GLOSSARY

Term	Definition
abiotic	not biological
advective	transport caused by pressure differential
aerobic oxidation	term used to describe bacterial metabolism in an oxygenated (aerobic) environment.
aliphatic	of, relating to, or being an organic compound (such as an alkane) having an open-chain structure
anaerobic decomposition	breakdown of organic material into simpler compounds in environment free of oxygen
anaerobic soluble sugar fermentation	breakdown of sugar by enzymes in environment free of oxygen
anthropogenic	resulting from the influence/actions of human beings
autotrophic	requiring only carbon dioxide or carbonates as source of carbon and a simple inorganic nitrogen compound for metabolic synthesis of organic molecules
bandwidth	a range within a band of wavelengths, frequencies, or energies
biogenic	produced by living organisms
biological transformation	changing one configuration to another through processes of living organisms
BMP assays	analysis of biomethane potential
BMP protocols	set of established procedures for determining biomethane potential
decarboxylation	the removal or elimination of carboxyl from a molecule
diffusive	transport caused by pressure differential
electron acceptor	chemical entity that accepts electrons transferred to it from another compound
evapotranspirative cover system	monolithic or capillary break soil cover system that functions to balance water transport using evapotranspiration from the surface
extracellular byproducts	waste products released by bacterial cells during metabolism of different substrates present in the environment.
extracellular polymeric substances	sticky polysaccharides released by bacteria to improve flocculation and attachment to surfaces.
gas particle transfer	movement of gas particles
heterotrophic	requiring complex organic compounds of nitrogen and carbon (such as that obtained from plant or animal matter) for metabolic synthesis
hydraulic conductivity	the ease with which fluids pass through porous media under unit hydraulic gradient
hydrophilic	having strong affinity to water

Term	Definition
hydrophobic	lacking affinity to water
ionizable functional groups	any uncharged group in a molecular entity that is capable of dissociating by yielding an ion (usually an H+ ion) or an electron and itself becoming oppositely charged
kernel center	an empirical method to estimate probability distribution functions that relies on distance weighting to randomized points (kernel centers) in high dimensional space.
lipophilic	having an affinity to lipids (e.g., fats)
lysimeter	isolated zone installed beneath system to quantify leakage rate
methane oxidation	biologically mediated transformation of methane in cover materials in the presence of oxygen and methanotrophs
methanogenesis	formation of methane by microbes known as methanogens
methanotrophs	bacteria or archaea that metabolize methane as their only source of carbon and energy
non-parametric kernel density estimator	an empirical method to estimate probability distribution functions that relies on distance weighting to randomized points (kernel centers) in high dimensional space.
occluded	obstructed, isolated
parametric statistical model	A statistical model that has a direct, analytical procedure to calculate a probability distribution function.
physico-chemical	being physical and chemical
porosity	volumetric fraction of voids in a soil structure (quotient of volume of voids and total volume)
radiative forcing	difference between insolation (sunlight) absorbed by the Earth and energy radiated back to space
retardation	delay in transport of a chemical
sorption	act of holding by either adsorption or absorption
tensile strain	act of increasing in length due to application of tensile forces or stresses
tortuosity	state of being twisted or winding

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APPENDIX A

Chemical Family	Chemical Species	Min	Mean	Max	Standard Deviation	Number of Samples
Baseline GHGs	Methane	4.48E+01	1.60E+05	7.75E+05	1.62E+05	1109
	Carbon dioxide	2.92E+02	5.44E+05	3.52E+06	3.23E+05	497
	Nitrous oxide	4.92E-01	2.03E+01	2.43E+02	4.56E+01	59
	Carbon monoxide	3.14E+00	3.04E+01	8.97E+01	3.46E+01	8
Reduced sulfur compounds	Carbonyl sulfide	2.60E-04	6.33E-01	7.49E+00	1.65E+00	34
	Dimethyl sulfide	2.58E-05	7.69E+00	6.00E+01	1.28E+01	91
	Dimethyl disulfide	3.92E-05	8.93E-01	1.70E+00	4.59E+00	80
	Carbon disulfide	1.27E-04	8.64E-01	1.69E+01	2.17E+00	95
F-gases	CFC-11	4.05E-02	2.45E+00	7.40E+01	5.65E+00	223
	CFC-12	1.00E-03	1.11E+01	2.31E+02	2.35E+01	433
	CFC-113	1.00E-02	1.24E+00	4.90E+01	7.05E+00	225
	CFC-114	5.61E-02	8.43E-01	3.01E+00	8.22E-01	14
	HCFC-21	2.70E-02	2.55E+01	1.14E+02	3.01E+01	19
	HCFC-22	5.00E-01	7.58E+01	4.04E+02	1.18E+02	27
	HCFC-141b	2.16E+01	2.78E+01	5.77E+01	2.74E+01	3
	HCFC-142b	5.00E-01	1.06E+01	3.10E+01	1.13E+01	11
	HFC-134a	1.60E+00	4.49E+00	2.70E+00	4.09E+00	3
	HFC-152a	-	3.32E+00	-	0	1
	HFC-245fa	-	1.45E-01	-	0	1
	HFC-365mfc	-	-	-	-	-
	Halon-1211	8.10E-04	1.90E-03	1.70E-03	1.20E-03	3
Halogenated Hydrocarbons	Chloroform	0.00E+00	4.66E+01	9.13E+02	1.04E+02	97
	Methyl-Chloroform	1.66E-02	4.07E+00	3.13E+01	1.11E+01	251
	Carbon tetrachloride	0.00E+00	2.06E+01	7.95E+02	9.71E+01	74
	Methylene chloride	5.91E-03	2.29E+01	1.45E+02	3.21E+01	83
	Trichloroethylene	0.00E+00	1.37E+01	1.52E+02	3.38E+01	157
	Tetrachloroethylene	0.00E+00	2.39E+01	3.50E+02	5.66E+01	113
	Methyl chloride	0.00E+00	4.25E-01	2.43E+00	6.56E-01	23
	Bromomethane	0.00E+00	3.74E-01	1.45E+00	6.43E-01	13
	Dibromomethane	4.60E-03	6.03E-03	7.44E-03	2.03E-03	2
	Bromodichloromethane	1.87E-02	5.98E-02	1.01E-01	5.82E-02	2
	Bromoform	0.00E+00	3.97E-01	1.05E+00	7.74E-01	10
	Chloroethane	1.20E+00	3.98E+00	1.70E+01	5.76E+00	7
	1,2-Dichloroethane	0.00E+00	6.09E-01	1.07E+01	1.69E+01	60
	1,2-Dibromoethane	-	-	-	-	-
Organic Alkyl Nitrates	Methyl nitrate	9.80E-06	2.44E-05	3.90E-05	2.06E-05	2
	Ethyl nitrate	1.20E-05	2.75E-05	4.30E-05	2.19E-05	2
	Isopropyl nitrate	1.10E-05	3.16E-04	6.20E-04	4.31E-04	2
	N-propyl nitrate	4.00E-06	1.10E-05	1.80E-05	9.90E-06	2
	2-Butyl nitrate	1.30E-05	3.05E-05	4.80E-05	2.47E-05	2

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Chemical Family	Chemical Species	Min	Mean	Max	Standard Deviation	Number of Samples
Alkanes	Ethane	2.10E+00	2.04E+02	1.75E+01	1.21E+02	276
	Propane	1.00E-03	2.24E+01	6.73E+01	1.10E+01	285
	i-Butane	4.70E-02	5.25E+01	2.24E+02	8.55E+01	70
	n-Butane	9.46E-01	2.08E+01	2.11E+02	4.31E+01	274
	i-Pentane	1.60E-02	1.04E+01	3.12E+01	6.72E+00	274
	n-Pentane	3.60E-02	4.91E+00	7.32E+01	9.36E+00	292
	n-Hexane	1.00E-03	5.08E+00	9.32E+01	8.91E+00	339
	n-Undecane	1.00E-03	2.97E+01	1.09E+02	1.63E+01	274
Alkenes	Ethene	1.70E+00	3.17E+00	2.80E+00	1.68E+00	3
	Propene	2.82E+00	5.93E+00	8.40E+00	1.95E+00	7
	1-Butene	1.00E-03	3.24E-01	1.27E+00	2.46E-01	71
	i-Butene	1.00E-03	2.52E-01	4.00E-01	1.49E-01	5
	trans-2-butene	-	-	-	-	-
	1-pentene	-	3.75E-01	-	0	1
	Isoprene	-	-	-	-	-
Aldehydes/Alkynes	Ethyne	3.29E-02	1.30E-01	1.00E-01	1.55E-01	6
	Acetaldehyde	1.00E-01	3.12E-01	2.00E-01	2.85E-01	3
	Butanal	3.66E-03	2.80E-01	1.55E+00	5.95E-01	70
Aromatic Hydrocarbons	Benzene	7.14E-04	4.21E+00	1.14E+02	1.04E+01	492
	Toluene	1.00E-03	6.42E+01	9.71E+02	9.46E+01	467
	Ethylbenzene	1.00E-03	2.21E+01	2.40E+02	2.94E+01	405
	m+p-Xylene	1.00E-03	4.52E+01	6.78E+02	7.37E+01	380
	o-Xylene	6.18E-04	9.34E+00	8.34E+01	1.37E+01	370
	i-Propylbenzene	-	-	-	-	-
	n-Propylbenzene	6.60E-01	1.17E+01	1.20E+02	1.24E+01	212
	3-Ethyltoluene	1.77E+00	1.32E+01	7.70E+00	5.13E+00	204
	4-Ethyltoluene	-	1.00E+01	-	5.00E+00	200
	2-Ethyltoluene	-	1.71E+01	-	5.00E+00	200
	1,3,5-Trimethylbenzene	6.00E-03	8.29E+00	5.30E+01	6.57E+00	260
	1,2,3-Trimethylbenzene	1.11E+00	8.56E+00	1.28E+01	6.85E+00	233
	1,2,4-Trimethylbenzene	3.20E-02	2.17E+01	7.75E+01	1.22E+01	270
	m+p+o-Xylene	2.08E-01	5.90E+01	4.40E+02	7.05E+01	113
Monoterpenes	alpha-Pinene	1.00E-03	3.48E+01	8.84E+01	1.94E+01	269
	beta-Pinene	3.90E-02	1.09E+00	1.16E+01	2.72E+00	27
	Limonene	1.00E-03	1.60E+02	2.59E+02	7.90E+01	273
Alcohols	Methanol	2.53E-02	4.93E+00	2.10E+02	2.58E+01	67
	Ethanol	7.66E-03	3.33E+01	8.00E+02	1.48E+02	76
	Isopropanol	2.92E-01	6.11E+00	1.43E+01	7.35E+00	10
	2-butanol	1.90E+01	7.45E+01	2.10E+02	7.70E+01	6
Ketones	Acetone	9.66E-03	1.68E+01	9.31E+01	1.90E+01	309
	Butanone	2.00E+01	3.86E+01	4.99E+01	9.55E+00	33
	Methylisobutylketone	2.20E-01	1.18E+01	2.95E+01	1.66E+01	59

Landfill gas concentrations are shown in micrograms per liter.

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
1	Abichou et al. 2006a	Leon County, FL, USA	USA	Cfa	September 2003-February 2004	-	-	7
			USA	Cfa	February 2004-May 2004	-	-	1
2	Abichou et al. 2006b	Leon County, FL, USA	USA	Cfa	June 2003-September 2003	-	-	7
			USA	Cfa	June 2003-July 2003	-	-	14
			USA	Cfa	June 2003-November 2003	-	-	1
			USA	Cfa	September 2003-Feburary 2004	-	-	7
3,4	Bogner 1992 and	Brea-Olinda, CA, USA	USA	Csa	Mar-88	-	-	28
	Bogner and Spokas 1993[1]		USA	Csa	Mar-88	-	-	28
5	Bogner et al. 1995[1,3]		USA	Csa	1994 (Month unspecified)	-	-	34
			USA	Csa	1994 (Month unspecified)	-	-	34
6	Bogner et al. 1993[1,3,8]	Mallard Lake, Illinois, USA	USA	Dfa	1992-1993 (Month unspecified)	-	-	18
			USA	Dfa	1992-1993 (Month unspecified)	-	-	18
			USA	Dfa	1992-1993 (Month unspecified)	-	-	18
			USA	Dfa	1992-1993 (Month unspecified)	-	-	18
			USA	Dfa	1992-1993 (Month unspecified)	-	-	18
7	Bogner et al. 1995[1,3,8]	Mallard Lake, Illinois, USA 1994	USA	Dfa	1994 (Spring/Early Summer)	-	-	19
			USA	Dfa	1994 (Spring/Early Summer)	-	-	19
8,9	Bogner et al. 1997a, Bogner et al. 1999[1,3,8]	Mallard Lake, Illinois, USA 1994	USA	Dfa	June-December 1995	-	-	20
			USA	Dfa	June-December 1995	-	-	20
10	Czepiel et al. 1996 (some unpublished) as reported in Bogner et al. 1997a	Nashua, New Hampshire, USA	USA	Dfb	-	-	-	25
			USA	Dfb	-	-	-	25
			USA	Dfb	-	-	-	25
			USA	Dfb	-	-	-	25
			USA	Dfb	-	-	-	25
11	Mosher et al. 1999[3,8]	Rochester, New Hampshire, USA	USA	Dfb	Jul-94	-	2,780,000	17
		Nashua, New Hampshire, USA	USA	Dfb	Aug-95	-	2,230,000	24
		Wayland, Massachusetts, USA	USA	Dfb	Jun-95	-	-	16
		Sudbury, Massachusetts, USA	USA	Dfb	Aug-94	-	-	-
		Privately operated landfill-A	USA	-	Jul-95	-	5,700,000	34
		Privately operated landfill-E	USA	-	Jun-95	-	3,700,000	46
12	Gregory and Skennerton 1997 (unpublished) as reported in Bogner et al. 1997a[5]	United Kingdom, 26 sites	UK	Cfb	Winter and Summer	-	-	-
13	Svensson and Borjesson 1993 (unpublished) as	Hokhuvud, Sweden	Sweden	Dfb	-	-	-	-
		Hogbytorp, Sweden	Sweden	Dfb	-	-	-	-
14	Scott et al. 1992	Brogborough, U.K.	UK	Cfb	-	-	-	-
15	Nozhevnikova et al. 1993	Moscow, Russia	Russia	Dfb	-	24,000,000	17,086,648	-
			Japan	Cfa	Jun-01	1,450,000	1,032,318	19

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
16	Ishigaki et al. 2005	Kanto, Japan	Japan	Cfa	Nov-01	1,450,000	1,032,318	19
			Russia	Cfa	Feb-01	1,450,000	1,032,318	19
17	Kallistova et al. (2005)[3]	Khmet'evo LF, Moscow, Russia	Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Apr-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Russia	Dfb	Jun-02	-	-	-
			Sweden	Dfb	May-92	160,000	113,911	29
			Sweden	Dfb	Jun-92	160,000	113,911	29
			Sweden	Dfb	Jul-92	160,000	113,911	29
			Sweden	Dfb	Sep-92	160,000	113,911	29
			Sweden	Dfb	May-93	160,000	113,911	29
			Sweden	Dfb	Jun-93	160,000	113,911	29

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
18	Borjesson and Svensson 1997a[3,6]	Hokhuvud LF, Sweden	Sweden	Dfb	Jul-93	160,000	113,911	29
			Sweden	Dfb	Aug-93	160,000	113,911	29
			Sweden	Dfb	Sep-93	160,000	113,911	29
			Sweden	Dfb	Nov-93	160,000	113,911	29
			Sweden	Dfb	Dec-93	160,000	113,911	29
			Sweden	Dfb	Jan-94	160,000	113,911	29
			Sweden	Dfb	Feb-94	160,000	113,911	29
			Sweden	Dfb	Mar-94	160,000	113,911	29
			Sweden	Dfb	Apr-94	160,000	113,911	29
			Sweden	Dfb	May-94	160,000	113,911	29
			Sweden	Dfb	Jun-94	160,000	113,911	29
			Sweden	Dfb	Jul-94	160,000	113,911	29
19	Borjesson et al. 2000[3]	Falevi LF, Sweden	Sweden	Dfb	6-May-97	325,000	231,382	35
			Sweden	Dfb	2-Jul-97	325,001	231,382	35
			Sweden	Dfb	21-Oct-97	325,002	231,383	35
20	Boeckx et al. 1996[3]	Antwerp, Belgium	Belgium	Cfb	Jun-94	-	-	-
			Belgium	Cfb	Jul-94	-	-	-
			Belgium	Cfb	Aug-94	-	-	-
			Belgium	Cfb	Sep-94	-	-	-
			Belgium	Cfb	Oct-94	-	-	-
			Belgium	Cfb	Nov-94	-	-	-
			Belgium	Cfb	Dec-94	-	-	-
21	Scheutz et al. 2003	Lapouyade Landfill, France	France	Cfb	Sep-01	-	310,000	6
			France	Cfb	Sep-01	-	-	6
22	Schuetz et al. 2008	Grand'Landes Landfill, France	France	Cfb	Sep-02	-	54,000	12
			France	Cfb	Sep-02	-	54,000	12
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
23,24	Christophersen et al. 2001, Christophersen & Kjeldsen 2001[3]	Skellingsted Landfill, Denmark	Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
			Denmark	Dfb	May 1997-May 1998	-	420,000	25
25	Jones and Nedwell 1993[8]	Martin's Farm LF, UK	UK	Cfb	-	-	-	-
			UK	Cfb	-	-	-	-
			UK	Cfb	-	-	-	-
			UK	Cfb	-	-	-	-
26	Meadows et al. 1999[8]	UK	UK	Cfb	-	-	-	-
27	Maurice and Lagerkvist 1997[8]	Lulea, Sweden	Sweden	Dfc	-	-	-	-
			Sweden	Dfc	-	-	-	-
28	Barlaz et al. 2004	Outer Loop LF, Louisville, KY, USA	USA	Cfa	Apr-02	-	-	4
			USA	Cfa	Apr-02	-	-	4
			USA	Cfa	Apr-02	-	-	4
			USA	Cfa	Jun-02	-	-	4
			USA	Cfa	Jun-02	-	-	4
			USA	Cfa	Jun-02	-	-	4
			USA	Cfa	Sep-02	-	-	4
			USA	Cfa	Sep-02	-	-	4
			USA	Cfa	Sep-02	-	-	4
			USA	Cfa	Jun-03	-	-	4
			USA	Cfa	Jun-03	-	-	4
			USA	Cfa	Jun-03	-	-	4
			USA	Cfa	Jun-03	-	-	4
			USA	Cfa	Jun-03	-	-	4
			USA	Cfa	Jun-03	-	-	4
29	Ishigaki et al. 2008	Nam Son/Tay Mo LF, Hanoi, Vietnam	Vietnam	Cwa	Jan-05	-	-	8
			Vietnam	Cwa	Jan-05	-	-	5
			Vietnam	Cwa	Jan-05	-	-	4
		Campbellton, Florida, USA	USA	Cfa	May 2006-December 2009	-	11,892,841	24.5
		Louisville, Kentucky, USA	USA	Cfa	May 2006-December 2009	-	31,368,908	38.5
		Campbellton, Florida, USA	USA	Cfa	May 2006-December 2009	-	11,892,841	24.5
		Glencoe, Minnesota, USA	USA	Dfa	May 2006-December 2009	-	6,794,033	36.5

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
30	Abichou et al. 20111[1,7]	Louisville, Kentucky, USA	USA	Cfa	May 2006-December 2009	-	31,368,908	38.5
		Humble, Texas, USA	USA	Cfa	May 2006-December 2009	-	31,932,277	24.5
		Petersburg, Virginia, USA	USA	Cfa	May 2006-December 2009	-	2,522,329	30.4
		Jetersville, Virginia, USA	USA	Cfa	May 2006-December 2009	-	9,508,301	14.5
		Franklin, Wisconsin, USA	USA	Dfb	May 2006-December 2009	-	22,097,499	55.5
		Glencoe, Minnesota, USA	USA	Dfa	May 2006-December 2009	-	6,794,033	36.5
		Waverly, Virginia, USA	USA	Cfa	May 2006-December 2009	-	33,946,639	13.5
		Petersburg, Virginia, USA	USA	Cfa	May 2006-December 2009	-	2,522,329	30.5
		Jetersville, Virginia, USA	USA	Cfa	May 2006-December 2009	-	9,508,301	14.5
		Muskego, Wisconsin, USA	USA	Dfb	May 2006-December 2009	-	13,310,659	12.5
		Humble, Texas, USA	USA	Cfa	May 2006-December 2009	-	31,932,277	24.5
		Lake, Missippi, USA	USA	Cfa	May 2006-December 2009	-	6,713,437	16.5
		Glenford, Ohio, USA	USA	Dfa	May 2006-December 2009	-	11,815,593	25.5
			USA	Dfa	May 2006-December 2009	-	11,815,593	25.5
31	Capaccioni et al. 2011[1]	Fano LF site, Italy	Italy	Csa	May 2005-July 2009	-	1,400,000	27
			Italy	Csa	May 2005-July 2009	-	771,000	11
			Italy	Csa	May 2005-July 2009	-	1,400,000	27
			Italy	Csa	May 2005-July 2009	-	771,000	11
			Italy	Csa	May 2005-July 2009	-	1,400,000	27
			Italy	Csa	May 2005-July 2009	-	771,000	11
			Italy	Csa	May 2005-July 2009	-	1,400,000	27
			Italy	Csa	May 2005-July 2009	-	771,000	11
			Italy	Csa	May 2005-July 2009	-	771,000	11
			Italy	Csa	May 2005-July 2009	-	-	0.5
			Italy	Csa	May 2005-July 2009	-	1,400,000	27
			Italy	Csa	May 2005-July 2009	-	771,000	11
			Italy	Csa	May 2005-July 2009	-	771,000	11
			Italy	Csa	May 2005-July 2009	-	-	0.5
32	Di Trapani et al. 2013[1]	Bellolampo, Palermo LF site, Italy	Italy	Csa	April 2010-June 2010	-	-	16
			Italy	Csa	April 2010-June 2010	-	-	16
			Italy	Csa	April 2010-June 2010	-	-	14
			Italy	Csa	April 2010-June 2010	-	-	14
			Italy	Csa	April 2010-June 2010	-	-	14
			Italy	Csa	April 2010-June 2010	-	-	3
			Italy	Csa	April 2010-June 2010	-	-	16
			Italy	Csa	April 2010-June 2010	-	-	15
			Italy	Csa	April 2010-June 2010	-	-	14

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
			Italy	Csa	April 2010-June 2010	-	-	14
			Italy	Csa	April 2010-June 2010	-	-	14
			Italy	Csa	April 2010-June 2010	-	-	3
33	Di Bella et al. 2011	Bellolampo, Palermo LF site, Italy	Italy	Csa	May-09	6,191,670	8,050,040	9.666666667
34	Klusman and Dick 2000	Rooney Rd LF site, CO, USA	USA	Dfb	Fall 1994, Winter 1994-1995, Summer 1995	-	-	-
			USA	Dfb	Fall 1994, Winter 1994-1995, Summer 1995	-	-	-
			USA	Dfb	Fall 1994, Winter 1994-1995, Summer 1995	-	-	-
35	Hedge et al. 2003[5]	Shan-Chu-Ku LF, Taipei City, Taiwan	Taiwan	Cfa	Feb-May 1998	-	1,022,000	0.5
			Taiwan	Cfa	Feb-May 1998	-	1,533,000	1
			Taiwan	Cfa	Feb-May 1998	-	2,555,000	5
36	Jeong et al. 2019[1,5]	10 LF Sites across South Korea	South Korea	Dwa	June-July 2015	7,650,683	5,446,855	19
			South Korea	Dwa	Aug-15	7,650,683	5,446,855	19
			South Korea	Dwa	Sep-15	7,650,683	5,446,855	19
			South Korea	Dwa	November-December 2015	7,650,683	5,446,855	19
			South Korea	Dwa	Mar-11	1,995,661	1,420,798	16
			South Korea	Dwa	April-May 2011	3,114,008	2,216,998	16
			South Korea	Dwa	Jun-15	1,800,302	1,281,714	17
			South Korea	Dwa	July-August 2015	1,800,302	1,281,714	17
			South Korea	Dwa	Sep-15	1,800,302	1,281,714	17
			South Korea	Dwa	Nov-15	1,800,302	1,281,714	17
			South Korea	Dwa	Mar-11	2,085,229	1,484,566	23
			South Korea	Dwa	Jun-14	2,085,229	1,484,566	23
			South Korea	Dwa	Jul-14	2,085,229	1,484,566	23
			South Korea	Dwa	Aug-14	2,085,229	1,484,566	23
			South Korea	Dwa	Aug-14	2,085,229	1,484,566	23
			South Korea	Dwa	Sep-11	450,662	320,846	11
			South Korea	Dwa	Mar-11	139,283	99,162	8
			South Korea	Dwa	Sep-11	314,207	223,698	17
			South Korea	Dwa	Aug-11	344,304	245,125	13
			South Korea	Dwa	Jul-15	321,539	228,918	16
			South Korea	Dwa	Aug-15	321,539	228,918	16
			South Korea	Dwa	Sep-15	321,539	228,918	16
37	Raco et al. 2010[3]	Legoli LF, Tuscany, Italy	Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-
			Italy	Csa	May 2004-January 2009	-	3,100,000	-

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			Italy	Csa	May 2004-January 2009	-	3,100,000	-
38	Fourie and Morris 2004[1,6]	4-Landfills near Johannesburg, South Africa	South Africa	Cwb	March/September 1999	115,500	82,229	4
			South Africa	Cwb	March/September 1999	115,500	82,229	4
			South Africa	Cwb	March/September 1999	100,500	71,550	10
			South Africa	Cwb	March/September 1999	1,830,000	1,302,857	10
			South Africa	Cwb	March/September 1999	2,190,000	1,559,157	-
			South Africa	Cwb	March/September 1999	4,500,000	3,203,747	71
39	Stern et al. 2007	Leon County, FL, USA	USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
			USA	Cfa	March 2004-May 2005	-	-	8
40	Bogner et al. 2011[1]	Marina LF, Monterey,CA, USA	USA	Csa	March and August 2007/2008	-	-	-
			USA	Csa	March and August 2007/2008	-	-	-
			USA	Csa	March and August 2007/2008	-	-	-
			USA	Csa	March and August 2007/2008	-	-	-
			USA	Csa	March and August 2007/2008	-	-	-
			USA	Csa	March and August 2007/2008	-	-	-
			USA	Csa	March and August 2007/2008	-	-	40.5
			USA	Csa	March and August 2007/2008	-	-	40.5
		Scholl Canyon LF, Los Angeles, USA	USA	Csb	March and August 2007/2008	-	-	-
			USA	Csb	March and August 2007/2008	-	-	-
			USA	Csb	March and August 2007/2008	-	-	-
			USA	Csb	March and August 2007/2008	-	-	-
			USA	Csb	March and August 2007/2008	-	-	45.5
			USA	Csb	March and August 2007/2008	-	-	45.5
41	Tregoures et al. 1999[1]	LF Site North of Paris, France	France	Cfb	Jul-96	-	-	7
			France	Cfb	Jul-96	-	-	7
			France	Cfb	Jul-96	-	-	7
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
42	Chanton and Liptay 2000[1]	Leon County, FL, USA	USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
			USA	Cfa	December 1996-January 1998	-	-	20
43	Zhang et al. 2013[6]	Nanjing City, Eastern China	China	Cwa	Apr-12	100,000	71,194	7
			China	Cwa	Apr-12	100,000	71,194	7
			China	Cwa	Apr-12	100,000	71,194	7
			China	Cwa	Apr-12	100,000	71,194	7
			China	Cwa	Apr-12	100,000	71,194	7
			China	Cwa	Apr-12	100,000	71,194	7
			China	Cwa	Apr-12	1,300,000	925,527	3
			China	Cwa	Apr-12	1,300,000	925,527	3
			China	Cwa	Apr-12	1,300,000	925,527	3
			China	Cwa	Apr-12	1,300,000	925,527	3
			China	Cwa	Apr-12	1,300,000	925,527	3
			China	Cwa	Apr-12	1,300,000	925,527	3
			China	Cwa	Apr-12	5,000,000	3,559,718	3
			China	Cwa	Apr-12	5,000,000	3,559,718	3
			China	Cwa	Apr-12	5,000,000	3,559,718	3
			China	Cwa	Apr-12	5,000,000	3,559,718	3
			China	Cwa	Apr-12	5,000,000	3,559,718	3
			China	Cwa	Apr-12	5,000,000	3,559,718	3
44	Bogner et al. 1997b[1]	Green Valley LF, Illinois, USA	USA	Dfa	May-96	-	32,259,540	22
			USA	Dfa	May-96	-	32,259,540	22
			USA	Dfa	May-96	-	32,259,540	22

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
44	Bogner et al. 1997b	Green Valley LF, Illinois, USA	USA	Dfa	May-96	-	32,259,540	22
			USA	Dfa	May-96	-	32,259,540	22
			USA	Dfa	May-96	-	32,259,540	22
45	Bogner et al. 2010	Leon County, FL, USA	USA	Cfa	May-November 2005	-	-	2
46	Salazar et al. 2017[1]	Three LF sites in Costa Rica	Costa Rica	Aw	October/July 2014	-	-	12
			Costa Rica	Aw	October/July 2014	-	-	9
			Costa Rica	Aw	October/July 2014	-	-	49
47	Bogner et al. 2005[1]	Leon County, FL, USA	USA	Cfa	June-September 2003	-	-	26
			USA	Cfa	-	-	-	7
			USA	Cfa	-	-	-	7
48	Scheutz et al. 2010[1]	AV-Miljo LF, Denmark	Denmark	Dfb	February 2005-June 2006	-	155,000	15.5
			Denmark	Dfb	February 2005-June 2006	-	155,000	15.5
			Denmark	Dfb	February 2005-June 2006	-	155,000	15.5
			Denmark	Dfb	February 2005-June 2006	-	155,000	15.5
			Denmark	Dfb	February 2005-June 2006	-	155,000	15.5
49	Borjesson et al. 2001[1]	Falkoping, Sweden	Sweden	Dfb	August 1997-March 1998	325,000	231,382	32
			Sweden	Dfb	August 1997-March 1998	325,000	231,382	32
			Sweden	Dfb	August 1997-March 1998	325,000	231,382	32
			Sweden	Dfb	August 1997-March 1998	325,000	231,382	32
			Sweden	Dfb	August 1997-March 1998	325,000	231,382	32
			Sweden	Dfb	August 1997-March 1998	325,000	231,382	32
			Sweden	Dfb	August 1997-March 1998	325,000	231,382	32
		Hokhuvud, Sweden	Sweden	Dfb	August 1997-March 1998	100,000	71,194	29
			Sweden	Dfb	August 1997-March 1998	100,000	71,194	29
			Sweden	Dfb	August 1997-March 1998	100,000	71,194	29
			Sweden	Dfb	August 1997-March 1998	100,000	71,194	29
			Sweden	Dfb	August 1997-March 1998	100,000	71,194	29
			Sweden	Dfb	August 1997-March 1998	100,000	71,194	29
		Hogbytorp LF, Sweden	Sweden	Dfb	November 1991-November 1994	-	-	9
			Sweden	Dfb	November 1991-November 1994	-	-	9
			Sweden	Dfb	November 1991-November 1994	-	-	9
			Sweden	Dfb	November 1991-November 1994	-	-	9
			Sweden	Dfb	November 1991-November 1994	-	-	9
			Sweden	Dfb	November 1991-November 1994	-	-	9
			Sweden	Dfb	November 1991-November 1994	-	-	9
		Hagby LF, Uppper, Sweden	Sweden	Dfb	November 1991-November 1994	-	-	1
			Sweden	Dfb	November 1991-November 1994	-	-	1
			Sweden	Dfb	November 1991-November 1994	-	-	1
			Sweden	Dfb	November 1991-November 1994	-	-	1
			Sweden	Dfb	November 1991-November 1994	-	-	1
			Sweden	Dfb	November 1991-November 1994	-	-	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1

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50	Borjesson et al. 1998	Hogbytorp LF, Sweden	Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
			Sweden	Dfb	November 1991-November 1994	-	12,100	1
51	Tassi et al. 2011[1]	Case Passerini LF, Tuscany, Italy	Italy	Csa	May-09	2,100,000	1,495,082	34
52	Gowing 2001	Waterloo LF, Canada	Canada	Dfb	June 1997-October 1997	-	-	1.75
		Cambridge LF, Canada	Canada	Dfb	June 1997-October 1997	-	-	4.5
		Stratford LF, Canada	Canada	Dfb	June 1997-October 1997	-	-	5.25
53	Sanderson 2001	Loma Los Colorados LF, Santiago, Chile	Chile	Csb	May-00	4,400,000	-	4
54	Ngwabie et al. 2019[6]	Mussaka Dumpsite, Cameroon	Cameroon	Am	May-15	3,308	-	3
		Mbellewa Dumpsite, Cameroon	Cameroon	Am	Aug-16	3,700	-	2.5
55,56,57	Abushammala et al. 2012, 2013, 2014	Air Hitam LF, Malaysia	Malaysia	Af	Oct-10	-	6,527,640	15
		Jeram LF, Malaysia	Malaysia	Af	September-December 2010	-	-	3
			Malaysia	Af	February-June 2010	-	-	3
		Sungai Sedu LF, Malaysia	Malaysia	Af	September-December 2010	-	1,613,300	7
			Malaysia	Af	February-June 2010	-	1,613,300	7

