**FHTMS**

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**Parkietenbos Landfill Assignment:**

**Observations on 10/30/2017 at Parkietenbos landfill:**

*Outside*: Somewhat cloudy due to prior rainy day with occasional unusual chilly wind passing with burning smell. Measurements were around the same number inside and outside the landfill. Not many changes in rise and fall of numbers.

*Inside*: Truck traffic going up and down landfill hills. Smoke coming out of the ground in several locations. Visible heat waves. Sinking grounds due to saturated soils (previous day heavy rain). Burnt patches of ground. Strong fumes of perhaps chemicals in certain locations (further out, closer to the edge, near the ocean). Location of the landfill is right on the route of semi-submarine tours. Crevices and objects collect water which attracts mosquitoes. Different smells everywhere, namely, wet soil and dirt, burning smell, strong fumes of chemicals, car exhaust (smoke), burning trash.

No substantial decrease in measurements after it started raining.

**Example of standard photocell measurements in different locations.**

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| **Illuminance** | **Example of Location/environment** |
| **0.002 lux** | Moonless clear night sky |
| **0.2 lux** | Design minimum for emergency lighting (AS2293). |
| **0.27 - 1 lux** | Full moon on a clear night |
| **3.4 lux** | Dark limit of civil twilight under a clear sky |
| **50 lux** | Family living room |
| **80 lux** | Hallway/toilet |
| **100 lux** | Very dark overcast day |
| **300 - 500 lux** | Sunrise or sunset on a clear day. Well-lit office area. |
| **1,000 lux** | Overcast day; typical TV studio lighting |
| **10,000 - 25,000 lux** | Full daylight (not direct sun) |
| **32,000 - 130,000 lux** | Direct sunlight |

The photocell sensor measures the brightness in different locations or anywhere that is exposed to light. They commonly measure the intensity of light in lux to determine the resistance at various light levels. Considering the measurements were taken when it was reasonably cloudy, the numbers are below the standard 32,000 - 130,000 lux when in direct sunlight. Regardless, the sensor indicated that it was “Very bright” no matter the location (i.e underneath shade, in direct sunlight, inside car etc.).