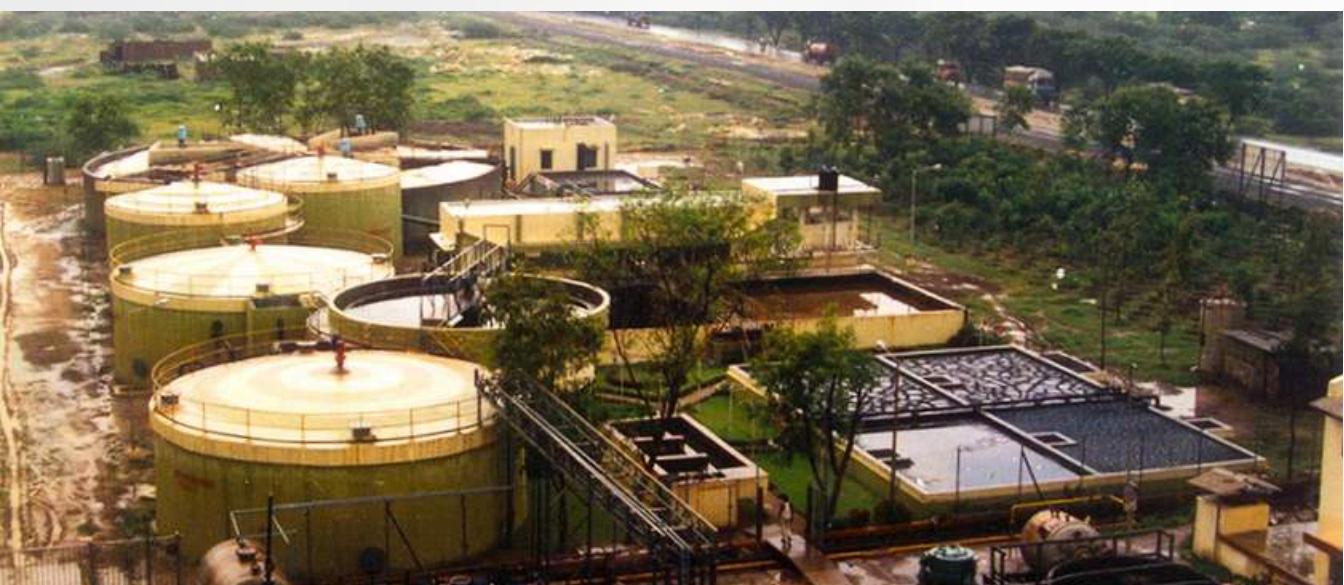
Raw Effluent Parameters	
BOD	6000 mg/l
O&G	500 mg/l
COD	15000 mg/l

