TECHFAB INDIA

CASE STUDY

TECHGEO FOR PALANPUR LANDFILL, GUJARAT

Client:	Gujarat Urban Development Company Ltd (GUDC).
Consultant:	1) Mahindra Acres Consulting Engineers Limited 2) SENES Consultants India Private Ltd
Contractor:	Bhugan Engineers, 307, Sangrila Arcade, Nr. Shyamal Cross Road, Satellite, Ahmedabad-380015.
Site Location:	Sardarpur Landfill Site, Near RTO check post/ Amabaji Road, Palanpur, Banaskantha.
Product Used:	TechGeo Nonwoven Geotextile 500 Gsm. (Polypropylene Staple Fibre, Needle Punched, UV Stabilized)
Quantity:	42,750Sqm
Supply Date:	September 2010.

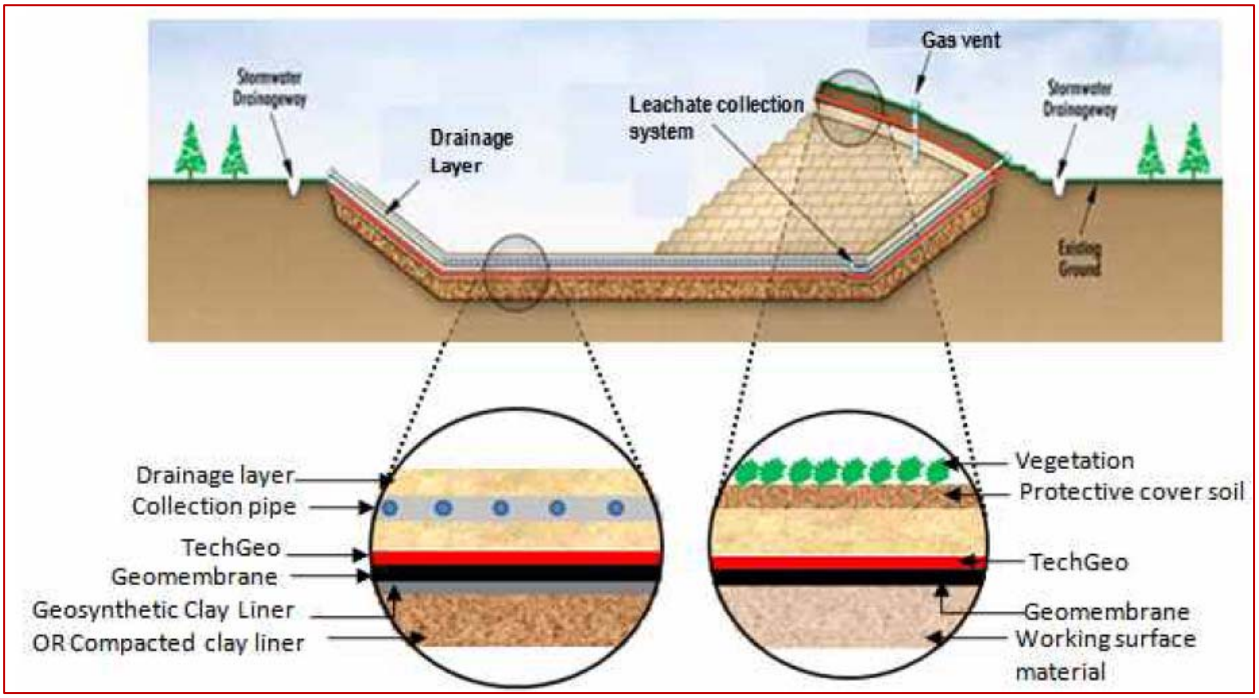
DESCRIPTION OF THE PROJECT:

Hon. Supreme Court has passed an order to make scientific treatment and disposal of solid waste mandatory, as per the MSW-Rules-2000. Government of Gujarat thereby initiated the formation of Gujarat Urban Development Projects (GUDP) programme, with an aid of US $ 300 million from the World Bank. GUDC was appointed as a nodal agency vide the resolution dated 13/09/05 to implement the Municipal Solid Waste Management project for the ULBs of the state of Gujarat. Technical consultants were appointed for Designs, DPRs, DTPs & Supervision of landfill sites at critical stages during construction work.

Palanpur Landfill site loacated in the state of Gujarat is one of the many landfill sites under the GUDC programme.

THE SOLUTION:

Considering the vital importance of the project for an effective growth of the city and protection of the environment, Consultants approved the use of Nonwoven Geotextile in the Palanpur landfill site. TechFab (India) Industries Ltd met all the tender specifications required for the Nonwoven Geotextile to be used in the landfill site. TechFab (India) Industries Ltd thereby successfully supplied TechGeo Nonwoven Geotextile with mass per unit area of minimum 500 Gsm. TechGeo (Nonwoven Geotextile) supplied was made of **Polypropylene staple fibre, needle punched and UV stabilized** as per the tender specifications. Third party testing of TechGeo was carried out at Central Institute of Plastics Engineering & Technology (CIPET) and was found satisfactory.



Typical Cross Section at Landfill Site

ADVANTAGES OF TECHGEO FOR LANDFILL APPLICATIONS:

TechGeo polypropylene staple fibre Nonwoven Geotextile serves multifold applications at a Landfill site, which are as follows:

1. TechGeo acts as a "Cushion" (protection layer) to protect to the Geomembrane liner which is used as barrier against all forms of liquids, gases etc. TechGeo protects the Geomembrane liner against any puncture from any external means.

2. TechGeo acts as a "Separator" (separation layer) at the landfill sites by preventing the mixing of two dissimilar materials above and below the TechGeo layer. Thereby the TechGeo prevents any clogging of drainage system.

3. TechGeo acts as a "Filter" (filtration layer) at the landfill site by preventing any soil particles from entering into the drainage system.

4. TechGeo acts as a "Drain" (drainage media) at the landfill site by allowing in plane drainage of water through it. The drainage of Leachate is carried out by other drainage mediums like drain board etc.