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
58	El-Fadel et al. 2012	LF in Beirut, Lebanon	Lebanon	Csa	Jun-01	-	4,196,438	26
59	Maurice and Lagerkvist 2003[4]	Lulea, Sweden	Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
			Sweden	Dfc	February 1996-March 1997	-	-	-
		Kemi, Northern Finland	Finland	Dfc	Summer 1999-Spring 2000	-	-	-
			Finland	Dfc	Summer 1999-Spring 2000	-	-	-
			Finland	Dfc	Summer 1999-Spring 2000	-	-	-
60	Park and Shin 2001[6]	Sudokwon LF, Inchon City, South Korea	South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
			South Korea	Dwa	Winter-Summer 1997	3,200,000	2,278,220	5
61	Jha et al. 2008[1,4,6]	KDG LF, Chennai, India	India	Aw	December 2003-September 2004	1,315,230	-	24
		PGD LF, Chennai, India	India	Aw	December 2003-September 2004	704,000	-	17
	Chiemchaisriet al. 2007,	Nakornprathom LF, Thailand	Thailand	Aw	January-June 2002 and July-October 2002	48,000	-	3
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	3
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	3
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	3
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	3
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	3
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	3
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	3

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
62,63	Chiemchaisri & Visvanathan 2008[5,6]	Nonthaburi dumpsite, Thailand	Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
			Thailand	Aw	January-June 2002 and July-October 2002	-	-	10
64	Chiemchaisriet et al. 2006[5]	Nonthaburi dumpsite, Thailand	Thailand	Aw	November 2002-March 2003 and April 2003-	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
			Thailand	Aw	November 2002-March 2003 and April 2003-July 2003	-	-	10
65	Pierini et al. 2018	Villa Dominico LF, Buenos Aires Argentina	Argentina	Cfa	July 2014-July 2015	-	469,490	28.5
66	Chanton et al. 2011[5]	Northwest Florida, USA (anonymous)	USA	Cfa	May and June 2011	-	-	-
			USA	Cfa	May and June 2011	-	-	-
			USA	Cfa	May and June 2011	-	-	-
			USA	Cfa	May and June 2011	-	-	-
			USA	Cfa	May and June 2011	-	-	-

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
			USA	Cfa	May and June 2011	-	-	-
67	Wang-yao et al. 2006[5]	Pattaya LF, Thailand	Thailand	Aw	Dry and Wet Season 2006	-	350,000	4
			Thailand	Aw	Dry and Wet Season 2006	-	350,000	4
		Cha Am LF, Thailand	Thailand	Aw	Dry and Wet Season 2006	-	50,000	6
			Thailand	Aw	Dry and Wet Season 2006	-	50,000	6
		Hua Hin LF, Thailand	Thailand	Aw	Dry and Wet Season 2006	-	160,000	8
			Thailand	Aw	Dry and Wet Season 2006	-	160,000	8
		Nothaburi LF, Thailand	Thailand	Aw	Dry and Wet Season 2006	-	5,500,000	20
			Thailand	Aw	Dry and Wet Season 2006	-	5,500,000	20
		Nakhonpathom LF, Thailand	Thailand	Aw	Dry and Wet Season 2006	-	590,000	9
			Thailand	Aw	Dry and Wet Season 2006	-	590,000	9
		Samutprakan LF, Thailand	Thailand	Aw	Dry and Wet Season 2006	-	180,000	7
			Thailand	Aw	Dry and Wet Season 2006	-	180,000	7
		Rayong LF, Thailand	Thailand	Aw	Dry and Wet Season 2006	-	114,000	8
			Thailand	Aw	Dry and Wet Season 2006	-	114,000	8
68	Zhang et al. 2019*[5]	Nanjing LF, China	China	Cwa	April 2015-March 2016	-	-	7.5
			China	Cwa	April 2015-March 2017	-	-	7.5
			China	Cwa	April 2015-March 2018	-	-	7.5
			China	Cwa	April 2015-March 2019	-	-	7.5
			China	Cwa	April 2015-March 2020	-	-	7.5
			China	Cwa	April 2015-March 2021	-	-	7.5
69	Meyvantsdottir 2014[6]	Kirkjuferjuhjaleiga LF, Iceland	Iceland	Dfc	August 2012-March 2013	780,000	555,316	7
			Iceland	Dfc	August 2012-March 2014	780,000	555,316	7
			Iceland	Dfc	August 2012-March 2015	780,000	555,316	7
			Iceland	Dfc	August 2012-March 2016	780,000	555,316	7
		Fiflhol LF, Iceland	Iceland	Dfc	October 2013-February 2013	47,000	34,770	8
			Iceland	Dfc	October 2013-February 2014	-	34,770	8
			Iceland	Dfc	October 2013-February 2015	-	34,770	8
			Iceland	Dfc	October 2013-February 2016	-	34,770	8
			Iceland	Dfc	October 2013-February 2017	-	34,770	8
70	Popita et al. 2015	Cluj-Nopaca LF, Romania	Romania	Dfb	March-August 2011	-	107,550	38
			Romania	Dfb	March-August 2012	-	107,550	38
71	Wang et al. 2017*	Dongbu LF, China	China	Cfa	April 2012-April 2013	-	2,299,500	3
			China	Cfa	April 2012-April 2014	-	2,299,500	3
72	Einola et al. 2009	Aikkala LF, Finland	Finland	Dfb	October 2004-June 2006	-	200,000	18
73	Chu Chen et al. 2008[6]	Fu-Der-Kan LF, Taiwan	Taiwan	Cfa	October 1999-January 2006	8,473,000	6,032,299	14.5
			Taiwan	Cfa	October 1999-January 2007	8,473,000	6,032,299	14.5
			Taiwan	Cfa	October 1999-January 2008	8,473,000	6,032,299	14.5
			Taiwan	Cfa	October 1999-January 2009	8,473,000	6,032,299	14.5
			Taiwan	Cfa	October 1999-January 2010	8,473,000	6,032,299	14.5
			Taiwan	Cfa	October 1999-January 2011	8,473,000	6,032,299	14.5
			Taiwan	Cfa	October 1999-January 2012	8,473,000	6,032,299	14.5
			Taiwan	Cfa	October 1999-January 2013	8,473,000	6,032,299	1.5
			Taiwan	Cfa	October 1999-January 2014	8,473,000	6,032,299	1.5

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
74	Akerman et al. 2007	Different LFs in UK	UK	Cfb	-	-	-	20
			UK	Cfb	-	-	-	14
			UK	Cfb	-	-	-	4
			UK	Cfb	-	-	-	4
			UK	Cfb	-	-	-	19.5
75	Maria Rosa et al. 2013	Merida LF, Mexico	Mexico	Aw	September 2004-April 2005	-	1,850,000	7.5
76	Ranchor 2012, Rachor et al. 2013[1,5]	Lower Saxony, Germany	Germany	Cfb	July 2008-January 2010	140000-180000	-	39.5
			Germany	Cfb	July 2008-January 2011	-	-	39.5
			Germany	Cfb	July 2008-January 2012	-	-	39.5
			Germany	Cfb	July 2008-January 2013	-	-	39.5
			Germany	Cfb	July 2008-January 2014	-	-	39.5
			Germany	Cfb	July 2008-January 2015	-	-	39.5
			Germany	Cfb	July 2008-January 2016	-	-	39.5
		Berlin, Germany	Germany	Cfb	July 2008-January 2017	-	-	53
			Germany	Cfb	July 2008-January 2018	-	-	53
			Germany	Cfb	July 2008-January 2019	-	-	53
			Germany	Cfb	July 2008-January 2020	-	-	53
			Germany	Cfb	July 2008-January 2021	-	-	53
			Germany	Cfb	July 2008-January 2022	-	-	53
		Saxony-Anhalt, Germany	Germany	Cfb	July 2008-January 2023	-	-	26
			Germany	Cfb	July 2008-January 2024	-	-	26
			Germany	Cfb	July 2008-January 2025	-	-	26
			Germany	Cfb	July 2008-January 2026	-	-	26
			Germany	Cfb	July 2008-January 2027	-	-	26
			Germany	Cfb	July 2008-January 2028	-	-	26
		Hamburg, Germany	Germany	Cfb	July 2008-January 2029	-	-	64
			Germany	Cfb	July 2008-January 2030	-	-	64
			Germany	Cfb	July 2008-January 2031	-	-	64
			Germany	Cfb	July 2008-January 2032	-	-	64
			Germany	Cfb	July 2008-January 2033	-	-	64
			Germany	Cfb	July 2008-January 2034	-	-	64
		Sckeswig-Holstein, Germany	Germany	Cfb	July 2008-January 2035	-	-	49
			Germany	Cfb	July 2008-January 2036	-	-	49
			Germany	Cfb	July 2008-January 2037	-	-	49
			Germany	Cfb	July 2008-January 2038	-	-	49
			Germany	Cfb	July 2008-January 2039	-	-	49
			Germany	Cfb	July 2008-January 2040	-	-	49
		Dandenong LF, Melbourne, Australia	Australia	Cfb	February 2013-July 2013	-	3,912,000	24

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
77	Asadi et al. 2014[1]	Dandenong LF, Melbourne, Australia	Australia	Cfb	February 2013-July 2014	-	3,912,000	24
		Garden Isle LF, Adelaide, Australia	Australia	Bsk	February 2013-July 2015	-	-	-
			Australia	Bsk	February 2013-July 2016	-	-	-
78	Chakraborty et al. 2011[1]	Gazipur LF, Delhi, India	India	BSh	November 2008-December 2009	-	11,000,000	24.5
			India	BSh	November 2008-December 2010	-	11,000,000	24.5
			India	BSh	November 2008-December 2011	-	11,000,000	24.5
		Bhalswa LF, Delhi, India	India	BSh	November 2008-December 2012	-	9,200,000	16.5
			India	BSh	November 2008-December 2013	-	9,200,000	16.5
			India	BSh	November 2008-December 2014	-	9,200,000	16.5
		Okhla LF, Delhi, India	India	BSh	November 2008-December 2015	-	6,100,000	12.5
			India	BSh	November 2008-December 2016	-	6,100,000	12.5
			India	BSh	November 2008-December 2017	-	6,100,000	12.5
79	Maciel & Juca 2011	Muribeca LF, Recife, Brazil	Brazil	Am	September-December 2008	-	36,659	0.5
			Brazil	Am	September-December 2009	-	36,659	0.5
80	Schroth et al. 2012[1,5]	Lindenstock LF, Liestal, Switzerland	Switzerland	Dfb	Jul-08	3,200,000	2,278,220	59
			Switzerland	Dfb	Aug-08	3,200,000	2,278,220	59
			Switzerland	Dfb	Sep-08	3,200,000	2,278,220	59
			Switzerland	Dfb	Oct-08	3,200,000	2,278,220	59
			Switzerland	Dfb	Nov-08	3,200,000	2,278,220	59
81	Moreira and Candiani 2016[5]	CTR-Caieiras LF, Sao Paolo, Brazil	Brazil	Cwa	October-November 2010	-	3,786	1.12
82	Borjesson and Svensson 1997b[5]	Hagby LF, Uppper, Sweden	Sweden	Dfb	Oct-95	-	12,000	4
			Sweden	Dfb	Nov-95	-	12,000	4
			Sweden	Dfb	Dec-95	-	12,000	4
83	Gollapalli and Kota 2018[1]	Guwahati, India	India	Cwa	September 2015-August 2016	-	-	7.5
			India	Cwa	September 2015-August 2017	-	-	7.5
			India	Cwa	September 2015-August 2018	-	-	7.5
84	Rawat et al. 2008	6 LF sites across India	India	BSh	April 2002-May 2003	-	-	-
			India	BSh	April 2002-May 2004	-	-	-
			India	Aw	April 2002-May 2005	-	-	-
			India	Cwb	April 2002-May 2006	-	-	-
			India	BSh	April 2002-May 2007	-	-	-
			India	Aw	April 2002-May 2008	-	-	-
85	Pratt et al. 2013[6]	Taupo LF, North Island, New Zealand	New Zealand	Cfb	August 2010-March 2012	-	-	-
			New Zealand	Cfb	August 2010-March 2013	-	-	-
			New Zealand	Cfb	August 2010-March 2014	-	-	-
86	Mosher et al. 1996[1,5]	Nashua LF, New Hampshire, USA	USA	Dfb	Sep-94	-	-	25
			USA	Dfb	Sep-94	-	-	25
			China	Cfa	April 2007-January 2008	-	-	0.167
			China	Cfa	April 2007-January 2008	-	-	0.167
			China	Cfa	April 2007-January 2008	-	-	0.167
			China	Cfa	April 2007-January 2008	-	-	0.167
			China	Cfa	April 2007-January 2008	-	-	4

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
87	Zhang et al. 2009	Three landfill sites, Eastern China	China	Cfa	April 2007-January 2008	-	-	4
			China	Cfa	April 2007-January 2008	-	-	4
			China	Cfa	April 2007-January 2008	-	-	4
			China	Cfa	April 2007-January 2008	-	5,110,000	4
			China	Cfa	April 2007-January 2008	-	5,110,000	4
			China	Cfa	April 2007-January 2008	-	5,110,000	4
			China	Cfa	April 2007-January 2008	-	5,110,000	4
88	Zhang et al. 2008a	Tianziling MSW LF, Eastern China	China	Cfa	December 2006-June 2007	-	5,110,000	0.25
			China	Cfa	December 2006-June 2007	-	5,110,000	0.25
			China	Cfa	December 2006-June 2007	-	5,110,000	0.25
			China	Cfa	December 2006-June 2007	-	5,110,000	0.25
			China	Cfa	December 2006-June 2007	-	5,110,000	2.5
			China	Cfa	December 2006-June 2007	-	5,110,000	2.5
			China	Cfa	December 2006-June 2007	-	5,110,000	2.5
			China	Cfa	December 2006-June 2007	-	5,110,000	2.5
			China	Cfa	December 2006-June 2007	-	5,110,000	4
			China	Cfa	December 2006-June 2007	-	5,110,000	4
			China	Cfa	December 2006-June 2007	-	5,110,000	4
			China	Cfa	December 2006-June 2007	-	5,110,000	4
			China	Cfa	December 2006-June 2007	-	5,110,000	4
			China	Cfa	December 2006-June 2007	-	5,110,000	4
89	Long et al. 2018[1]	Fenghua LF, Nigbo, China	China	Cfa	2017	-	4,818,000	24
			China	Cfa	2018	-	4,818,000	24
		Xiangshan LF, Nigbo, China	China	Cfa	2019	-	3,832,500	21
			China	Cfa	2020	-	3,832,500	21
		Ninghai LF, Nigbo, China	China	Cfa	2021	-	1,642,500	15
			China	Cfa	2022	-	1,642,500	15
90	Kjeldsen et al. 1997[1,3,4]	Skellingsted Landfill, Denmark	Denmark	Dfb	Oct-94	-	420,000	23
			Denmark	Dfb	Oct-94	-	420,000	23
			Denmark	Dfb	Oct-94	-	420,000	23
			Denmark	Dfb	Oct-94	-	420,000	23
91	Sun 2013[1,3]	Melbourne A-ACAP LF site, Australia	Australia	Cfb	August 2009-August 2011	-	-	19
			Australia	Cfb	December 2009-July 2010	-	-	19
92	Nolasco et al. 2008	Lazareto LF, Tenerife, Canary Islands	Spain	Bwk	February-March 2002	-	-	-
93	Sanci et al. 2012[9]	Gualeguaychu LF, Argentina	South America	Cfa	2012	-	-	-
94	Abushammala et al. 2016[1]	Jeram LF, Malaysia	Malaysia	Af	September-December 2010	-	-	3
				Af	January-April 2010	-	-	3
95	Lima et al. 2002	Arico LF, Tenerife, Canary Islands	Spain	Bwk	May 1999-March 2000	-	-	-
96	Cardellini et al. 2003[3]	Palma Campania LF, Italy	Italy	Csa	-	-	-	-
97	Zhang et al. 2008b*,[6]	Tianziling LF, Eastern China, No subsurface irrigation	China	Cfa	Aug-06	-	5,110,000	0
			China	Cfa	Aug-06	-	5,110,000	0.020833333
			China	Cfa	Aug-06	-	5,110,000	1
			China	Cfa	Aug-06	-	5,110,000	2.5

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
			China	Cfa	Aug-06	-	5,110,000	4
98	Borjesson and Svensson 1997c[1,5]	Hagby LF, Sweden	Sweden	Dfb	November 1991-November 1994	-	12,250	1
		Hokhuvuf LF, Sweden	Sweden	Dfb	November 1991-November 1994	-	60,000	24
		Hogbytrop LF, Sweden	Sweden	Dfb	November 1991-November 1994	-	100,000	8.5
			Sweden	Dfb	November 1991-November 1994	-	12,100	2.5
			Sweden	Dfb	November 1991-November 1994	-	12,100	16
99	Rinne et al. 2005*[1]	Ammassuo LF, Helsinki, Finland	Finland	Dfb	August-October 2003	-	5,600,000	16
			Finland	Dfb	August-October 2003	-	5,600,000	16
			Finland	Dfb	August-October 2003	-	5,600,000	16
100	Mandernack et al. 2000*[1,5]	Brea-Olinda LF, CA, USA	USA	Csa	June-December 1995	-	-	34
		UCI LF, CA, USA	USA	BSk	July-December 1995	-	-	34
		San Joaquin LF, CA, USA	USA	BSk	July-February 1995	-	-	34
		Houghton, WA, USA	USA	Csb	March-October 1995	-	-	34
101	Ishigaki et al. 2016[3,4]	Site A2, Japan	Japan	-	2008-2012	-	-	-
			Japan	-	2008-2012	-	-	-
			Japan	-	2008-2012	-	-	-
		Site B, Japan	Japan	-	2008-2012	-	-	-
			Japan	-	2008-2012	-	-	-
			Japan	-	2008-2012	-	-	-
		Site C, Japan	Japan	-	2008-2012	-	-	-
			Japan	-	2008-2012	-	-	-
			Japan	-	2008-2012	-	-	-
		Site D, Malaysia	Malaysia	-	2008-2012	-	-	-
			Japan	-	2008-2012	-	-	-

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Study No.	Study Name	Location	Region	Climate Zone	Season	WIP (m3)	WIP (tonnes)	Waste Age (years)
		Site F, Japan	Japan	-	2008-2012	-	-	-
		Site G, Thailand	Thailand	-	2008-2012	-	-	-
		Site H, Sri Lanka	India	-	2008-2012	-	-	-
		Site I, Sri Lanka	India	-	2008-2012	-	-	-
102	Zhang et al. 2008c	Tianziling LF, Eastern China, Site A, No subsurface irrigation	China	Cfa	November 2006-June 2007	-	51,100,006	0.25
			China	Cfa	November 2006-June 2007	-	51,100,006	2.5
			China	Cfa	November 2006-June 2007	-	51,100,006	4
			China	Cfa	November 2006-June 2007	-	51,100,006	0.25
			China	Cfa	November 2006-June 2007	-	51,100,006	2.5
			China	Cfa	November 2006-June 2007	-	51,100,006	4
			China	Cfa	November 2006-June 2007	-	51,100,006	0.25
			China	Cfa	November 2006-June 2007	-	51,100,006	2.5
			China	Cfa	November 2006-June 2007	-	51,100,006	4
			China	Cfa	November 2006-June 2007	-	51,100,006	0.25
			China	Cfa	November 2006-June 2007	-	51,100,006	2.5
			China	Cfa	November 2006-June 2007	-	51,100,006	4
103	He et al. 2008	Landfill in China	China	Cfa	2007	-	-	-
104	Zhang et al. 2007	Landfill in China	China	Cfa	2006	-	-	-
105	Gallego et al. 2014[1,3]	Landfill in Spain	Spain	Csa	Jul-12	2,450,000	1,744,262	30
106	Archbold et al. 2012[1,3]	Belfast, Northern Ireland	UK	Cfb	March 2004-May 2004	-	-	9
						-	-	43
107	Majumdar et al. 2014	Dhapa LF site, India	India	Aw	-	-	-	-
108	Yesiller et al. 2017, Yesiller et al. 2018	Potrero Hills LF, CA, USA	USA	Csa	February 2014-April 2014	-	-	7.9
			USA	Csa	February 2014-April 2014	-	-	22
			USA	Csa	February 2014-April 2014	-	-	22
			USA	Csa	Aug-14	-	-	7.9
			USA	Csa	Aug-14	-	-	22
			USA	Csa	Aug-14	-	-	22

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
1	N	Daily	15	Non-vegetated sandy clay cover	-	-	-
	N	Interim	45	Vegetated sandy clay and sandy loam	-	-	-
2	N	Interim	45	Vegetated sandy clay and sandy loam	9.2	-	-
	N	Interim	45	Vegetated sandy clay	9.2	-	-
	N	Daily	22.5	Non-vegetated sandy clay cover	9.2	-	-
	N	Interim	70	Vegetated sandy clay and sandy loam	9.2	-	-
3,4	N	Final	50	Dry, unvegetated sandy silt cover	9.625709861	4.835457631	13
	N	Final	50	Dry, unvegetated sandy silt cover	9.625709861	4.835457631	13
5	Y	Final	150	Dry, unvegetated sandy silt cover	7.4	-	-
	Y	Final	150	Fine clayey silt overlaying sandy silt	12.2	-	-
6	Y	Final	150	Silty clay soil, vegetated	-	-	-
	Y	Final	150	Silty clay soil, vegetated	-	-	-
	Y	Final	150	Silty clay soil, vegetated	-	-	-
	Y	Final	150	Silty clay soil, vegetated	-	-	-
	Y	Final	150	Silty clay soil, vegetated	-	-	-
7	Y	Final	150	Silty clay soil, vegetated	12.72727273	6.794957758	6
	Y	Final	150	Silty clay soil, vegetated	18.91608392	7.738292304	6
8,9	Y	Final	150	Silty clay soil, vegetated	19.26247757	6.625697501	21
	Y	Final	150	Silty clay soil, vegetated	21.73413543	6.287564655	25
10	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
11	Y	Final	-	Geomembrane and soil cover	-	-	-
	N	-	-	Soil cover	-	-	-
	N	Final	-	Geomembrane and soil cover	-	-	-
	N	-	-	Soil Cover	-	-	-
	N	Final	-	Geomembrane and soil cover	-	-	-
	Y	Final	-	Geomembrane and soil cover	-	-	-
12	Y	-	-	Clay cover, sand/LDPE, other soil covers	-	-	-
13	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
	N	-	10	Loamy soil without vegetation	-	-	-

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
16	N	-	10	Loamy soil without vegetation	-	-	-
	N	-	10	Loamy soil without vegetation	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
17	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sand/clay, small stones cover	-	-	-
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	22	9.02	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	12	8.4	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	15	11.25	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	18	8.82	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	6.9	5.451	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	12	7.08	8

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
18	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	5	3.25	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	6.8	2.244	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	13	17.55	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	12	8.88	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	18	9.36	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	22	0	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	39	18.33	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	14	8.12	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	9.1	5.824	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	5.9	4.661	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	6.8	3.808	8
	N	Final	45	Sandy loam[2] cover soil overlain by ashes, bark and glass wool	5.8	5.568	8
19	Y	Final	40	Rough soil (including stones) and Sand[2]	14.16666667	0.929157324	2
	Y	Final	41	Rough soil (including stones) and Sand[2]	7.566666667	4.491720779	2
	Y	Final	42	Rough soil (including stones) and Sand[2]	14.16666667	0.929157324	2
20	N	Final	30	Sandy loam/Loamy soil	8.1	0	1
	N	Final	30	Sandy loam/Loamy soil	5.5	0	1
	N	Final	30	Sandy loam/Loamy soil	3.8	0	1
	N	Final	30	Sandy loam/Loamy soil	16	0	1
	N	Final	30	Sandy loam/Loamy soil	29.8	0	1
	N	Final	30	Sandy loam/Loamy soil	22.3	0	1
	N	Final	30	Sandy loam/Loamy soil	33.1	0	1
21	Y	Final	115	Sandy silt, Silty sand, and Coarse sand	8.4	3.577708764	9
	Y	Interim	40	Coarse sand	-	-	-
22	Y	Final	100	Compacted clay overlain by topsoil	14.52142857	2.017625903	7
	Y	Final	100	HDPE geomembrane, compacted clay, topsoil	10.558	0.757377053	5
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
23,24	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
	N	Final	100	Sand overlain by mould, vegetated	11.40875912	8.125937884	25
25	-	Final	50	Sandy loam ontop of clay	19.40135648	11.31442322	44
	-	Final	50	Sandy loam ontop of clay	19.40135648	11.31442322	44
	-	Final	50	Sandy loam ontop of clay	19.40135648	11.31442322	44
	-	Final	50	Sandy loam ontop of clay	19.40135648	11.31442322	44
26	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
28	Y	-	100	Compacted Clay	16.6	-	1
	Y	-	100	Compacted Clay	16.6	-	1
	Y	-	100	Compacted Clay	16.6	-	1
	Y	-	100	Compacted Clay	-	-	-
	Y	-	100	Compacted Clay	-	-	-
	Y	-	100	Compacted Clay	-	-	-
	Y	-	100	Compacted Clay	-	-	-
	Y	-	100	Compacted Clay	-	-	-
	Y	-	100	Compacted Clay	-	-	-
	Y	-	100	Compacted Clay	14.6	-	3
	Y	-	100	Compacted Clay	14.6	-	3
	Y	-	100	Compacted Clay	14.6	-	3
	Y	-	100	Compacted Clay	22.5	-	3
	Y	-	100	Compacted Clay	22.5	-	3
	Y	-	100	Compacted Clay	22.5	-	3
29	-	-	-	No daily cover, geological or artificial liner	-	-	-
	-	-	-	Daily cover, geological and artificial liner	-	-	-
	-	-	-	Daily cover, geological and artificial liner	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
30	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	N	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	N	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
	Y	-	-	-	-	-	-
31	Y	-	-	-	-	-	-
	Y	-	50	Section 1: Final composite cover, substratum non-compacted clay, compacted clay, geotextile-geonet-geotextile drainage layer, top soil; Section 2A: 1mm HDPE geomembrane, 50 cm clay layer; Section 2B: 50 cm clay layer; Section 3: Active waste placement	-	-	-
	Y	-	-		-	-	-
	Y	-	50		-	-	-
	Y	-	-		-	-	-
	Y	-	50		-	-	-
	Y	-	-		-	-	-
	Y	-	50		-	-	-
	Y	-	50		-	-	-
	Y	-	-		-	-	-
	Y	-	-		-	-	-
	Y	-	50		-	-	-
	Y	-	50		-	-	-
	Y	-	-		-	-	-
32	Y	-	-	Zones 1 and 2: 1 mm HDPE geomembrane and 50 cm compacted clay; Zones 3 and 4: non-compacted + compacted clay layer	-	-	-
	Y	-	-		-	-	-
	Y	-	50		-	-	-
	Y	-	50		-	-	-
	Y	-	-		-	-	-
	Y	-	-		-	-	-
	Y	-	-		-	-	-
	Y	-	50		-	-	-
	Y	-	50		-	-	-

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
	Y	-	50		-	-	-
	Y	-	-		-	-	-
	Y	-	-		-	-	-
33	Y	-	50	Non-compacted + compacted clay layer	-	-	-
34	N	Final	-	Sandy loam, cracked, vegetated	-	-	-
	N	Final	-	-	-	-	-
	N	Final	-	-	-	-	-
35	N	-	130	Loam, sandy loam	23.09	4.02	15
	N	-	140	Loam, clay loam	22.72	3.98	15
	N	-	180	Loam	22.16	2.25	15
36	Y	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	N	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	Y	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
	N	All	-	-	-	-	-
37	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-
	Y	Final	-	-	-	-	-

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
	Y	Final	-	-	-	-	-
38	Y	Interim	10	Gravelly clayey sand (SC), Sparse-No vegetation	9	0	1
	Y	Final	10	Gravelly clayey sand (SC), Sparse-No vegetation	6	0	1
	N	-	35	Gravelly clayey sandy silt (SC/CL), Sparse-No vegetation	24	1.414213562	2
	N	-	35	-	23	2.828427125	2
	N	Final	15	Gravelly silty sand (SW), Fully vegetated	3.5	0.707106781	2
	N	-	37.5	Clayey silty sand (SC/CL), Fully vegetated	20.5	9.192388155	2
39	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	6.536964981	2.80	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	5.60311284	2.33	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	14.94163424	2.33	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	48.09338521	38.29	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	-	-	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	45.75875486	35.49	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	12.14007782	2.80	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	18.6770428	1.87	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	14.47470817	2.33	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	22.41245136	1.87	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	25.21400778	3.74	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	19.61089494	1.87	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	23.3463035	4.67	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	25.21400778	2.80	3
	N	Interim	75	Sandy clay overlain by fine sandy loam, vegetated	24.28015564	1.87	3
40	Y	Daily	30	Sand	8	8	-
	Y	Daily	30	Sand	8	8	-
	Y	Daily	30	Sand	8	8	-
	Y	Daily	30	Sand	17	12	-
	Y	Interim	50	Sandy Loam	1	3	-
	Y	Interim	50	Sandy Loam	18	34	-
	Y	Final	250	Sandy Loam	19	-	-
	Y	Final	250	Sandy Loam	11	7	-
	Y	Daily	30	Sand	11	6	-
	Y	Daily	30	Sand	5	-	-
	Y	Interim	75	Sandy Loam	-	-	-
	Y	Interim	75	Sandy Loam	3	1	-
	Y	Final	270	Sandy Loam	3	-	-
	Y	Final	270	Sandy Loam	5	5	-
41	N	Final	110	Silt and peat soil	-	-	-
	N	Final	110	Silt and peat soil	-	-	-
	N	Final	110	Silt and peat soil	-	-	-
	N	Final	109	Clay and mulch/top soil	54.3	0	1
	N	Final	109	Clay and mulch/top soil	55.4	0	1
	N	Final	109	Clay and mulch/top soil	47.8	0	1
	N	Final	109	Clay and mulch/top soil	46.3	0	1
	N	Final	109	Clay and mulch/top soil	58.5	0	1

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
42	N	Final	109	Clay and mulch/top soil	51.6	0	1
	N	Final	109	Clay and mulch/top soil	48.6	0	1
	N	Final	109	Clay and mulch/top soil	35.7	0	1
	N	Final	109	Clay and mulch/top soil	29.6	0	1
	N	Final	109	Clay and mulch/top soil	13.7	0	1
	N	Final	109	Clay and mulch/top soil	15.2	0	1
	N	Final	109	Clay and mulch/top soil	42.5	0	1
	N	Final	109	Clay and mulch/top soil	47.5	0	1
	N	Final	109	Clay and mulch/top soil	44.8	0	1
	N	Final	100	Clay soil	20.5	0	1
	N	Final	100	Clay soil	20.9	0	1
	N	Final	100	Clay soil	21.3	0	1
	N	Final	100	Clay soil	15.2	0	1
	N	Final	100	Clay soil	24.3	0	1
	N	Final	100	Clay soil	12.2	0	1
	N	Final	100	Clay soil	20.5	0	1
	N	Final	100	Clay soil	13.7	0	1
	N	Final	100	Clay soil	15.2	0	1
	N	Final	100	Clay soil	11.4	0	1
	N	Final	100	Clay soil	9.9	0	1
	N	Final	100	Clay soil	23.5	0	1
	N	Final	100	Clay soil	25.1	0	1
	N	Final	100	Clay soil	22.0	0	1
43	Y	-	-	Fine sandy, sparsely vegetated, geomembrane HDPE	10	0.666666667	5
	Y	-	-	Fine sandy, sparsely vegetated, geomembrane HDPE	15.55555556	0.666666667	5
	Y	-	-	Fine sandy, sparsely vegetated, geomembrane HDPE	12	0.444444444	5
	Y	-	-	Fine sandy, sparsely vegetated, geomembrane HDPE	13.77777778	0.444444444	5
	Y	-	-	Fine sandy, sparsely vegetated, geomembrane HDPE	12.44444444	0.444444444	5
	Y	-	-	Fine sandy, sparsely vegetated, geomembrane HDPE	12	0.222222222	5
	N	-	-	Coarse Sandy, no vegetation	10.66666667	0.666666667	5
	N	-	-	Coarse Sandy, no vegetation	15.11111111	0.444444444	5
	N	-	-	Coarse Sandy, no vegetation	10	0.444444444	5
	N	-	-	Coarse Sandy, no vegetation	9.333333333	0.444444444	5
	N	-	-	Coarse Sandy, no vegetation	7.111111111	0.444444444	5
	N	-	-	Coarse Sandy, no vegetation	6.222222222	0.444444444	5
	Y	-	-	Coarse Sandy, no vegetation	14.07166124	0.260586319	5
	Y	-	-	Coarse Sandy, no vegetation	20.06514658	0.521172638	5
	Y	-	-	Coarse Sandy, no vegetation	10.68403909	0.260586319	5
	Y	-	-	Coarse Sandy, no vegetation	11.59609121	0.521172638	5
	Y	-	-	Coarse Sandy, no vegetation	10.16286645	0.260586319	5
	Y	-	-	Coarse Sandy, no vegetation	14.07166124	0.260586319	5
44	N	Interim	45	Silty clay+stones and rubble	-	-	-
	N	Interim	45	Silty clay+stones and rubble	-	-	-
	N	Interim	45	Silty clay+stones and rubble	-	-	-