Treated Effluent Parameters	
BOD	30 mg/l
O&G	10 mg/l
COD	100 mg/l

Raw Effluent Parameters	
Suspended Solids	2000 mg/l

Treated Effluent Parameters	
Suspended Solids	100 mg/l

# INDUSTRIAL WASTEWATER TREATMENT PLANT



## **Anaerobic Digester Projects – UASBR and CSTR**

1	<b>Consultancy services for cattle dung based 4500 kg/day Compressed Bio-gas Generation plant for Palm Green Projects Pvt. Ltd., Uttar Pradesh under SATAT in 2020.</b>
2	<b>Turnkey services with supply for 500 CMD Edible Oil Effluent Treatment Plant with UASBR for effluent for Pwani Oil Products Limited, Mombasa, Kenya. [On-going]</b>
3	<b>Turnkey services with supply for 500 CMD Dairy Effluent Treatment Plant with UASBR for effluent for The Panchmahal District Co-Op Milk Union Producers Limited, Ujjain Dairy.</b>
4	<b>Consultancy services for 30 MLD Sewage treatment Plant with anaerobic CSTR for sludge stabilization for Jaipur Development Authority [Contractor MSK Engineering Ltd.] in 2013.</b>
5	<b>Turnkey services with supply for 700 CMD Dairy Effluent Treatment Plant with UASBR for effluent for Dinshaw Dairy Ltd., Fivestar area, Buttibory MIDC, Nagpur, Maharashtra, India.</b>
6	<b>Turnkey services with supply for 1200 CMD brewery Effluent Treatment Plant with UASBR for effluent for Serengeti breweries Ltd., Dar –Es-Salaam, Tanzania.</b>
7	<b>Consultancy services for 3.5 MLD Dairy Effluent treatment Plant with anaerobic CSTR for effluent for Banas Dist Co-Op Milk Producers' Union Ltd. Palanpur in 2009.</b>
8	<b>Consultancy services for 1200 CMD starch Effluent Treatment Plant with UASBR for effluent for Roquette Riddhi Siddhi Pvt. Ltd., Plot No. 12, sector 9, IIE, Pantanagar, Uttrakhand (INDIA)</b>
9	<b>Consultancy services for 1500 CMD starch Effluent Treatment Plant with UASBR for effluent for Roquette Riddhi Siddhi Pvt.Ltd., Gokak falls road, Belgaum , Karnataka (INDIA).</b>
10	<b>Consultancy services for 66 MLD sewage treatment plant with anaerobic CSTR for sludge stabilization for Vadodara Municipal Corporation [Contractor MSK Engineering Ltd] in 2003</b>
11	<b>Consultancy services for 600 CMD Effluent Treatment plants with anaerobic CSTR for effluent for the Oil industry, in Malaysia.</b>

## **Anaerobic Digester Projects – UASBR and CSTR**

12	<b>Consultancy services for 600 CMD Paper mill Effluent Treatment Plant with anaerobic CSTR for effluent for Ambeshwar Paper Mills Ltd., Ankleshwar in 1995.</b>
13	<b>Turnkey services with supply for 1200 CMD Dairy Effluent Treatment Plant with UASBR for effluent for Heinz India Pvt. Ltd., Manjurgadhi, Aligarh, Uttar Pradesh, India.</b>
14	<b>Consultancy services for 300 CMD Dyes Effluent Treatment Plant with anaerobic CSTR for effluent for Rang Udyog Vatva, Ahmedabad [Dyes Intermediates] in 1994.</b>
15	<b>Consultancy services for 600 CMD starch Effluent Treatment Plant with UASBR for effluent for Roquette Riddhi Siddhi Pvt. Ltd., Viramgam, Ahmedabad, Gujarat (INDIA).</b>
16	<b>Consultancy services for 200 CMD Pharmaceutical Effluent Treatment Plant with anaerobic CSTR for effluent for Oman Chemicals &amp; Pharmaceuticals LLC Al Buraimi, Sultanate of Oman [Ampicillin, Amoxycillin, Na-cloxacin, Cephalexin] in 1992.</b>
17	<b>Consultancy services for 200 CMD Pharmaceutical Effluent Treatment Plant with anaerobic CSTR for effluent J. B. Chemicals Ltd., Ankleshwar. [Metronidazole, Glyoxal] in 1990.</b>
18	<b>Consultancy services for 200 CMD Pharmaceutical Effluent Treatment Plant with anaerobic CSTR for effluent for Lupin Laboratories Ltd. Ankleshwar [Ethambutol, Vitamin B-6, Cephalexin, Atenolol, 7ADCA Cephachlor] in 1989.</b>
19	<b>Consultancy services for 500 CMD Effluent Treatment Plants with anaerobic CSTR for effluent for distillery plant for Sugar Industry , Uganda.</b>
20	<b>Consultancy services for 200 CMD Pharmaceutical Effluent Treatment Plant with anaerobic CSTR for effluent for Tasc Pharmaceuticals Ltd. Pune [Ranitidine, Ciprofloxacin, Enrofloxacin] in 2001.</b>
21	<b>Consultancy services for 1.5 MLD Starch Effluent treatment Plant with anaerobic CSTR for effluent for Gujarat Ambuja Proteins Ltd. Himatnagar in 1998</b>
22	<b>Consultancy services for 500 CMD Food Effluent Treatment Plant with anaerobic CSTR for effluent for Citurgia Biochemicals Limited, Surat [Citric Acid Plant in 1997.</b>
23	<b>Consultancy services for 30 CMD Chemical Effluent Treatment Plant with anaerobic CSTR for effluent for Milan Intermediates Pvt. Ltd. Ahmedabad [H-Acid] in 1997.</b>

