

Walleys Quarry Landfill		Permit Number: DP3734DC			Permit Ref	Extras L&NR	Extra Sapphire	Week No.	Analysis Carried out by
Locations	Total	Frequency	Suite	Permit Ref	Extras L&NR	Extra Sapphire	Week No.	Analysis Carried out by	
Point Source Emissions to Air									
A1, A2 and A4 (CLP)	3	Annual	NOx, CO, tVOCs	T S3.2			NA	CLP to provide results to Red RM	
A3 (CLP)	1	Annual	NOx, CO, tVOCs	T S3.2			NA	CLP to provide results to Red RM	
Mobile where present (CLP)	-	Annual	NOx, CO, tVOCs	T S3.2			NA	CLP to provide results to Red RM	
Perimeter Gas									
GMP201s&d, 202s&d, 203s&d,204s&d, 205s&d, 206s&d, 207s&d, 209As&d, 104	17	Monthly	Methane (%v/v), Carbon Dioxide (%v/v), Oxygen (%v/v) Atmospheric pressure (mb), differential pressure, dip level mAOD Record if ground is dry, wet, waterlogged, frozen or snow covered	T S3.5			1	Red RM GA5000 and Atex Dip tape	
		Annually	Dip to base of borehole (m)	TS3.9			NA	Red RM Atex Dip Tape	
GMP 1s&d – 23s&d	47	Monthly	Methane (%v/v), Carbon Dioxide (%v/v), Oxygen (%v/v) Atmospheric pressure (mb), differential pressure, Record if ground is dry, wet, waterlogged, frozen or snow covered	T S3.5			2	Red RM GA5000	
Internal Gas									
LS1A, 2A, 3, 4, 5, 6, 7,8,9	9	Permit Monthly Agreed weekly	Methane (%v/v), Carbon Dioxide (%v/v), Oxygen (%v/v), H2S (ppm) CO (ppm), Atmospheric pressure (mb), temperature, differential pressure (mb)	T S3.1	Weekly		1,2,3,4	Red RM GA5000	
Combined monitoring, extraction wells and SMP's (CLP)	?	Monthly (CLP)	Methane (%v/v), Carbon Dioxide (%v/v), Oxygen (%v/v) H2S (ppm) CO (ppm) Atmospheric pressure (mb), differential pressure, (flow m3/hr), and balance gas	T S3.10				CLP to provide results to Red RM	
Combined monitoring and extraction wells (audit)	?	Monthly (LT)	Methane (%v/v), Carbon Dioxide (%v/v), Oxygen (%v/v) H2S (ppm) CO (ppm) Atmospheric pressure (mb), differential pressure, (flow m3/hr)	Not a permit Requirement	Monthly Audit				
Flare temp CLP compound	1	weekly	temperature or comment if inoperable	Ts3.9			1,2,3,4	Dean Broadhurst	
CLP Compound Inlet main pipe	1	weekly	Methane (%v/v), Carbon Dioxide (%v/v), Oxygen (%v/v) H2S (ppm) CO (ppm) Atmospheric pressure (mb), differential pressure, (flow m3/hr), flow rate of gas	Ts3.9			1,2 ,3,4	CLP to provide results to Red RM	
Trace gas (compound)	1	Annual august		Ts3.9			NA	CLP to provide results to Red RM	
Capped and temporary capped areas	n/a	Annual September	Methane concentration -Flammable gas (ppm) FID and flux box As per LFTGN07	T S3.8			NA	Red RM FID	
Whole site	n/a	Annual September	Total methane emission As per LFTGN07	TS3.8			NA	Red RM FID	