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
44	N	Interim	45	Silty clay+stones and rubble	-	-	-
	N	Interim	45	Silty clay+stones and rubble	-	-	-
	N	Interim	45	Silty clay+stones and rubble	-	-	-
45	N	Interim	15	Compacted sandy clay	-	-	-
46	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
47	N	All	62.5	S1 test sites: lower sandy clay and an upper fine sandy loam; S4 test sites: compacted sandy clay	-	-	-
	N	Interim	75		-	-	-
	N	Interim	75		-	-	-
48	N	Interim	-	Shredder residue cell, NO COVER SOILS	-	-	-
	N	Interim	-		-	-	-
	N	Interim	-		-	-	-
	N	Interim	-		-	-	-
	N	Interim	-		-	-	-
49	Y	-	75	Loamy Sand	12	-	3
	Y	-	75	Loamy Sand	-	-	-
	Y	-	75	Loamy Sand	10	-	3
	Y	-	75	Loamy Sand	12	-	3
	Y	-	75	Loamy Sand	-	-	-
	Y	-	75	Loamy Sand	10	-	3
	Y	-	75	Loamy Sand	-	-	-
	N	-	55	Sandy Loam	13	-	3
	N	-	55	Sandy Loam	15	-	3
	N	-	55	Sandy Loam	-	-	-
	N	-	55	Sandy Loam	13	-	3
	N	-	55	Sandy Loam	15	-	3
	N	-	55	Sandy Loam	-	-	-
	Y	-	40	A Loam, with old sewage sludge as cover material	-	-	-
	Y	-	40	A Loam, with old sewage sludge as cover material	-	-	-
	Y	-	40	A Loam, with old sewage sludge as cover material	-	-	-
	Y	-	40	A Loam, with old sewage sludge as cover material	-	-	-
	Y	-	40	A Loam, with old sewage sludge as cover material	-	-	-
	Y	-	40	A Loam, with old sewage sludge as cover material	-	-	-
	Y	-	40	A Loam, with old sewage sludge as cover material	-	-	-
	N	-	65	Mineral soil, Sandy Loam	-	-	-
	N	-	65	Mineral soil, Sandy Loam	-	-	-
	N	-	65	Mineral soil, Sandy Loam	-	-	-
	N	-	65	Mineral soil, Sandy Loam	-	-	-
	N	-	65	Mineral soil, Sandy Loam	-	-	-
	N	-	65	Mineral soil, Sandy Loam	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
50	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
	N	-	100	A Loam, with fresh sewage sludge as cover material mixed with clay	-	-	-
51	Y	Interim	100	Clay rich cover	-	-	-
52	Y	Interim	-	Vegetated	-	-	-
	Y	Interim	-	Vegetated	-	-	-
	N	Final	-	Compacted clay, vegetated	-	-	-
53	Y	All	15-40	Soils unspecified	-	-	-
54	N	-	-	Soils unspecified, open dumpsite	-	-	-
	N	-	-	Soils unspecified, open dumpsite	-	-	-
55,56,57	N	Interim	30-40	Poorly graded sand, some vegetation	16.5	4.123105626	4
	N	-	-	Soils unspecified, borderline open dumpsite	-	-	-
	N	-	-	Soils unspecified, borderline open dumpsite	-	-	-
	N	Interim	15-30	Poorly graded sand, some vegetation	-	-	-
	N	Interim	15-30	Poorly graded sand, some vegetation	-	-	-

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
58	N	-	-	Soils unspecified	-	-	-
59	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	120	Silty soil	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
60	Y	Interim	60	Sandy Loam[2]	-	-	-
	Y	Interim	60	Sandy Loam[2]	-	-	-
	Y	Interim	60	Sandy Loam[2]	-	-	-
	Y	Interim	60	Sandy Loam[2]	-	-	-
	Y	Interim	60	Sandy Loam[2]	-	-	-
	Y	Interim	60	Sandy Loam[2]	-	-	-
	Y	Interim	60	Sandy Loam[2]	-	-	-
	Y	Interim	60	Sandy Loam[2]	-	-	-
61	N	Interim	-	Clayey soil	-	-	-
	N	Interim	-	Silty clay soil	-	-	-
	N	Final	-	Clay[2]	25.52123552	8.254064132	9
	N	Final	-	Clay[2]	25.52123552	8.254064132	9
	N	Final	-	Clay[2]	25.52123552	8.254064132	9
	N	Final	-	Clay[2]	25.52123552	8.254064132	9
	N	Final	-	Clay[2]	30.42471042	8.103349403	9
	N	Final	-	Clay[2]	30.42471042	8.103349403	9
	N	Final	-	Clay[2]	30.42471042	8.103349403	9
	N	Final	-	Clay[2]	30.42471042	8.103349403	9

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
62,63	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
64	N	-	55	Clay	23.97413061	3.872061191	14
	N	-	55	-	24.69631477	5.662851377	13
	N	-	55	Sandy Loam+Water	9.221890329	1.912427298	14
	N	-	55	-	11.7090351	2.423363368	10
	N	-	55	Sandy Loam+Leachate	9.221890329	1.912427298	14
	N	-	55	-	11.7090351	2.423363368	10
	N	-	55	Sandy Loam+Vegatation+Water	9.221890329	1.912427298	14
	N	-	55	-	11.7090351	2.423363368	10
	N	-	55	Sandy Loam+Vegatation+Leachate	9.221890329	1.912427298	14
	N	-	55	-	11.7090351	2.423363368	10
65	N	Final	60	Compacted Clay loam	-	-	-
66	Y	Final	145	Compacted clay, geomembrane (LLDPE), sandy loam, vegetated	14.5	9.192388155	2
	Y	Final	145	Compacted clay, geomembrane (LLDPE), sandy loam, vegetated	14.5	9.192388155	2
	Y	Final	145	Compacted clay, NO geomembrane (LLDPE), sandy loam, vegetated	14.5	9.192388155	2
	N	Interim	37.5	Sandy loam soil, no vegetation	14.5	9.192388155	2
	N	Interim	37.5	Sandy loam soil, no vegetation	14.5	9.192388155	2

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
	N	Interim	37.5	Sandy loam soil, no vegetation	14.5	9.192388155	2
67	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
68	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
69	N	Final	100	Final: gravel, sand, local topsoil (histic andosol)	-	-	-
	N	Final	100	Final: gravel, sand, local topsoil (histic andosol)	-	-	-
	N	Final	100	Final: gravel, sand, local topsoil (histic andosol)	-	-	-
	N	Final	100	Final: gravel, sand, local topsoil (histic andosol)	-	-	-
	N	Final	110	Final: woodchips and soil (vitrisol/histol soils)	-	-	-
	N	Final	110	Final: woodchips and soil (vitrisol/histol soils)	-	-	-
	N	Final	110	Final: woodchips and soil (vitrisol/histol soils)	-	-	-
	N	Final	110	Final: woodchips and soil (vitrisol/histol soils)	-	-	-
	N	Final	110	Final: woodchips and soil (vitrisol/histol soils)	-	-	-
70	N	Daily	-	No cover (daily at best)	-	-	-
	N	Daily	-	No cover (daily at best)	-	-	-
71	N	Final	-	HDPE geomembrane, No cover soil	-	-	-
	N	Daily	-	No soil cover	-	-	-
72	Y	Final	160	clay, drainage layer, mineral soil	-	-	-
73	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	31.1	1.7	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	29.6	1.8	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	19.6	2.2	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	24	0.3	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	29.3	2.2	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	26.5	3	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	17.5	1	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	33.6	2.9	4
	Y	Final	275	Waste LF soil and loam-clay loam soil with vegetation	22.5	2	4

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
74	Y	-	100	Clay and geomembrane	-	-	-
	Y	-	100-200	Compacted soil + vegetation	-	-	-
	Y	-	130	Bottom ashes and clay or limestone	-	-	-
	Y	-	50-70	Clay	-	-	-
	Y	-	50-100	Clay and soil	-	-	-
75	N	Final	15	Non-consolidated calcite soil (sahcab), no geomembrane	-	-	-
76	-	Final	110	organic rich cultivation layer, cover soil of variable properties,	-	-	-
	-	Final	110	organic rich cultivation layer, cover soil of variable properties, vegetated	-	-	-
	-	Final	110	organic rich cultivation layer, cover soil of variable properties, vegetated	-	-	-
	-	Final	110	organic rich cultivation layer, cover soil of variable properties, vegetated	-	-	-
	-	Final	110	organic rich cultivation layer, cover soil of variable properties, vegetated	-	-	-
	-	Final	110	organic rich cultivation layer, cover soil of variable properties, vegetated	-	-	-
	-	Final	110	organic rich cultivation layer, cover soil of variable properties, vegetated	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	50	Sandy soil	-	-	-
	-	Final	120	Mostly sand and silt, some clay	-	-	-
	-	Final	120	Mostly sand and silt, some clay	-	-	-
	-	Final	120	Mostly sand and silt, some clay	-	-	-
	-	Final	120	Mostly sand and silt, some clay	-	-	-
	-	Final	120	Mostly sand and silt, some clay	-	-	-
	-	Final	120	Mostly sand and silt, some clay	-	-	-
	-	Final	120	Sandy soil	-	-	-
	-	Final	120	Sandy soil	-	-	-
	-	Final	120	Sandy soil	-	-	-
	-	Final	120	Sandy soil	-	-	-
	-	Final	120	Sandy soil	-	-	-
	-	Final	120	Sandy soil	-	-	-
	-	Final	115	Sandy to loamy soil	-	-	-
	-	Final	115	Sandy to loamy soil	-	-	-
	-	Final	115	Sandy to loamy soil	-	-	-
	-	Final	115	Sandy to loamy soil	-	-	-
	-	Final	115	Sandy to loamy soil	-	-	-
	-	Final	115	Sandy to loamy soil	-	-	-
	Y	Final	100	Compacted clay, sandy clay, top soil	30.26	-	-

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
77	Y	Final	100	Compacted clay, sandy clay, top soil	21.1	-	-
	N	Final	150	Compacted clay, sandy clay and top soil	27.88	-	-
	N	Final	150	Compacted clay, sandy clay and top soil	20.27	-	-
78	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
79	Y	Final	50	Compacted soil (sandy clay), geotextile, gravel	16.9	0.6	-
	Y	Final	67.5	Compacted soil (sandyclay)	14.9	1	-
80	N	Final	225	Sily loam, clay lenses, gravel and boulders	0.27	0.056568542	6-^8
	N	Final	225	Sily loam, clay lenses, gravel and boulders	0.25	0.04472136	6
	N	Final	225	Sily loam, clay lenses, gravel and boulders	0.22	0.025298221	6
	N	Final	225	Sily loam, clay lenses, gravel and boulders	0.32	0.035777088	6
	N	Final	225	Sily loam, clay lenses, gravel and boulders	0.32	0.050990195	6
81	N	Interim	50	Silty soil cover	-	-	-
82	Y	-	60	Sandy loam soil, some vegetation	12.25	4.87903679	2
	N	-	60	-	-	-	-
	Y	-	60	-	-	-	-
83	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
	N	-	-	-	-	-	-
84	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
85	-	Final	100	Pumic cover (volcanic) soil	-	-	-
	-	Final	100	Pumic cover (volcanic) soil	-	-	-
	-	Final	100	Pumic cover (volcanic) soil	-	-	-
86	N	-	150	Sandy-clay loam, no membrane cover	-	-	-
	N	-	150	Sandy-clay loam, no membrane cover	-	-	-
	N	-	-	Silty clay[2]	-	-	-
	N	-	-	Silty clay[2]	-	-	-
	N	-	-	Silty clay[2]	-	-	-
	N	-	-	Silty clay[2]	-	-	-
	N	-	-	Silty clay loam[2]	-	-	-

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
87	N	-	-	Silty clay loam^2	-	-	-
	N	-	-	Silty clay loam^2	-	-	-
	N	-	-	Silty clay loam^2	-	-	-
	Y	-	90	Silt loam^2	-	-	-
	Y	-	90	Silt loam^2	-	-	-
	Y	-	90	Silt loam^2	-	-	-
	Y	-	90	Silt loam^2	-	-	-
88	Y	-	90	Loam-silt loam^2	17.50588235	0.465330101	5
	Y	-	90	Loam-silt loam^2	16.90980392	0.513111443	5
	Y	-	90	Loam-silt loam^2	19.57894737	1.660190557	5
	Y	-	90	Loam-silt loam^2	24.44444444	3.692955055	5
	Y	-	90	Loam-silt loam^2	17.50588235	0.465330101	5
	Y	-	90	Loam-silt loam^2	16.90980392	0.513111443	5
	Y	-	90	Loam-silt loam^2	19.57894737	1.660190557	5
	Y	-	90	Loam-silt loam^2	24.44444444	3.692955055	5
	Y	-	90	Loam-silt loam^2	17.50588235	0.465330101	5
	Y	-	90	Loam-silt loam^2	16.90980392	0.513111443	5
	Y	-	90	Loam-silt loam^2	19.57894737	1.660190557	5
	Y	-	90	Loam-silt loam^2	24.44444444	3.692955055	5
89	Y	Final	125	C&D waste+clay soil	-	-	-
	Y	Final	125	C&D waste+clay soil	-	-	-
	Y	Interim	-	-	-	-	-
	Y	Interim	-	-	-	-	-
	Y	Interim	-	-	-	-	-
	Y	Interim	-	-	-	-	-
90	N	Final	80	Clay soil layer	-	-	-
	N	Final	80	Clay soil layer	-	-	-
	N	Final	80	Clay soil layer	-	-	-
	N	Final	80	Clay soil layer	-	-	-
91	Y	Final	100	Sandy Loam/Loam soil layer	0	0	12
	N	Final	100	Sandy Loam/Loam soil layer	0	0	33
92	Y	Final	-	Soil cover	-	-	-
93	N	-	-	Permeable top soil	-	-	-
94	N	-	40	-	-	-	-
	N	-	40	-	-	-	-
95	N	-	-	-	18.2	15.2	7920
96	-	Final	210	Soil cover	-	-	-
97	Y	Final	75	Sandy clay	22.9	11.7	3
	Y	Final	75	Sandy clay	22.9	11.7	3
	Y	Final	75	Sandy clay	13.4	1.62	3
	Y	Final	75	Sandy clay	15.7	1.27	3

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
	Y	Final	75	Sandy clay	13.9	5.88	3
98	Y	Final	75	Sandy Loam	16	0	1
	N	Final	45	Ashes, bark, glass wool+sand	16.33333333	5.131601439	3
	Y	Final	40	Mineral soil and sewage sludge	75	35.35533906	2
	Y	Final	100	Clay and sewage sludge	64	0	1
	Y	Final	100	Pure sewage sludge	64	0	1
99	Y	Interim	20	Organic/mineral soil	28	7.937253933	3
	Y	Interim	20	Organic/mineral soil	28	7.937253933	3
	Y	Interim	20	Organic/mineral soil	28	7.937253933	3
100	Y	-	-	Sandy clay loam/sandy loam	5.9	2.19317122	5
	-	-	-	Sandy clay loam	11.2875	5.050159121	8
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
101	-	Final	125	Aerobic conversion in process, soil layer	-	-	-
	-	Final	125	Aerobic conversion in process, soil layer	-	-	-
	-	Final	125	Aerobic conversion in process, soil layer	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	100	Well compacted soil layer	-	-	-
	-	-	100	Well compacted soil layer	-	-	-
	-	-	100	Well compacted soil layer	-	-	-
	-	-	40	Clay-sand mixture, local soil	-	-	-
	-	-	100	Well compacted soil layer	-	-	-
	-	-	40	Clay-sand mixture, local soil	-	-	-
	-	Final	100	Highly compacted soil, vegetation	-	-	-

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Study No.	Active Gas Extraction System?	Cover Type	Cover Depth (cm)	Cover Material Texture	Moisture Content (%) Mean	Moisture Content (%) Standard Deviation	Moisture Content (%) No. Measuements
	-	-	15	Soil cover	-	-	-
	-	-	40	Clay-sand mixture, local soil	-	-	-
	-	-	-	No cover soil	-	-	-
	-	-	10	Thin cover soil	-	-	-
102	Y	-	90	Loam/silt loam[2]	17.50588235	0.465330101	5
	Y	-	90	Loam/silt loam[2]	16.90980392	0.513111443	5
	Y	-	90	Loam/silt loam[2]	19.57894737	1.660190557	5
	Y	-	90	Loam/silt loam[2]	24.44444444	3.692955055	5
	Y	-	90	Loam/silt loam[2]	17.50588235	0.465330101	5
	Y	-	90	Loam/silt loam[2]	16.90980392	0.513111443	5
	Y	-	90	Loam/silt loam[2]	19.57894737	1.660190557	5
	Y	-	90	Loam/silt loam[2]	24.44444444	3.692955055	5
	Y	-	90	Loam/silt loam[2]	17.50588235	0.465330101	5
	Y	-	90	Loam/silt loam[2]	16.90980392	0.513111443	5
	Y	-	90	Loam/silt loam[2]	19.57894737	1.660190557	5
	Y	-	90	Loam/silt loam[2]	24.44444444	3.692955055	5
103	Y	-	-	Clay soil	-	-	-
104	Y	-	-	Sandy soil	-	-	-
105	N	Final	240	Clay, gravel, topsoil	-	-	-
106	N	Final	-	-	-	-	-
	N	Final	-	-	-	-	-
107	-	-	-	-	-	-	-
108	Y	Daily	30	Loamy-sand	-	-	-
	Y	Interim	80	Sandy-loam to Clay	-	-	-
	Y	Final	90	Clay	-	-	-
	Y	Daily	30	Loamy-sand	-	-	-
	Y	Interim	80	Sandy-loam to Clay	-	-	-
	Y	Final	90	Clay	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
1	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
2	22.3	-	-	-	-	-	-	-	-
	22.3	-	-	-	-	-	-	-	-
	22.3	-	-	-	-	-	-	-	-
	22.3	-	-	-	-	-	-	-	-
3,4	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
7	8.375803432	7.048684775	6	-	-	-	-	-	-
	9.227992958	7.539408075	6	-	-	-	-	-	-
8,9	15	8.9	24	14.3	11.4	24	-	-	-
	16.6	10.6	29	16.2	12.6	29	-	-	-
10	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-
	-	-	-	22.15	1.626345597	2	97.7	0.141421356	2

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
16	-	-	-	4.65	3.040559159	2	100.05	0.070710678	2
	-	-	-	-0.9	6.222539674	2	99.4	0	1
17	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	1.5	0	1	-	-	-
	-	-	-	5.5	0	1	-	-	-
	19.5	0	1	33	0	1	-	-	-
	16.8	0	1	27	0	1	-	-	-
	12.8	0	1	24	0	1	-	-	-
	14.8	0	1	18.5	0	1	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
18	19.8	0	1	24.5	0	1	-	-	-
	18	0	1	17.5	0	1	-	-	-
	12.1	0	1	10.5	0	1	-	-	-
	4.5	0	1	-2.8	0	1	-	-	-
	2.1	0	1	-2	0	1	-	-	-
	0.4	0	1	-7	0	1	-	-	-
	-	-	-	-6	0	1	-	-	-
	0.6	0	1	4	0	1	-	-	-
	3.4	0	1	5	0	1	-	-	-
	10.4	0	1	12.2	0	1	-	-	-
	14.1	0	1	16.5	0	1	-	-	-
	22.6	0	1	26	0	1	-	-	-
19	9.9	0.848528137	2	11.85	1.343502884	2	98.465	0.035355339	2
	18.15	0.777817459	2	18	5.939696962	2	101.075	0.120208153	2
	2.15	0.25	2	5.2	1.4	2	101.72	0.16	2
20	20	0	1	-	-	-	-	-	-
	24.5	0	1	-	-	-	-	-	-
	24	0	1	-	-	-	-	-	-
	18.5	0	1	-	-	-	-	-	-
	13.5	0	1	-	-	-	-	-	-
	8	0	1	-	-	-	-	-	-
	10	0	1	-	-	-	-	-	-
21	19.7	6.861000899	4	-	-	-	-	-	-
	25	0	1	-	-	-	-	-	-
22	-	-	-	20	9.899494937	2	-	-	-
	-	-	-	20	9.899494937	2	-	-	-
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
23,24	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
	-	-	-	12.653	10.45898942	26	101.6016132	13.51752879	26
25	15	10	3	-	-	-	-	-	-
	15	10	3	-	-	-	-	-	-
	15	10	3	-	-	-	-	-	-
	15	10	3	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
28	-	-	-	28.6	7.495331881	2	101.791347	0.471364451	2
	-	-	-	28.6	7.495331881	2	101.791347	0.471364451	2
	-	-	-	28.6	7.495331881	2	101.791347	0.471364451	2
	-	-	-	31.45	12.37436867	2	101.32472	0.377091561	2
	-	-	-	31.45	12.37436867	2	101.32472	0.377091561	2
	-	-	-	31.45	12.37436867	2	101.32472	0.377091561	2
	-	-	-	29.15	9.203079195	4	101.191398	0.79249061	4
	-	-	-	29.15	9.203079195	4	101.191398	0.79249061	4
	-	-	-	29.15	9.203079195	4	101.191398	0.79249061	4
	-	-	-	22.2	8.766983518	4	758.75	4.924428901	4
	-	-	-	22.2	8.766983518	4	758.75	4.924428901	4
	-	-	-	22.2	8.766983518	4	758.75	4.924428901	4
	-	-	-	22.2	8.766983518	4	758.75	4.924428901	4
	-	-	-	22.2	8.766983518	4	758.75	4.924428901	4
	-	-	-	22.2	8.766983518	4	758.75	4.924428901	4
29	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
30	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
32	-	-	-	14.4	1.272792206	2	95.25	0.353553391	2
	-	-	-	14.4	1.272792206	2	95.25	0.353553391	2
	-	-	-	14.4	1.272792206	2	95.25	0.353553391	2
	-	-	-	14.4	1.272792206	2	95.25	0.353553391	2
	-	-	-	14.4	1.272792206	2	95.25	0.353553391	2
	-	-	-	14.4	1.272792206	2	95.25	0.353553391	2
	-	-	-	22.4	0.282842712	2	96.35	0.212132034	2
	-	-	-	22.4	0.282842712	2	96.35	0.212132034	2
	-	-	-	22.4	0.282842712	2	96.35	0.212132034	2

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
	-	-	-	22.4	0.282842712	2	96.35	0.212132034	2
	-	-	-	22.4	0.282842712	2	96.35	0.212132034	2
	-	-	-	22.4	0.282842712	2	96.35	0.212132034	2
33	-	-	-	23.86666667	4.219399641	3	96.52666667	0.192959409	3
34	5.65	3.040559159	2	3.7	0	1	-	-	-
	5.65	0.353553391	2	4.8	0	1	-	-	-
	20.65	3.323401872	2	22.2	0	1	-	-	-
35	21.5	3.2	15	27.5	7.071067812	2	-	-	-
	22.4	4.1	15	17.1	9.616652224	2	-	-	-
	21	2.8	15	26.75	8.131727984	2	-	-	-
36	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
	-	-	-	-	-	-	-	-	-
38	36	4.25	3	23.5	0.707106781	2	83.9	0.707106781	2
	25	5	3	22	8.485281374	2	84.85	0.636396103	2
	25.5	1.75	3	26.5	4.949747468	2	83.6	0.282842712	2
	26	3.25	3	26.5	4.949747468	2	83.6	0.282842712	2
	26.5	3	3	25.75	5.303300859	2	83.6	0.282842712	2
	23	1.5	3	24.5	3.535533906	2	82.6	0.707106781	2
39	19.96197719	3.422053232	3	-	-	-	-	-	-
	27.56653992	4.372623574	3	-	-	-	-	-	-
	26.80608365	5.513307985	3	-	-	-	-	-	-
	40.11406844	1.711026616	3	-	-	-	-	-	-
	45.05703422	1.901140684	3	-	-	-	-	-	-
	28.8973384	0.950570342	3	-	-	-	-	-	-
	30.98859316	0.950570342	3	-	-	-	-	-	-
	29.46768061	1.140684411	3	-	-	-	-	-	-
	24.90494297	0.950570342	3	-	-	-	-	-	-
	17.4904943	0.950570342	3	-	-	-	-	-	-
	19.96197719	0.950570342	3	-	-	-	-	-	-
	10.8365019	0.760456274	3	-	-	-	-	-	-
	11.21673004	0.760456274	3	-	-	-	-	-	-
	19.20152091	0.760456274	3	-	-	-	-	-	-
	21.29277567	0.950570342	3	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	15.8	1.1	-	-	-	-	-	-	-
	28.3	4.4	-	-	-	-	-	-	-
	15.8	1.1	-	-	-	-	-	-	-
	25.6	4.6	-	-	-	-	-	-	-
	15.8	1.1	-	-	-	-	-	-	-
	36.2	1.2	-	-	-	-	-	-	-
	31	1.7	-	-	-	-	-	-	-
	36	11.3	-	-	-	-	-	-	-
	17.3	1.1	-	-	-	-	-	-	-
	35.9	9.4	-	-	-	-	-	-	-
	28.1	7.3	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	10.85443038	0	1	-	-	-	-	-	-
	3.544303797	0	1	-	-	-	-	-	-
	13.9556962	0	1	-	-	-	-	-	-
	20.37974684	0	1	-	-	-	-	-	-
	19.93670886	0	1	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
42	24.81012658	0	1	-	-	-	-	-	-
	27.02531646	0	1	-	-	-	-	-	-
	33.44936709	0	1	-	-	-	-	-	-
	32.56329114	0	1	-	-	-	-	-	-
	34.55696203	0	1	-	-	-	-	-	-
	27.02531646	0	1	-	-	-	-	-	-
	9.303797468	0	1	-	-	-	-	-	-
	5.981012658	0	1	-	-	-	-	-	-
	7.088607595	0	1	-	-	-	-	-	-
	10.85443038	0	1	-	-	-	-	-	-
	3.544303797	0	1	-	-	-	-	-	-
	13.9556962	0	1	-	-	-	-	-	-
	20.37974684	0	1	-	-	-	-	-	-
	19.93670886	0	1	-	-	-	-	-	-
	24.81012658	0	1	-	-	-	-	-	-
	27.02531646	0	1	-	-	-	-	-	-
	33.44936709	0	1	-	-	-	-	-	-
	32.56329114	0	1	-	-	-	-	-	-
	34.55696203	0	1	-	-	-	-	-	-
	27.02531646	0	1	-	-	-	-	-	-
	34.55696203	0	1	-	-	-	-	-	-
	27.02531646	0	1	-	-	-	-	-	-
	9.303797468	0	1	-	-	-	-	-	-
	5.981012658	0	1	-	-	-	-	-	-
	7.088607595	0	1	-	-	-	-	-	-
43	24.22222222	1.555555556	5	-	-	-	-	-	-
	22.22222222	0.888888889	5	-	-	-	-	-	-
	24	0.666666667	5	-	-	-	-	-	-
	18.22222222	1.111111111	5	-	-	-	-	-	-
	26.22222222	0.888888889	5	-	-	-	-	-	-
	23.33333333	2	5	-	-	-	-	-	-
	18.88888889	3.333333333	5	-	-	-	-	-	-
	19.77777778	1.111111111	5	-	-	-	-	-	-
	21.77777778	0.666666667	5	-	-	-	-	-	-
	20	2.222222222	5	-	-	-	-	-	-
	28	0.666666667	5	-	-	-	-	-	-
	29.77777778	1.333333333	5	-	-	-	-	-	-
	31.27035831	1.563517915	5	-	-	-	-	-	-
	21.49837134	1.824104235	5	-	-	-	-	-	-
	23.45276873	0.912052117	5	-	-	-	-	-	-
	22.14983713	2.996742671	5	-	-	-	-	-	-
	30.48859935	0.521172638	5	-	-	-	-	-	-
	29.44625407	0.781758958	5	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
44	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
45	25	7	-	-	-	-	-	-	-
46	-	-	-	20.5	4.949747468	2	-	-	-
	-	-	-	24.5	0.707106781	2	-	-	-
	-	-	-	20.5	4.949747468	2	-	-	-
47	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
49	26.8	-	3	28.2	-	3	-	-	-
	4.4	-	3	10	-	3	-	-	-
	-0.3	-	3	-1.9	-	3	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	24.8	-	3	24.8	-	3	-	-	-
	1.4	-	3	1.2	-	3	-	-	-
	0.4	-	3	-1.1	-	3	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
50	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
51	25.13888889	2.987141756	36	-	-	-	101.1722222	0.364582823	36
52	-	-	-	19.81666667	6.423304491	24	98.10654029	0.850148217	24
	-	-	-	24.4	2.121320344	2	98.543949	0	2
	-	-	-	18.85	0.636396103	2	97.0200735	1.676177533	2
53	-	-	-	-	-	-	-	-	-
54	-	-	-	21.28365385	2.06004952	24	-	-	-
	-	-	-	-	-	-	-	-	-
55,56,57	-	-	-	33.4	4.95665422	20	100.2	0.081649658	10
	-	-	-	27.2	-	-	-	-	-
	-	-	-	27.2	-	-	-	-	-
	-	-	-	32.96428571	4.662554878	28	100.8928571	0.126881445	14
	-	-	-	32.96428571	4.662554878	29	100.8928571	0.126881445	15

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
58	-	-	-	-	-	-	-	-	-
59	4.249963361	6.076155095	5	-	-	-	-	-	-
	1.106982861	1.645485921	5	-	-	-	-	-	-
	14.34593858	6.773542437	5	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
61	34.5	6.363961031	2^6	40.5	7.778174593	2	-	-	-
	34.5	6.363961031	2^6	40.5	7.778174593	2	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
62,63	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
64	31.15530958	2.689495265	14	37.45935662	5.141454118	14	-	-	-
	30.31476998	1.804555577	9	34.26841923	4.695832662	9	-	-	-
	32.27084054	3.184593713	14	37.45935662	5.141454118	14	-	-	-
	32.25450632	2.477242669	9	34.26841923	4.695832662	9	-	-	-
	32.27084054	3.184593713	14	37.45935662	5.141454118	14	-	-	-
	32.25450632	2.477242669	9	34.26841923	4.695832662	9	-	-	-
	32.27084054	3.184593713	14	37.45935662	5.141454118	14	-	-	-
	32.25450632	2.477242669	9	34.26841923	4.695832662	9	-	-	-
	32.27084054	3.184593713	14	37.45935662	5.141454118	14	-	-	-
	32.25450632	2.477242669	9	34.26841923	4.695832662	9	-	-	-
65	-	-	-	-	-	-	-	-	-
66	30.25	5.057996968	4	-	-	-	-	-	-
	30.25	5.057996968	4	-	-	-	-	-	-
	30.25	5.057996968	4	-	-	-	-	-	-
	30.25	5.057996968	4	-	-	-	-	-	-
	30.25	5.057996968	4	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
	30.25	5.057996968	4	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
69	-	-	-	15	0	1	-	-	-
	-	-	-	1.4	0	1	-	-	-
	-	-	-	-2.4	0	1	-	-	-
	-	-	-	4	0	1	-	-	-
	-	-	-	3.3	0	1	-	-	-
	-	-	-	1.9	0	1	-	-	-
	-	-	-	0.1	0	1	-	-	-
	-	-	-	3.6	0	1	-	-	-
	-	-	-	2.1	0	1	-	-	-
70	-	-	-	16	0	1	98.2	0	1
	-	-	-	25	0	1	97.9	0	1
71	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
72	12.8	-	22	10.15	2.333452378	2	101.67	0.848528137	2
73	31.9	1	4	29.14933333	2.397306425	15	101.5	0.1	4
	30.9	1	4	34.57869688	3.32489986	15	101.4	0.1	4
	20.5	0.8	4	20.70347513	4.540881988	10	101.8	0.4	4
	31.1	1	4	26.28528529	1.014387821	15	101.5	0.1	4
	26.9	0.6	4	23.53535354	1.581401342	15	101.4	0.1	4
	29.5	2.3	4	24.85195737	4.386477753	18	100.7	0.1	4
	20.6	0.7	4	11.17790077	1.173768799	9	1018.5	0.4	4
	33.6	2.1	4	-	-	-	100.7	0.1	4
	20	0.9	4	23.48591961	2.671242182	9	100.8	0.4	4