# **ASSESSMENT STUDY OF THE EXISTING WASTEWATER TREATMENT PLANT WITH MODIFICATION**

The main aim is to evaluate the efficiency of the existing effluent treatment plant in terms of present hydraulic load and organic load with the establishment of the design criteria of the existing effluent treatment plant.

Detailed Project Report submission covering the entire evaluation, onsite observations, operational issues, assessment of the existing treatment units, chemical consumptions, lab analysis report, physicochemical treatability study the report, pilot plant biological study report, adequacy of the existing effluent plant, suggestions and required modifications if any along with cost estimation.

**Carried out assessment and performance evaluation study with modification & up-gradation of the existing Effluent Treatment Plant and Sewage Treatment Plant.**

## **Effluent Treatment Plant Assessment Study**

- 1 Garden Silk Mills Limited – Jolwa, Surat, Gujarat.**
- 2 Gujarat Vepari Mahamandal Sahakari Audhyogic Vasahat Ltd., Ahmedabad**
- 3 Loxim Industries Limited, Padra, Gujarat.**
- 4 Sumitomo Chemical India Limited, Bhavnagar Gujarat.**
- 5 Ineos styrolution india Ltd, Vadodara, Gujarat.**

## **Sewage Treatment Plant Assessment Study**

- 1 Capacity Enhanced with upgradation of existing 240 MLD Vasna STP , Ahmedabad , Gujarat , India.**
- 2 Capacity Enhanced with upgradation of existing 70 MLD Vinzol STP , Ahmedabad , Gujarat , India.**

# TREATABILITY STUDY

FENTON TREATABILITY STUDY

## **VARDHMAN ACRYLICS LIMITED – JHAGADIA, GUJARAT**

Fenton's reagent treatment was carried out at a laboratory scale for the removal of refractory organic pollutants because it is considered one of the most effective treatment processes for the removal of refractory organic pollutants. The Fenton process is operated at acidic pH to increase the oxidation potential of hydroxyl radical and as the pH increases the activity of Fenton's reagent is reduced and leading to the lack of active  $\text{Fe}^{2+}$  and the formation of ferric hydroxide precipitates.

It also leads to the auto-scavenging reduction of hydrogen peroxide (auto-decomposition of hydrogen peroxide). The Fenton reagent includes ferrous ions ( $\text{Fe}^{2+}$ ) and hydrogen peroxide ( $\text{H}_2\text{O}_2$ ).

The oxidation process utilizes the activation of hydrogen peroxide by iron salts, classically known as Fenton's reagent. Secondly, iron salt was used to catalyze the Fenton process and aid as the coagulants for coagulation process.

## **TREATABILITY STUDY**

**Chemspec Industries at Taloja – Maharashtra**

**Shree Rama News Print at Surat – Gujarat**



# EXPERIENCE WITH TOP SECTORS

ETP | STP | WWTP | BIOGAS

1

## HINDUSTAN COCA COLA BEVERAGES PVT LTD. AT GOGLAJ , GUJARAT .

- Total Project Cost: Rs. 20.1 Million
- Completion year : 1997
- Design Flow : 900 cu.m/day

### Raw Effluent Parameters

- pH : Above 8
- BOD : 1200 mg/l
- COD : 3000 mg/l

### Treated Effluent Parameters

- pH : Above 8
- BOD : 1200 mg/l
- COD : 3000 mg/l

2

## HINDUSTAN COCA COLA BEVERAGES PVT LTD. AT NASIK , MAHARASHTRA

- Total Project Cost: Rs. 4.9 Million
- Completion year : 2000
- Design Flow : 400 cu.m/day

