

SLR reference:	416.00798.00038
Project Manager:	RJ
Monitoring Undertaken by:	RJ & RG
DATE OF SAMPLING:	27/04/2022
SITE:	Rhayader WTS, Wales

Odour monitoring conducted as outlined in BS EN:13725:2022

Source 1

Food Waste - 2 days aged	
GEOMEAN ODOUR CONCENTRATION (ouE/m ³)	8037
DUCT TEMPERATURE (°C)	15.2
ACTUAL DUCT VOLUME FLOW RATE (m ³ /s)	
STANDARD CONDITIONS VOLUME FLOW RATE (273K) (Nm ³ /s)	
STANDARDISED VOLUME FLOW RATE for Odour calc (293K) (Nm ³ /s)	
MEASURED AIRSTREAM RELATIVE HUMIDITY (%)	
LIQUID MONITORING ORP RESULT (mV)	
LIQUID MONITORING pH RESULT	
LIQUID MONITORING TEMPERATURE RESULT (°C)	
ODOUR EMISSION RATE FOR:	
DUCT SOURCE (ouE/s ⁻¹)	
HOOD SOURCE (ouE/m ⁻² s ⁻¹)	
SHEET AREA SOURCE (ouE/m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ouE/m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ouE/s ⁻¹)	

SAMPLE I.D	220427ARG	220427BRG	220427CRG			
FINAL ODOUR CONC. (ouE/m ³)	8647	7807	7690			

Odour monitoring undertaken by:



Monitoring commissioned by:



ADDITIONAL REMARKS:

Ambient headspace monitoring.
 Duct temperature recorded is the ambient temperature within the skip. Ambient temp: 12.6°C.
 2-day old domestic waste, within sealed skip (roll on/off with hinged lid).
 Skips measure 4.9m long x 2.4m wide x 1.2m high

Source 2

Food Waste - 1 day aged	
GEOMEAN ODOUR CONCENTRATION (ouE/m ³)	2680
DUCT TEMPERATURE (°C)	15.6
ACTUAL DUCT VOLUME FLOW RATE (m ³ /s)	
STANDARD CONDITIONS VOLUME FLOW RATE (273K) (Nm ³ /s)	
STANDARDISED VOLUME FLOW RATE for Odour calc (293K) (Nm ³ /s)	
MEASURED AIRSTREAM RELATIVE HUMIDITY (%)	
LIQUID MONITORING ORP RESULT (mV)	
LIQUID MONITORING pH RESULT	
LIQUID MONITORING TEMPERATURE RESULT (°C)	
ODOUR EMISSION RATE FOR:	
DUCT SOURCE (ouE/s ⁻¹)	
HOOD SOURCE (ouE/m ⁻² s ⁻¹)	
SHEET AREA SOURCE (ouE/m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ouE/m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ouE/s ⁻¹)	

SAMPLE I.D	220427DRG	220427ERG	220427FRG			
FINAL ODOUR CONC. (ouE/m ³)	2752	2456	2848			

Odour monitoring undertaken by:



Monitoring commissioned by:



ADDITIONAL REMARKS:

Ambient headspace monitoring.
 Duct temperature recorded is the ambient temperature within the skip. Ambient temp: 12.6°C.
 1-day old domestic waste, within sealed skip (roll on/off with hinged lid).
 Skips measure 4.9m long x 2.4m wide x 1.2m high

Source 3

Fresh ¹ residual waste - location 1	
GEOMEAN ODOUR CONCENTRATION (ou _e .m ⁻³)	181
DUCT TEMPERATURE (°C)	
ACTUAL DUCT VOLUME FLOW RATE (m ³ /s)	
STANDARD CONDITIONS VOLUME FLOW RATE (273K) (Nm ³ /s)	
STANDARDISED VOLUME FLOW RATE for Odour calc (293K) (Nm ³ /s)	
MEASURED AIRSTREAM RELATIVE HUMIDITY (%)	
LIQUID MONITORING ORP RESULT (mV)	
LIQUID MONITORING pH RESULT	
LIQUID MONITORING TEMPERATURE RESULT (°C)	
ODOUR EMISSION RATE FOR:	
DUCT SOURCE (ou _e s ⁻¹)	
HOOD SOURCE (ou _e .m ⁻² .s ⁻¹)	1.4
SHEET AREA SOURCE (ou _e .m ⁻² .s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e .m ⁻² .s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e s ⁻¹)	

SAMPLE I.D	220427GRG	220427HRG	220427IRG			
FINAL ODOUR CONC. (ou _e /m ³)	253	95	248			

Odour monitoring undertaken by:



Monitoring commissioned by:



ADDITIONAL REMARKS:

Lindvall hood utilised - area source monitored.
Ambient temp: 12.6°C.
Waste tipped from RCV at 12:15, monitoring commenced at 12:45.

