

Eden Research Laboratory

Update

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To: BiologiQ

Date: 2/22/17

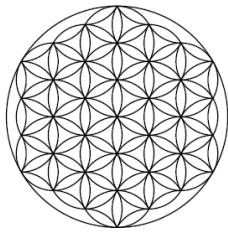
From: Thomas Poth

Number of pages including cover: 2

Regarding: ASTM D5526 BiologQ 1072,1073 & 1075 Samples (834 days)

	Inoculum			Negative			Positive		
	60%	45%	35%	60%	45%	35%	60%	45%	35%
Percent Solid	60%	45%	35%	60%	45%	35%	60%	45%	35%
Cumulative Atmos	5.16	5.64	5.93	5.20	5.53	5.98	10.25	11.24	11.93
Converted Gas Volume (mL)	7972	8714	9162	8034	8544	9239	15836	17366	18432
Percent CH ₄ (%)	40.2	40.9	40.8	43.5	43.8	43.9	53.3	53.2	51.8
Volume CH ₄ (mL)	3205	3564	3738	3495	3742	4056	8441	9239	9548
Mass CH ₄ (g)	2.29	2.55	2.67	2.50	2.67	2.90	6.03	6.60	6.82
Percent CO ₂ (%)	43.2	43.5	43.9	43.9	44.3	45.2	36.2	32.5	31.2
Volume CO ₂ (mL)	3444	3791	4022	3527	3785	4176	5733	5644	5751
Mass CO ₂ (g)	6.76	7.45	7.90	6.93	7.43	8.20	11.26	11.09	11.30
Sample Mass (g)	1000	1000	1000	20	20	20	10	10	10
Theoretical Sample Mass (g)	0.0	0.0	0.00	17.14	17.14	17.14	4.42	4.42	4.42
Biodegraded Mass (g)	3.56	3.94	4.16	3.76	4.03	4.41	7.59	7.97	8.20
Percent Biodegraded (%)				1.2	0.5	1.5	91.2	91.2	91.4

	Inoculum			1072 - LLDPE Potato Bag			1073 - LLDPE/ESR with Additive 1%		
	60%	45%	35%	60%	45%	35%	60%	45%	35%
Percent Solid	60%	45%	35%	60%	45%	35%	60%	45%	35%
Cumulative Atmos	5.16	5.64	5.93	14.8	16.5	18.2	13.5	15.6	17.5
Converted Gas Volume (mL)	7972	8714	9162	22866	25493	28119	20858	24102	27038
Percent CH ₄ (%)	40.2	40.9	40.8	45.6	47.3	50.3	47.0	49.6	49.7
Volume CH ₄ (mL)	3205	3564	3738	10427	12058	14144	9803	11955	13438
Mass CH ₄ (g)	2.29	2.55	2.67	7.45	8.61	10.10	7.00	8.54	9.60
Percent CO ₂ (%)	43.2	43.5	43.9	45.4	46.0	46.9	45.0	45.7	47.3
Volume CO ₂ (mL)	3444	3791	4022	10381	11727	13188	9386	11015	12789
Mass CO ₂ (g)	6.76	7.45	7.90	20.39	23.03	25.90	18.44	21.64	25.12
Sample Mass (g)	1000	1000	1000	20	20	20	20	20	20
Theoretical Sample Mass (g)	0.0	0.0	0.00	13.00	13.00	13.00	12.32	12.32	12.32
Biodegraded Mass (g)	3.56	3.94	4.16	11.15	12.74	14.64	10.28	12.30	14.05
Percent Biodegraded (%)				58.3	67.7	80.7	54.5	67.9	80.3



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	Inoculum			1075 - ECOFLEX/ESR with mLLDPE and		
	60%	45%	35%	60%	45%	35%
Percent Solid	60%	45%	35%	60%	45%	35%
Cumulative Atmos	5.16	5.64	5.93	15.0	16.9	17.4
Converted Gas Volume (mL)	7972	8714	9162	23175	26111	26883
Percent CH ₄ (%)	40.2	40.9	40.8	46.7	47.7	48.5
Volume CH ₄ (mL)	3205	3564	3738	10823	12455	13038
Mass CH ₄ (g)	2.29	2.55	2.67	7.73	8.90	9.31
Percent CO ₂ (%)	43.2	43.5	43.9	44.5	44.1	44.2
Volume CO ₂ (mL)	3444	3791	4022	10313	11515	11882
Mass CO ₂ (g)	6.76	7.45	7.90	20.26	22.62	23.34
Sample Mass (g)	1000	1000	1000	20	20	20
Theoretical Sample Mass (g)	0.0	0.0	0.00	10.68	10.68	10.68
Biodegraded Mass (g)	3.56	3.94	4.16	11.32	12.84	13.35
Percent Biodegraded (%)				72.7	83.3	86.1