

## BIBLIOGRAPHY

### Abbreviations:

DWAF:	Department of Water Affairs and Forestry, South Africa.
IWMI:	International Water Management Institute
SDC:	Swiss Agency for Development Cooperation
Sida:	Swedish International Development Cooperation Agency, Sweden.
UWEP:	Urban Waste Expertise Programme
WRC:	Water Research Commission, South Africa.
WHO:	World Health Organization, Geneva, Switzerland.
WSSCC:	Water Supply and Sanitation Collaborative Council Working Group on Promotion of Sanitation (World Health Organisation, Geneva).

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## **APPENDIX A**

### **EXAMPLE OF TYPICAL OUTPUT FROM TEMPERATURE LOGGER**



	A1_top	A1_mid	A1_bot	A1_amb	A2_top	A2_mid	A2_bot	A2_amb	B1_tmp	B1_amb	B2_tmp	B2_amb	C1_tmp	C1_amb	C2_tmp
1/21/2005 18:00	27,38	26,98	26,48	29,99	26,91	26,57	26,91	29,5	27,01	30,82	28,3	30,72	27,15	32,15	27,68
1/21/2005 21:00	28,83	27,44	26,87	32,21	28,52	27,46	27,37	32,65	27,71	33,89	28,95	34,41	27,78	34,32	27,95
1/22/2005	29,12	27,88	27,04	29,08	29,26	28,09	27,86	30,15	28,35	30,36	29,49	30,5	28,32	30,13	28,38
1/22/2005 3:00	28,6	27,75	26,96	27	28,81	28,01	27,95	27,48	28,4	28,08	29,51	27,9	28,34	27,9	28,59
1/22/2005 6:00	27,93	27,58	26,79	25,33	28,05	27,65	27,78	25,63	28,06	26,39	29,24	25,97	28,06	26,18	28,54
1/22/2005 9:00	27,04	27,29	26,55	23,84	27,16	27,13	27,47	24,04	27,53	24,77	28,81	24,2	27,62	24,64	28,34
1/22/2005 12:00	26,45	27	26,31	25,06	26,4	26,6	27,11	24,41	26,97	25,87	28,36	25,17	27,1	26,16	28,01
1/22/2005 15:00	27,31	27,13	26,41	30,07	26,78	26,62	27,01	28,46	26,91	30,93	28,34	30,35	26,98	32,07	27,79
1/22/2005 18:00	29,04	27,76	26,85	33,45	28,34	27,48	27,43	32,49	27,7	35,53	28,97	34,53	27,66	36,13	27,97
1/22/2005 21:00	29,93	28,19	27,26	32,25	29,61	28,33	28	33,05	28,67	35,17	29,71	33,78	28,55	34,65	28,43
1/23/2005	29,79	28,29	27,42	29,98	29,81	28,65	28,33	30,17	29,15	31,46	30,05	31,05	29,02	31,19	28,82
1/23/2005 3:00	29,92	28,9	27,38	28,14	29,3	28,51	28,36	28,12	29,13	29,29	30,01	28,83	28,99	29,03	28,95
1/23/2005 6:00	28,73	28,24	27,24	26,42	28,54	28,13	28,19	26,33	28,77	27,51	29,71	26,93	28,69	27,23	28,88
1/23/2005 9:00	27,9	27,9	27,05	25,28	27,73	27,64	27,9	25,13	28,24	26,17	29,29	25,49	28,23	25,91	28,65
1/23/2005 12:00	27,38	27,65	26,87	25,19	27,1	27,18	27,6	25,15	27,73	26,25	28,89	25,51	27,75	25,84	28,35
1/23/2005 15:00	26,99	27,39	26,72	25,31	26,72	26,88	27,38	25,21	27,41	26,39	28,64	25,71	27,41	26,45	28,07
1/23/2005 18:00	27,17	27,29	26,7	26,68	26,9	26,85	27,28	26,59	27,32	27,69	28,58	27,22	27,27	27,85	27,89
1/23/2005 21:00	27,38	27,32	26,74	26,86	27,2	27	27,34	27,1	27,45	28,06	28,68	27,55	27,36	27,71	27,85
1/24/2005	28,41	28,44	26,65	25,35	27,1	26,96	27,34	25,17	27,49	26,08	28,68	25,48	27,35	25,71	27,83
1/24/2005 3:00	26,71	27,08	26,45	24,08	26,41	26,53	27,11	23,85	27,2	24,82	28,39	24,13	27,08	24,5	27,67
1/24/2005 6:00	26,11	26,78	26,23	23,29	25,77	26,08	26,8	22,95	26,78	23,88	28,02	23,15	26,69	23,59	27,4
1/24/2005 9:00	25,6	26,5	26,03	22,79	25,22	25,65	26,48	22,48	26,36	23,39	27,65	22,58	26,25	23,13	27,09
1/24/2005 12:00	25,27	26,23	25,83	23,65	24,86	25,32	26,2	23,11	26	24,45	27,33	23,68	25,86	24,45	26,77
1/24/2005 15:00	26,37	26,33	25,97	30,12	25,61	25,54	26,18	28,16	26,15	31,15	27,44	29,73	25,92	32,24	26,62
1/24/2005 18:00	28,46	27,05	26,54	32,99	27,72	26,76	26,76	32,38	27,3	35,93	28,34	34,83	26,97	36,31	26,91
1/24/2005 21:00	29,42	27,65	27	32,26	29,2	27,86	27,5	33,45	28,52	35,97	29,3	35,64	28,2	35,68	27,54