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
74	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-
76	-	-	-	15.6	21.92031022	2	100.19	3.337544007	2
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	10.3	-	-	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
77	27.1	-	-	-	-	-	-	-	-
	12.9	-	-	-	-	-	-	-	-
	29.9	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
79	34.4	1.9	-	23.8	4.666904756	2	1013.1	4.384062043	2
	33.2	2	-	23.8	4.666904756	2	1013.1	4.384062043	2
80	19.83472785	2.042591767	57	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-
82	-	-	-	9.4	8.485281374	2	100.835	2.510229073	2
	-	-	-	9.4	8.485281374	2	100.835	2.510229073	2
	-	-	-	9.4	8.485281374	2	100.835	2.510229073	2
83	-	-	-	19.7	2.6	-	-	-	-
	-	-	-	30.5	2.4	-	-	-	-
	-	-	-	32.6	1.3	-	-	-	-
84	-	-	-	35	7.071067812	2	-	-	-
	-	-	-	35	7.071067812	2	-	-	-
	-	-	-	35	7.071067812	2	-	-	-
	-	-	-	35	7.071067812	2	-	-	-
	-	-	-	35	7.071067812	2	-	-	-
	-	-	-	35	7.071067812	2	-	-	-
85	-	-	-	5.3	13.43502884	2	-	-	-
	-	-	-	5.3	13.43502884	2	-	-	-
	-	-	-	13.35	16.05132393	2	-	-	-
86	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	16.25101351	2.315483646	5	-	-	-	-	-	-
	36.36363636	3.335451753	5	-	-	-	-	-	-
	15.45454545	1.72005229	5	-	-	-	-	-	-
	5.138888889	0.380362887	5	-	-	-	-	-	-
	16.14814815	2.200511226	5	-	-	-	-	-	-

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
87	34.88372093	3.088639041	5	-	-	-	-	-	-
	14.76923077	1.039173545	5	-	-	-	-	-	-
	4.962406015	0.314533845	5	-	-	-	-	-	-
	18.43283582	2.483516611	5	-	-	-	-	-	-
	27.81954887	1.527074888	5	-	-	-	-	-	-
	9.708029197	2.429133035	5	-	-	-	-	-	-
	6.015037594	2.143186889	5	-	-	-	-	-	-
88	9.726315789	2.369999474	5	13.42745098	5.775872871	5	-	-	-
	6.094736842	2.160909319	5	8.188235294	3.363233829	5	-	-	-
	18.47368421	2.547335798	5	26.36842105	6.300419895	5	-	-	-
	27.92207792	1.655525816	5	33.44155844	8.44779989	5	-	-	-
	9.726315789	2.369999474	5	13.42745098	5.775872871	5	-	-	-
	6.094736842	2.160909319	5	8.188235294	3.363233829	5	-	-	-
	18.47368421	2.547335798	5	26.36842105	6.300419895	5	-	-	-
	27.92207792	1.655525816	5	33.44155844	8.44779989	5	-	-	-
	9.726315789	2.369999474	5	13.42745098	5.775872871	5	-	-	-
	6.094736842	2.160909319	5	8.188235294	3.363233829	5	-	-	-
	18.47368421	2.547335798	5	26.36842105	6.300419895	5	-	-	-
	27.92207792	1.655525816	5	33.44155844	8.44779989	5	-	-	-
89	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
91	-	-	-	15.38126892	3.54956652	7	101.8120435	0.684638031	7
	-	-	-	16.05748276	3.915809979	11	1014.985325	5.760533215	11
92	-	-	-	-	-	-	-	-	-
93	25	7.071067812	2	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
95	29.2	2.3	7920	19.8	3.6	7920	100.49	0.36	-
96	33.4	21.77888886	2	-	-	-	-	-	-
97	33.2	0	1	33.1	1.272792206	2	-	-	-
	33.2	0	1	33.1	1.272792206	2	-	-	-
	27.9	0	1	33.1	1.272792206	2	-	-	-
	32.2	0	1	33.1	1.272792206	2	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
	37.2	0	1	33.1	1.272792206	2	-	-	-
98	21	0	1	-	-	-	-	-	-
	13.33333333	17.14885808	3	-	-	-	-	-	-
	14	21.92031022	2	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
99	21	8.485281374	2	-	-	-	-	-	-
	21	8.485281374	2	-	-	-	-	-	-
	21	8.485281374	2	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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Study No.	Soil Temperature (°C) Mean	Soil Temperature (°C) Standard Deviation	Soil Temperature (°C) No. Measuements	Air Temp (°C) Mean	Air Temp (°C) Standard Deviation	Air Temp (°C) No. Measuements	Barometric Pressure (kPa) Mean	Barometric Pressure (kPa) Standard Deviation	Barometric Pressure (kPa) No. Measuements
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
102	9.726315789	2.369999474	5	13.42745098	5.775872871	5	-	-	-
	6.094736842	2.160909319	5	8.188235294	3.363233829	5	-	-	-
	18.47368421	2.547335798	5	26.36842105	6.300419895	5	-	-	-
	27.92207792	1.655525816	5	33.44155844	8.44779989	5	-	-	-
	9.726315789	2.369999474	5	13.42745098	5.775872871	5	-	-	-
	6.094736842	2.160909319	5	8.188235294	3.363233829	5	-	-	-
	18.47368421	2.547335798	5	26.36842105	6.300419895	5	-	-	-
	27.92207792	1.655525816	5	33.44155844	8.44779989	5	-	-	-
	9.726315789	2.369999474	5	13.42745098	5.775872871	5	-	-	-
	6.094736842	2.160909319	5	8.188235294	3.363233829	5	-	-	-
	18.47368421	2.547335798	5	26.36842105	6.300419895	5	-	-	-
	27.92207792	1.655525816	5	33.44155844	8.44779989	5	-	-	-
103	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
1	-	-	-	76					76
	-	-	-	88					88
2	-	-	-	62					62
	-		-	18					18
	-	-	-	28					28
	-	-	-	112					112
3,4	-	-	-	4					4
	-	-	-	4					4
5	-	-	-	18					18
	-	-	-	9					9
6	-	-	-	12					12
	-	-	-	29					29
	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
7	-	-	-	5					5
	-	-	-	6					6
8,9	-	-	-	22	26				48
	-	-	-	25	27				52
10	-	-	-	139					139
	-	-	-	92					92
	-	-	-	111					111
	-	-	-	106					106
	-	-	-	124					124
11	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
12	-	-	-	26					26
13	-	-	-	1					1
	-	-	-	1					1
14	-	-	-	1					1
15	-	-	-	1	1	0	0	1	3
	-	-	-	45					45

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
16	-	-	-	14					14
	-	-	-	42					42
17	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	17					17
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
18	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
19	-	-	-	81					81
	-	-	-	101					101
	-	-	-	83					83
20	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
21	-	-	-	4	4	0	123		131
	-	-	-	1	1	0	31		33
22	-	-	-	6			266		272
	-	-	-	1			45		46
	-	-	-	7	7				14
	-	-	-	7	7				14
	-	-	-	24	24				48

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
23,24	-	-	-	25	25				50
	-	-	-	25	25				50
	-	-	-	25	25				50
	-	-	-	20	20				40
	-	-	-	9	9				18
	-	-	-	3	3				6
	-	-	-	7	7				14
	-	-	-	9	9				18
	-	-	-	24	24				48
	-	-	-	24	24				48
	-	-	-	24	24				48
	-	-	-	24	24				48
	-	-	-	17	17				34
	-	-	-	6	6				12
	-	-	-	1	1				2
25	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
26	-	-	-	1					1
27	-	-	-	1					1
	-	-	-	1					1
28	-	-	-	3			8		10.93333333
	-	-	-	3			8		10.93333333
	-	-	-	3			8		10.93333333
	-	-	-	4			8		11.93333333
	-	-	-	4			8		11.93333333
	-	-	-	4			8		11.93333333
	-	-	-	5			8		12.93333333
	-	-	-	4			8		11.93333333
	-	-	-	4			8		11.93333333
	-	-	-	3			8		10.93333333
	-	-	-	3			8		10.93333333
	-	-	-	3			8		10.93333333
	-	-	-	2			8		9.933333333
	-	-	-	2			8		9.933333333
	-	-	-	2			8		9.933333333
29	47.85	11.9501046	2	13					13
	47.85	11.9501046	2	14					14
	47.85	11.9501046	2	18					18
	-	-	-	33					33
	-	-	-	8					8
	-	-	-	9					9
	-	-	-	6					6

Appendix A, Table A-2

Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
30	-	-	-	17					17
	-	-	-	19					19
	-	-	-	12					12
	-	-	-	21					21
	-	-	-	11					11
	-	-	-	56					56
	-	-	-	37					37
	-	-	-	46					46
	-	-	-	32					32
	-	-	-	18					18
	-	-	-	51					51
	-	-	-	13					13
	-	-	-	21					21
	-	-	-	18					18
31	-	-	-	45	45				90
	-	-	-	57	57				114
	-	-	-	79	79				158
	-	-	-	103	103				206
	-	-	-	45	45				90
	-	-	-	180	180				360
	-	-	-	78	78				156
	-	-	-	78	78				156
	-	-	-	31	31				62
	-	-	-	81	81				162
	-	-	-	80	80				160
	-	-	-	49	49				98
	-	-	-	50	50				100
	-	-	-	92	92				184
32	-	-	-	15					15
	-	-	-	20					20
	-	-	-	12					12
	-	-	-	7					7
	-	-	-	50					50
	-	-	-	13					13
	-	-	-	18					18
	-	-	-	16					16
	-	-	-	12					12

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
	-	-	-	7					7
	-	-	-	35					35
	-	-	-	14					14
33	36.91	0	1	82					82
34	-	-	-	60					60
	-	-	-	60					60
	-	-	-	60					60
35	30.18142857	0	7	16	16				32
	-	-	-	16	16				32
	-	-	-	16	16				32
36	-	-	-	45					45
	-	-	-	45					45
	-	-	-	45					45
	-	-	-	45					45
	-	-	-	29					29
	-	-	-	42					42
	-	-	-	40					40
	-	-	-	31					31
	-	-	-	40					40
	-	-	-	31					31
	-	-	-	40					40
	-	-	-	40					40
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	18					18
	-	-	-	30					30
	-	-	-	25					25
	-	-	-	20					20
	-	-	-	26					26
	-	-	-	26					26
	-	-	-	26					26
37	-	-	-	42	100				142
	-	-	-	166	161				327
	-	-	-	113	89				202
	-	-	-	189	192				381
	-	-	-	158	188				346
	-	-	-	152	187				339
	-	-	-	159	210				369
	-	-	-	148	227				375
	-	-	-	150	235				385
	-	-	-	204	342				546

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
	-	-	-	180	269				449
38	-	-	-	56					56
	-	-	-	40					40
	-	-	-	40					40
	-	-	-	46					46
	-	-	-	43					43
	-	-	-	32					32
39	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
	-	-	-	3					3
40	-	-	-	50	0	0			50
	-	-	-	50	0	0			50
	-	-	-	50	50	50	50		200
	-	-	-	50	50	50	50		200
	-	-	-	61	61	61	61		244
	-	-	-	61	61	61	61		244
	-	-	-	30	30	30	30		120
	-	-	-	30	30	30	30		120
	-	-	-	33	33	33	33		132
	-	-	-	33	33	33	33		132
	-	-	-	60	60	60	60		240
	-	-	-	60	60	60	60		240
	-	-	-	23	23	23	23		92
	-	-	-	23	23	23	23		92
41	-	-	-	480					480
	-	-	-	360					360
	-	-	-	240					240
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
42	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	6					6
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
43	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
	-	-	-	5	5	5			15
44	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
44	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
45	-	-	-	4			361		365
46	-	-	-	19	19		160		197.6666667
	-	-	-	10	10		160		179.6666667
	-	-	-	20	20		160		199.6666667
47	-	-	-	92					92
	-	-	-	108					108
	-	-	-	73					73
48	-	-	-	14			3		17
	-	-	-	14			0		14
	-	-	-	14			0		14
	-	-	-	14			0		14
	-	-	-	14			0		14
49	-	-	-	26					26
	-	-	-	16					16
	-	-	-	4					4
	-	-	-	26					26
	-	-	-	16					16
	-	-	-	4					4
	-	-	-	23					23
	-	-	-	16					16
	-	-	-	6					6
	-	-	-	23					23
	-	-	-	16					16
	-	-	-	6					6
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
50	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
	-	-	-	4					4
51	-	-	-	36	36		74		146
52	-	-	-	24					24
	-	-	-	2					2
	-	-	-	2					2
53	53.145	10.66750346	6	232	232				464
54	75	0	1	36	36	36			108
	-	-	-	24	25	24			73
55,56,57	48.32	0	1	73	0				73
	-	-	-	81	81				162
	-	-	-	81	0				81
	-	-	-	81	0				81
	-	-	-	80	0				80

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
58	52	0	1	40	40				80
59	-	-	-	9	9				18
	-	-	-	11	11				22
	-	-	-	12	12				24
	-	-	-	6	6				12
	-	-	-	10	10				20
	-	-	-	8	8				16
	-	-	-	3	3				6
	-	-	-	3	3				6
	-	-	-	3	3				6
	-	-	-	3	3				6
	-	-	-	12	12				24
	-	-	-	11	11				22
	-	-	-	8	8				16
	-	-	-	11	1				12
60	-	-	-	6	6				12
	-	-	-	7	7				14
	-	-	-	6	6				12
	-	-	-	6	6				12
	-	-	-	7	7				14
	-	-	-	6	6				12
	-	-	-	6	6				18
	-	-	-	6	6				12
	-	-	-	6	6				12
61	46.562	2.489943774	5	12	12	12			36
	46.562	2.489943774	5	13	13	13			39
	32.4	0.674199862	12	5					5
	32.4	0.674199862	12	5					5
	32.4	0.674199862	12	5					5
	32.4	0.852802865	12	5					5
	32.4	0.852802865	12	8					8
	32.4	0.852802865	12	8					8
	32.4	0.852802865	12	8					8
	32.4	0.674199862	12	8					8

Appendix A, Table A-2
Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
62,63	-	-	-	5					5
	-	-	-	5					5
	-	-	-	5					5
	-	-	-	5					5
	-	-	-	8					8
	-	-	-	8					8
	-	-	-	8					8
	-	-	-	8					8
64	-	-	-	13	14				27
	-	-	-	9	9				18
	-	-	-	13	14				27
	-	-	-	9	9				18
	-	-	-	13	14				27
	-	-	-	9	9				18
	-	-	-	13	13				26
	-	-	-	9	8				17
65	-	-	-	6	6	6			18
66	-	-	-	2					2
	-	-	-	2					2
	-	-	-	2					2
	-	-	-	3					3
	-	-	-	2					2

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
	-	-	-	2					2
67	-	-	-	40					40
	-	-	-	41					41
	-	-	-	30					30
	-	-	-	31					31
	-	-	-	30					30
	-	-	-	40					40
	-	-	-	30					30
	-	-	-	32					32
	-	-	-	20					20
	-	-	-	20					20
	-	-	-	22					22
	-	-	-	20					20
	-	-	-	16					16
	-	-	-	16					16
68	-	-	-	37	37	37			111
	-	-	-	37	37	37			111
	-	-	-	37	37	37			111
	-	-	-	37	37	37			111
	-	-	-	37	37	37			111
	-	-	-	37	37	37			111
	-	-	-	37	37	37			111
69	30.60575396	3.798074186	3	17	17				34
	30.60575396	3.798074186	3	18	18				36
	30.60575396	3.798074186	3	4	4				8
	30.60575396	3.798074186	3	30	30				60
	20.94878444	5.288754695	4	10	10				20
	20.94878444	5.288754695	4	8	8				16
	20.94878444	5.288754695	4	7	7				14
	20.94878444	5.288754695	4	12	12				24
	20.94878444	5.288754695	4	17	17				34
70	55	20	-	88	88				176
	55	20	-	64	64				128
71	-	-	-	73	73	73			219
	-	-	-	100	100	100			300
72	-	-	-	22	22	22			66
73	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	4	4				8
	-	-	-	9	9				18
	-	-	-	4	4				8

Appendix A, Table A-2

Surface Flux of Landfill Gas by Chemical Families from Literature.

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
74	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
	-	-	-	1					1
75	-	-	-	24					24
76	-	-	-	1118					1118
	-	-	-	43					43
	-	-	-	43					43
	-	-	-	43					43
	-	-	-	43					43
	-	-	-	43					43
	-	-	-	43					43
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	39					39
	-	-	-	39					39
	-	-	-	39					39
	-	-	-	39					39
	-	-	-	39					39
	-	-	-	39					39
	-	-	-	9					9
	-	-	-	9					9
	-	-	-	9					9
	-	-	-	9					9
	-	-	-	9					9
	-	-	-	9					9
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	31					31
	-	-	-	40					40

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
77	-	-	-	40					40
	-	-	-	81					81
	-	-	-	51					51
78	55	20	-	32					32
	55	20	-	32					32
	55	20	-	32					32
	55	20	-	48					48
	55	20	-	48					48
	55	20	-	48					48
	55	20	-	24					24
	55	20	-	24					24
	55	20	-	24					24
79	44.4	0	1	10					10
	44.4	0	1	10					10
80	-	-	-	16					16
	-	-	-	16					16
	-	-	-	16					16
	-	-	-	16					16
	-	-	-	16					16
81	58.3	0	1	55					55
82	-	-	-	9	9				18
	-	-	-	36	36				72
	-	-	-	4	4				8
83	64.9	0	1	32	32				64
	64.9	0	1	32	32				64
	64.9	0	1	32	32				64
84	35.4	0	1	5					5
	47.5	0	1	4					4
	34.9	0	1	4					4
	36.8	0	1	5					5
	39.6	0	1	5					5
	30.2	0	1	5					5
85	-	-	-	17	24				41
	-	-	-	14	25				39
	-	-	-	15	28				43
86	-	-	-	139					139
	-	-	-	139					139
	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
87	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60
	-	-	-	30		30			60
88	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
	57.13333333	1.936491673	9	30					30
89	-	-	-	6	6	6			18
	-	-	-	6	6	6			18
	-	-	-	6	6	6			18
	-	-	-	6	6	6			18
	-	-	-	6	6	6			18
	-	-	-	6	6	6			18
90	-	-	-	2					2
	-	-	-	2					2
	-	-	-	2					2
	-	-	-	1					1
91	-	-	-	0					0
	-	-	-	0					0
92	-	-	-	0	281				281
93	-	-	-	0	107				107
94	-	-	-	0	81				81
	-	-	-	0	81				81
95	-	-	-	0	7920				7920
96	-	-	-	0	1038				1038
97	-	-	-	0	0	4			4
	-	-	-	0	0	4			4
	-	-	-	0	0	4			4
	-	-	-	0	0	4			4

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
	-	-	-	0	0	4			4
98	-	-	-	0	0	16			16
	-	-	-	0	0	12			12
	-	-	-	0	0	28			28
	-	-	-	0	0	20			20
	-	-	-	0	0	20			20
99	-	-	-	0	0	9			9
	-	-	-	0	0	7			7
	-	-	-	0	0	10			10
100	-	-	-	0	0	12			12
	-	-	-	0	0	16			16
	-	-	-	0	0	5			5
	-	-	-	0	0	6			6
101	-	-	-	0	0	39			39
	-	-	-	0	0	17			17
	-	-	-	0	0	12			12
	-	-	-	0	0	26			26
	-	-	-	0	0	13			13
	-	-	-	0	0	14			14
	-	-	-	0	0	37			37
	-	-	-	0	0	14			14
	-	-	-	0	0	37			37
	-	-	-	0	0	22			22
	-	-	-	0	0	7			7
	-	-	-	0	0	88			88
	-	-	-	0	0	38			38

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Study No.	OM (food waste) Composition (%) Mean	OM (food waste) Composition (%) Standard Deviation	OM (food waste) Composition (%) No. Measurements	Total No. of Flux Measurements Methane	Total No. of Flux Measurements CO2	Total No. of Flux Measurements N2O	Total No. of Flux Measurements NMVOCs	Total No. of Flux Measurements CO	Total No. of Flux Measurements
	-	-	-	0	0	14			14
	-	-	-	0	0	48			48
	-	-	-	0	0	8			8
	-	-	-	0	0	6			6
102	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
	-	-	-	0	0	30			30
103	-	-	-	0	0	**3**			3
104	-	-	-	0	0	**3**			3
105	-	-	-	0	0	0	344		344
106	-	-	-	0	0	0	24		24
	-	-	-	0	0	0	24		24
107	-	-	-	0	0	0	700		700
108	-	-	-	0	0	0	340		340
	-	-	-	0	0	0	340		340
	-	-	-	0	0	0	340		340
	-	-	-	0	0	0	513		513.3333333
	-	-	-	0	0	0	513		513.3333333
	-	-	-	0	0	0	513		513.3333333
			Total:	16193	15613	2444	5667	1	39918

Footnotes:

[1]If not given in study, estimated using time period between start of landfilling to beginning of testing period

[2]Soil texture deduced using USDA standard soil classification triangle

[3]If landfill site was closed, it was assumed that the soil cover was Final

[4]If flux units were volumetric, the conversion to g/m2/day was conducted using 0.716 g/L density at NTP for methane, 1.96 g/L for CO2, and 1.83 g/L for N2O (applies to all remaining rows in the study)

[5]If a standard deviation was not given, the range rule technique was used to estimate SD (applies to all remaining rows in the study)

[6]The volumetric WIP was estimated for this LF site given the area and depth of the waste

[7]The gravimetric WIP and presence of a gas extraction system was included based on US EPA site specific LF data for the year 2017

[8]If standard deviation or a range was not given, the mean value was assume to be a point estimate (no. of measurements = 1 and SD = 0)

[9]Estimated using the group mean/stdev method

[*]Indicates the flux units were given in mg-C/m2/day, or mg-N/m2/day and needed to be converted to mg-CH4/m2/day, mg-CO2/m2/day or mg-N2O/m2/day

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Chemical Family	Chemical Name	Min	Mean	Max	Standard Deviation	Number of Samples
Baseline GHGs	Methane	-45	7.85E+01	4.15E+04	4.78E+02	15873
	Carbon dioxide	-21.38	2.81E+02	1.24E+05	1.40E+03	14249
	Nitrous Oxide	-0.002544	6.50E-02	3.76E+00	3.26E+01	2344
	Carbon Monoxide	-	-	-	-	-
Reduced sulfur compounds	Carbonyl sulfide	-0.001655708	1.40E-03	1.28E-02	3.02E-03	24
	Dimethyl sulfide	-	-	-	-	-
	Dimethyl disulfide	-	-	-	-	-
	Carbon disulfide	-	-	-	-	-
F-gases	CFC-11	-0.000184	5.29E-05	2.57E-01	2.93E-04	47
	CFC-12	-1.68E-05	1.97E-04	5.14E-03	8.81E-04	34
	CFC-113	-5.96E-07	8.34E-06	6.31E-05	1.16E-05	34
	CFC-114	-8.14E-08	3.22E-05	2.53E-04	7.80E-05	10
	HCFC-21	-	5.00E-03	-	-	1
	HCFC-22	-4.89E-06	7.43E-06	3.43E-03	1.72E-05	12
	HCFC-141b	3.63E-06	1.54E-05	6.66E-05	2.27E-05	7
	HCFC-142b	-3.50E-07	-	4.93E-03	-	56
	HFC-134a	-2.59E-06	1.25E-06	5.49E-06	3.04E-06	7
	HFC-152a	4.00E-07	-	6.76E-02	-	56
	HFC-245fa	9.74E-09	-	5.21E-02	-	56
	HFC-365mfc	-	-	-	-	-
	H-1211	-1.09E-08	-2.80E-06	2.61E-07	1.32E-05	20
Halogenated Hydrocarbons	Chloroform	-0.000162038	9.74E-05	8.10E-04	2.53E-04	118
	Methyl-Chloroform	-6.69E-08	4.87E-05	2.61E-05	1.15E-04	84
	Carbon tetrachloride	-1.88E-06	1.62E-04	7.00E-06	3.91E-04	83
	Methylene chloride	-2.10E-05	-7.52E-07	5.14E-06	5.02E-06	25
	Trichloroethylene	-4.92E-06	7.19E-05	2.14E-04	3.04E-04	91
	Tetrachloroethylene	-6.24E-07	9.73E-05	1.15E-04	3.12E-04	92
	Methyl chloride	-8.09E-06	6.04E-06	8.29E-05	1.70E-05	29
	Bromomethane	-5.89E-08	8.19E-07	3.23E-06	1.05E-06	8
	Dibromomethane	1.10E-08	1.47E-08	2.10E-08	5.42E-09	3
	Bromodichloromethane	-	1.56E-04	-	4.14E-04	50
	Bromoform	1.24E-07	1.97E-07	3.40E-07	7.67E-08	9
	Chloroethane	1.58E-06	2.87E-06	3.33E-06	8.61E-07	4
	1,2-Dichloroethane	2.00E-07	1.05E-06	3.10E-06	6.75E-07	15
	1,2-Dibromoethane	-9.48E-06	1.62E-04	-	4.70E-04	52
Organic Alkyl Nitrates	Methyl nitrate	-3.48E-08	3.22E-08	3.29E-07	1.31E-07	7
	Ethyle nitrate	-2.18E-08	2.64E-08	2.03E-07	7.93E-08	7
	Isopropyl nitrate	-5.33E-08	9.70E-08	2.59E-07	1.17E-07	7
	N-propyl nitrate	-1.80E-08	-4.35E-09	4.88E-09	8.32E-09	7
	2-Butyl nitrate	-9.54E-08	-2.04E-08	7.08E-08	5.46E-08	7
	Ethane	1.42E-06	3.22E-03	7.70E-02	1.19E-02	54
	Propane	-6.45E-05	4.09E-03	7.39E-02	1.60E-02	21

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Chemical Family	Chemical Name	Min	Mean	Max	Standard Deviation	Number of Samples
Alkanes	i-Butane	-0.000115	6.16E-04	7.21E-03	1.57E-03	21
	n-Butane	-0.000145	2.95E-04	2.05E-03	5.08E-04	21
	i-Pentane	-2.57E-05	5.20E-04	2.95E-03	8.86E-04	21
	n-Pentane	-3.64E-06	5.85E-05	3.13E-04	7.69E-05	36
	n-Hexane	1.76E-07	8.41E-05	8.64E-04	2.36E-04	35
	n-Undecane	-	-	-	-	-
Alkenes	Ethene	2.30E-07	1.12E-04	1.00E-03	2.36E-04	48
	Propene	-3.85E-06	1.66E-04	7.22E-04	2.61E-04	21
	1-Butene	-6.46E-07	2.16E-05	8.98E-05	3.23E-05	21
	i-Butene	-7.15E-07	4.35E-05	1.87E-04	6.14E-05	21
	trans-2-Butene	1.56E-06	8.21E-06	1.90E-05	6.28E-06	9
	cis-2-Butene	-2.27E-06	3.39E-06	1.84E-05	5.26E-06	18
	1-Pentene	2.09E-06	7.70E-06	1.78E-05	5.42E-06	9
	Isoprene	-3.00E-06	1.36E-05	6.22E-05	1.99E-05	19
Aldehydes/	Ethyne	-3.70E-06	1.43E-05	2.92E-04	5.21E-05	43
Alkynes	Acetaldehyde	-	1.12E-03	-	1.83E-03	99
	Butanal	-	1.81E-04	-	5.00E-04	50
Aromatic Hydrocarbons	Benzene	-8.57E-06	2.72E-03	2.04E-02	1.63E-02	199
	Toluene	-9.49E-05	7.00E-03	2.90E-02	3.06E-02	181
	Ethylbenzene	-8.56E-05	1.01E-02	2.07E-02	4.75E-02	145
	m+p-Xylene	1.00E-06	1.42E-05	7.20E-05	1.86E-05	17
	o-Xylene	3.00E-07	7.27E-03	1.97E-03	2.69E-02	63
	m-Xylene	6.49E-06	2.39E-02	2.96E-03	7.74E-02	57
	p-Xylene	2.24E-06	6.31E-03	1.12E-03	2.04E-02	57
	m+p+o-Xylene	-0.000404	1.90E-03	9.64E-02	1.16E-02	69
	i-Propylbenzene	1.43E-06	5.91E-05	1.30E-04	4.70E-05	8
	n-Propylbenzene	-	-	-	-	-
	3-Ethyltoluene	1.54E-06	3.22E-04	6.06E-04	2.69E-04	8
	4-Ethyltoluene	3.63E-06	5.19E-04	5.75E-03	1.51E-03	14
	2-Ethyltoluene	7.30E-06	1.11E-04	2.28E-04	8.30E-05	7
	1,3,5-Trimethylbenzene	-3.13E-06	3.78E-04	6.78E-03	1.44E-03	22
	1,2,3-Trimethylbenzene	1.00E-07	5.20E-07	2.30E-06	5.68E-07	15
	1,2,4-Trimethylbenzene	-4.39E-05	2.76E-04	5.59E-03	1.16E-03	23
Monoterpenes	alpha-Pinene	-0.000107776	9.28E-03	3.00E-01	4.48E-02	46
	beta-Pinene	-9.13E-05	6.63E-05	8.10E-04	1.81E-04	24
	Limonene	1.00E-07	5.57E-05	3.15E-04	9.53E-05	24
Alcohols	Methanol	-1.90E-05	5.60E-04	4.48E-03	1.13E-03	26
	Ethanol	4.60E-06	1.01E-01	7.75E-05	5.18E-01	44
	Isopropanol	3.00E-09	1.27E-02	9.00E-06	4.49E-02	33
	2-Butanol	-	-	-	-	-
Ketones	Acetone	3.47E-05	1.86E-03	1.74E-02	3.51E-03	136
	Butanone	-	-	-	-	-
	Methylisobutylketone	9.00E-07	1.96E-06	4.50E-06	1.32E-06	15

Gas flux measurements in grams per cubic meter per day.