Monitoring works	
	weekly
	monthly
	quarterly
	annually

Perimeter and internal	n/a	Ad hoc	Flammable gas (ppm) FID	Not a permit Requirement			Dean Broadhurst, as required	
Groundwater Quality								
GW1 (Groundwater Pumped to Top Lagoon)	1	Quarterly Mar Sep Dec	pH, EC, NH4_N, Cl, Hg, Ni, Phenol	T S3.4			1	RM sample then External Lab - Chemtest
		Annually	As quarterly plus: Mecoprop, tributyltin, xylene	T S3.9			NA	
Groundwater Monitoring Boreholes (GMPs 201s&d, 202s&d, 203s&d, 204s&d, 205s&d, 206s&d, 207s&d, 208, 209As&d)	17	Quarterly Mar Sep Dec	pH, EC, Ammoniacal-N, Cl	TS3.9			1	RM sample then External Lab - Chemtest
		Annually	As quarterly plus: Alkalinity, Mg, K, Sulphate, Ca, Na, Cr, Cu, Fe, Pb, Ni, Zn, Mn, Mecoprop, tributyltin, xylene	TS3.9			NA	
Surface Water Quality								
S1- S6 (S3 has no flow) MEPP upstream and downstream monitoring	6	Monthly	pH, EC, Cl, NH4_N,SS, Visual oil and grease comment	TS3.12			1	RM sample then External Lab - Chemtest
SW1 (pumped site drainage to Silverdale Brook)	1	Daily	Visible oil, max. rate of discharge (lts/sec), max. daily volume (m3/day)	T S3.3		Turbidity comment for oil and	NA	Dean Broadhurst
SW1 (pumped site drainage to Silverdale Brook)	1	Permit Monthly Agreed weekly	pH, Electrical Conductivity, Ammonical Nitrogen (NH4_N), Suspended Solids, Turbidity (NTU)	T S3.3	Weekly		1,2,3,4	RI sample then External Lab - Chemtest
Leachate Quality								
LS1b, 2b, 3, 4, 5, 6, 7, 8, 9		Quarterly Mar Sep Dec	pH, EC, Cl, NH4-N, COD, BOD, Cd, Cr, Cu, Pb, Ni, Fe, Arsenic, Mg, K, SO4, Ca, Na, Zn, Mn	T S3.11			1	RM sample then External Lab - Chemtest
		Annually	As quarterly plus + List I and II suites	T S3.11			Annual	RM sample then External Lab - Chemtest
Discharge to Sewer (sample from effluent tank at treatment plant)	1	Weekly	pH, EC, Ammoniacal-N, Cl, BOD, COD and Alkalinity	Not Permit Requirement (severn trent)	This is extra		1,2,3,4	RM sample then External Lab - Chemtest
		Monthly (at time of LEACHATE)	As weekly plus: sulphate, sulphide, SS, Cr, Cu, Pb, Ni, Zn and TPH	Not Permit Requirement (severn trent)	This is extra		1	RM sample then External Lab - Chemtest
		Annually	As monthly plus: mecoprop, 2,4 DB and 2,4 DP, dissolved methane	Not Permit Requirement (severn trent)	This is extra		NA	RM sample then External Lab - Chemtest
Raw Leachate (Balancing tank)	1	Weekly	pH, EC, Ammoniacal-N, Cl, BOD, COD and Alkalinity	Not permit requirement	This is extra		1,2,3,4	RM sample then External Lab - Chemtest
Leachate Levels								
LS1, 2, 3, 4, 5, 6, 7,8,9	8	Permit Monthly Agreed weekly	Leachate Level (mAOD), leachate depth (m)	T S3.1	Weekly		1,2,3,4	Red RM Atex Dip Tape
LS1, 2, 3, 4, 5, 6, 7,8,9	8	Annually	Dip to base (m)	T S3.11	Annual		NA	Red RM Atex Dip Tape
Perimeter Monitoring and onto site								

Perimeter Walk to monitor for odour	see prev GPS reports	Weekly	Walk and log on GPS based on odour (currently Radic). 25-30ppm methane is a guide trigger level for action. If odour detected log on agency scale out of 6 for parity.	Not a permit requirement, dependent on odour issues	Weekly		NA	Dean Broadhurst FID
Gas Field Walk								
Gas field walk to check status of wells and pipework		Weekly	Check that wells/towers are extracted and under negative pressure, work back from well through pipework, check for damage. Check for leaks. Check for water in the pipework that can freeze and cause damage/block extraction.	Not a permit requirement, dependent on odour issues	Weekly		NA	Dean Broadhurst FID
Dust Monitoring								
Dust monitoring from Frisbee Meters		3 monthly	mg/m2/day and TDS mg/m2/day - limit is < 200mg/m2	S1.2 Dust management plan			NA	Dean Broadhurst Frisbee Meters then ESG test