## **APPENDIX B**

# **MICROBIOLOGICAL RESULTS IN TABULAR FORMAT**

### VAULT A1 (FAECES + SOIL; CONCRETE LID; VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	2,90E+08	8,00E+07	1,00E+08	4,70E+07	
Total coliform bacteria count per g	1,70E+06	1,40E+04	2,80E+03	214	<3
Faecal coliform bacteria count per g	9,10E+05	1,20E+04	1,10E+03	88	<3
<i>E coli</i> bacteria count per g				53	<3
Faecal streptococci bacteria count per g	3,00E+05	2,20E+04	8,60E+03	4,00E+03	
<i>Salmonella spp</i> per g	Present	Present	Present	Present	
Coliphage count per g	1,30E+04	140	325	1,60E+03	37
Clostridium count per g	8,00E+03	833	1,40E+04	43	1,70E+03
pH	7,06				
Moisture content %	12,5	10,1	9,6	6,4	12
<i>Cryptosporidium</i> oocysts count per 10g dry weight	0,9	0**	0**		
<i>Giardia</i> cysts count per 10g dry weight	12	6**	0**		
<i>Ascaris</i> eggs per 10g dry weight	237*	344* / 13**	277* / 1**	64* / 0**	
<i>Entamoeba spp</i> eggs per 10g dry weight		20	11	8	
<i>Taenia</i> eggs per 10g dry weight		0	0	1	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT A2 (FAECES + SOIL; CONCRETE LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	3,00E+08	3,10E+08	2,10E+09	2,00E+07	
Total coliform bacteria count per g	3,30E+06	5,00E+03	5,60E+03	882	<3
Faecal coliform bacteria count per g	2,00E+05	1,50E+03	3,90E+03	235	<3
<i>E coli</i> bacteria count per g				206	<3
Faecal streptococci bacteria count per g	2,90E+05	1,10E+05	9,80E+03	7,35E+02	
<i>Salmonella spp</i> per g	Present	Absent	Present	Present	
Coliphage count per g	1,70E+03	1,20E+03	1,70E+03	9,10E+01	15
Clostridium count per g	6,00E+02	1,30E+04	2,90E+04	2,00E+03	1,80E+03
pH	7,18				
Moisture content %	16,4	14,5	15,5	15,2	15,0
<i>Cryptosporidium</i> oocysts count per 10g dry weight	2,4	0**	0**		
<i>Giardia</i> cysts count per 10g dry weight	32	0**	0**		
<i>Ascaris</i> eggs per 10g dry weight	237*	71* / 0**	68* / 0**	60* / 0**	
<i>Entamoeba spp</i> eggs per 10g dry weight		22	4	2	
<i>Taenia</i> eggs per 10g dry weight		0	0	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT B1 (FAECES + ASH; METAL LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	2,10E+08	6,40E+07	8,30E+07	6,70E+07	
Total coliform bacteria count per g	8,00E+04	5,30E+03	2,00E+03	<3	<3
Faecal coliform bacteria count per g	2,50E+04	3,70E+03	1,10E+03	<3	<3
<i>E coli</i> bacteria count per g				<3	<3
Faecal streptococci bacteria count per g	3,70E+04	1,80E+04	4,00E+03	9,30E+04	
<i>Salmonella spp</i> per g	Present	Absent	Present	Present	
Coliphage count per g	6,60E+03	450	161	3	<3
Clostridium count per g	2,60E+03	120	1,40E+04	<3	235
pH	6,90				
Moisture content %	12,8	6,7	12,9	5,7	9,5
<i>Cryptosporidium</i> oocysts count per 10g dry weight	2,2	0**	0**		
<i>Giardia</i> cysts count per 10g dry weight	ND	6**	0**		
<i>Ascaris</i> eggs per 10g dry weight	218*	234* / 14**	184* / 0**	58* / 0**	
<i>Entamoeba spp</i> eggs per 10g dry weight		81	24	11	