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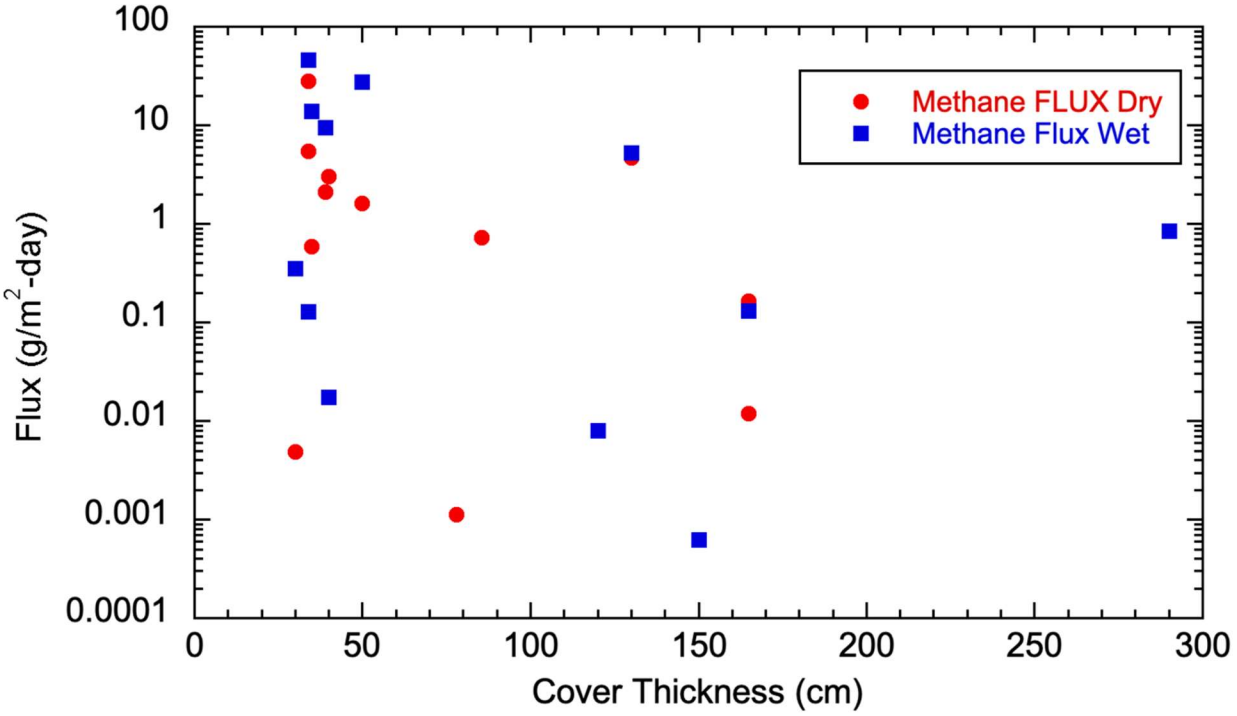

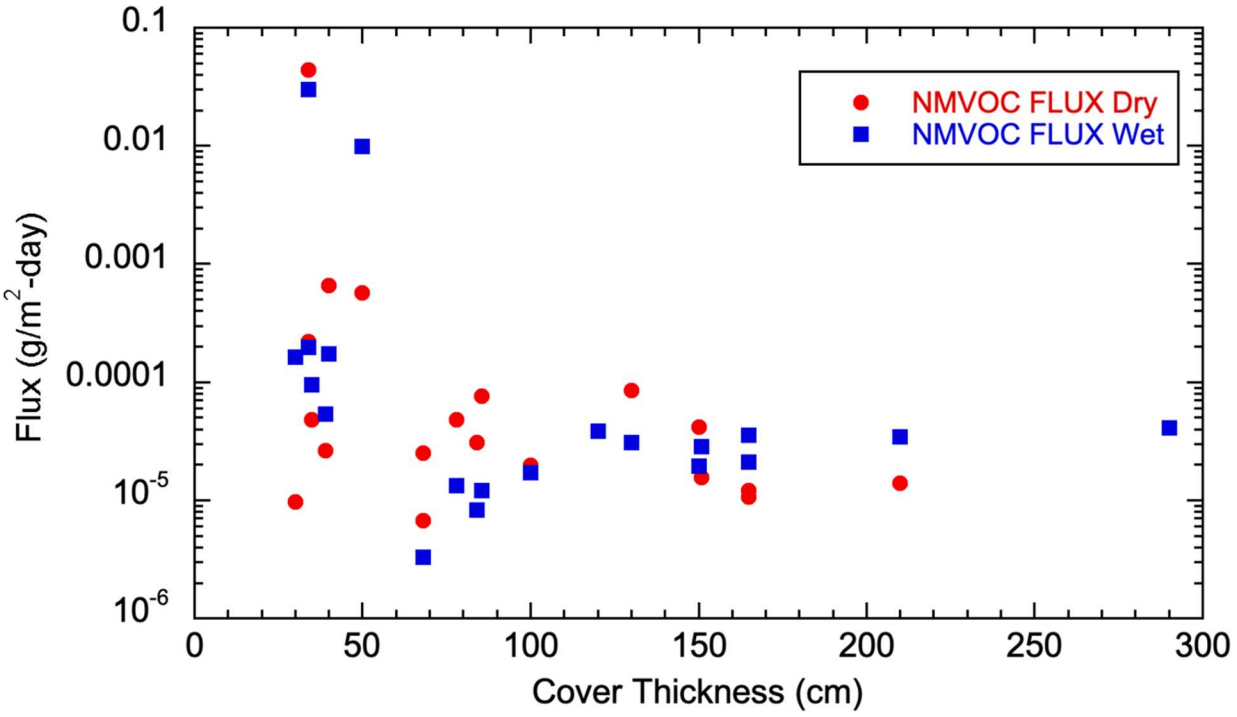

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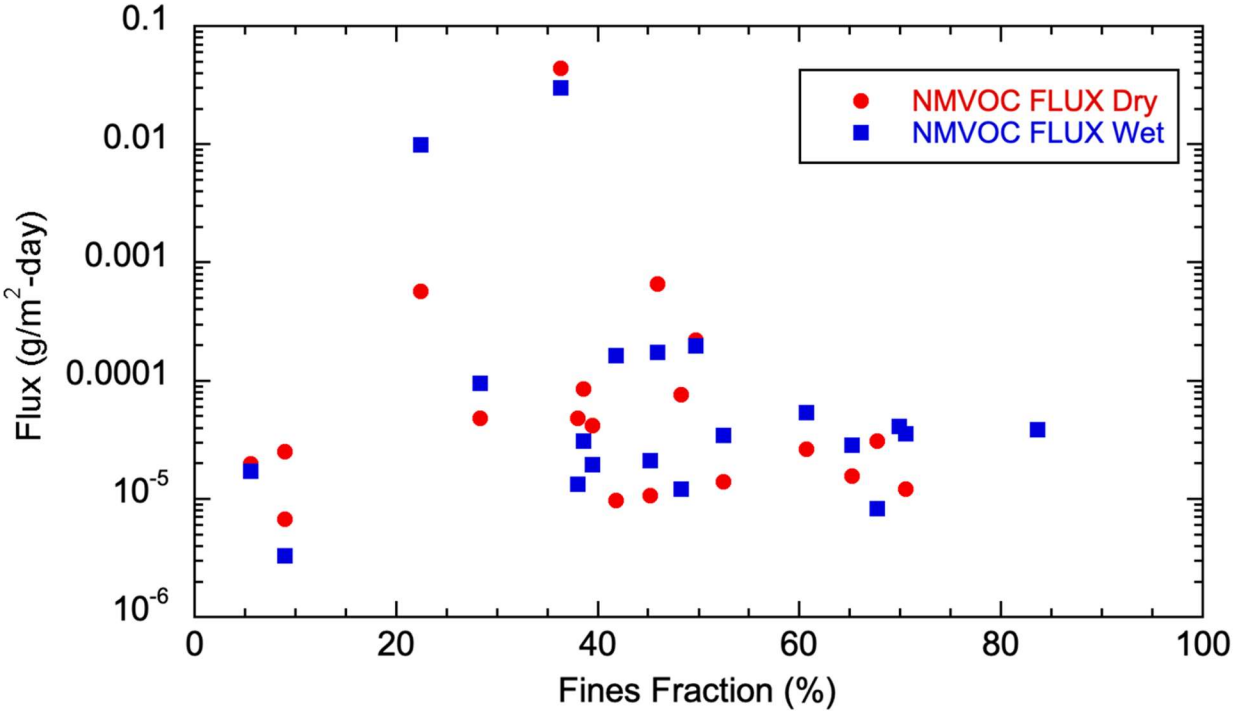

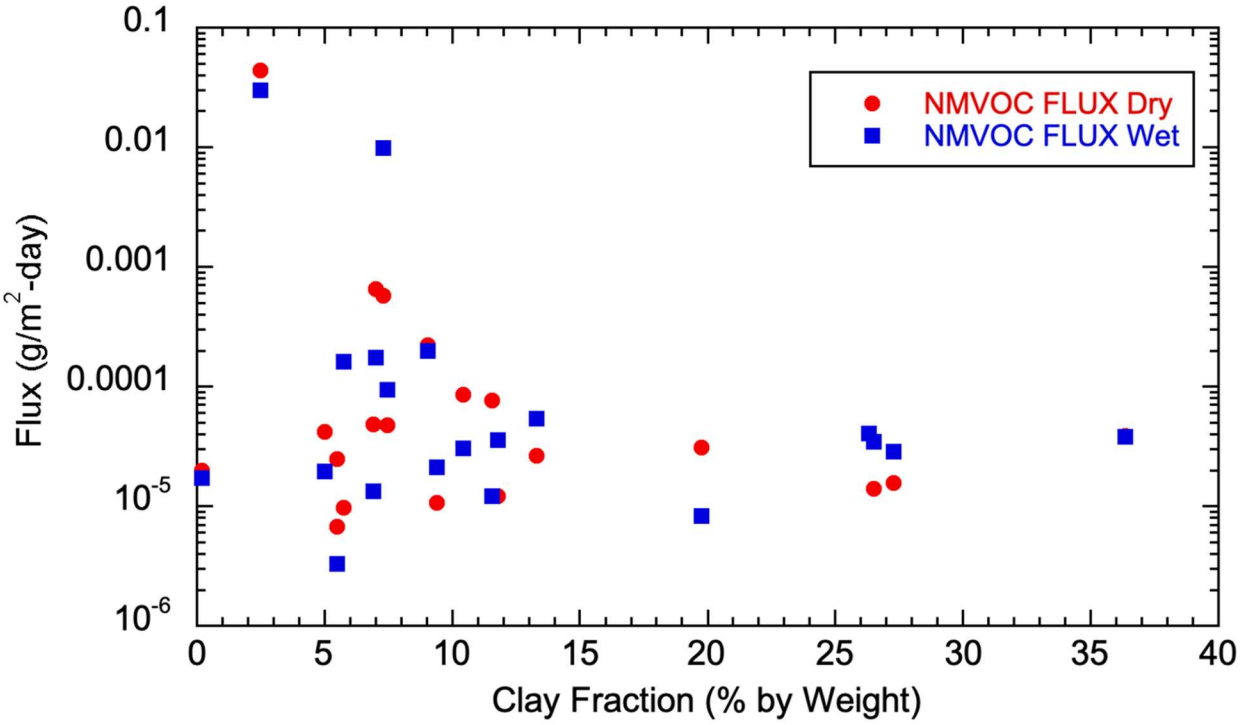

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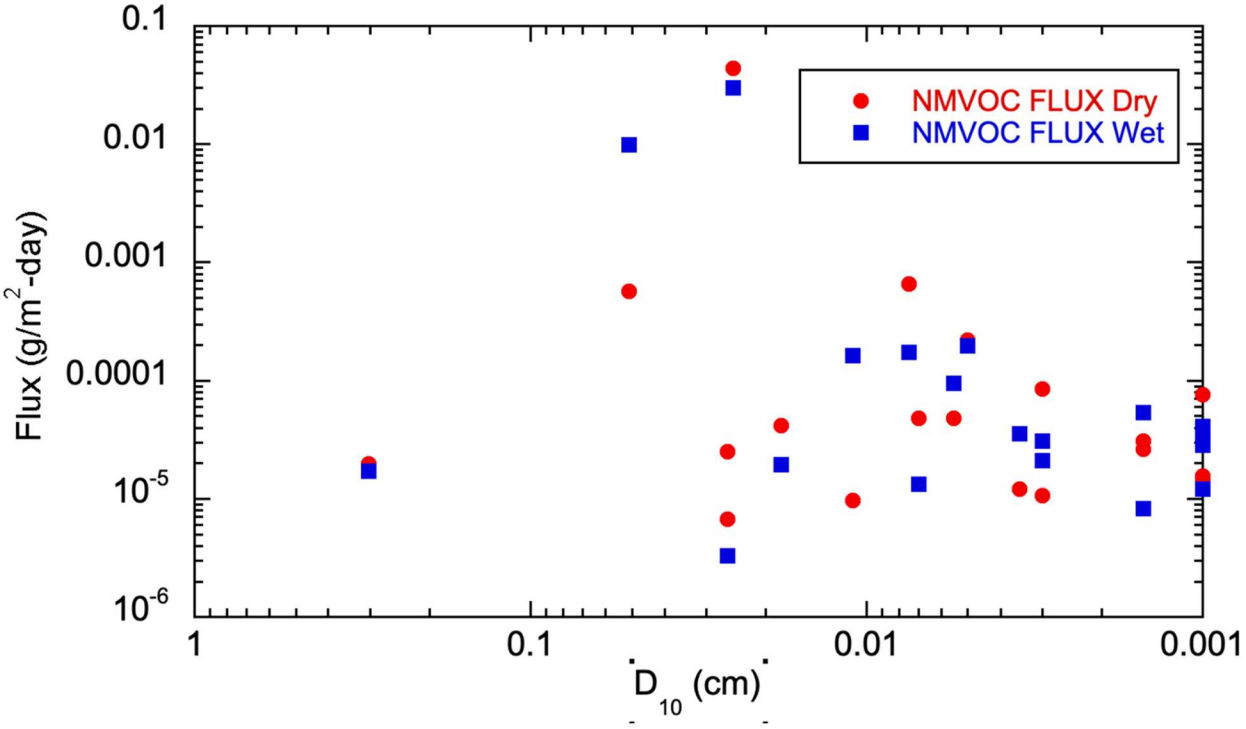

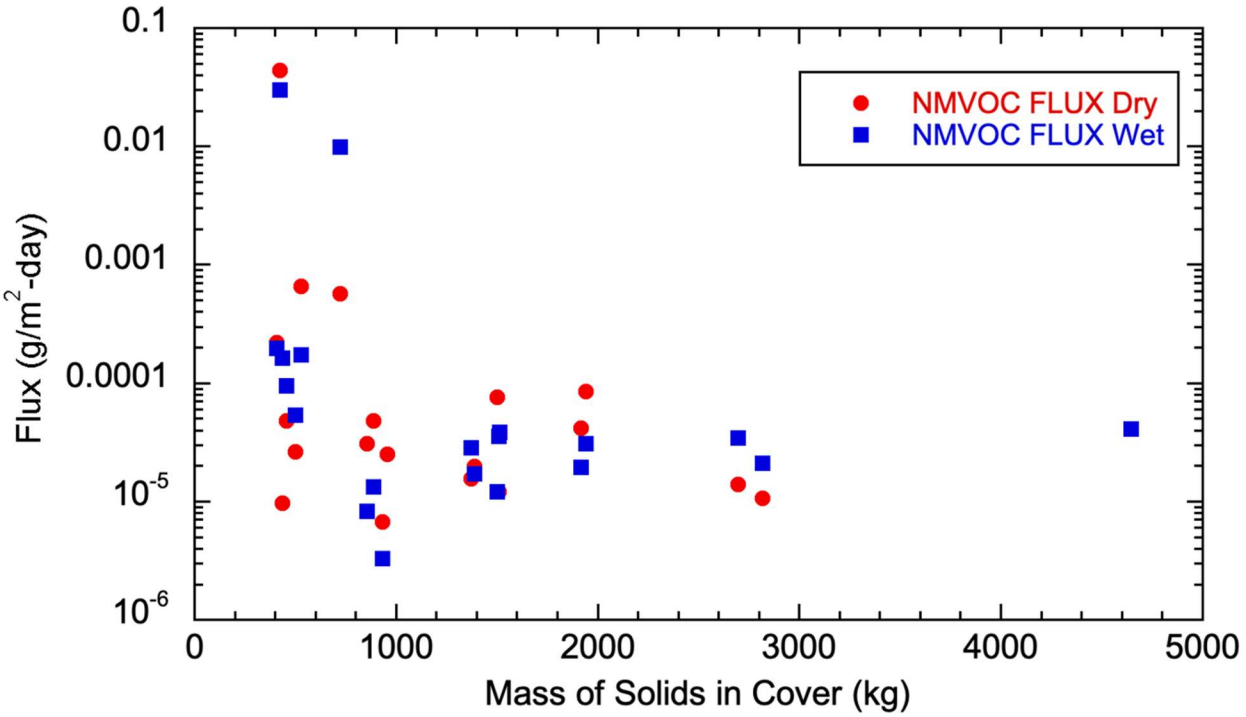

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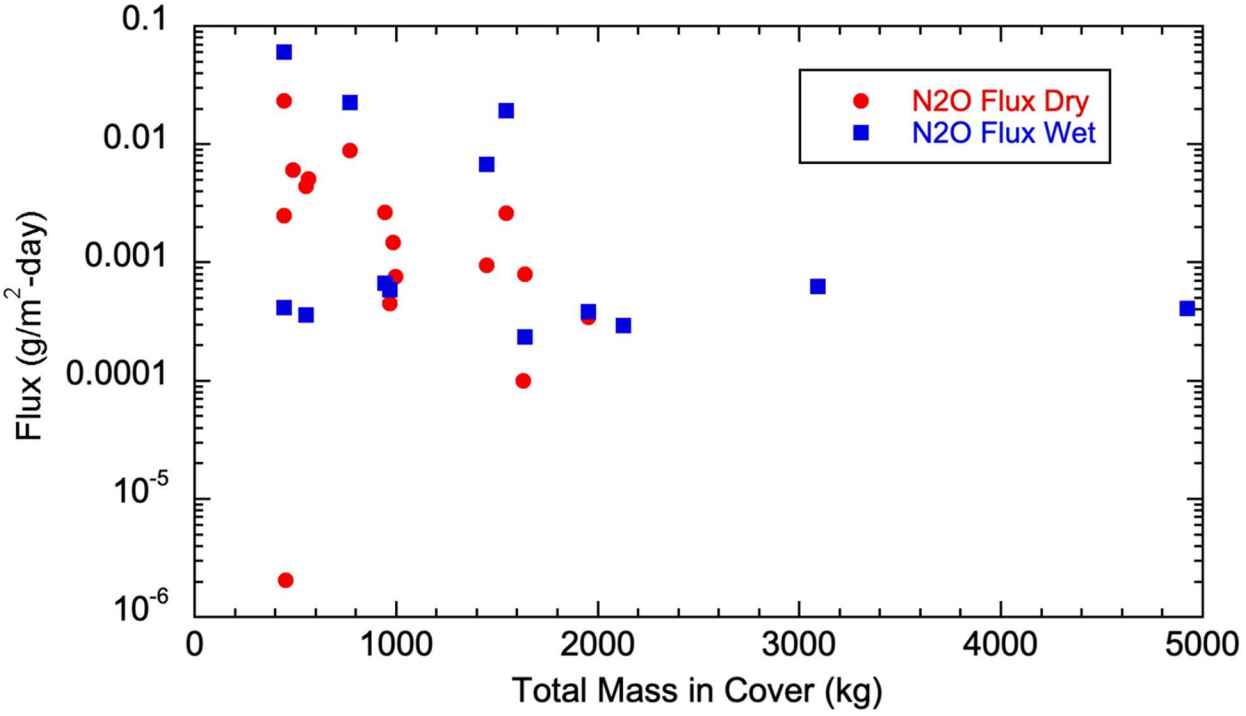

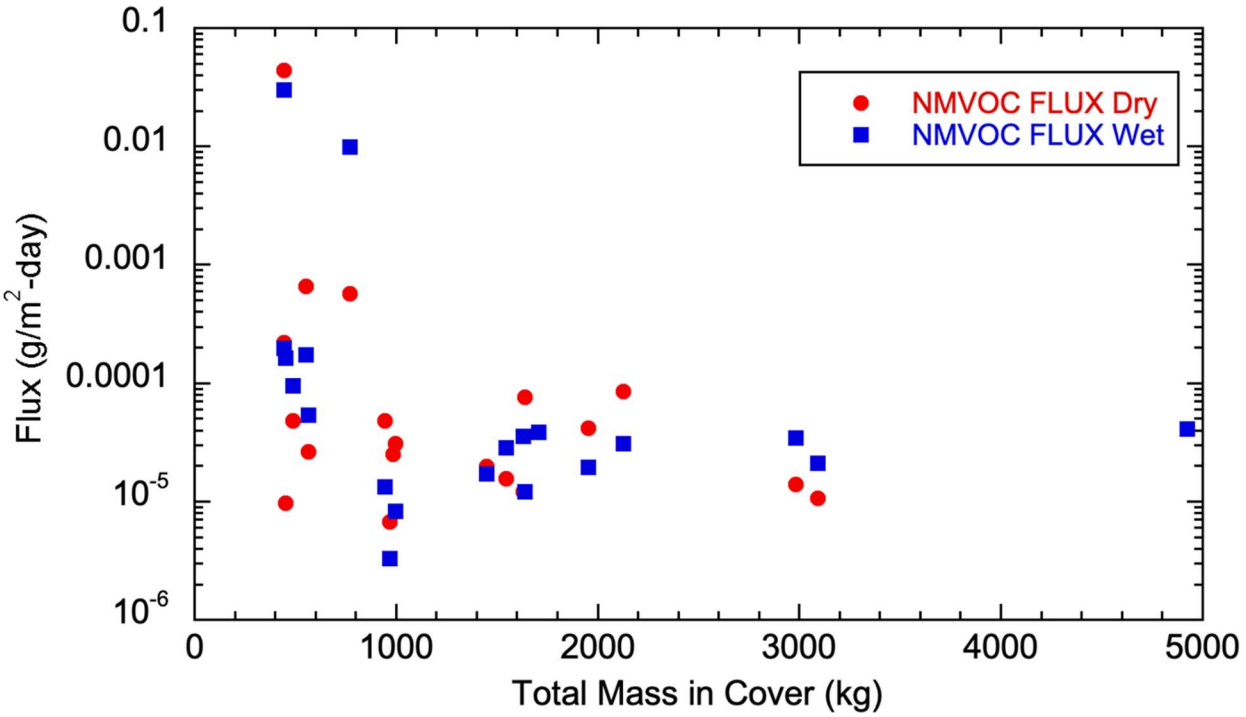

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APPENDIX B

SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
01-AA-0009	Site A	2,619,948,500	Disposal	01	Permitted	Active	Ash,Construction/demolition,Contaminated soil,Green Materials,Industrial,Mixed municipal,Other designated,Tires, Shreds	Y
01-AA-0010	Vasco Road Sanitary Landfill	111,447,852	Disposal	01	Permitted	Active	Construction/demolition,Contaminated soil,Green Materials,Industrial,Mixed municipal,Other designated	
04-AA-0002	Neal Road Recycling and Waste Facility	377,106,426	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Inert,Metals,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
05-AA-0023	Rock Creek Landfill	55,562,289	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Mixed municipal,Sludge (BioSolids),Tires	Y
06-AA-0002	Stonyford Disposal Site	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Mixed municipal,Tires	Y
07-AA-0002	Acme Landfill	183,000,000	Disposal	01	Permitted	Active	Construction/demolition,Green Materials	
07-AA-0032	Keller Canyon Landfill	1,124,204,392	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal,Other designated,Sludge (BioSolids)	
07-AC-0042	USS-Posco Industries Waste Mgmt Unit II	-	Disposal	01	Exempt	Active	Contaminated soil,Inert	
09-AA-0003	Union Mine Disposal Site	111,081,705	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Industrial,Mixed municipal,Other designated,Sludge (BioSolids),Tires	Y
10-AA-0004	City Of Clovis Landfill	105,611,917	Disposal	01	Permitted	Active	Industrial,Mixed municipal	
10-AA-0009	American Avenue Disposal Site	857,752,305	Disposal	01	Permitted	Active	Agricultural,Asbestos,Construction/demolition,Industrial,Mixed municipal,Tires,Tires, Shreds	Y

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
11-AA-0001	Glenn County Landfill Site	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Industrial,Inert,Mixed municipal,Tires	Y
13-AA-0001	Imperial Solid Waste Site	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Mixed municipal	
13-AA-0004	Calexico Solid Waste Site	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Mixed municipal	
13-AA-0009	Niland Solid Waste Site	-	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal	
13-AA-0010	Hot Spa Solid Waste Site	-	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal	
13-AA-0011	Salton City Solid Waste Site	-	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Mixed municipal	
13-AA-0019	Imperial Landfill	4,178,184	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Dead Animals,Green Materials,Industrial,Inert,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
13-AA-0022	Monofill Facility	-	Disposal	01	Permitted	Active	Industrial	
14-AA-0003	Lone Pine Landfill	-	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Dead Animals,Industrial,Mixed municipal	
14-AA-0004	Independence Landfill	-	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Dead Animals,Industrial,Mixed municipal,Tires	Y
14-AA-0005	Bishop Sunland Solid Waste Site	-	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Contaminated soil,Dead Animals,Industrial,Mixed municipal,Other designated,Sludge (BioSolids)	
14-AA-0006	Shoshone Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Green Materials,Mixed municipal	
14-AA-0007	Tecopa Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Green Materials,Mixed municipal	

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
15-AA-0045	Boron Sanitary Landfill	-	Disposal	01	Permitted	Active	Ash,Construction/demolition,Dead Animals,Industrial,Mixed municipal	
15-AA-0057	Shafter-Wasco Recycling & Sanitary LF	131,192,695	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Green Materials,Inert,Metals,Mixed municipal	
15-AA-0058	Mojave-Rosamond Sanitary Landfill	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Industrial,Mixed municipal	
15-AA-0059	Ridgecrest Recycling & Sanitary Landfill	-	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Industrial,Mixed municipal	
15-AA-0061	Taft Recycling & Sanitary Landfill	-	Disposal	01	Permitted	Active	Ash,Construction/demolition,Dead Animals,Green Materials,Industrial,Inert,Metals,Mixed municipal,Tires	Y
15-AA-0062	Tehachapi Sanitary Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Industrial,Mixed municipal	
15-AA-0105	McKittrick Waste Treatment Site	-	Disposal	01	Permitted	Active	Contaminated soil,Industrial,Other designated	
15-AA-0150	Main Base Sanitary Landfill, Edwards AFB	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Green Materials,Mixed municipal	
15-AA-0273	Bakersfield Metropolitan (Bena) SLF	515,314,977	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal	
15-AA-0278	U.S. Borax Inc-Gangue/Refuse Waste Pile	-	Disposal	01	Permitted	Active	Construction/demolition,Industrial	
15-AA-0308	H.M. Holloway Inc.	-	Disposal	01	Permitted	Active	Ash,Inert,Other designated,Sludge (BioSolids)	
16-AA-0004	Avenal Regional Landfill	-	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Dead Animals,Industrial,Inert,Mixed municipal,Other designated	
16-AA-0021	CWMI, KHF (MSW Landfill B-19)	128,204,000	Disposal	01	Permitted	Active	Dead Animals,Industrial,Mixed municipal,Other designated,Sludge (BioSolids)	

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
16-AA-0027	Chemical Waste Management, Inc.Unit B-17	-	Disposal	01	Permitted	Active	Mixed municipal	
17-AA-0001	Eastlake Sanitary Landfill	131,018,400	Disposal	01	Permitted	Active	Mixed municipal	
18-AA-0009	Bass Hill Landfill	-	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Dead Animals,Mixed municipal,Other designated,Sludge (BioSolids)	
18-AA-0010	Westwood Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Mixed municipal,Tires	Y
18-AA-0013	Sierra Army Depot	-	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal,Other designated,Tires	Y
19-AA-0012	Scholl Canyon Landfill	3,232,430,000	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Inert,Manure,Mixed municipal,Tires	Y
19-AA-0040	Burbank Landfill Site No. 3	146,988,703	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Inert,Mixed municipal	
19-AA-0050	Lancaster Landfill and Recycling Center	492,800,000	Disposal	01	Permitted	Active	Agricultural,Asbestos,Construction/demolition,Contaminated soil,Green Materials,Industrial,Inert,Mixed municipal,Sludge (BioSolids),Tires	Y
19-AA-0052	Chiquita Canyon Sanitary Landfill	2,684,566,829	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Industrial,Inert,Mixed municipal	
19-AA-0056	Calabasas Landfill	2,245,000,000	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Industrial,Mixed municipal,Tires	Y
19-AA-0061	Pebbly Beach (Avalon) Disposal Site	-	Disposal	01	Permitted	Active	Ash,Green Materials,Inert,Metals,Mixed municipal,Sludge (BioSolids)	

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
19-AA-0063	San Clemente Island Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Inert,Mixed municipal	
19-AA-2000	Sunshine Canyon City/County Landfill	2,889,387,207	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Industrial,Inert,Mixed municipal	
19-AA-5624	Antelope Valley Public Landfill	422,300,000	Disposal	01	Permitted	Active	Agricultural,Asbestos,Construction/demolition,Contaminated soil,Green Materials,Industrial,Inert,Mixed municipal	
19-AH-0001	Savage Canyon Landfill	3,229,986	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Industrial,Inert,Mixed municipal	
19-AR-0004	Bradley East Landfill	1,847,512,000	Disposal	01	Permitted	Absorbed		
20-AA-0002	Fairmead Solid Waste Disposal Site	460,141,920	Disposal	01	Permitted	Active	Agricultural,Asbestos,Construction/demolition,Green Materials,Industrial,Mixed municipal,Tires,Wood waste	Y
21-AA-0001	Redwood Landfill	1,195,146,000	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Mixed municipal,Other designated,Sludge (BioSolids),Tires,Wood waste	Y
22-AA-0001	Mariposa County Sanitary Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Mixed municipal,Sludge (BioSolids),Tires	Y
24-AA-0001	Highway 59 Disposal Site	428,802,480	Disposal	01	Permitted	Active	Green Materials,Mixed municipal,Other designated,Other hazardous,Tires,Wood waste	Y
24-AA-0002	Billy Wright Disposal Site	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Mixed municipal	
25-AA-0001	Alturas Sanitary Landfill	-	Disposal	01	Permitted	Active	Dead Animals,Mixed municipal,Sludge (BioSolids),Tires	Y
26-AA-0001	Walker Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Inert	

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26-AA-0003	Pumice Valley Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Mixed municipal	
26-AA-0004	Benton Crossing Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Green Materials,Metals,Mixed municipal,Other designated,Sludge (BioSolids)	
27-AA-0005	Johnson Canyon Sanitary Landfill	454,686,811	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Sludge (BioSolids),Tires	Y
27-AA-0010	Monterey Peninsula Landfill	405,852,728	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Mixed municipal,Sludge (BioSolids)	
28-AA-0002	Clover Flat Resource Recovery Park	130,808,503	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids),Tires	Y
30-AB-0019	Prima Deshecha Sanitary Landfill	1,414,787,819	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal	
30-AB-0035	Olinda Alpha Sanitary Landfill	4,590,639,570	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal,Tires,Wood waste	Y
30-AB-0360	Frank R. Bowerman Sanitary LF	3,649,894,950	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal	
31-AA-0210	Western Regional Landfill	893,534,274	Disposal	01	Permitted	Active	Ash,Construction/demolition,Mixed municipal,Sludge (BioSolids)	
32-AA-0009	Chester Sanitary Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal,Tires	Y

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
33-AA-0006	Badlands Sanitary Landfill	619,324,587	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Contaminated soil,Dead Animals,Green Materials,Industrial,Inert,Liquid Waste,Metals,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
33-AA-0007	Lamb Canyon Sanitary Landfill	621,640,984	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Contaminated soil,Dead Animals,Green Materials,Industrial,Inert,Liquid Waste,Metals,Mixed municipal,Sludge (BioSolids),Tires	Y
33-AA-0015	Oasis Sanitary Landfill	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Green Materials,Inert,Metals,Mixed municipal,Wood waste	
33-AA-0016	Desert Center Landfill	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Green Materials,Inert,Metals,Mixed municipal,Tires,Wood waste	Y
33-AA-0017	Blythe Sanitary Landfill	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Contaminated soil,Dead Animals,Green Materials,Industrial,Inert,Liquid Waste,Metals,Mixed municipal,Tires,Wood waste	Y
33-AA-0071	Mecca Landfill II	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Green Materials,Inert,Metals,Mixed municipal,Tires,Wood waste	Y
33-AA-0217	El Sobrante Landfill	1,865,719,000	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal,Tires	Y
33-AA-0231	Philadelphia Recycling Mine	-	Disposal	01	Pre-regulations	Absorbed	Construction/demolition	
34-AA-0001	Sacramento County Landfill (Kiefer)	3,639,052,672	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal,Other designated,Sludge (BioSolids)	
34-AA-0020	L and D Landfill	248,130,000	Disposal	01	Permitted	Active	Asphalt Shingles,Construction/demolition,Green Materials,Industrial,Inert,Mixed municipal,Other designated	
35-AA-0001	John Smith Road Landfill	171,796,607	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Green Materials,Industrial,Inert,Manure,Mixed municipal,Tires,Wood waste	Y
36-AA-0017	California Street Landfill	228,604,819	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal,Other designated,Sludge (BioSolids)	
36-AA-0028	Oro Grande Kiln Waste Dust Dump	-	Disposal	01	Exempt	Active	Other designated	

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36-AA-0045	Victorville Sanitary Landfill	153,363,803	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Dead Animals,Green Materials,Industrial,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
36-AA-0046	Barstow Sanitary Landfill	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal,Other designated,Sludge (BioSolids)	
36-AA-0055	Mid-Valley Sanitary Landfill	827,661,684	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal,Tires	Y
36-AA-0057	Landers Sanitary Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal,Other designated,Sludge (BioSolids),Tires	Y
36-AA-0067	USMC - 29 Palms Disposal Facility	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Industrial,Inert,Mixed municipal,Sludge (BioSolids),Tires, Shreds	Y
36-AA-0068	Fort Irwin Sanitary Landfill	-	Disposal	01	Permitted	Active	Contaminated soil,Dead Animals,Mixed municipal,Sludge (BioSolids)	
36-AA-0074	Mitsubishi Cement Plant Cushenbury L.F.	-	Disposal	01	Permitted	Active	Industrial	
36-AA-0087	San Timoteo Sanitary Landfill	277,865,760	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Industrial,Inert,Mixed municipal,Sludge (BioSolids)	
37-AA-0006	Borrego Landfill	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
37-AA-0010	Otay Landfill	2,432,170,648	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Contaminated soil,Dead Animals,Green Materials,Industrial,Inert,Mixed municipal,Other designated,Sludge (BioSolids),Tires	Y
37-AA-0020	West Miramar Sanitary Landfill	2,665,116,934	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal,Tires	Y
37-AA-0023	Sycamore Landfill	1,700,649,579	Disposal	01	Permitted	Active	Agricultural,Asbestos,Contaminated soil,Dead Animals,Mixed municipal,Other designated,Sludge (BioSolids),Tires, Shreds,Wood waste	Y

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
37-AA-0902	San Onofre Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids)	
37-AA-0903	Las Pulgas Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids)	
39-AA-0004	Foothill Sanitary Landfill	299,700,000	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Industrial,Mixed municipal,Tires,Wood waste	Y
39-AA-0015	Forward Landfill, Inc.	1,594,038,126	Disposal	01	Permitted	Active	Agricultural,Asbestos,Asbestos, friable,Ash,Construction/demolition,Contaminated soil,Green Materials,Industrial,Mixed municipal,Sludge (BioSolids),Tires, Shreds	Y
39-AA-0022	North County Landfill & Recycling Center	124,700,000	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Metals,Mixed municipal,Other designated,Tires,Wood waste	Y
40-AA-0001	City Of Paso Robles Landfill	56,780,066	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Green Materials,Industrial,Metals,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
40-AA-0002	Camp Roberts Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal	
40-AA-0004	Cold Canyon Landfill, Inc.	330,262,073	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Contaminated soil,Dead Animals,Industrial,Inert,Mixed municipal,Sludge (BioSolids),Tires	Y
40-AA-0008	Chicago Grade Landfill	127,510,195	Disposal	01	Permitted	Active	Agricultural,Asbestos,Construction/demolition,Contaminated soil,Dead Animals,Food Wastes,Green Materials,Industrial,Inert,Metals,Mixed municipal,Other designated,Sludge (BioSolids),Tires	Y
41-AA-0002	Corinda Los Trancos Landfill (Ox Mtn)	35,643,304	Disposal	01	Permitted	Active	Asbestos,Construction/demolition,Mixed municipal,Other designated,Sludge (BioSolids),Tires	Y

