

Attachment-8-1-Waste Generated and Animal By-Products (Supporting Information)

Details on the current leachate quality generated in the MSW Landfill is provided to the Agency in accordance with the requirements of the existing IED Licence (W0201-03).

Leachate quality depends on several parameters most notably:

- Solid waste composition (organic matter);
- Water balance and water handling on the landfill;
- Recirculation of leachate;
- Age of leachate;
- Operation of the landfill; and
- Speed of landfilling.

Leachate sample analysis from 2023 is presented in the table below. The location of the Leachate (TK2) sampling point is the leachate storage tank to the south east of the landfill body. The anticipated leachate quality composition for the treated leachate which will be removed off-site for disposal at a municipal WWTP is presented below. It is noted that this final effluent quality from the leachate treatment facility is subject to further detailed discussions with Irish Water to confirm acceptance at a suitable WWTP.

Results of the Annual Chemical Analysis of Leachate Sample TK-2 (15/11/2023)		
Sample Type	Units	Leachate
pH	pH Units	7.91
Conductivity	µS/cm	18,377
BOD	mg/l O ₂	173
COD	mg/l O ₂	189
Chloride	mg/l	2,142.5
Fluoride	mg/l	1.4
Total Phosphorous	mg/l	13,421
NH ₃ -N	mg/l	1,450.79
Sulphate	mg/l	341.5
Sodium (Dissolved)	mg/l	2,058.1
Magnesium (Dissolved)	mg/l	88.8
Potassium (Dissolved)	mg/l	956.4
Calcium (Dissolved)	mg/l	178.5
Iron (Dissolved)	µg/l	353
Chromium (Dissolved)	µg/l	311.6

Results of the Annual Chemical Analysis of Leachate Sample TK-2 (15/11/2023)

Sample Type	Units	Leachate
Manganese (Dissolved)	µg/l	309
Nickel (Dissolved)	µg/l	183
Copper (Dissolved)	µg/l	<14
Zinc (Dissolved)	µg/l	33
Cadmium (Dissolved)	µg/l	<1
Lead (Dissolved)	µg/l	<10
Arsenic (Dissolved)	µg/l	253.5
Mercury (Dissolved)	µg/l	<2
Cyanide	mg/l	<0.05
TON	mg/l	<0.2

*For Phenols, PAHs, Phthalates, other VOCs see Appendix 2-10 of the EIAR.