<i>Taenia</i> eggs per 10g dry weight		1	1	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT B2 (FAECES + WOOD SHAVINGS; METAL LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	6,10E+07	2,80E+07	6,30E+08	7,70E+07	
Total coliform bacteria count per g	6,60E+04	2,70E+05	3,00E+06	1,10E+06	<3
Faecal coliform bacteria count per g	3,10E+04	1,30E+04	2,00E+06	1,20E+05	<3
<i>E coli</i> bacteria count per g				5,90E+04	<3
Faecal streptococci bacteria count per g	6,00E+04	9,50E+03	2,70E+06	8,20E+04	
<i>Salmonella spp</i> per g	Present	Present	Present	Present	
Coliphage count per g	4,90E+03	430	3	90	<3
Clostridium count per g	1,10E+03	290	571	2,90E+04	1,70E+03
pH	6,37				
Moisture content %	12,9	12,9	8,0	6,0	18,0
<i>Cryptosporidium</i> oocysts count per 10g dry weight	ND				
<i>Giardia</i> cysts count per 10g dry weight	ND				
<i>Ascaris</i> eggs per 10g dry weight	305*	122* / 0**	132* / 0**	65* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		30	19	3	
<i>Taenia</i> eggs per 10g dry weight		0	0	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT C1 (FAECES + ASH; PERSPEX LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	2,10E+08	9,60E+07	1,70E+08	9,70E+07	
Total coliform bacteria count per g	8,00E+04	1,50E+04	1,30E+04	163	<3
Faecal coliform bacteria count per g	2,50E+04	5,00E+03	538	64	<3
<i>E coli</i> bacteria count per g				32	<3
Faecal streptococci bacteria count per g	3,70E+04	2,40E+03	1,10E+03	4,50E+03	
<i>Salmonella spp</i> per g	Present	Present	Present	Present	
Coliphage count per g	6,60E+03	500	763	16	<3
Clostridium count per g	2,60E+03	110	4,60E+03	9,60E+03	3,10E+03
pH	6,90				
Moisture content %	12,8	5,6	7,1	21,8	23,0
<i>Cryptosporidium</i> oocysts count per 10g dry weight	2,2	0**	0**		
<i>Giardia</i> cysts count per 10g dry weight	ND	0**	0**		
<i>Ascaris</i> eggs per 10g dry weight	218*	215* / 21**	209* / 0**	40* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		76	15	18	
<i>Taenia</i> eggs per 10g dry weight		0	0	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT C2 (FAECES + WOOD SHAVINGS; PERSPEX LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	6,10E+07	6,60E+08	7,20E+09	5,30E+08	
Total coliform bacteria count per g	6,60E+04	7,00E+04	2,50E+04	528	<3
Faecal coliform bacteria count per g	3,10E+04	4,10E+04	6,30E+03	<4	<3
<i>E coli</i> bacteria count per g				<4	<3
Faecal streptococci bacteria count per g	6,00E+04	1,30E+04	1,80E+03	240	
<i>Salmonella spp</i> per g	Present	Present	Absent	Present	
Coliphage count per g	4,90E+03	440	18	<4	<3
Clostridium count per g	1,10E+03	5,60E+03	1,20E+04	4,20E+03	2,70E+03
pH	6,37				
Moisture content %	12,9	14,3	28,9	38,6	40,7
<i>Cryptosporidium</i> oocysts count per 10g dry weight	ND				
<i>Giardia</i> cysts count per 10g dry weight	ND				
<i>Ascaris</i> eggs per 10g dry weight	305*	287* / 22**	171* / 1**	30* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		27	27	7	
<i>Taenia</i> eggs per 10g dry weight		1	1	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected



