

Waste to Energy

PPDB SCOPE

- PPDB (Energy Department – GoP) is main custodian of Waste to Energy project.
- Hiring of Firms for Waste to Energy Project.
- Management of Project Life Cycle.

LWMC SCOPE

- **Supply of Waste** : 2000Tons/day
- **Land Lease**: 26.53 Acres

Project Benefits

- Saving in Waste Handling
- Increase in Landfill life (1/3rd of Total Collected Waste Disposed Off)

NEPRA Tariff

- Revised upfront Tariff announced in July-2018 US Cents 9.87/KWH

Gas Potential Assessment and Flaring Project at Mahmood Booti Dumpsite

Introduction

Mahmood Booti is the oldest dump site located at Ring Road, operational since 1998. The estimated area of dumpsite is around 320 Kanals (40 Acres / 16 Hectors). According to an estimate approximately 13.14 million tons of waste has been dumped at Mahmood Booti. Approximate biodegradable fraction of dumped waste is 55% to 60%.

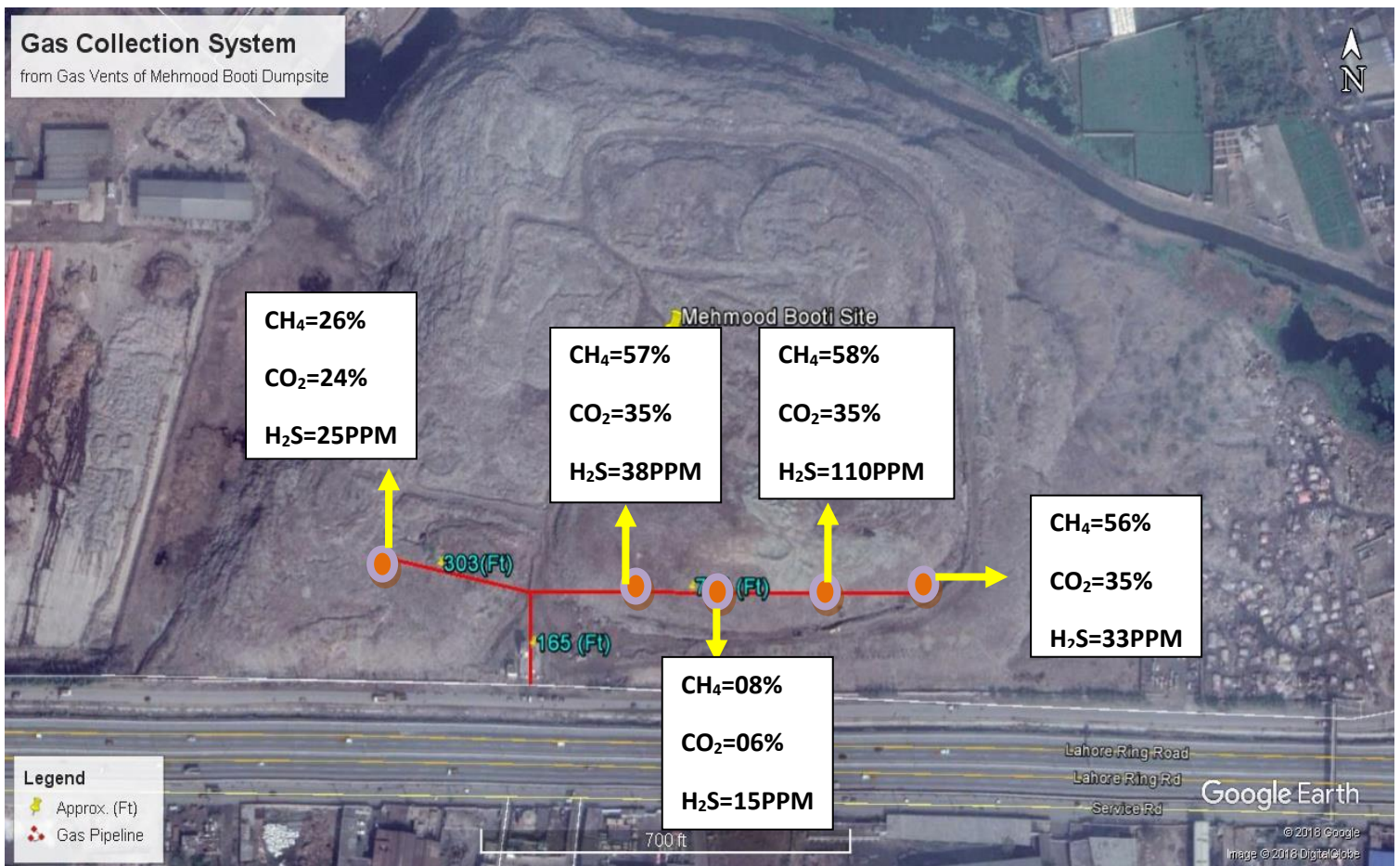
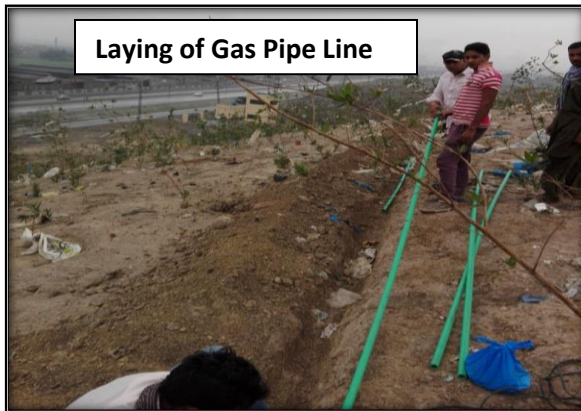
Phase 1 Monitoring