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
42-AA-0012	Vandenberg AFB Landfill	-	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Dead Animals,Mixed municipal,Sludge (BioSolids),Tires	Y
42-AA-0015	Tajiguas Sanitary Landfill	520,906,156	Disposal	01	Permitted	Active	Agricultural,Asbestos,Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids),Tires	Y
42-AA-0016	Santa Maria Regional Landfill	330,700,847	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Green Materials,Industrial,Metals,Mixed municipal,Tires, Cut,Tires, Shreds	Y
42-AA-0017	City Of Lompoc Sanitary Landfill	-	Disposal	01	Permitted	Active	Construction/demolition,Mixed municipal	
43-AN-0001	Zanker Material Processing Facility	-	Disposal	01	Permitted	Active	Construction/demolition,Other designated	
43-AN-0003	Newby Island Sanitary Landfill	1,898,044,453	Disposal	01	Permitted	Active	Construction/demolition,Contaminated soil,Green Materials,Industrial,Mixed municipal,Sludge (BioSolids),Tires	Y
43-AN-0008	Kirby Canyon Recycl.& Disp. Facility	957,026,200	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Industrial,Mixed municipal,Tires	Y
43-AN-0015	Guadalupe Sanitary Landfill	1,049,536	Disposal	01	Permitted	Active	Construction/demolition,Green Materials,Industrial,Mixed municipal	
44-AA-0001	City of Santa Cruz Resource Recovery Fac	275,125,170	Disposal	01	Permitted	Active	Construction/demolition,Dead Animals,Green Materials,Industrial,Inert,Metals,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
44-AA-0002	City Of Watsonville Landfill	-	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Mixed municipal,Sludge (BioSolids)	

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
44-AA-0004	Buena Vista Drive Sanitary Landfill	561,756,068	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Contaminated soil,Dead Animals,Green Materials,Industrial,Inert,Metals,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
45-AA-0020	Anderson Landfill, Inc.	387,626,000	Disposal	01	Permitted	Active	Agricultural,Asbestos,Asbestos, friable,Ash,Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids),Tires,Wood waste	Y
45-AA-0043	West Central Landfill	299,487,842	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids),Tires	Y
46-AA-0001	Loyalton Landfill	-	Disposal	01	Permitted	Active	Ash,Construction/demolition,Inert,Mixed municipal,Tires	Y
48-AA-0002	Recology Hay Road	421,324,792	Disposal	01	Permitted	Active	Agricultural,Asbestos,Asbestos, friable,Ash,Construction/demolition,Mixed municipal,Sludge (BioSolids),Tires	Y
48-AA-0075	Potrero Hills Landfill	1,014,064,587	Disposal	01	Permitted	Active	Agricultural,Ash,Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids),Tires	Y
48-AA-0078	Tonnesen Pet Cemetery	-	Disposal	01	Unpermitted	Active	Dead Animals	
49-AA-0001	Central Disposal Site	684,162,713	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal,Other designated,Sludge (BioSolids),Tires,Wood waste	Y
50-AA-0001	Blue Mountain Minerals	195,678,773	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Contaminated soil,Dead Animals,Industrial,Inert,Mixed municipal,Other designated,Sludge (BioSolids),Tires,Wood waste	Y
52-AA-0001	Tehama County/Red Bluff Landfill	110,482,677	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Dead Animals,Green Materials,Industrial,Mixed municipal,Tires	Y
52-AA-0028	Pactiv Disposal Site	-	Disposal	01	Exempt	Active	Industrial	

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SWIS No	Name	Total LFG Collected (scf) (1)	Category	Unit No	Regulatory Status	Operational Status	Accepted Waste	Tires (Y/)
54-AA-0004	Teapot Dome Disposal Site	70,171,930	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal	
54-AA-0009	Visalia Disposal Site	215,446,456	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal	
55-AA-0012		-	Disposal	01	Exempt	Active		
56-AA-0005	Toland Road Landfill	859,627,956	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids)	
56-AA-0007	Simi Valley Landfill & Recycling Center	1,973,900,000	Disposal	01	Permitted	Active	Construction/demolition,Industrial,Mixed municipal,Sludge (BioSolids)	
57-AA-0001	Yolo County Central Landfill	389,090,000	Disposal	01	Permitted	Active	Agricultural,Construction/demolition,Mixed municipal,Sludge (BioSolids),Tires	Y
58-AA-0011	Recology Ostrom Road LF Inc.	660,270,758	Disposal	01	Permitted	Active	Agricultural,Asbestos,Ash,Construction/demolition,Contaminated soil,Industrial,Mixed municipal,Other designated,Sludge (BioSolids),Tires	Y

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
01-AA-0009	AB2296 LF,BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2025	Estimated	11,150	Tons/day	10,115	124,400,000	Cubic Yards	2,170	472	20,560,320
01-AA-0010	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill	12/31/2022	Estimated	2,518	Tons/day	2,284	32,970,000	Cubic Yards	323	246	10,715,760
04-AA-0002	AB2296 LF,BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2033	Estimated	1,500	Tons/day	1,361	25,271,900	Cubic Yards	190	140	6,098,400
05-AA-0023	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	9/30/2035	Estimated	500	Tons/day	454	7,651,000	Cubic Yards	201	57	2,482,920
06-AA-0002	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2064	Estimated	10	Tons/day	9	149,219	Cubic Yards	47	3	143,748
07-AA-0002	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	7/1/2021	Estimated	1,500	Tons/day	1,361	6,195,000	Cubic Yards	109	109	4,748,040
07-AA-0032	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2030	Estimated	3,500	Tons/day	3,175	75,018,280	Cubic Yards	1,399	244	10,628,640
07-AC-0042		1/1/2118	Estimated	8	Tons/day	7	86,000	Cubic Yards	7	7	304,920
09-AA-0003	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2040	Estimated	300	Tons/day	272	195,000	Cubic Yards	322	22	949,608
10-AA-0004	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	4/30/2047	Estimated	2,000	Tons/day	1,814	7,800,000	Cubic Yards	210	76	3,323,628
10-AA-0009	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	8/31/2031	Estimated	2,200	Tons/day	1,996	32,700,000	Cubic Yards	440	361	15,725,160

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
11-AA-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	7/1/2016	Estimated	200	Tons/day	181	2,400,000	Cubic Yards	356	83	3,615,480
13-AA-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	3/1/2019	Estimated	18	Tons/day	16	1,936,000	Cubic Yards	69	18	784,080
13-AA-0004	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	11/1/2077	Estimated	150	Tons/day	136	3,437,800	Cubic Yards	82	40	1,746,756
13-AA-0009	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	2/1/2056	Estimated	55	Tons/day	50	131,000	Cubic Yards	100	14	605,484
13-AA-0010	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	9/1/2021	Estimated	10	Tons/day	9	233,150	Cubic Yards	40	6	278,784
13-AA-0011	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2038	Estimated	6,000	Tons/day	5,443	65,100,000	Cubic Yards	320	284	12,371,040
13-AA-0019	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2040	Estimated	1,700	Tons/day	1,542	19,514,700	Cubic Yards	337	162	7,056,720
13-AA-0022	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/31/2025	Estimated	750	Tons/day	680	1,729,800	Cubic Yards	182	29	1,258,884
14-AA-0003	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2052	Estimated	22	Tons/day	20	996,620	Cubic Yards	60	26	1,132,560
14-AA-0004	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2068	Estimated	10	Tons/day	9	317,900	Cubic Yards	90	18	784,080
14-AA-0005	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2064	Estimated	120	Tons/day	109	4,039,760	Cubic Yards	118	68	2,962,080
14-AA-0006	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2069	Estimated	1	Tons/day	1	42,960	Cubic Yards	20	5	196,020
14-AA-0007	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2190	Estimated	1	Tons/day	1	119,090	Cubic Yards	29	9	405,108

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
15-AA-0045	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2048	Estimated	200	Tons/day	181	1,057,000	Cubic Yards	120	14	614,196
15-AA-0057	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2053	Estimated	1,500	Tons/day	1,361	21,895,179	Cubic Yards	358	135	5,880,600
15-AA-0058	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2123	Estimated	3,000	Tons/day	2,722	78,000,000	Cubic Yards	1,689	544	23,696,640
15-AA-0059	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2045	Estimated	701	Tons/day	636	10,500,000	Cubic Yards	320	105	4,573,800
15-AA-0061	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2076	Estimated	800	Tons/day	726	11,000,000	Cubic Yards	172	85	3,702,600
15-AA-0062	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	6/1/2020	Estimated	1,000	Tons/day	907	4,000,000	Cubic Yards	240	32	1,380,852
15-AA-0105	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2059	Estimated	3,500	Tons/day	3,175	5,474,900	Cubic Yards	51	90	3,920,400
15-AA-0150	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	12/31/2028	Estimated	120	Tons/day	109	2,250,000	Cubic Yards	137	73	3,179,880
15-AA-0273	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	4/1/2046	Estimated	4,500	Tons/day	4,082	53,000,000	Cubic Yards	2,285	229	9,975,240
15-AA-0278	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2023	Estimated	443	Tons/day	402	8,500,000	Cubic Yards	60	60	2,613,600
15-AA-0308	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	12/1/2030	Estimated	2,000	Tons/day	1,814	12,600,000	Cubic Yards	331	172	7,505,388
16-AA-0004	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2020	Estimated	6,000	Tons/day	5,443	36,300,000	Cubic Yards	173	123	5,366,592
16-AA-0021	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2010	Estimated	2,000	Tons/day	1,814	4,200,000	Cubic Yards	1,600	29	1,263,240

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
16-AA-0027	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2030	Estimated	2,000	Tons/day	1,814	18,400,000	Cubic Yards	1,600	62	2,700,720
17-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2023	Estimated	200	Tons/day	181	6,050,000	Cubic Yards	80	31	1,350,360
18-AA-0009	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/30/2019	Estimated	300	Tons/day	272	2,150,000	Cubic Yards	200	32	1,393,920
18-AA-0010	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2027	Estimated	10	Tons/day	9	89,369	Cubic Yards	40	9	392,040
18-AA-0013	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2067	Estimated	42	Tons/day	38	665,000	Cubic Yards	40		-
19-AA-0012	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	4/1/2030	Estimated	3,400	Tons/day	3,084	58,900,000	Cubic Yards	440	314	13,677,840
19-AA-0040	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2053	Estimated	240	Tons/day	218	5,933,365	Cubic Yards	86	48	2,090,880
19-AA-0050	Bio Reactor (LF),BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	3/1/2044	Estimated	5,100	Tons/day	4,627	27,700,000	Cubic Yards	276	210	9,160,668
19-AA-0052	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	11/24/2019	Estimated	6,000	Tons/day	5,443	63,900,000	Cubic Yards	592	257	11,194,920
19-AA-0056	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2029	Estimated	3,500	Tons/day	3,175	69,300,000	Cubic Yards	491	305	13,285,800
19-AA-0061	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2020	Estimated	49	Tons/day	44	143,142	Cubic Yards	8	6	261,360

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19-AA-0063	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2032	Estimated	10	Tons/day	9	235,459	Cubic Yards	20	20	871,200
19-AA-2000	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2037	Estimated	12,100	Tons/day	10,977	140,900,000	Cubic Yards	1,036	363	15,812,280
19-AA-5624	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities	1/1/2042	Estimated	3,564	Tons/day	3,233		Cubic Yards	185	125	5,445,000
19-AH-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2055	Estimated	3,350	Tons/day	3,039	19,337,450	Cubic Yards	132	102	4,443,120
19-AR-0004		12/31/1980	Estimated			-			-	-	-
20-AA-0002	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill	12/31/2028	Estimated	1,100	Tons/day	998	9,400,000	Cubic Yards	121	77	3,354,120
21-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	7/1/2024	Estimated	2,300	Tons/day	2,087	19,100,000	Cubic Yards	420	223	9,692,100
22-AA-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2065	Estimated	100	Tons/day	91	1,971,000	Cubic Yards	58	40	1,742,400
24-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2030	Estimated	1,500	Tons/day	1,361	30,012,352	Cubic Yards	610	255	11,107,800
24-AA-0002	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2054	Estimated	1,500	Tons/day	1,361	14,800,000	Cubic Yards	172	102	4,434,408
25-AA-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2028	Estimated	16	Tons/day	15	1,600,000	Cubic Yards	162	28	1,197,900
26-AA-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/30/2120	Estimated	1	Tons/day	1	340,716	Cubic Yards	44	10	453,024

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
26-AA-0003	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2048	Estimated	110	Tons/day	100	741,360	Cubic Yards	48	24	1,028,016
26-AA-0004	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2023	Estimated	500	Tons/day	454	2,617,900	Cubic Yards	145	72	3,114,540
27-AA-0005	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/21/2040	Estimated	1,574	Tons/day	1,428	13,834,328	Cubic Yards	163	96	4,194,828
27-AA-0010	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	2/28/2107	Estimated	3,500	Tons/day	3,175	49,700,000	Cubic Yards	466	315	13,721,400
28-AA-0002	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2047	Estimated	600	Tons/day	544	4,900,000	Cubic Yards	79	44	1,916,640
30-AB-0019	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2067	Estimated	4,000	Tons/day	3,629	172,900,000	Cubic Yards	1,530	698	30,404,880
30-AB-0035	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill	12/31/2021	Estimated	8,000	Tons/day	7,257	148,800,000	Cubic Yards	565	420	18,295,200
30-AB-0360	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill	12/31/2053	Estimated	11,500	Tons/day	10,433	266,000,000	Cubic Yards	725	534	23,261,040
31-AA-0210	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2058	Estimated	1,900	Tons/day	1,724	36,350,000	Cubic Yards	281	231	10,062,360
32-AA-0009	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2024	Estimated	0	Tons/day	0	710,000	Cubic Yards	40	27	1,176,120

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
33-AA-0006	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2022	Estimated	4,800	Tons/day	4,354	34,400,000	Cubic Yards	278	150	6,534,000
33-AA-0007	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	4/1/2029	Estimated	5,500	Tons/day	4,990	38,935,653	Cubic Yards	581	145	6,298,776
33-AA-0015	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	9/1/2055	Estimated	400	Tons/day	363	1,097,152	Cubic Yards	165	23	1,014,948
33-AA-0016	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	4/1/2087	Estimated	60	Tons/day	54	115,341	Cubic Yards	162	7	304,920
33-AA-0017	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	8/1/2047	Estimated	400	Tons/day	363	6,229,670	Cubic Yards	335	78	3,397,680
33-AA-0071	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2098	Estimated	400	Tons/day	363	452,182	Cubic Yards	80	19	827,640
33-AA-0217	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2045	Estimated	16,054	Tons/day	14,564	184,930,000	Tons	1,322	485	21,126,600
33-AA-0231		1/1/1995	Estimated	400	Tons/day	363			29	13	566,280
34-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2064	Estimated	10,815	Tons/day	9,811	117,400,000	Cubic Yards	1,084	660	28,749,600
34-AA-0020	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2023	Estimated	2,540	Tons/day	2,304	6,031,055	Cubic Yards	177	157	6,838,920
35-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2032	Estimated	1,000	Tons/day	907	9,354,000	Cubic Yards	90	58	2,526,480
36-AA-0017	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2042	Estimated	829	Tons/day	752	10,000,000	Cubic Yards	115	106	4,617,360
36-AA-0028		12/31/2019	Estimated	220	Tons/day	200			161	104	4,530,240

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
36-AA-0045	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	10/1/2047	Estimated	3,000	Tons/day	2,722	83,200,000	Cubic Yards	491	341	14,853,960
36-AA-0046	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	5/1/2071	Estimated	1,500	Tons/day	1,361	80,354,500	Cubic Yards	645	331	14,418,360
36-AA-0055	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	4/1/2033	Estimated	7,500	Tons/day	6,804	101,300,000	Cubic Yards	498	408	17,772,480
36-AA-0057	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2072	Estimated	1,200	Tons/day	1,089	13,983,500	Cubic Yards	637	92	4,007,520
36-AA-0067	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	10/1/2066	Estimated	100	Tons/day	91	10,945,000	Cubic Yards	128	69	3,005,640
36-AA-0068	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2405	Estimated	100	Tons/day	91	19,000,000	Cubic Yards	467	460	20,037,600
36-AA-0074	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	1/1/2034	Estimated	40	Tons/day	36	520,400	Cubic Yards	15	15	653,400
36-AA-0087	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill	1/1/2043	Estimated	2,000	Tons/day	1,814	20,400,000	Cubic Yards	366	114	4,965,840
37-AA-0006	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2046	Estimated	50	Tons/day	45	476,098	Cubic Yards	46	19	827,640
37-AA-0010	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	2/28/2030	Estimated	6,700	Tons/day	6,078	61,154,000	Cubic Yards	409	230	10,018,800
37-AA-0020	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	8/31/2025	Estimated	8,000	Tons/day	7,257	87,760,000	Cubic Yards	802	476	20,747,628
37-AA-0023	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2042	Estimated	5,000	Tons/day	4,536	71,233,171	Cubic Yards	603	349	15,211,152

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
37-AA-0902	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Treated Wood Waste Acceptance	5/31/2045	Estimated	100	Tons/day	91	1,920,000	Cubic Yards	64	29	1,245,816
37-AA-0903	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities	9/1/2059	Estimated	400	Tons/day	363	14,600,000	Cubic Yards	133	89	3,863,772
39-AA-0004	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2082	Estimated	1,500	Tons/day	1,361	138,000,000	Cubic Yards	800	674	29,359,440
39-AA-0015	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2020	Estimated	8,668	Tons/day	7,863	51,040,000	Cubic Yards	567	355	15,442,020
39-AA-0022	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2048	Estimated	825	Tons/day	748	41,200,000	Cubic Yards	320	185	8,058,600
40-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	10/1/2051	Estimated	450	Tons/day	408	6,495,000	Cubic Yards	80	65	2,831,400
40-AA-0002	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),DOD,Financial Assurance Responsibilities	1/1/2045	Estimated	618	Tons/day	561	1,004,579	Cubic Yards	85	13	579,348
40-AA-0004	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2040	Estimated	1,650	Tons/day	1,497	23,900,000	Cubic Yards	209	121	5,270,760
40-AA-0008	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2039	Estimated	500	Tons/day	454	10,548,980	Cubic Yards	188	77	3,358,476
41-AA-0002	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2034	Estimated	3,598	Tons/day	3,264	60,500,000	Cubic Yards	2,786	173	7,535,880

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
42-AA-0012	BOE Reporting Disposal Facility,Financial Assurance Responsibilities	9/1/2060	Estimated	400	Tons/day	363	4,721,017	Cubic Yards	217	46	2,003,760
42-AA-0015	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill	1/1/2036	Estimated	1,500	Tons/day	1,361	23,300,000	Cubic Yards	357	118	5,140,080
42-AA-0016	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2018	Estimated	858	Tons/day	778	13,998,400	Cubic Yards	291	247	10,763,676
42-AA-0017	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2045	Estimated	400	Tons/day	363	7,970,000	Cubic Yards	115	39	1,698,840
43-AN-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	11/1/2025	Estimated	350	Tons/day	318	640,000	Cubic Yards	53	25	1,089,000
43-AN-0003	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2041	Estimated	4,000	Tons/day	3,629	57,500,000	Cubic Yards	342	298	12,980,880
43-AN-0008	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance,UltraMafic	12/31/2022	Estimated	2,600	Tons/day	2,359	36,400,000	Cubic Yards	827	311	13,547,160
43-AN-0015	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2048	Estimated	1,300	Tons/day	1,179	28,600,000	Cubic Yards	411	115	5,009,400
44-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2058	Estimated	535	Tons/day	485	7,118,000	Cubic Yards	100	67	2,918,520
44-AA-0002	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2029	Estimated	275	Tons/day	249	2,437,203	Cubic Yards	103	48	2,090,880

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
44-AA-0004	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	7/1/2031	Estimated	838	Tons/day	760	7,537,700	Cubic Yards	126	61	2,657,160
45-AA-0020	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2093	Estimated	1,850	Tons/day	1,678	16,840,000	Cubic Yards	246	130	5,662,800
45-AA-0043	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	3/1/2032	Estimated	700	Tons/day	635	13,115,844	Cubic Yards	1,250	122	5,314,320
46-AA-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2016	Estimated	8	Tons/day	7	744,000	Cubic Yards	27	11	457,380
48-AA-0002	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/1/2077	Estimated	2,400	Tons/day	2,177	37,000,000	Cubic Yards	640	256	11,151,360
48-AA-0075	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	2/14/2048	Estimated	4,330	Tons/day	3,928	83,100,000	Cubic Yards	526	340	14,810,400
48-AA-0078	Financial Assurance Responsibilities					-			15	-	-
49-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2034	Estimated	2,500	Tons/day	2,268	32,650,000	Cubic Yards	398	172	7,492,320
50-AA-0001	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	12/1/2023	Estimated	2,400	Tons/day	2,177	14,640,000	Cubic Yards	203	203	8,820,900
52-AA-0001	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2040	Estimated	600	Tons/day	544	5,097,000	Cubic Yards	102	54	2,352,240
52-AA-0028						-				12	500,940

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SWIS No	Program Type	Closure Date	ClosureType	Throughput	Throughput Units	Throughput (tonnes/day)	Capacity	Capacity Units	Acreage	Disposal Acreage	Disposal Acreage in Sq. Ft.
54-AA-0004	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	12/31/2022	Estimated	800	Tons/day	726	7,880,307	Cubic Yards	122	71	3,092,760
54-AA-0009	BOE Reporting Disposal Facility,Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2024	Estimated	2,000	Tons/day	1,814	18,630,666	Cubic Yards	631	247	10,759,320
55-AA-0012				-		-	-		-	-	-
56-AA-0005	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill,Treated Wood Waste Acceptance	5/31/2027	Estimated	1,500	Tons/day	1,361	30,000,000	Cubic Yards	217	91	3,981,384
56-AA-0007	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,PaleoDS,Remaining Capacity Landfill,Treated Wood Waste Acceptance	1/31/2052	Estimated	9,250	Tons/day	8,391	119,600,000	Cubic Yards	887	368	16,030,080
57-AA-0001	Bio Reactor (LF),BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill	1/1/2081	Estimated	1,800	Tons/day	1,633	49,035,200	Cubic Yards	725	473	20,603,880
58-AA-0011	BOE Reporting Disposal Facility,Composite_Lined _LF_Cell(s),Financial Assurance Responsibilities,Remaining Capacity Landfill,Treated Wood Waste Acceptance	12/31/2066	Estimated	3,000	Tons/day	2,722	43,467,231	Cubic Yards	261	225	9,801,000

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
01-AA-0009	1,910,054	65,400,000	II,III	59,000,000	49,701,600	45,108,745	0.03733	L	1,593,000,000	77	24	865,868	Y*	
01-AA-0010	995,494	7,959,079	II,III	25,010,921	21,069,200	19,122,225	0.01582	M	675,294,867	63	19	185,419	Y	131,846
04-AA-0002	566,541	20,847,970	II,III	4,423,930	3,726,719	3,382,338	0.00280	S	119,446,110	20	6	116,389	Y*	
05-AA-0023	230,663	6,624,226	II	1,026,774	864,954	785,025	0.00065	S	27,722,898	11	3	18,257	Y	5,337
06-AA-0002	13,354	55,683	III	93,536	78,795	71,513	0.00006	S	2,525,472	18	5	-	Y*	
07-AA-0002	441,093	506,590	III	5,688,410	4,791,917	4,349,102	0.00360	M	153,587,070	32	10	12,186	Y	3,803
07-AA-0032	987,401	63,408,410	II	11,609,870	9,780,154	8,876,384	0.00735	M	313,466,490	29	9	593,250	Y	86,974
07-AC-0042	28,327		I	86,000		65,752	0.00005	S	2,322,000	8	2	-	N	
09-AA-0003	88,219	135,000	II,III	60,000	50,544	45,873	0.00004	S	1,620,000	2	1	1,885	Y*	
10-AA-0004	308,765	7,740,000	III	60,000	50,544	45,873	0.00004	S	1,620,000	0	0	39,763	Y*	
10-AA-0009	1,460,867	29,358,535	II,III	3,341,465	2,814,850	2,554,734	0.00211	S	90,219,555	6	2	380,576	Y*	

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
11-AA-0001	335,878	866,521	III	1,533,479	1,291,803	1,172,429	0.00097	S	41,403,933	11	3	14,931	Y	3,730
13-AA-0001	72,841	180,000	III	1,756,000	1,479,254	1,342,559	0.00111	S	47,412,000	60	18	1,144	Y*	
13-AA-0004	162,274	1,808,802	III	1,628,998	1,372,268	1,245,459	0.00103	S	43,982,946	25	8	881	Y*	
13-AA-0009	56,249	318,669	III	(187,669)	28,368	33,368	0.00003	S	(5,067,063)	(8)	(3)	-	Y*	
13-AA-0010	25,899	47,263	III	185,887	156,591	142,121	0.00012	S	5,018,949	18	5	95	Y*	
13-AA-0011	1,149,270	65,100,000	III	-	129,295	152,082	0.00013	S	-	-	-	71,798	Y*	
13-AA-0019	655,569	15,485,200	III	4,029,500	3,394,451	3,080,774	0.00255	S	108,796,500	15	5	78,852	Y	27,386
13-AA-0022	116,950	1,058,252	II	671,548		513,435	0.00042	S	18,131,796	14	4	38,432	Y*	
14-AA-0003	105,215	1,002,586	III	(5,966)	183,600	215,957	0.00018	S	(161,082)	(0)	(0)	3,175	Y*	
14-AA-0004	72,841	126,513	III	191,387	161,224	146,326	0.00012	S	5,167,449	7	2	626	Y	6
14-AA-0005	275,177	3,314,752	III	725,008	610,747	554,308	0.00046	S	19,575,216	7	2	9,015	Y	435
14-AA-0006	18,210	8,038	III	34,922	29,418	26,700	0.00002	S	942,894	5	1	-	N	
14-AA-0007	37,635	37,048	III	82,042	69,112	62,726	0.00005	S	2,215,134	5	2	-	N	

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
15-AA-0045	57,059	94,851	III	962,149	810,514	735,616	0.00061	S	25,978,023	42	13	2,105	Y*	
15-AA-0057	546,308	7,901,339	III	13,993,840	11,788,411	10,699,060	0.00885	M	377,833,680	64	20	102,293	N	
15-AA-0058	2,201,418	76,310,297	III	1,689,703	1,423,406	1,291,871	0.00107	S	45,621,981	2	1	9,036	Y*	
15-AA-0059	424,906	5,037,428	III	5,462,572	4,601,671	4,176,437	0.00346	M	147,489,444	32	10	37,183	Y*	
15-AA-0061	343,972	7,380,708	III	3,619,292	3,048,892	2,767,148	0.00229	S	97,720,884	26	8	26,686	Y*	
15-AA-0062	128,281	522,298	III	3,477,702	2,929,616	2,658,894	0.00220	S	93,897,954	68	21	40,944	Y*	
15-AA-0105	364,205	769,790	II	4,705,110		3,597,315	0.00298	S	127,037,970	32	10	87,351	Y*	
15-AA-0150	295,411	1,078,875	III	1,171,125	986,556	895,389	0.00074	S	31,620,375	10	3	2,590	Y	22
15-AA-0273	926,700	32,808,260	III	20,191,740	17,009,522	15,437,696	0.01277	M	545,176,980	55	17	326,664	Y	17,441
15-AA-0278	242,803	995,196	III	7,504,804		5,737,835	0.00475	M	202,629,708	78	24	-	Y*	
15-AA-0308	697,251	7,522,934	II,III	5,077,066		3,881,696	0.00321	S	137,080,782	18	6	83,514	Y*	
16-AA-0004	498,556	30,300,000	III	6,000,000	5,054,400	4,587,330	0.00380	M	162,000,000	30	9	88,482	Y	128,955
16-AA-0021	117,355	303,125	II,III	3,896,875	3,282,728	2,979,375	0.00247	S	105,215,625	83	25	129,122	Y*	

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
16-AA-0027	250,897	17,468,595	III	931,405		712,110	0.00059	S	25,147,935	9	3	-	Y	66,980
17-AA-0001	125,448	2,859,962	III	3,190,038	2,687,288	2,438,960	0.00202	S	86,131,026	64	19	48,827	Y*	
18-AA-0009	129,495	603,404	III	1,546,596	1,302,852	1,182,458	0.00098	S	41,758,092	30	9	4858,11027 ?	Y	2,099
18-AA-0010	36,421	62,207	III	27,162	22,881	20,767	0.00002	S	733,374	2	1	0,57?	Y*	
18-AA-0013	-	244,500	II	420,500		321,495	0.00027	S	11,353,500	-	-	-	N	
19-AA-0012	1,270,671	9,900,000	III	49,000,000	41,277,600	37,463,195	0.03100	M	1,323,000,000	97	29	202,089	Y	81,940
19-AA-0040	194,243	5,174,362	III	759,003	639,384	580,300	0.00048	S	20,493,081	10	3	24,594	Y*	
19-AA-0050	851,026	14,514,648	III	13,185,352	11,107,341	10,080,927	0.00834	M	356,004,504	39	12	84,855	Y	49,934
19-AA-0052	1,040,008	8,617,126	III	55,282,874	46,570,293	42,266,798	0.03498	L	1,492,637,598	133	41	795,252	Y	60,351
19-AA-0056	1,234,251	14,500,000	III	54,800,000	46,163,520	41,897,614	0.03467	L	1,479,600,000	111	34	195,908	Y	44,619
19-AA-0061	24,280	75,924	III	67,218	56,624	51,392	0.00004	S	1,814,886	7	2	3,076	Y	739

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
19-AA-0063	80,934	209,816	III	25,643	21,602	19,605	0.00002	S	692,361	1	0	230	Y*	
19-AA-2000	1,468,961	96,800,000	III	44,100,000	37,149,840	33,716,876	0.02790	M	1,190,700,000	75	23	1,270,704	Y*	
19-AA-5624	505,841	18,303,272	III	(18,303,272)	7,604,521	8,944,730	0.00740	M	(494,188,344)	(91)	(28)	366,600	Y	25,055
19-AH-0001	412,766	9,510,833	III	9,826,617	8,277,942	7,512,989	0.00622	M	265,318,659	60	18	66,949	Y*	
19-AR-0004	-		III	-	62,292,575	73,270,923	0.06063	L	-	-	-	-	N	
20-AA-0002	311,598	5,552,894	III	3,847,106	3,240,802	2,941,324	0.00243	S	103,871,862	31	9	123,300	Y	36,772
21-AA-0001	900,396	26,000,000	III	(6,900,000)	15,000,000	17,643,577	0.01460	M	(186,300,000)	(19)	(6)	154,199	Y	65,674
22-AA-0001	161,869	1,193,088	III	777,912	655,313	594,757	0.00049	S	21,003,624	12	4	8,439	Y	998
24-AA-0001	1,031,915	28,025,334	III	1,987,018	1,673,864	1,519,185	0.00126	S	53,649,486	5	1	47137,118109?	Y	1,487
24-AA-0002	411,957	11,370,000	III	3,430,000	2,889,432	2,622,424	0.00217	S	92,610,000	21	6	12414,31922?	Y	533
25-AA-0001	111,285	176,931	III	1,423,069	1,198,793	1,088,015	0.00090	S	38,422,863	32	10	-	N	
26-AA-0001	42,086	279,036	III	61,680	51,959	47,158	0.00004	S	1,665,360	4	1	80	Y	138

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
26-AA-0003	95,503	358,790	III	382,570	322,277	292,496	0.00024	S	10,329,390	10	3	521	Y	169
26-AA-0004	289,341	695,047	III	1,922,853	1,619,811	1,470,127	0.00122	S	51,917,031	17	5	14,721	Y	4,846
27-AA-0005	389,700	6,923,297	III	6,911,031	5,821,853	5,283,863	0.00437	M	186,597,837	44	14	130,427	Y	4,636
27-AA-0010	1,274,718	48,560,000	III	1,140,000	960,336	871,593	0.00072	S	30,780,000	2	1	322,763	Y	60,896
28-AA-0002	178,056	2,870,000	III	2,030,000	1,710,072	1,552,047	0.00128	S	54,810,000	29	9	24,104	Y	98
30-AB-0019	2,824,613	87,384,799	III	85,515,201	72,038,005	65,381,075	0.05410	L	2,308,910,427	76	23	291,654	Y	46,077
30-AB-0035	1,699,624	34,200,000	III	114,600,000	96,539,040	87,618,003	0.07250	L	3,094,200,000	169	52	1,584,376	Y	318,197
30-AB-0360	2,160,951	205,000,000	III	61,000,000	51,386,400	46,637,855	0.03859	L	1,647,000,000	71	22	1,618,956	Y	192,608
31-AA-0210	934,793	29,093,819	II,III	7,256,181	6,112,607	5,547,749	0.00459	M	195,916,887	19	6	58,410	Y	32,282
32-AA-0009	109,262	388,150	III	321,850	271,126	246,072	0.00020	S	8,689,950	7	2	-	N	