Source 4

Fresh ¹ residual waste - location 2	
GEOMEAN ODOUR CONCENTRATION (ou _e .m ⁻³)	353
DUCT TEMPERATURE (°C)	
ACTUAL DUCT VOLUME FLOW RATE (m ³ /s)	
STANDARD CONDITIONS VOLUME FLOW RATE (273K) (Nm ³ /s)	
STANDARDISED VOLUME FLOW RATE for Odour calc (293K) (Nm ³ /s)	
MEASURED AIRSTREAM RELATIVE HUMIDITY (%)	
LIQUID MONITORING ORP RESULT (mV)	
LIQUID MONITORING pH RESULT	
LIQUID MONITORING TEMPERATURE RESULT (°C)	
ODOUR EMISSION RATE FOR:	
DUCT SOURCE (ou _e s ⁻¹)	
HOOD SOURCE (ou _e .m ⁻² .s ⁻¹)	2.6
SHEET AREA SOURCE (ou _e .m ⁻² .s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e .m ⁻² .s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e s ⁻¹)	

SAMPLE I.D	220427JRG	220427KRG	220427LRG			
FINAL ODOUR CONC. (ou _e /m ³)	634	295	236			

Odour monitoring undertaken by:



Monitoring commissioned by:



ADDITIONAL REMARKS:

Lindvall hood utilised - area source monitored.
Ambient temp: 12.6°C.
Waste tipped from RCV at 12:15 (same load as monitored for location 1 above, but different hood placement), monitoring commenced at 13:10.

Source 5

Fresh' food waste - location 1	
GEOMEAN ODOUR CONCENTRATION (ou _e /m ³)	311
DUCT TEMPERATURE (°C)	
ACTUAL DUCT VOLUME FLOW RATE (m ³ /s)	
STANDARD CONDITIONS VOLUME FLOW RATE (273K) (Nm ³ /s)	
STANDARDISED VOLUME FLOW RATE for Odour calc (293K) (Nm ³ /s)	
MEASURED AIRSTREAM RELATIVE HUMIDITY (%)	
LIQUID MONITORING ORP RESULT (mV)	
LIQUID MONITORING pH RESULT	
LIQUID MONITORING TEMPERATURE RESULT (°C)	
ODOUR EMISSION RATE FOR:	
DUCT SOURCE (ou _e s ⁻¹)	
HOOD SOURCE (ou _e m ⁻² s ⁻¹)	2.5
SHEET AREA SOURCE (ou _e m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e s ⁻¹)	

SAMPLE I.D	220427MRG	220427NRG	220427ORG			
FINAL ODOUR CONC. (ou _e /m ³)	305	349	282			

Odour monitoring undertaken by:



Monitoring commissioned by:



ADDITIONAL REMARKS:

Lindvall hood utilised - area source monitored.
Ambient temp: 12.6°C.
Waste tipped from RCV at 12:50, monitoring commenced at 13:40.

Source 6

Fresh' food waste - location 2	
GEOMEAN ODOUR CONCENTRATION (ou _e /m ³)	271
DUCT TEMPERATURE (°C)	
ACTUAL DUCT VOLUME FLOW RATE (m ³ /s)	
STANDARD CONDITIONS VOLUME FLOW RATE (273K) (Nm ³ /s)	
STANDARDISED VOLUME FLOW RATE for Odour calc (293K) (Nm ³ /s)	
MEASURED AIRSTREAM RELATIVE HUMIDITY (%)	
LIQUID MONITORING ORP RESULT (mV)	
LIQUID MONITORING pH RESULT	
LIQUID MONITORING TEMPERATURE RESULT (°C)	
ODOUR EMISSION RATE FOR:	
DUCT SOURCE (ou _e s ⁻¹)	
HOOD SOURCE (ou _e m ⁻² s ⁻¹)	2.0
SHEET AREA SOURCE (ou _e m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e m ⁻² s ⁻¹)	
OUTWARD FLOW (BIOFILTER) (ou _e s ⁻¹)	

SAMPLE I.D	220427PRG	220427QRG	220427RRG			
FINAL ODOUR CONC. (ou _e /m ³)	271	255	287			

Odour monitoring undertaken by:



Monitoring commissioned by:



ADDITIONAL REMARKS:

Lindvall hood utilised - area source monitored.
Ambient temp: 12.6°C.
Waste tipped from RCV at 13:40 (different load as monitored for location 1 above), monitoring commenced at 14:04.