### Raw Effluent Parameters

- pH : Above 8
- BOD : 1200 mg/l
- COD : 3000 mg/l

### Treated Effluent Parameters

- pH : 7.8
- BOD : 30 mg/l
- COD : 100 mg/l

1

## DCW LIMITED, DHARANGADHRA, GUJARAT.

- Conveyance Length: 12 KM
- Completion year: 2022

## CHEMICAL INDUSTRIES

1

## MARDIA CHEMICALS LIMITED AT SURENDRANAGAR, GUJARAT

- Total Project Cost: Rs. 110 Million
- Completion year : 1993
- Design Flow : 2000 cu.m/day

### Raw Effluent Parameters

- COD : 7700 mg/l

### Treated Effluent Parameters

- COD : 600 mg/l

**2 DEEPAK NITRITE AT DAHEJ, GUJARAT.**

- Total Project Cost: Rs. 4.0 Million
- Completion year : 2012
- Design Flow : 700 cu.m/day

**Raw Effluent Parameters**

- COD : 15000 mg/l
- Suspended Solids : 1000 mg/l
- TDS – 30000 mg/l

**Treated Effluent Parameters**

- COD: < 600 mg/l
- Suspended Solids : < 100 mg/l
- TDS – 30000 mg/l

**1 SOMANI PIKINGTON LIMITED AT KADI, GUJARAT**

- Total Project Cost: Rs. 0.60 Million
- Completion year : 1988
- Design Flow : 250 cu.m/day

**Raw Effluent Parameters**

- Suspended Solids : 2500 mg/l

**Treated Effluent Parameters**

- Suspended Solids : 100 mg/l

**3 KHATAU DYES, ANKLESHWAR. GUJARAT.**

- Total Project Cost: Rs. 6.4 Million
- Completion year : 1992
- Design Flow : 2000 cu.m/day

**Raw Effluent Parameters**

- COD : 2000 mg/l

**Treated Effluent Parameters**

- COD: 150 mg/l

1

## BANASKATHA MILK PRODUCERS UNION LTD. AT PALANPUR, GUJARAT.

- Total Project Cost: Rs. 48.5 Million
- Completion year : 2009
- Design Flow : 3500 cu.m/day

### Raw Effluent Parameters

- pH : 5.5 to 11
- BOD : 1200 mg/l
- COD : 3500 mg/l
- O & G : 1100 mg/l
- Amonical Nitrogen : 150 mg/l

### Treated Effluent Parameters

- pH : 7 to 8.5
- BOD : 30 mg/l
- COD : 100 mg/l
- O & G : 10 mg/l
- Amonical Nitrogen : 50 mg/l

1

## KALPTARU POWER TRANSMITTER AT GANDHINAGAR, GUJARAT.

- Total Project Cost: Rs. 2.8 Million
- Completion year : 2005
- Design Flow : 2.5 cu.m/day

### Raw Effluent Parameters

- pH : 0.5 to 1.0
- COD : 1000 mg/l
- TDS : 400000 mg/l

### Treated Effluent Parameters

- pH : 7.0 to 8.0
- COD : 90 mg/l
- TDS : 70000 mg/l

2

## DUDH MOTISAGAR DAIRY AT DHARUHERA, HARYANA

- Total Project Cost: Rs. 80 Million
- Completion year : 2014
- Design Flow : 2000 cu.m/day

### Raw Effluent Parameters

- pH : 5.5 to 11
- BOD : 1200 mg/l
- COD : 3500 mg/l
- O & G : 1100 mg/l
- Amonical Nitrogen : 150 mg/l

### Treated Effluent Parameters

- pH : 7 to 8.5
- BOD : 30 mg/l
- COD : 100 mg/l
- O & G : 10 mg/l
- Amonical Nitrogen : 50 mg/l