LWMC has taken an initiative to assess the Dumpsite gas potential on south eastern side of Mahmood Booti Dumpsite. Gas has been monitored initially from installed gas vents.



Phase 2 Installation of Gas Pipe line

During the trial project Gas from four (04) identified Gas Vents already installed at dumpsite was collected and transported through 900 feet long gas pipeline to one point for testing and flaring. Since 13th June 2018, LWMC has installed necessary apparatus including a two-burner stove and a gas lamp in allied office to flare the gas for demonstration.



Phase 3 Successful Gas Flaring

To reduce the environmental impact on global warming, objective was to collect, transport and flare the Green House Gases (GHG's). Gas has been flared continuously dated from 13th June 2018. Pictorial view of burning flame without blower and with blower can be seen given below



Gas Flare



Gas Lamp



Single Gas Burner



Double Gas Burner

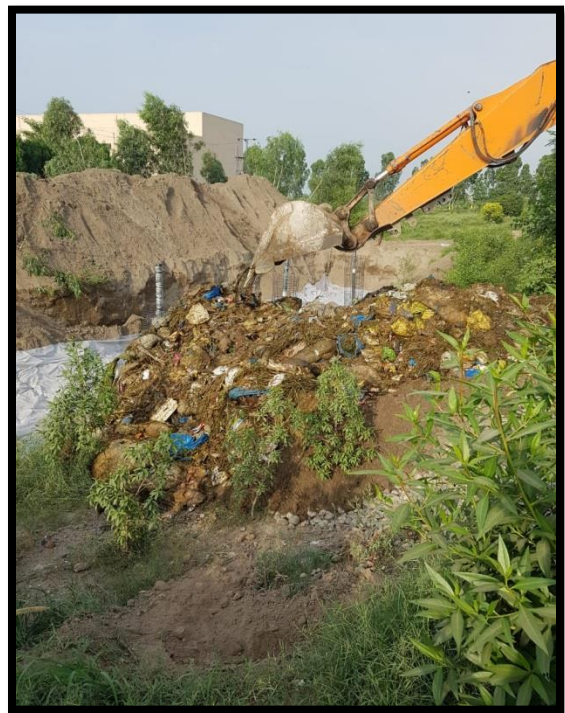
OFFAL'S TO ENERGY' 2019

Eid-ul-Azha is celebrated every year on 10th Zulhijja of the lunar Islamic calendar. The Muslims from all over the world celebrate this festival with great fervor. Muslims follow Sunnah of Hazrat Ibrahim by sacrificing animals in the name of Allah.