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
33-AA-0006	607,009	15,748,799	III	18,651,201	15,711,772	14,259,869	0.01180	M	503,582,427	77	23	636,448	Y	2,006
33-AA-0007	585,156	19,242,950	III	19,692,703	16,589,133	15,056,155	0.01246	M	531,702,981	84	26	403,841	Y	1,765
33-AA-0015	94,289	433,779	III	663,373	558,825	507,185	0.00042	S	17,911,071	18	5	7,662	Y*	-
33-AA-0016	28,327	35,714	III	79,627	67,078	60,879	0.00005	S	2,149,929	7	2	28	Y*	-
33-AA-0017	315,644	3,834,470	III	2,395,200	2,017,716	1,831,262	0.00152	S	64,670,400	19	6	13,147	Y*	-
33-AA-0071	76,888	6,371	III	445,811	375,551	340,847	0.00028	S	12,036,897	15	4	-	Y*	-
33-AA-0217	1,962,661	145,530,000	III	39,400,000	33,190,560	30,123,467	0.02493	M	1,063,800,000	50	15	1,690,862	Y	188,659
33-AA-0231	52,607		UC	-		-	-	-	-	-	-	-	N	
34-AA-0001	2,670,838	112,900,000	III	4,500,000	3,790,800	3,440,498	0.00285	S	121,500,000	4	1	477,648	Y	21,428
34-AA-0020	635,336	4,100,000	II,III	1,931,055	1,626,721	1,476,398	0.00122	S	52,138,485	8	2	146,313	Y	63,701
35-AA-0001	234,710	4,625,827	III	4,728,173	3,983,013	3,614,948	0.00299	S	127,660,671	51	15	197,150	Y*	-
36-AA-0017	428,953	6,800,000	III	3,200,000	2,695,680	2,446,576	0.00202	S	86,400,000	19	6	37,075	Y*	-
36-AA-0028	420,859		II	-	100,000	90,759	0.00008	S	-	-	-	-	N	

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
36-AA-0045	1,379,933	81,510,000	III	1,690,000	1,423,656	1,292,098	0.00107	S	45,630,000	3	1	194,262	Y	10,765
36-AA-0046	1,339,466	71,481,660	III	8,872,840	7,474,480	6,783,774	0.00561	M	239,566,680	17	5	46,859	Y	8,397
36-AA-0055	1,651,063	67,520,000	III	33,780,000	28,456,272	25,826,668	0.02137	M	912,060,000	51	16	805,014	Y	120,504
36-AA-0057	372,299		III	13,983,500	11,779,700	10,691,155	0.00885	M	377,554,500	94	29	35,235	Y	2,033
36-AA-0067	279,224	8,302,400	III	2,642,600	2,226,126	2,020,413	0.00167	S	71,350,200	24	7	2706,4982?	Y*	-
36-AA-0068	1,861,493	18,935,202	III	64,798	54,586	49,542	0.00004	S	1,749,546	0	0	7,619	Y*	-
36-AA-0074	60,701	221,600	III	298,800		228,449	0.00019	S	8,067,600	12	4	-	Y*	-
36-AA-0087	461,327	13,605,488	III	6,794,512	5,723,697	5,194,778	0.00430	M	183,451,824	37	11	190,059	Y	20,362
37-AA-0006	76,888	111,504	III	364,594	307,134	278,752	0.00023	S	9,844,038	12	4	1,668	Y*	-
37-AA-0010	930,747	21,194,008	III	39,959,992	33,662,297	30,551,612	0.02528	M	1,078,919,784	108	33	1,072,468	Y	215,153
37-AA-0020	1,927,455	15,527,878	III	72,232,122	60,848,340	55,225,430	0.04570	L	1,950,267,294	94	29	642,013	Y	11,917
37-AA-0023	1,413,116	39,608,998	III	31,624,173	26,640,203	24,178,420	0.02001	M	853,852,671	56	17	693,347	Y	80,188

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
37-AA-0902	115,736	1,064,500	III	855,500	720,673	654,077	0.00054	S	23,098,500	19	6	390	Y*	-
37-AA-0903	358,944	9,503,985	III	5,096,015	4,292,883	3,896,184	0.00322	S	137,592,405	36	11	19,380	Y*	-
39-AA-0004	2,727,492	125,000,000	III	13,000,000	10,951,200	9,939,215	0.00822	M	351,000,000	12	4	124,640	Y*	-
39-AA-0015	1,434,564	22,100,000	I,II,III	28,940,000	24,379,056	22,126,222	0.01831	M	781,380,000	51	15	619,130	Y*	-
39-AA-0022	748,644	35,400,000	III	5,800,000	4,885,920	4,434,419	0.00367	M	156,600,000	19	6	167,150	Y*	-
40-AA-0001	263,037	5,190,000	III	1,305,000	1,099,332	997,744	0.00083	S	35,235,000	12	4	29,204	Y	338
40-AA-0002	53,821	450,156	III	554,423	467,046	423,887	0.00035	S	14,969,421	26	8	542	Y*	-
40-AA-0004	489,654	14,500,000	III	9,400,000	7,918,560	7,186,817	0.00595	M	253,800,000	48	15	125,467	Y	7,637
40-AA-0008	312,002	6,124,976	III	4,424,004	3,726,781	3,382,394	0.00280	S	119,448,108	36	11	71,426	Y	10,894
41-AA-0002	700,083	22,180,000	III	38,320,000	32,280,768	29,297,748	0.02424	M	1,034,640,000	137	42	396,325	Y	23,534

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
42-AA-0012	186,149	1,880,930	III	2,840,087	2,392,489	2,171,403	0.00180	S	76,682,349	38	12	253	Y	528
42-AA-0015	477,513	4,867,490	III	18,432,510	15,527,546	14,092,668	0.01166	M	497,677,770	97	30	141,998	Y	30,269
42-AA-0016	999,946	3,030,720	III	10,967,680	9,239,174	8,385,395	0.00694	M	296,127,360	28	8	67,863	Y	15,973
42-AA-0017	157,822	2,146,779	III	5,823,221	4,905,481	4,452,173	0.00368	M	157,226,967	93	28	27,873	Y	5,838
43-AN-0001	101,168	640,000	III	-	178,000	161,551	0.00013	S	-	-	-	13,170	Y	20,276
43-AN-0003	1,205,924	21,200,000	III	36,300,000	30,579,120	27,753,347	0.02297	M	980,100,000	76	23	476,640	Y	134,322
43-AN-0008	1,258,531	16,191,600	III	20,208,400	17,023,556	15,450,433	0.01279	M	545,626,800	40	12	137,123	Y	8,574
43-AN-0015	465,373	11,055,000	III	17,545,000	14,779,908	13,414,117	0.01110	M	473,715,000	95	29	121,937	Y	26,982
44-AA-0001	271,131	6,150,000	III	968,000	815,443	740,089	0.00061	S	26,136,000	9	3	34,726	Y	1,829
44-AA-0002	194,243	2,100,000	III	337,203	284,060	257,810	0.00021	S	9,104,481	4	1	32,129	Y	5,701

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
44-AA-0004	246,850	3,303,649	II,III	4,234,051	3,566,765	3,237,165	0.00268	S	114,319,377	43	13	53,691	Y	117
45-AA-0020	526,074	11,914,025	III	4,925,975	4,149,641	3,766,179	0.00312	S	133,001,325	23	7	54,239	Y	6,594
45-AA-0043	493,700	6,589,044	III	6,526,800	5,498,176	4,990,098	0.00413	M	176,223,600	33	10	93,776	Y	138
46-AA-0001	42,491	30,541	III	713,459	601,018	545,479	0.00045	S	19,263,393	42	13	1,630	Y	8
48-AA-0002	1,035,961	30,433,000	II,III	6,567,000	5,532,041	5,020,833	0.00415	M	177,309,000	16	5	196,864	Y	60,290
48-AA-0075	1,375,886	13,872,000	III	69,228,000	58,317,667	52,928,614	0.04380	L	1,869,156,000	126	38	486,935	Y	265,635
48-AA-0078	-			-		-	-	-	-	-	-	-	N	
49-AA-0001	696,037	9,076,760	III	23,573,240	19,858,097	18,023,039	0.01491	M	636,477,480	85	26	138213,52013?	Y*	-
50-AA-0001	819,462	8,240,435	II,III	6,399,565	5,390,994	4,892,819	0.00405	M	172,788,255	20	6	155,413	Y	9,825
52-AA-0001	218,523	2,148,557	III	2,948,443	2,483,768	2,254,247	0.00187	S	79,607,961	34	10	35,993	Y	1,054
52-AA-0028	46,537			-		-	-	-	-	-	-	-	N	

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SWIS No	Disposal Area in m2	Remaining Capacity	WDRNo	WIP (cubic yards)	WIP (tons)	WIP (metric tons, tonnes)	Fraction of Total Waste (m3)	Size	Amount of Waste (ft3)	Waste Column Height (ft)	Waste Column Height (m)	Tonnage (2)	ADC (Users) (3)	ADC Amnt
54-AA-0004	287,317	857,757	III	7,022,550	5,915,796	5,369,126	0.00444	M	189,608,850	61	19	81,671	Y	561
54-AA-0009	999,541	14,815,501	III	3,815,165	3,213,895	2,916,903	0.00241	S	103,009,455	10	3	169,195	Y	11,857
55-AA-0012	-	-		-		-	-	-	-	-	-	-	N	
56-AA-0005	369,871	21,983,000	III	8,017,000	6,753,521	6,129,437	0.00507	M	216,459,000	54	17	330,097	Y	34,685
56-AA-0007	1,489,194	119,600,000	III	-	23,547,852	27,697,889	0.02292	M	-	-	-	422404,203609?	Y	184,927
57-AA-0001	1,914,100		II,III	49,035,200	41,307,252	37,490,107	0.03102	M	1,323,950,400	64	20	134,705	Y	35,461
58-AA-0011	910,513	39,223,000	II,III	4,244,231	3,575,340	3,244,948	0.00269	S	114,594,237	12	4	132,104	Y	14,384

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SWIS No	AIC (Y/N)	AIC Amnt	Disposal Start Date	Age of Waste	Final Cover System (4)	Liner System	Leachate Recirculation (Y/N)	LFG System Type (Y/N)	2010 Avg. Total System Flow	2010 Avg. Total % Methane by Volume	Climate Zone	Climate #	Climate Zone (title)
01-AA-0009	Y*	0	1980	37	Water Balance-CCL	Unlined/CCL Canyon Bottom (122)- Composite	No	Active-Flare/LFGTE	8,104	50%	Csb	2	Warm temperature, summer dry, warm summer
01-AA-0010	Y*	0	1962	55	Water Balance-CCL	Composite- Unlined (87)	Yes	Active-Flare/LFGTE Planned	1,875	44%	Csb	2	Warm temperature, summer dry, warm summer
04-AA-0002	Y*	0	1970	47	Composite	Unlined (49.5)- CCL-Composite (double floor, single sideslopes)	No	Active-Flare	882	40%	Csa	1	Warm temperature, summer dry, hot summer
05-AA-0023	Y	221	1990	27	Composite	Composite- CCL	No	Active-Flare Proposed			Csb	2	Warm temperature, summer dry, warm summer
06-AA-0002	Y*	0	1974	43	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
07-AA-0002	Y*	0	1954	63	Composite- CCL	Unlined (141)- CCL	No	Active-Flare/LFGTE- No flow data			Csb	2	Warm temperature, summer dry, warm summer
07-AA-0032	Y*	0	1992	25	Composite	Composite	No	Active-Flare/LFGTE	1,849	57%	Csb	2	Warm temperature, summer dry, warm summer
07-AC-0042	N		-	-	-	-					Csb	2	Warm temperature, summer dry, warm summer
09-AA-0003	Y*	0	1962	55	CCL - Composite	Unlined (25)-Composite	No	Active-Flare/LFGTE- No flow data			Csa	1	Warm temperature, summer dry, hot summer
10-AA-0004	Y*	0	1960	57	FML- CCL	Composite- CCL	Yes	Active-Flare- No flow data			BSk	6	Arid, steppe, cold arid
10-AA-0009	Y*	0	1992	25	Composite	Composite- Unlined (30)	Yes	Active-Flare	1,100	48%	BSk	6	Arid, steppe, cold arid

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SWIS No	AIC (Y/N)	AIC Amnt	Disposal Start Date	Age of Waste	Final Cover System (4)	Liner System	Leachate Recirculation (Y/N)	LFG System Type (Y/N)	2010 Avg. Total System Flow	2010 Avg. Total % Methane by Volume	Climate Zone	Climate #	Climate Zone (title)
11-AA-0001	Y*	0	1972	45	FML	Unlined	No	No System			Csa	1	Warm temperature, summer dry, hot summer
13-AA-0001	Y*	0	1970	47	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
13-AA-0004	Y*	0	1971	46	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
13-AA-0009	Y*	0	1971	46	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
13-AA-0010	Y*	0	1970	47	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
13-AA-0011	Y*	0	1970	47	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
13-AA-0019	Y*	0	1971	46	Water Balance	Composite- Unlined (31)	No	Active-Flare	151	35%	BWh	4	Arid, desert, hot arid
13-AA-0022	Y*	0	-	-	-	-					BWh	4	Arid, desert, hot arid
14-AA-0003	Y*	0	1965	52	Water Balance	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
14-AA-0004	Y*	0	1965	52	Water Balance	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
14-AA-0005	Y*	0	1955	62	Water Balance	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
14-AA-0006	N		1972	45	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
14-AA-0007	N		1965	52	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid

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15-AA-0045	Y*	0	1973	44	Water Balance	Unlined	No	No System			BSk	6	Arid, steppe, cold arid
15-AA-0057	N		1972	45	Water Balance	Unlined (48)-Composite	No	Active-Flare	197	37%	BSk	6	Arid, steppe, cold arid
15-AA-0058	Y*	0	1972	45	Water Balance	Unlined	No	No System			BSk	6	Arid, steppe, cold arid
15-AA-0059	Y*	0	1968	49	GCL	Unlined	No	Active-Carbon	60	12%	BWk	3	Arid, desert, cold arid
15-AA-0061	Y*	0	1968	49	Water Balance	Unlined	No	No System			BWk	3	Arid, desert, cold arid
15-AA-0062	Y*	0	1969	48	Water Balance	Unlined	No	No System			BSk	6	Arid, steppe, cold arid
15-AA-0105	Y*	0	-	-	-	-					BSk	6	Arid, steppe, cold arid
15-AA-0150	Y*	0	1973	44	CCL- FML (21)	Unlined	No	No System			BSk	6	Arid, steppe, cold arid
15-AA-0273	Y*	0	1992	25	Water Balance	Composite- CCL	Yes	Active-Flare/LFGTE Planned	696	43%	BSk	6	Arid, steppe, cold arid
15-AA-0278	Y*	0	-	-	-	-					BSk	6	Arid, steppe, cold arid
15-AA-0308	Y*	0	-	-	-	-					BSk	6	Arid, steppe, cold arid
16-AA-0004	Y*	0	1992	25	Water Balance	Composite- Unlined (44)	No	Active-Carbon Proposed			Csb	2	Warm temperature, summer dry, warm summer
16-AA-0021	Y*	0	-	-	-	-					Csb	2	Warm temperature, summer dry, warm summer

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16-AA-0027	Y*	0	1998	19	Water Balance	Triple Composite	Yes- RD&D project adds additional liquids and liquid wastes from outside unit.	Active-Flare	468	49%	Csb	2	Warm temperature, summer dry, warm summer
17-AA-0001	Y*	0	1971	46	Composite	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
18-AA-0009	Y*	0	1967	50	GCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
18-AA-0010	Y*	0	1972	45	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
18-AA-0013	N		1968	49	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
19-AA-0012	Y*	0	1952	65	Water Balance	Unlined	No	Active-Flare/LFGTE	6,242	34%	Csb	2	Warm temperature, summer dry, warm summer
19-AA-0040	Y*	0	1958	59	Water-Balance-Soil (Units 1 and 2)	Unlined (Unit 3-27.4; Unit 1- 31; Unit 2-15)- Composite	No	Active-Flare/LFGTE	335	47%	Csb	2	Warm temperature, summer dry, warm summer
19-AA-0050	Y*	0	1957	60	Water Balance	Composite- Unlined (78)	Yes	Active-Flare	444	44%	BSk	6	Arid, steppe, cold arid
19-AA-0052	Y*	0	1971	46	Water Balance	Unlined (154)-Composite (103)	No	Active-Flare/LFGTE	4,116	46%	Csb	2	Warm temperature, summer dry, warm summer
19-AA-0056	Y*	0	1972	45	Water Balance	Composite- CCL-Unlined (est. 160)	No	Active-Flare/LFGTE	5,693	30%	Csb	2	Warm temperature, summer dry, warm summer
19-AA-0061	Y*	0	1961	56	Water Balance	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer

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19-AA-0063	Y	20	1940	77	Water Balance	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
19-AA-2000	Y*	0	1948	69	Composite	Composite- Unlined (Unit I- 125 acres; overlain by composite liner for vertical expansion)	No	Active-Flare/LFGTE	7,679	41%	Csb	2	Warm temperature, summer dry, warm summer
19-AA-5624	Y*	0	1960	57	Water Balance	Composite (90)-Unlined (35)	Yes	Active-Flare	812	45%	BSk	6	Arid, steppe, cold arid
19-AH-0001	Y*	0	1963	54	Water Balance	Unlined (62)-Composite	No	Active-Flare	600	45%	Csb	2	Warm temperature, summer dry, warm summer
19-AR-0004	N		-	-	-	-					Csb	2	Warm temperature, summer dry, warm summer
20-AA-0002	Y*	0	1958	59	Water Balance	Unlined (29)- CCL-Composite	No	Active-Flare	344	23%	Csa	1	Warm temperature, summer dry, hot summer
21-AA-0001	Y*	0	1958	59	FML	Unlined (209)-Composite	No	Active-Flare/LFGTE Planned	2,774	50%	Csb	2	Warm temperature, summer dry, warm summer
22-AA-0001	Y*	0	1973	44	CCL	Unlined	No	No System			Csa	1	Warm temperature, summer dry, hot summer
24-AA-0001	Y*	0	1972	45	Water Balance	Unlined (89)-Composite	No	Active-Flare Proposed			Csb	2	Warm temperature, summer dry, warm summer
24-AA-0002	Y*	0	1940	77	GCL	Unlined (40)-Composite	No	No System			Csa	1	Warm temperature, summer dry, hot summer
25-AA-0001	N		1973	44	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
26-AA-0001	Y*	0	1970	47	GCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer

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26-AA-0003	Y*	0	1972	45	Composite	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
26-AA-0004	Y*	0	1973	44	GCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
27-AA-0005	Y*	0	1976	41	Composite	Composite- Unlined (11)	No	Active-Flare- No flow data			Csb	2	Warm temperature, summer dry, warm summer
27-AA-0010	Y	4340.8	1966	51	CCL- Composite	Composite- Unlined (52 acres; Modules 1 and 2)	No	Active-Flare/LFGTE	1,244	52%	Csb	2	Warm temperature, summer dry, warm summer
28-AA-0002	Y*	0	1963	54	Composite- CCL	Composite- Unlined (12)	Yes	No System			Csb	2	Warm temperature, summer dry, warm summer
30-AB-0019	Y*	0	1976	41	Water Balance	Composite- Unlined (139)	No	Active-Flare/LFGTE	2,056	46%	Csb	2	Warm temperature, summer dry, warm summer
30-AB-0035	Y*	0	1960	57	Water Balance	Unlined	No	Active-Flare/LFGTE	8,066	52%	Csb	2	Warm temperature, summer dry, warm summer
30-AB-0360	Y*	0	1989	28	Water Balance	Composite	No	Active-Flare/LFGTE	6,331	49%	Csb	2	Warm temperature, summer dry, warm summer
31-AA-0210	Y*	0	1980	37	Composite- CCL	Composite- Double Composite- CCL	No	Active-Flare/LFGTE	1,382	50%	Csa	1	Warm temperature, summer dry, hot summer
32-AA-0009	N		1978	39	GCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer

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33-AA-0006	Y*	0	1966	51	Water Balance	CCL- Unlined (38)	Yes	Active-Flare/LFGTE	1,027	43%	Csb	2	Warm temperature, summer dry, warm summer
33-AA-0007	Y*	0	1970	47	Water Balance	Unlined (74)-Composite	No	Active-Flare/LFGTE	842	42%	Csb	2	Warm temperature, summer dry, warm summer
33-AA-0015	Y*	0	1972	45	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
33-AA-0016	Y*	0	1975	42	Water Balance	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
33-AA-0017	Y*	0	1956	61	Water Balance	Unlined	No	Active-Carbon	55	13%	Csb	2	Warm temperature, summer dry, warm summer
33-AA-0071	Y*	0	1982	35	Water Balance	Unlined	No	No System			BWh	4	Arid, desert, hot arid
33-AA-0217	Y*	0	1983	34	Water Balance	Composite- CCL-Unlined (est. 100)	Yes	Active-Flare/LFGTE	2,617	45%	Csb	2	Warm temperature, summer dry, warm summer
33-AA-0231	N		-	-	-	-					BWh	4	Arid, desert, hot arid
34-AA-0001	Y*	0	1967	50	GCL- Water Balance	Composite- Unlined (165)	Yes	Active-Flare/LFGTE	6,032	49%	Csa	1	Warm temperature, summer dry, hot summer
34-AA-0020	Y	32326.8	1977	40	FML- Composite	Unlined (100)-Composite	No	Active-Carbon-No flow data			Csa	1	Warm temperature, summer dry, hot summer
35-AA-0001	Y*	0	1968	49	CCL- FML	Unlined (29)-Composite	No	Active-Flare	189	38%	Csb	2	Warm temperature, summer dry, warm summer
36-AA-0017	Y	2511	1963	54	Water Balance	Unlined (63)- Double Composite-Composite	No	Active-Flare/LFGTE- No flow data			BSk	6	Arid, steppe, cold arid
36-AA-0028	N		-	-	-	-					BSk	6	Arid, steppe, cold arid

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36-AA-0045	Y*	0	1955	62		Unlined	No	Active-Flare	297	32%	BSk	6	Arid, steppe, cold arid
36-AA-0046	Y*	0	1963	54		Unlined	No	Active-Carbon	141	7%	Csa	1	Warm temperature, summer dry, hot summer
36-AA-0055	Y*	0	1958	59	Water Balance	Composite- Unlined (142)	No	Active-Flare/LFGTE	2,221	44%	Csb	2	Warm temperature, summer dry, warm summer
36-AA-0057	Y*	0	1963	54		Unlined	No	No System			BSk	6	Arid, steppe, cold arid
36-AA-0067	Y*	0	1972	45		Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
36-AA-0068	Y*	0	1940	77		Unlined	No	No System			BSk	6	Arid, steppe, cold arid
36-AA-0074	Y*	0	-	-	-	-					BSk	6	Arid, steppe, cold arid
36-AA-0087	Y*	0	1978	39	Water Balance	Composite- Unlined (52)	No	Active-Flare/LFGTE Planned	227	40%	Csb	2	Warm temperature, summer dry, warm summer
37-AA-0006	Y*	0	1973	44	Water Balance	Unlined	No	No System			BSk	6	Arid, steppe, cold arid
37-AA-0010	Y*	0	1963	54	Water Balance-CCL	Unlined (est. 150)-FML (Canyon 3)	No	Active-Flare/LFGTE	6,054	44%	Csb	2	Warm temperature, summer dry, warm summer
37-AA-0020	Y*	0	1973	44	Water Balance	Unlined (239)-Composite	Yes	Active-Flare/LFGTE	4,585	47%	Csb	2	Warm temperature, summer dry, warm summer
37-AA-0023	Y*	0	1976	41	Water Balance	Composite- Unlined (110)	No	Active-Flare/LFGTE	2,564	43%	Csb	2	Warm temperature, summer dry, warm summer

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37-AA-0902	Y*	0	1974	43	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
37-AA-0903	Y*	0	1971	46	CCL	Composite- Unlined (39)	Yes	No System			Csb	2	Warm temperature, summer dry, warm summer
39-AA-0004	Y*	0	1965	52	Water Balance	Unlined (74)- Composite	Yes	No System			Csa	1	Warm temperature, summer dry, hot summer
39-AA-0015	Y*	0	1973	44	Water Balance	Composite- Unlined (139)- CCL	No	Active-Flare/LFGTE	1,533	42%	Csa	1	Warm temperature, summer dry, hot summer
39-AA-0022	Y*	0	1990	27	GCL	Composite	Yes	Active-Flare	320	55%	Csa	1	Warm temperature, summer dry, hot summer
40-AA-0001	Y*	0	1970	47	Composite	Unlined (est. 25)- Composite	Yes	Active-Flare	200	47%	Csb	2	Warm temperature, summer dry, warm summer
40-AA-0002	Y*	0	1941	76	Water Balance	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
40-AA-0004	Y*	0	1965	52	Composite- GCL	Unlined (66)- Composite	Yes	Active-Flare/LFGTE	510	39%	Csb	2	Warm temperature, summer dry, warm summer
40-AA-0008	Y*	0	1970	47	CCL or GCL	Composite- Unlined (19)	No	Active-Flare	230	30%	Csb	2	Warm temperature, summer dry, warm summer
41-AA-0002	Y*	0	1976	41	Composite	Unlined (70)- Composite	No	Active-Flare/LFGTE	3,623	55%	Csb	2	Warm temperature, summer dry, warm summer

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42-AA-0012	Y*	0	1941	76	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
42-AA-0015	Y*	0	1967	50	Composite-Water Balance	Unlined (89)-Composite	No	Active-Flare/LFGTE	1,188	53%	Csb	2	Warm temperature, summer dry, warm summer
42-AA-0016	Y*	0	1960	57	CCL- Composite	Unlined (186)-Composite	No	Active-Flare	101	47%	Csb	2	Warm temperature, summer dry, warm summer
42-AA-0017	Y	13276	1960	57	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
43-AN-0001	Y*	0	-	-	-	-					Csb	2	Warm temperature, summer dry, warm summer
43-AN-0003	Y	1352.8	1932	85	Water Balance	Unlined (205)-Composite	No	Active-Flare/LFGTE	2,857	46%	Csb	2	Warm temperature, summer dry, warm summer
43-AN-0008	Y*	0	1986	31	Composite	Composite- Unlined (22 Unit-C1)	No	Active-Flare/LFGTE Planned	1,589	48%	Csb	2	Warm temperature, summer dry, warm summer
43-AN-0015	Y*	0	1929	88	FML (topdeck)-CCL (sideslopes)	Composite- Unlined (26)	No	Active-Flare/LFGTE	1,816	49%	Csb	2	Warm temperature, summer dry, warm summer
44-AA-0001	Y*	0	1966	51	FML- CCL- Water Balance (6)	Unlined (40)-Composite	No	Active-Flare/LFGTE	578	46%	Csb	2	Warm temperature, summer dry, warm summer
44-AA-0002	Y	7728	1956	61	CCL	Unlined	No	Active-Flare- No flow data			Csb	2	Warm temperature, summer dry, warm summer

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44-AA-0004	Y*	0	1966	51	FML- CCL	Composite- Unlined (57)	No	Active-Flare/LFGTE	1,110	45%	Csb	2	Warm temperature, summer dry, warm summer
45-AA-0020	Y*	0	1976	41	FML- CCL	Composite- Unlined (40)	No	Active-Flare	539	51%	Csa	1	Warm temperature, summer dry, hot summer
45-AA-0043	Y*	0	1981	36	CCL	Composite-CCL	No	Active-Flare Proposed			Csb	2	Warm temperature, summer dry, warm summer
46-AA-0001	Y*	0	1977	40	CCL	Unlined	No	No System			Csb	2	Warm temperature, summer dry, warm summer
48-AA-0002	Y*	0	1964	53	Composite	Composite- Unlined (35)- CCL	Yes	Active-Flare	236	48%	Csa	1	Warm temperature, summer dry, hot summer
48-AA-0075	Y*	0	1986	31	Water Balance	Composite- CCL	Yes	Active-Flare/LFGTE Planned	1,846	51%	Csa	1	Warm temperature, summer dry, hot summer
48-AA-0078	N		-	-	-	-					Csb	2	Warm temperature, summer dry, warm summer
49-AA-0001	Y*	0	1972	45	Composite	Unlined (110)- Composite	No	Active-Flare/LFGTE	1,625	54%	Csb	2	Warm temperature, summer dry, warm summer
50-AA-0001	Y*	0	1973	44	FML- CCL	Composite- Unlined (18)- CCL	No	Active-Flare	360	24%	Csb	2	Warm temperature, summer dry, warm summer
52-AA-0001	Y*	0	1962	55	CCL- Composite	Unlined (32) - Composite	No	Active-Flare	250	35%	Csa	1	Warm temperature, summer dry, hot summer
52-AA-0028	N		-	-	-	-					Csa	1	Warm temperature, summer dry, hot summer

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54-AA-0004	Y*	0	1972	45	Water Balance	Unlined	No	Active-Flare/LFGTE Planned	112	41%	BSk	6	Arid, steppe, cold arid
54-AA-0009	Y*	0	1952	65	Water Balance	Unlined (127)-Composite	No	Active-Flare/LFGTE- No flow data			BSk	6	Arid, steppe, cold arid
55-AA-0012	N		-	-	-	-					Csb	2	Warm temperature, summer dry, warm summer
56-AA-0005	Y*	0	1970	47	Water Balance	Composite- Unlined (Phase 1- est. 50 acres; CCL overlies)	Yes	Active-Flare/LFGTE	1,500	52%	Csb	2	Warm temperature, summer dry, warm summer
56-AA-0007	Y*	0	1970	47	Water Balance	Composite- Unlined (est. 25)	Yes	Active-Flare/LFGTE	2,860	47%	Csb	2	Warm temperature, summer dry, warm summer
57-AA-0001	Y*	0	1975	42	CCL- Composite	Composite- CCL-Unlined (94)	Yes- includes RD&D and bioreactor Project XL projects which add leachate and ground water from units.	Active-Flare/LFGTE	1,085	49%	Csa	1	Warm temperature, summer dry, hot summer
58-AA-0011	Y*	0	1995	22	Composite	Composite	Yes	Active-Flare/LFGTE	509	50%	Csa	1	Warm temperature, summer dry, hot summer
	All data from CalRecycle SWIS Database with the exception of the data in columns listed with the following notes:												
	(1) From CARB Landfill Methane Reports (2017-2018).												
	(2) From CalRecycle 2015 Q3 Tonnage Report.												
	(3) From Disposal ADC AIC (only columns X-AA in those data).												
	(4) From Scott Walker Master 2012 Master List (only columns AA-AH in those data).												