2

## ASIAN TUBES AT KADI, GUJARAT

- Total Project Cost: Rs. 1.2 Million
- Completion year : 1996
- Design Flow : 50 cu.m/day

### Design Parameters

- Heavy Metals
- Zinc

1

## BHARAT DYNAMICS LIMITED AT HYDERABAD.

- Total Project Cost: Rs. 1.4 Million
- Completion year : 1986
- Design Flow : 250 cu.m/day

### Design Parameters

- Zinc
- Tin

- Chloride
- Cyanide
- Nickel

2

## NEEKA TUBES LIMITED AT VATVA, AHMEDABAD, GUJARAT.

- Total Project Cost: Rs. 0.55 Million
- Completion year : 1984
- Design Flow : 350 cu.m/day

### Design Parameters

- pH
- Chromium
- Nickel
- Fluoride

1

## MAROLI VIBHAG KHAND UDHYOG SAHKARI MANDALI LIMITED AT SURAT, GUJARAT

- Total Project Cost: Rs. 1.60 Million
- Completion year : 1982
- Design Flow : 2000 cu.m/day

### Raw Effluent Parameters :

- COD : 5000 mg/l

### Treated Effluent Parameters

- COD : 150 mg/l

## 1 RIDDHI SIDDHI BIOS LIMITED AT GOKAK, KARNATAK.

- Total Project Cost: Rs. 40 Million
- Completion year : 2013
- Design Flow : 3000 cu.m/day

### Raw Effluent Parameters

- COD : 20000 mg/l

### Treated Effluent Parameters

- COD : 300 mg/l

## 2 RIDDHI SIDDHI BIOS LIMITED AT RUDRAPUR, UTTRAKHAND.

- Total Project Cost: Rs. 26.0 Million
- Completion year : 2007
- Design Flow : 1500 cu.m/day

### Raw Effluent Parameters

- COD : 7700 mg/l

### Treated Effluent Parameters

- COD : 150 mg/l

## 3 RIDDHI SIDDHI BIOS LIMITED AT VIRAMGAM, GUJARAT.

- Total Project Cost: Rs. 5.0 Million
- Completion year : 1992
- Design Flow : 400 cu.m/day

### Raw Effluent Parameters :

- COD : 20000 mg/l

### Treated Effluent Parameters

- COD : 400 mg/l

## 4 TIRUPATI STARCH INDUSTRIES AT INDORE, MADHYA PRADESH

- Total Project Cost: Rs. 4.2 Million
- Completion year : 1997
- Design Flow : 500 cu.m/day

### Raw Effluent Parameters :

- COD : 5000 mg/l

### Treated Effluent Parameters

- COD : 250 mg/l

## 1 LUPIN LABORATORIES LIMITED AT PANOLI, GUJARAT.

- Total Project Cost: Rs. 2.6 Million
- Completion year : 1987
- Design Flow : 80 cu.m/day

### Raw Effluent Parameters

- pH : 2 to 3
- COD : 30000 mg/l

### Treated Effluent Parameters

- pH : 7 to 7.5
- COD : 600 mg/l

## 3 IFFCO AT KALOL, GUJARAT

- Total Project Cost: Rs. 1.25 Million
- Completion year : 1993
- Design Flow : 80 cu.m/day

### Raw Effluent Parameters :

- COD : 70000 mg/l

### Treated Effluent Parameters

- COD : 100 mg/l

## 2 KHATAU JUNKER LIMITED, AT ANKLESHWAR, GUJARAT.

- Total Project Cost: Rs. 4.5 Million
- Completion year : 1989
- Design Flow : 230 cu.m/day

### Raw Effluent Parameters

- pH : 2 to 3
- COD : 70000 mg/l

### Treated Effluent Parameters

- pH : 7 to 7.5
- COD : 300 mg/l

## 4 NICTO INDIA CORPORATION AT NADIAD, GUJARAT

- Total Project Cost: Rs. 1 Million
- Completion year : 1986
- Design Flow : 5 cu.m/day