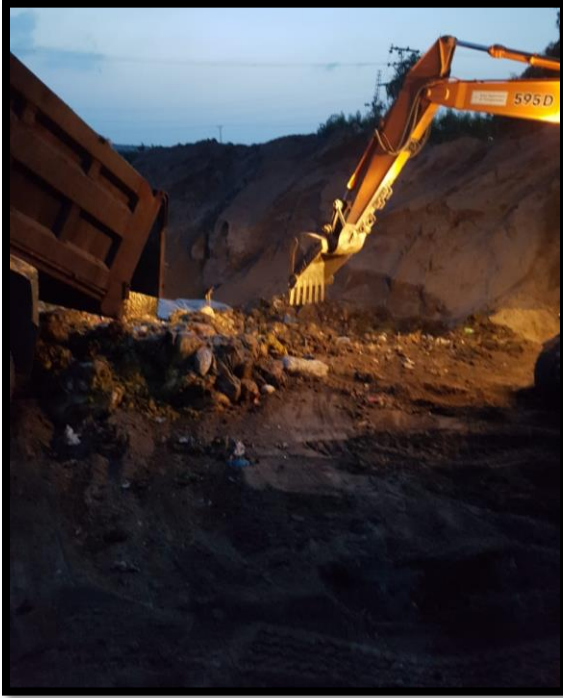
A Pilot project in this regard was proposed by planning and projects department, 293 Tons of offal's has been disposed off scientifically in an excavated pit at Lakhodair disposal site.



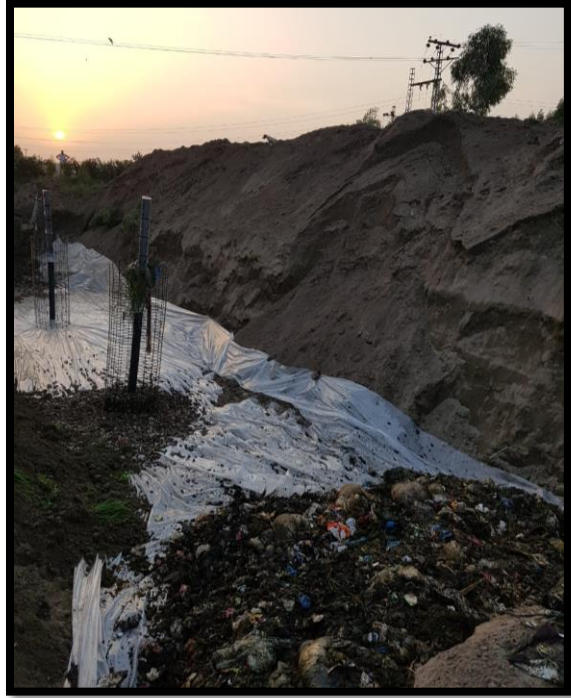
Installation of Gas Vents



Filling of Offal's



Filling of Offal's



Filling of Offal's





Gas Purification Assembly

Soil Covering



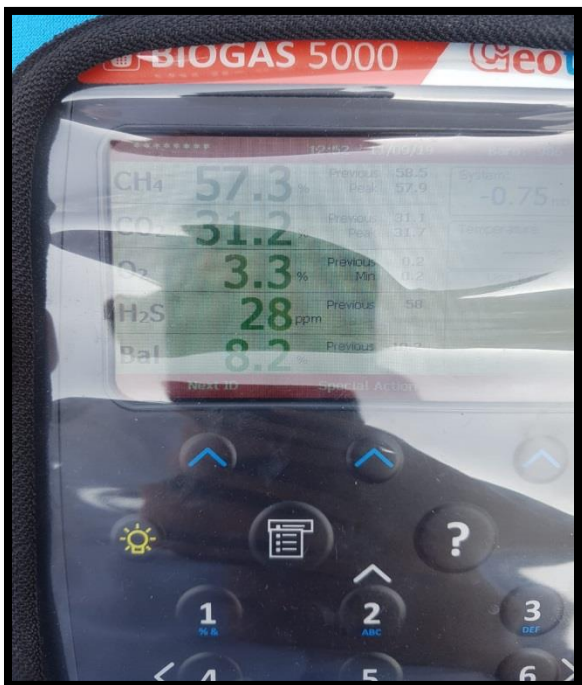
Gas Storage and Stove Assembly

Gas analysis

After completion of work and gas has been tested during different intervals and as proposed Methane gas has been identified which is combustible gas can be utilized to generate heat and power.



Gas Monitoring Process



Gas Monitoring Process

CONCLUSION

Production of gas from disposed offal's is a wise approach. Keeping in view the massive amount of waste/offal's collected from the city on auspicious occasion of Eid ul Adha, such kind of pilot project may be replicated at commercial/large scale so that product gas can be utilized as energy resource. However technical personals are required for execution of project.