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Gas	Units	Level of Detection (LOD)
CH4	ppmv	0.1
CO	ppbv	1
CO2	ppmv	50
N2O	ppbv	50
OCS	pptv	50
DMS	pptv	1
DMDS	pptv	0.1
CS2	pptv	1
CFC-12	pptv	5
CFC-11	pptv	5
CFC-113	pptv	5.0
CFC-114	pptv	1
H-1211	pptv	0.1
HFC-152a	pptv	0.2
HFC-134a	pptv	1
HCFC-22	pptv	1
HCFC-142b	pptv	1
HCFC-141b	pptv	1
HCFC-245fa	pptv	0.1
HFC365mfc	pptv	0.1
HCFC-21	pptv	0.1
CHCl3	pptv	1
CH3CCl3	pptv	0.1
CCl4	pptv	1.0
CH2Cl2	pptv	1.0
C2Cl4	pptv	0.1
CH3Cl	pptv	50
CH3Br	pptv	0.1
CH2Br2	pptv	0.05
CHBrCl2	pptv	0.05
CHBr3	pptv	0.05
CH3CH2Cl	pptv	1
1,2-DCE	pptv	1
1,2- DBE	pptv	1
MeONO2	pptv	0.1
EtONO2	pptv	0.1
i-PrONO2	pptv	0.1
n-PrONO2	pptv	0.1
2-BuONO2	pptv	0.1
Ethane	pptv	5

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Gas	Units	Level of Detection (LOD)
Ethene	pptv	5
Ethyne	pptv	5
Propane	pptv	5
Propene	pptv	5
i-Butane	pptv	5
n-Butane	pptv	5
1-Butene	pptv	5
i-Butene	pptv	5
trans-2-Butene	pptv	5
cis-2-Butene	pptv	5
i-Pentane	pptv	5
n-Pentane	pptv	5
1-Pentene	pptv	5
Isoprene	pptv	5
n-Hexane	pptv	5
n-Undecane	pptv	5
Benzene	pptv	5
Toluene	pptv	5
Ethylbenzene	pptv	5
m+p-xylene	pptv	5
o-Xylene	pptv	5
i-Propylbenzene	pptv	5
n-Propylbenzene	pptv	5
3-Ethyltoluene	pptv	5
4-Ethyltoluene	pptv	5
2-Ethyltoluene	pptv	5
1,3,5-Trimethylbenzene	pptv	5
1,2,4-Trimethylbenzene	pptv	5
1,2,3-Trimethylbenzene	pptv	5
alpha-pinene	pptv	5
beta-Pinene	pptv	5
Limonene	pptv	5
Methanol	pptv	50
Ethanol	pptv	50
Isopropanol	pptv	5
2-Butanol	pptv	5
Acetaldehyde	pptv	10
Butanal	pptv	1
Acetone	pptv	50
Butanone	pptv	10
Methylisobutylketone	pptv	1
pptv = parts per trillion by volume		

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Zhang et al. 2007	USA food waste	105
Lee et al. 2009	Korean food waste	11
Buffiere et al. 2006	Salad	26
	Carrots	47
	Potato	69
	Banana	32
	Apple	53
	Orange	65
Cho et al. 2012	Korean food waste	100
Cho et al. 1995	Boiled rice	102
	cooked meat	248
	cabbage	12
	Korean food waste	117
Nieto et al. 2012	beverage waste	54
	Apple waste	43
	milk waste	52
	yogurt waste	79
	fats/oils waste	25
Elezer et al. 1997	Food Wastes	300.7
Manfredi et al. 2009	Kitchen organics	59.8
		71.7
Ishii and Furuichi 2013	Kitchen Waste	126.7
Wangyao et al. 2010	Kitchen Waste	45.5
Jeon et al. 2007	Food Wastes	117.1
Moody et al. 2011	Potato Peel	23
	Food Scraps	79
	Food Grease	340
Karanjekar et al. 2015	Food Wastes	36.30413214
Tchnobanoglous et al. 1993/Machado	Food Wastes	151.503
	Food/Soiled Paper	387
	Food/Soiled Paper	304
	Food/Soiled Paper	333
	Food/Soiled Paper	318
	Food/Soiled Paper	374
	Food/Soiled Paper	293
	Food/Soiled Paper	322
	Food/Soiled Paper	272
	Food/Soiled Paper	294
	Food/Soiled Paper	375
	Food/Soiled Paper	333

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Krause et al. 2018b	Food/Soiled Paper	347
	Food/Soiled Paper	257
	Food/Soiled Paper	262
	Food/Soiled Paper	271
	Food/Soiled Paper	258
	Food/Soiled Paper	347
	Food/Soiled Paper	310
	Food/Soiled Paper	216
	Food/Soiled Paper	393
	Food/Soiled Paper	401
	Food/Soiled Paper	351
	Food/Soiled Paper	326
	Food/Soiled Paper	336
	Food/Soiled Paper	538
	Food/Soiled Paper	338
	Food/Soiled Paper	315
	Food/Soiled Paper	144
	Food/Soiled Paper	73
	Food/Soiled Paper	364
	Food/Soiled Paper	295
	Food/Soiled Paper	334
	Food/Soiled Paper	311
	Food/Soiled Paper	461
	Food/Soiled Paper	322
	Food/Soiled Paper	377
	Food/Soiled Paper	489
	Food/Soiled Paper	322
	Food/Soiled Paper	386
Vermeulen et al. 1993	Cardboard	387
	Brochures	80
	Cardboard	183
Jokela et al. 2005	Cardboard	146
Owens and Chynoweth	Cellophane	325
Vermeulen et al. 1993	Office paper	308
Owens and Chynoweth	Coated Paper	325
	Cardboard	257
	Cardboard	300
	Cardboard	324
	Office paper	214
	Magazines	154

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Vermuelen et al. 1993	Magazines	123
	Paperboard	304
Owens and Chynoweth	News paper	90
	News paper	75
Vermuelen et al. 1993	News paper	66
	News paper	102
Owens and Chynoweth	Office paper	329
Vermuelen et al. 1993	Cardboard	217
	Misc. Paper	186
Jeon et al. 2007	Office Paper	239
Vermeulen et al. 1993	Office Paper	115
	Cardboard	169
Owens and Chynoweth	Misc. Paper	326
Vermeulen et al. 1993	Misc. Paper	270
Eleazer et al. 1997	News paper	74.3
	Cardboard	152.3
	Office paper	217.3
	PhoneBooks	74.3
	Books	217.3
	Magazines	84.4
	Mail	150.8
Ishii and Furuichi 2013	Office Paper	214.4
Wangyao et al. 2010	Office Paper	121.4
Jeon et al. 2007	Office Paper	239.1
Karanjekar et al. 2015	Misc. Paper	241.4602722
Krause et al. 2018a	Office paper	255.1838814
		283.958325
		276.386103
		256.6983258
	News paper	40.5150796
		53.7265186
		60.7726194
		51.0842308
	Cardboard	207.3014255
		255.140216
		176.346914
		160.4006505
	Paperboard	211.10144
		238.14336
		221.56928

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
		204.9952
	Coated Paper	137.0774265
		141.948198
		160.7354595
		142.6440225
Qu et al. 2009	Office paper	258
	Cardboard	164
Tchnobanoglous et al. 1993/Machado	Office paper	188.3295
	Cardboard	197.415
	Cardboard	255
	News paper	79
	Office paper	369
	Junk Mail	307
	Paperboard	200
	Misc. Paper	219
	Cartons	299
	Cardboard	169
	538	82
	Office paper	317
	Junk Mail	328
	Paperboard	263
	Misc. Paper	303
	Cartons	286
	Cardboard	175
	News paper	43
	Office paper	315
	Junk Mail	267
	Paperboard	240
	Misc. Paper	106
	Cartons	260
	Cardboard	187
	News paper	73
	Office paper	313
	Junk Mail	250
	Paperboard	267
	Misc. Paper	179
	Cartons	300
	Cardboard	167
	News paper	22
	Office paper	349

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Junk Mail	285
	Paperboard	300
	Misc. Paper	164
	Cartons	282
	Cardboard	166
	News paper	-
	Office paper	229
	Junk Mail	318
	Paperboard	261
	Misc. Paper	303
	Cartons	272
	Cardboard	-
	News paper	84
	Office paper	287
	Junk Mail	-
	Paperboard	175
	Misc. Paper	132
	Cartons	-
	Cardboard	224
	News paper	184
	Office paper	294
	Junk Mail	-
	Paperboard	246
	Misc. Paper	209
	Cartons	208
	Cardboard	217
	News paper	149
	Office paper	289
	Junk Mail	311
	Paperboard	246
	Misc. Paper	290
	Cartons	252
	Cardboard	235
	News paper	111
	Office paper	338
	Junk Mail	319
	Paperboard	269
	Misc. Paper	279
	Cartons	264
	Cardboard	249

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	News paper	126
	Office paper	0
	Junk Mail	0
	Paperboard	242
	Misc. Paper	273
	Cartons	248
	Cardboard	170
	News paper	92
	Office paper	335
	Junk Mail	310
	Paperboard	232
	Misc. Paper	222
	Cartons	262
	Cardboard	227
	News paper	55
	Office paper	275
	Junk Mail	240
	Paperboard	297
	Misc. Paper	213
	Cartons	232
	Cardboard	225
	News paper	83
	Office paper	275
	Junk Mail	298
	Paperboard	226
	Misc. Paper	324
	Cartons	286
	Cardboard	280
	News paper	78
	Office paper	304
	Junk Mail	224
	Paperboard	221
	Misc. Paper	213
	Cartons	255
	Cardboard	194
	News paper	116
	Office paper	289
	Junk Mail	218
	Paperboard	252
	Misc. Paper	274

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Krause et al. 2018b	Cartons	260
	Cardboard	199
	News paper	38
	Office paper	148
	Junk Mail	273
	Paperboard	218
	Misc. Paper	219
	Cartons	242
	Cardboard	234
	News paper	116
	Office paper	314
	Junk Mail	283
	Paperboard	249
	Misc. Paper	301
	Cartons	273
	Cardboard	232
	News paper	77
	Office paper	311
	Junk Mail	333
	Paperboard	231
	Misc. Paper	212
	Cartons	273
	Cardboard	239
	News paper	40
	Office paper	306
	Junk Mail	303
	Paperboard	218
	Misc. Paper	315
	Cartons	244
	Cardboard	224
	News paper	73
	Office paper	281
	Junk Mail	351
	Paperboard	228
	Misc. Paper	327
	Cartons	303
	Cardboard	227
	News paper	40
	Office paper	281
	Junk Mail	140

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Paperboard	214
	Misc. Paper	234
	Cartons	293
	Cardboard	263
	News paper	38
	Office paper	303
	Junk Mail	194
	Paperboard	194
	Misc. Paper	281
	Cartons	283
	Cardboard	175
	News paper	0
	Office paper	276
	Junk Mail	289
	Paperboard	177
	Misc. Paper	196
	Cartons	259
	Cardboard	243
	News paper	32
	Office paper	314
	Junk Mail	235
	Paperboard	347
	Misc. Paper	280
	Cartons	285
	Cardboard	194
	News paper	18
	Office paper	308
	Junk Mail	226
	Paperboard	208
	Misc. Paper	310
	Cartons	364
	Cardboard	233
	News paper	56
	Office paper	276
	Junk Mail	288
	Paperboard	184
	Misc. Paper	232
	Cartons	273
	Cardboard	226
	News paper	56

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Office paper	312
	Junk Mail	194
	Paperboard	319
	Misc. Paper	185
	Cartons	275
	Cardboard	178
	News paper	73
	Office paper	295
	Junk Mail	319
	Paperboard	256
	Misc. Paper	367
	Cartons	280
	Cardboard	215
	News paper	183
	Office paper	203
	Junk Mail	366
	Paperboard	299
	Misc. Paper	281
	Cartons	243
	Cardboard	241
	News paper	-
	Office paper	253
	Junk Mail	-
	Paperboard	206
	Misc. Paper	305
	Cartons	-
	Cardboard	193
	News paper	-
	Office paper	215
	Junk Mail	361
	Paperboard	201
	Misc. Paper	292
	Cartons	-
	Cardboard	234
	News paper	-
	Office paper	280
	Junk Mail	-
	Paperboard	265
	Misc. Paper	312
	Cartons	198

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Cardboard	189
	News paper	49
	Office paper	305
	Junk Mail	308
	Paperboard	293
	Misc. Paper	349
	Cartons	260
	Cardboard	236
	News paper	322
	Office paper	293
	Junk Mail	302
	Paperboard	281
	Misc. Paper	291
	Cartons	130
	Cardboard	198
	News paper	59
	Office paper	323
	Junk Mail	308
	Paperboard	145
	Misc. Paper	298
	Cartons	245
	Cardboard	218
	News paper	122
	Office paper	295
	Junk Mail	-
	Paperboard	119
	Misc. Paper	272
	Cartons	163
	Cardboard	236
	News paper	322
	Office paper	293
	Junk Mail	302
	Paperboard	281
	Misc. Paper	291
	Cartons	130
	Cardboard	206
	News paper	28
	Office paper	317
	Junk Mail	238
	Paperboard	191

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Misc. Paper	282
	Cartons	160
Elezer et al. 1997	Leaves	30.6
	Grass	136
	Branches	62.6
Bufiere et al. 2006	Grass	104
Karanjekar et al. 2015	Yard Wastes	39.14087845
Yazdani et al. 2012	Yard Wastes	49
Tchnobanoglous et al. 1993/Machado	Yard Wastes	192.688
	Leaves/branches	337.204
Krause et al. 2018b	Yard Wastes	175
	Yard Wastes	97
	Yard Wastes	134
	Yard Wastes	61
	Yard Wastes	105
	Yard Wastes	72
	Yard Wastes	172
	Yard Wastes	115
	Yard Wastes	226
	Yard Wastes	124
	Yard Wastes	144
	Yard Wastes	87
	Yard Wastes	174
	Yard Wastes	134
	Yard Wastes	345
	Yard Wastes	62
	Yard Wastes	237
	Yard Wastes	161
	Yard Wastes	216
	Yard Wastes	80
	Yard Wastes	171
	Yard Wastes	35
	Yard Wastes	80
Manfredi et al. 2009	Wood	85.9
		96.6
Wangyao et al. 2010	Wood	130.5
Jeon et al. 2007	Wood	116
	Hard wood	211.4760648
		35.776026
		129.5887164

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Krause et al. 2018a		38.9561172
	Soft wood	48.25392
		27.197664
		41.235168
		28.952352
Krause et al. 2018b	Wood	49
	Wood	46
	Wood	82
	Wood	72
	Wood	36
	Wood	44
	Wood	26
	Wood	16
	Wood	34
	Wood	171
	Wood	46
	Wood	17
	Wood	20
	Wood	57
	Wood	66
	Wood	27
	Wood	20
	Wood	69
	Wood	108
	Wood	40
	31	45
	Wood	51
	Wood	11
	Wood	9
	Wood	142
	Wood	11
	Wood	109
Wang et al. 2011	Wood	29.133
	Wood	6.723
	Wood	0.4482
	Wood	75.7458
	Wood	5.64732
	Wood	5.01984
	Wood	4.12344
	Wood	0

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Wood	0
Tchnobanoglous et al. 1993/Machado	Wood	310.3616
Karanjekar et al. 2015	Textile Wastes	80.67869136
Wangyao et al. 2010	Textile Wastes	130.5
Jeon et al. 2007	Textile Wastes	215.8
	Leather	124
	Rubber	36
Jokela et al. 2005	Textile Wastes	191
	Diaper	59
Krause et al. 2018a	Cotton	166.7765792
		104.235362
		200.8899704
		147.8246952
Krause et al. 2018b	Textile Wastes	212
	Textile Wastes	212
	Textile Wastes	287
	Textile Wastes	193
	Textile Wastes	143
	Textile Wastes	20
	Textile Wastes	3
	Textile Wastes	299
	Textile Wastes	207
	Textile Wastes	177
	Textile Wastes	207
	Textile Wastes	212
	Textile Wastes	212
	Textile Wastes	212
	Textile Wastes	266
	Textile Wastes	171
	Textile Wastes	365
	Textile Wastes	246
	Textile Wastes	337
	Textile Wastes	302
	Textile Wastes	309
	Textile Wastes	212
	Textile Wastes	238
	Textile Wastes	298
	Textile Wastes	346
	Textile Wastes	325
	Textile Wastes	216

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Textile Wastes	80
	Textile Wastes	171
	Textile Wastes	35
	Textile Wastes	80
Tchnobanoglous et al. 1993/Machado	Textiles	269.7189
Vermeulen et al. 1993	Misc. Paper	186
Owens and Chynoweth	Misc. Paper	326
Vermuelen et al. 1993	Misc. Paper	270
Karanjekar et al. 2015	Misc. Paper	241.4602722
Krause et al. 2018b	Misc. Paper	219
	Misc. Paper	303
	Misc. Paper	106
	Misc. Paper	179
	Misc. Paper	164
	Misc. Paper	303
	Misc. Paper	132
	Misc. Paper	209
	Misc. Paper	290
	Misc. Paper	279
	Misc. Paper	273
	Misc. Paper	222
	Misc. Paper	213
	Misc. Paper	324
	Misc. Paper	213
	Misc. Paper	274
	Misc. Paper	219
	Misc. Paper	301
	Misc. Paper	212
	Misc. Paper	315
	Misc. Paper	327
	Misc. Paper	234
	Misc. Paper	281
	Misc. Paper	196
	Misc. Paper	280
	Misc. Paper	310
	Misc. Paper	232
	Misc. Paper	185
	Misc. Paper	367
	Misc. Paper	281
	Misc. Paper	305

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Misc. Paper	292
	Misc. Paper	312
	Misc. Paper	349
	Misc. Paper	291
	Misc. Paper	298
	Misc. Paper	272
	Misc. Paper	291
	Misc. Paper	282
Owens & Chynoweth 1993	Coated Paper	325
	Magazines	154
Vermuelen et al. 1993	Magazines	123
Elezer et al. 1997	Magazines	84.4
Krause et al. 2018b	Junk Mail	150.8
	Junk Mail	307
	Junk Mail	328
	Junk Mail	267
	Junk Mail	250
	Junk Mail	285
	Junk Mail	318
	Junk Mail	311
	Junk Mail	319
	Junk Mail	310
	Junk Mail	240
	Junk Mail	298
	Junk Mail	224
	Junk Mail	218
	Junk Mail	273
	Junk Mail	283
	Junk Mail	333
	Junk Mail	303
	Junk Mail	351
	Junk Mail	140
	Junk Mail	194
	Junk Mail	289
	Junk Mail	235
	Junk Mail	226
	Junk Mail	288
	Junk Mail	194
	Junk Mail	319
	Junk Mail	366

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Junk Mail	361
	Junk Mail	308
	Junk Mail	302
	Junk Mail	308
	Junk Mail	302
	Junk Mail	238
Vermuelen et al. 1993	Cardboard	387
	Cardboard	183
Jokela et al. 2005	Cardboard	146
Owens & Chynoweth	Cardboard	257
	Cardboard	300
	Cardboard	324
Vermuelen et al. 1993	Paperboard	304
Eleazer et al. 1997	Cardboard	217
Krause et al. 2018a	Cardboard	169
Qu et al. 2009	Cardboard	152.3
	Cardboard	164
Tch/Machado et al. 2009	Cardboard	197.415
	Cardboard	255
	Paperboard	200
	Paperboard	299
	Cardboard	169
	Paperboard	263
	Paperboard	286
	Cardboard	175
	Paperboard	240
	Paperboard	260
	Cardboard	187
	Paperboard	267
	Paperboard	300
	Cardboard	167
	Paperboard	300
	Paperboard	282
	Cardboard	166
	Paperboard	261
	Paperboard	272
	Paperboard	175
	Cardboard	224
	Paperboard	246
	Paperboard	208

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Krause et al. 2018b	Cardboard	217
	Paperboard	246
	Paperboard	252
	Cardboard	235
	Paperboard	269
	Paperboard	264
	Cardboard	249
	Paperboard	242
	Paperboard	248
	Cardboard	170
	Paperboard	232
	Paperboard	262
	Cardboard	227
	Paperboard	297
	Paperboard	232
	Cardboard	225
	Paperboard	226
	Paperboard	286
	Cardboard	280
	Paperboard	221
	Paperboard	255
	Cardboard	194
	Paperboard	252
	Paperboard	260
	Cardboard	199
	Paperboard	218
	Paperboard	242
	Cardboard	234
	Paperboard	249
	Paperboard	273
	Cardboard	232
	Paperboard	231
	Paperboard	273
	Cardboard	239
	Paperboard	218
	Paperboard	244
	Cardboard	224
	Paperboard	228
	Paperboard	303
	Cardboard	227

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Paperboard	214
	Paperboard	293
	Cardboard	263
	Paperboard	194
	Paperboard	283
	Cardboard	175
	Paperboard	177
	Paperboard	259
	Cardboard	243
	Paperboard	347
	Paperboard	285
	Cardboard	194
	Paperboard	208
	Paperboard	364
	Cardboard	233
	Paperboard	184
	Paperboard	273
	Cardboard	226
	Paperboard	319
	Paperboard	275
	Cardboard	178
	Paperboard	256
	Paperboard	280
	Cardboard	215
	Paperboard	299
	Paperboard	243
	Cardboard	241
	Paperboard	206
	Cardboard	193
	Paperboard	201
	Cardboard	234
	Paperboard	265
	Paperboard	198
	Cardboard	189
	Paperboard	293
	Paperboard	260
	Cardboard	236
	Paperboard	281
	Paperboard	130
	Cardboard	198

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
	Paperboard	145
	Paperboard	245
	Cardboard	218
	Paperboard	119
	Paperboard	163
	Cardboard	236
	Paperboard	281
	Paperboard	130
	Cardboard	206
	Paperboard	191
	Paperboard	160
Vermuelen et al. 1993	Office paper	308
Owens & Chynoweth	Office paper	214
Jeon et al. 2007	Office paper	329
Eleazer et al. 1997	Office Paper	239
Ishii and Furuichi 2013	Office Paper	115
Wangyao et al. 2010	Office paper	217.3
Krause et al. 2018a	Office Paper	214.4
Qu et al. 2009	Office Paper	121.4
	Office Paper	239.1
	Office paper	258
Tch/Machado et al. 2009	Office paper	188.3295
	Office paper	369
	Office paper	317
	Office paper	315
	Office paper	313
	Office paper	349
	Office paper	229
	Office paper	287
	Office paper	294
	Office paper	289
	Office paper	338
	Office paper	335
	Office paper	275
	Office paper	275
	Office paper	304
	Office paper	289
	Office paper	148
	Office paper	314
	Office paper	311

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Krause et al. 2018b	Office paper	306
	Office paper	281
	Office paper	281
	Office paper	303
	Office paper	276
	Office paper	314
	Office paper	308
	Office paper	276
	Office paper	312
	Office paper	295
	Office paper	203
	Office paper	253
	Office paper	215
	Office paper	280
	Office paper	305
	Office paper	293
	Office paper	323
	Office paper	295
	Office paper	293
	Office paper	317
Vermuelen et al. 1993	News paper	90
Owens & Chynoweth	News paper	75
Eleazer et al. 1997	News paper	66
Krause et al. 2018a	News paper	102
	News paper	74.3
	News paper	79
	News paper	82
	News paper	43
	News paper	73
	News paper	22
	News paper	84
	News paper	184
	News paper	149
	News paper	111
	News paper	126
	News paper	92
	News paper	55
	News paper	83
	News paper	78
	News paper	116

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Study	Food Wastes (1)	L_0 for Waste Fraction i (2)
Krause et al. 2018b	News paper	38
	News paper	116
	News paper	77
	News paper	40
	News paper	73
	News paper	40
	News paper	38
	News paper	32
	News paper	18
	News paper	56
	News paper	56
	News paper	73
	News paper	183
	News paper	49
	News paper	322
	News paper	59
	News paper	122
	News paper	322
	News paper	28
Notes:		
(1) paperboard = milk cartons		
(2) All units in cubic meters CH_4/Mg wet waste.		

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Study	Site	Geographic Location	Landfill Depth (m)	WIP (tons)	AVG Annual Precip (mm)	AVG Daily Temp (deg C)	Throughput (tons/day)	Areal Coverage (m2)	B0 (%)	Aprox. Waste Age	k value (1/yr)
Garg et al. 2006	Calabassas	California	36.58536585	26,805,695	431.80	17.83	1,044.12	1,275,165	71.5	45	0.0335
	Mission Hills	California	60.97560976	21,310,000	431.80	15.33	463,260.87	809,371	72.5	46	0.032
	Palos Verdes	California	60.97560976	24,048,240	355.60	17.06	3,794.77	121,001	71.5	54	0.018
	Puente Hills	California	69.9695122	142,250,454	406.40	19.72	5,850.19	2,388,000	72.4	49	0.042
	Scholl Canyon	California	91.46341463	32,886,801	406.40	18.22	1,274.37	853,887	72.8	45	0.023
	Coyote Canyon	California	76.2195122	38,999,999	304.80	17.94	586.56	1,315,000	72.0	43	0.028
	Spadra LF	California	45.72	17,268,344	406.40	17.50	463.34	700,106	73.0	49	0.033
	Bakersfield LF	California	30.48780488	9,448,923	145.29	18.56	1,219.02	463,365	72.7	14	0.025
	Prince William Co	Virginia	51.82926829	10,032,942	1,016.00	13.33	1,147.05	511,118	60.7	38	0.061
	Atlanta	Georgia	21.06867779	4,861,702	1,289.56	16.28	745.70	331,842	56.3	21	0.054
	Birmingham	Alabama	23.17073171	4,602,414	1,386.33	16.56	538.11	283,280	56.3	25	0.076
	Smithtown	Long Island, NY, USA	30.48	1,700,000	1,193.80	11.33	861.92	146,496	69.6	27	0.09
Barlaz et al. 2010a	Yolo County-Full Scale Cell 1 (NE)	California	18.29268293	76,324	581.00	17.12	544.61	14,200	51.0	9	0.15
	Yolo County-Full Scale Cell 2 (W)	California	18.29268293	194,271	581.00	17.12	544.61	24,300	51.0	9	0.09
	CSWMC-Cell A/B	Delaware	30.48780488	707,738	1,096.00	13.84	328.77	170,980	47.0	30	0.14
	CSWMC-Cell C	Delaware	30.48780488	17,246,450	1,096.00	13.84	328.77	170,980	47.0	22	0.17
	CSWMC-Cell D	Delaware	30.48780488	567,902	1,096.00	13.84	328.77	97,125	47.0	17	0.12
	CSWMC-Cell C/D	Delaware	30.48780488	120,999	1,096.00	13.84	328.77	26,305	47.0	12	0.15
	CSWMC-Cell E	Delaware	30.48780488	1,103,914	1,096.00	13.84	328.77	137,593	47.0	11	0.08
	Old-Lycoming County	Pennsylvania	36.58536585	5,302,531	1,233.00	10.87	729.83	306,556	48.0	24	0.05
	Expansion-Lycoming County	Pennsylvania	36.58536585	6,970,213	1,233.00	10.87	729.83	306,758	48.0	10	0.09
Zhao et al. 2013	Smiths Creek LF-Septage	Michigan	21.34146341	245,028	790.00	7.97	456.64	15,400	25.0	46	0.296
	Smiths Creek LF-Leachate	Michigan	21.34146341	139,206	790.00	7.97	456.64	250,000	25.0	46	0.082
El-Fadel et al. 1996	Shoreline LF, Mountain View	California	9.146341463	12,727,050	401.83	16.40	732.44	1,386,858	55.0	28	0.11
Faour et al. 2007	Yolo County-Pilot Cell	California	9.146341463	48,412	581.00	17.12	3.18	10,117	61.0	6	0.23
	Yolo County-Full Scale Cell 1 (NE)	California	18.29268293	76,324	581.00	17.12	98.15	14,200	61.0	6	0.2
	Yolo County-Full Scale Cell 2 (W)	California	18.29268293	194,271	581.00	17.12	320.88	24,300	61.0	6	2.2
	SSWMC	Delaware	28.96341463	5,966,310	1,111.76	13.45	6.71	502,620	54.0	23	0.21
	New-River-Landfill A	Florida	13.62686456	4,739,178	1,308.86	19.96	710.59	312,822	57.0	15	0.11
	CSWMC	Delaware	30.48780488	5,526,995	1,096.00	13.84	39.76	602,982	54.0	27	0.12
	Brogborough LF	UK	20	14,000	568.45	9.74	4.03	6,000	54.0	21	0.39
Tolaymat et al. 2010	Outer Loop LF-Control Cell	Kentucky	1.113558073	558,871	1,231.65	13.39	218.74	451,429	44.0	12	0.06
	Outer Loop LF-Cell A	Kentucky	2.455538315	616,191	1,231.65	13.39	337.64	225,714	44.0	9	0.11
	Outer Loop LF-Cell B	Kentucky	3.492223543	876,336	1,231.65	13.39	480.18	225,714	44.0	9	0.11
Wang et al. 2013, 2015	S	North Carolina	23.17073171	1,425,570	1,271.00	15.20	100.15	271,139	38.0	39	0.15
	G	Wisconsin	24.3902439	4,484,675	833.00	6.60	455.07	327,795	33.0	27	0.112
	H	Wisconsin	24.3902439	1,981,344	833.00	6.60	387.74	327,795	16.0	14	0.154
	T	Pennsylvania	29.87804878	28,729,729	1,143.00	9.60	3,148.46	457,295	51.0	25	0.0764
	C1	New York	35.06097561	5,224,091	1,110.00	7.80	260.23	477,529	45.0	55	0.17
	P1	North Carolina	23.17073171	4,301,015	1,271.00	15.20	512.33	271,139	50.0	23	0.062

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Study	Site	Geographic Location	Landfill Depth (m)	WIP (tons)	AVG Annual Precip (mm)	AVG Daily Temp (deg C)	Throughput (tons/day)	Areal Coverage (m2)	B0 (%)	Aprox. Waste Age	k value (1/yr)
	Mission Hills	Virginia	30.18292683	6,112,009	1,136.00	13.10	930.29	307,561	52.0	18	0.17
	Q	Illinois	20.12195122	1,693,606	1,032.00	11.30	309.33	376,358	23.0	15	0.136
	C2	Michigan	26.2195122	2,829,063	840.00	7.30	322.95	424,920	23.0	24	0.15
	P2	Montana	22.86585366	5,142,714	1,118.00	12.70	1,083.82	279,233	48.0	13	0.132
	N	North Carolina	23.17073171	5,517,278	1,271.00	15.20	559.85	271,139	50.0	27	0.138
Amini et al. 2012	LF1-Phase 1	Florida	29.57317073	15,432,340	1,387.93	22.27	766.44	554,419	45.0	34	0.063333333
	LF1-Phase 2	Florida	29.57317073	3,527,392	1,387.93	22.27	766.44	554,419	45.0	34	0.03
	LF2	Florida	29.57317073	7,605,939	1,387.93	22.27	481.08	554,419	57.0	34	0.133333333
	LF3-Phase1	Florida	29.57317073	2,425,082	1,387.93	22.27	130.38	554,419	57.0	40	0.06
	LF3-Phase 2	Florida	29.57317073	2,425,082	1,387.93	22.27	217.30	554,419	57.0	24	0.183333333
	Landfill 4	Florida	29.57317073	15,432,340	1,387.93	22.27	766.44	554,419	57.0	34	0.086666667
	Landfill 5	Florida	29.57317073	9,479,866	1,387.93	22.27	766.44	554,419	57.0	34	0.060333333
Bentley et al. 2005	St. Landry Parish LF	Louisiana	27.43902439	1,060,000	1,509.27	20.37	290.95	133,546	58.0	19	0.2
	North Shelby LF	Tennessee	24.3902439	7,760,000	1,359.41	16.76	995.65	311,608	58.0	15	0.078
	Decatur LF	Georgia	6.17898483	973,000	1,348.49	19.42	165.55	141,640	58.0	23	0.179
	Houser's Mill Rd LF	Georgia	5.042668427	726,000	1,160.27	18.09	76.50	129,499	58.0	26	0.148
Karanjekar et al. 2015	LA County	California	23.17073171	6,427,347	316.82	18.08	624.35	494,813	72.6	50	0.0095
	Unknown	Texas	35.06097561	8,505,518	781.10	21.40	929.51	562,513	64.0	34	0.0129
Sormunen et al. 2013	Ammassuo LF	Finland	14.99128831	9,000,000	650.00	5.30	1,232.88	540,000	20.0	26	0.18
Oonk et al. 2013	Landgraaf Test Cell	Netherlands	8	27,558	752.38	10.57	18.88	3,500	15.0	4	1.37
Wangyao et al. 2010	4 Landfill sites	Thailand	7.360287498	354,121	1,581.93	28.13	165.44	47,704	69.0	8.25	0.33
Machado et al. 2009	MCL LF, Salvador	Brazil	45	6,490,882	1,928.97	25.30	2,535.31	230,898	38.0	12	0.2
Lamborn et al. 2012	Narre Warren LF, Melbourne	Australia	30	5,015,511	754.40	14.51	458.04	450,000	60.0	30	0.02
Vu et al. 2017	Regina LF, Saskatchewan	Canada	19.21036715	3,417,161	389.70	3.10	167.18	160,000	64.0	56	0.0115
	Saskatoon LF, Saskatchewan	Canada	19.46283315	5,842,243	353.70	3.30	258.16	270,000	64.0	62	0.0115
Nwaokorie et al. 2018	Phase 3+4	Wisconsin	27.57134796	855,208	835.91	5.26	123.32	27,900	56.7	22	0.037
	Phase 5	Wisconsin	30.38247033	533,691	835.91	5.26	97.48	15,800	56.7	18	0.118
	Phase 6	Wisconsin	13.85213016	803,890	835.91	5.26	137.65	52,200	56.7	16	0.127
	Phase 7	Wisconsin	4.954733506	149,279	835.91	5.26	34.08	27,100	56.7	12	0.025
	Sitewide	Wisconsin	12.6008497	2,517,432	835.91	5.26	313.50	179,700	56.7	23	0.078
Garg et al. 2006	W12A London, CA	Canada	8	276,624	987.10	7.50	1,812.02	1,070,000	56.7	33	0.02
Willumsen 2007	Sao Paoulo	Brazil	50	22,046,200	1,370.00	20.83	2,157.16	1,500,000	60.0	28	0.11
	Olavarria	Argentina	8	198,416	1,028.00	14.32	67.95	80,000	19.0	8	0.1
	Monterrey	Mexico	20	9,590,097	470.00	23.18	1,545.54	1,050,000	67.0	17	0.07
	Maldonado	Uruguay	13	391,320	1,400.00	16.41	107.21	125,000	70.0	10	0.28
Amini et al. 2013	Landfill A	USA	10.90653103	2,425,082	818.34	12.56	415.25	200,000	65.0	16	0.06
	Landfill B	USA	21.36675331	8,267,325	818.34	12.56	1,742.32	348,030	63.0	13	0.09
	Landfill C	USA	24.82295129	8,487,787	818.34	12.56	567.18	307,561	68.0	41	0.04
Lagos et al. 2017	Montreal-CESM	Canada	80	40,000,000	1,024.23	7.42	2,236.51	720,000	64.6	49	0.197
Budka et al. 2007	Conventional-Sonyaz	France	1.19998488	53,989	684.10	11.87	49.30	40,469	60.0	3	0.24
	Bioreactor-Sonyaz	France	1.11989105	50,385	684.10	11.87	46.01	40,469	59.0	3	1.36

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