### Raw Effluent Parameters :

- COD : 10000 mg/l

### Treated Effluent Parameters

- COD : 1000 mg/l

1

## GLAXO LABORATORIES LIMITED AT ANKLESHWAR, GUJARAT

- Total Project Cost: Rs. 8 Million
- Completion year : 1992
- Design Flow : 200 cu.m/day

### Raw Effluent Parameters

- COD : 40000 mg/l

### Treated Effluent Parameters

- COD : 250 mg/l

3

## J.B. CHEMICALS AT ANKLESHWAR, GUJARAT

- Total Project Cost: Rs. 15 Million
- Completion year : 1992
- Design Flow : 200 cu.m/day

### Raw Effluent Parameters :

- COD : 40000 mg/l

### Treated Effluent Parameters

- COD : 150 mg/l

2

## CONCORD BIOTECH LIMITED AT DHOLKA, GUJARAT

- Total Project Cost: Rs. 7.5 Million
- Completion year : 2006
- Design Flow : 250 cu.m/day

### Raw Effluent Parameters

- COD : 15000 mg/l

### Treated Effluent Parameters

- COD : 150 mg/l

4

## SUMITRA PHARMACEUTICAL AT HYDERABAD.

- Total Project Cost: Rs. 6 Million
- Completion year : 1989
- Design Flow : 160 cu.m/day

### Raw Effluent Parameters :

- COD : 35000 mg/l

### Treated Effluent Parameters

- COD : 1000 mg/l

**1 LUPIN LABORATORIES AT ANKLESHWAR, GUJARAT.**

- Total Project Cost: Rs. 15 Million
- Completion year : 1989
- Design Flow : 500 cu.m/day

**Raw Effluent Parameters**

- COD : 55000 mg/l

**Treated Effluent Parameters**

- COD : 500 mg/l

**1 GUJARAT MINERALS DEVELOPMENT CORPORATION AT KADIPANI, GUJARAT**

- Total Project Cost: Rs. 4.0 Million
- Completion year : 1995
- Design Flow : 400 cu.m/day

**Design Parameters :**

- Suspended solids
- Fluoride

**Treated Effluent Parameters**

- Within the norms

**SOFT DRINK INDUSTRIES****2 RITCHER THEMIS MEDICARE LIMITED AT VAPI, GUJARAT.**

- Total Project Cost: Rs. 8 Million
- Completion year : 2005
- Design Flow : 200 cu.m/day

**Raw Effluent Parameters**

- COD : 15000 mg/l

**Treated Effluent Parameters**

- COD : 500 mg/l

**1 GUJARAT BOTTLING CO. PVT. LTD. AT RAJKOT.**

- Total Project Cost: Rs. 0.80 Million
- Completion year : 1987
- Design Flow : 400 cu.m/day

**Raw Effluent Parameters :**

- COD: 3000 mg/l

**Treated Effluent Parameters**

- COD: 100 mg/l

1

## KANKARIYA PAPER MILLS KATOL AT BARODA, GUJARAT

- Total Project Cost: Rs. 9.0 Million
- Completion year : 1993
- Design Flow : 5000 cu.m/day

### Raw Effluent Parameters

- COD : 3000 mg/l

### Treated Effluent Parameters

- COD : 100 mg/l

3

## AGARWAL PAPER MILLS KATOL AT BARODA, GUJARAT

- Total Project Cost: Rs. 2.50 Million
- Completion year : 1998
- Design Flow : 3000 cu.m/day

### Raw Effluent Parameters :

- COD : 800 mg/l

### Treated Effluent Parameters

- COD : 150 mg/l

2

## AMBESHWAR PAPER MILLS AT ANKLESHWAR, GUJARAT

- Total Project Cost: Rs. 9.0 Million
- Completion year : 1995
- Design Flow : 600 cu.m/day

