

Baalbeck Waste Dumpsite Gas Survey

EDESSA was retained by LIBANCONSULT to conduct a detailed gas survey at the Ba'albeck waste dumpsite. The purpose of the gas survey was to assess the concentrations of gases (CH_4 , CO_2 , and O_2) in the sub-surface layers of the wastes. The gas monitoring survey comprised the analysis of several gas samples from the existing wells at the dumpsite. Consecutive readings from each well were taken on an hourly basis using the GA2000 landfill gas analyzer in which the following parameters were analyzed:

- Methane concentration
- Carbon dioxide concentration
- Oxygen concentration

Once the gas analyzer was properly connected to the gas well, the internal pump of the analyzer was activated to extract a gas sample from the gas well. This sample was then automatically analyzed in real-time giving immediate results of the parameters indicated above.

Pumping was maintained until the readings stabilized in order to obtain a more representative sample of the landfill gas at the sampling well. The pump was then stopped and the results were recorded in the memory of the gas analyzer unit with a specific reference site. This procedure minimized the risks of errors in the transcription of field results, as the data stored was then automatically downloaded into a computer without any need for retyping the recorded values.



Oxygen Levels at Ba'albeck Waste Dumpsite