### Raw Effluent Parameters

- COD : 3000 mg/l

### Treated Effluent Parameters

- COD : 600 mg/l

4

## TELANGANA PAPER MILLS LIMITED AT KHAMMAM, ANDHRA PRADESH

- Total Project Cost: Rs. 9.0 Million
- Completion year : 1992
- Design Flow : 8000 cu.m/day

### Raw Effluent Parameters :

- COD : 800 mg/l

### Treated Effluent Parameters

- COD : 100 mg/l

## 1 BHARAT VIJAY MILL AT KALOL, GUJARAT

- Total Project Cost: Rs. 28 Million
- Completion year : 2006
- Design Flow : 2600 cu.m/day

### Raw Effluent Parameters

- COD: 1200 mg/l

### Treated Effluent Parameters

- COD: 250 mg/l

## 2 SOMA TEXTILES AT AHMEDABAD, GUJARAT.

- Total Project Cost: Rs. 2.5 Million
- Completion year : 1988
- Design Flow : 2500 cu.m/day

### Raw Effluent Parameters

- COD: 1100 mg/l

### Treated Effluent Parameters

- COD: 500 mg/l

MANAGING DIRECTOR  
**MR. VIMAL CHOKHAVATIA M.S. (USA)**



**About :**

**Mr Vimal Chokhavatia, MD of Chokhavatia Associates since 1982**, is one of those eclectic visionaries who has thrived to success in the midst of uncertainty by deriving ideas, style, and taste for the implementation of the most effective technology from a broad and diverse range of sources to treat particular effluents from various industries.

He is amongst the few most experienced, with a rare quality, and has been enjoying tackling challenges with determination in efficient ways with a pinch of sense of humor to it rather than solving problems. Through his vast experience of 42 years, he can help you get the best for your water, wastewater, and biogas management.

MEET THE TEAM

## OUR EXPERTS AND ENGINEERS



MRS. SHIVANI A CHOKHAVATIA  
PROJECT CO - ORDINATOR



MR. DEEPAK PANDYA



MR. GHANSHYAMBHAI PAREKH



MRS. ALKA PANDYA  
HR & ADMINISTRATION

# MEET THE TEAM

## OUR EXPERTS AND ENGINEERS



MR. BHARAT PANDYA



MR. PIYUSH PANDYA



MR. KAMLESH PANCHAL



MR. MAHENDRA PATEL



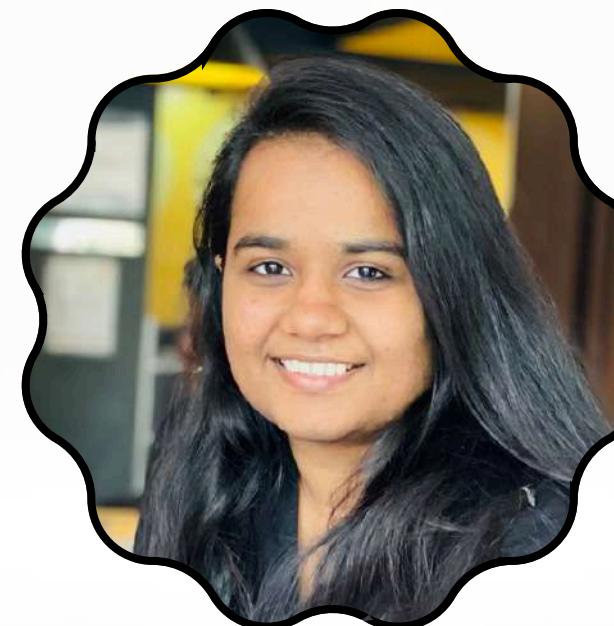
MR. NIRAV DABHI



MR. BHAVIN CHOTALIYA



MR. SIDDHARTH VEGDA



MS. SHUBHANGI KUMPAVAT

# THANK YOU CONTACT US

## REGISTERED OFFICE

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