### VAULT D1 (FAECES + ASH; CONCRETE LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	2,10E+08	1,60E+08	1,30E+08	7,80E+06	
Total coliform bacteria count per g	8,00E+04	2,60E+03	1,80E+04	<3	265
Faecal coliform bacteria count per g	2,50E+04	2,10E+03	1,80E+03	<3	185
<i>E coli</i> bacteria count per g				<3	159
Faecal streptococci bacteria count per g	3,70E+04	2,40E+04	2,60E+03	6,60E+04	
<i>Salmonella spp</i> per g	Present	Absent	Present	Present	
Coliphage count per g	6,60E+03	270	37	21	13
Clostridium count per g	2,60E+03	26	2,10E+03	3,60E+03	7,00E+03
pH	6,90				
Moisture content %	12,8	5,7	4,9	4,5	5,4
<i>Cryptosporidium</i> oocysts count per 10g dry weight	2,2	0**	0**		
<i>Giardia</i> cysts count per 10g dry weight	ND	0**	0**		
<i>Ascaris</i> eggs per 10g dry weight	218*	227* / 8**	181* / 0**	20* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		93	36	18	
<i>Taenia</i> eggs per 10g dry weight		3	3	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT D2 (FAECES + WOOD SHAVINGS; CONCRETE LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	6,10E+07	1,30E+08	2,40E+08	3,80E+07	
Total coliform bacteria count per g	6,60E+04	2,60E+07	4,50E+06	1,10E+07	2,80E+05
Faecal coliform bacteria count per g	3,10E+04	3,10E+06	3,50E+06	2,90E+06	824
<i>E coli</i> bacteria count per g				1,80E+06	<3
Faecal streptococci bacteria count per g	6,00E+04	1,10E+05	5,60E+05	4,80E+06	
<i>Salmonella spp</i> per g	Present	Present	Present	Absent	
Coliphage count per g	4,90E+03	170	3	<3	<3
Clostridium count per g	1,10E+03	280	3,40E+03	6,60E+04	824
pH	6,37				
Moisture content %	12,9	10,0	10,5	9,1	9,3
<i>Cryptosporidium</i> oocysts count per 10g dry weight	ND				
<i>Giardia</i> cysts count per 10g dry weight	ND				
<i>Ascaris</i> eggs per 10g dry weight	305*	324* / 4**	351* / 0**	17* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		39	12	9	
<i>Taenia</i> eggs per 10g dry weight		2	2	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT E1 (FAECES + NaOH; CONCRETE LID; VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	3,90E+07	1,10E+08	1,50E+07	<32	
Total coliform bacteria count per g	1,50E+04	1,10E+04	6,20E+03	<3	<3
Faecal coliform bacteria count per g	1,50E+04	8,80E+03	3,80E+03	<3	<3
<i>E coli</i> bacteria count per g				<3	<3
Faecal streptococci bacteria count per g	2,50E+04	1,90E+03	250	<3	
<i>Salmonella spp</i> per g	Present	Present	Absent	Absent	
Coliphage count per g	5,20E+03	270	3	<3	<3
Clostridium count per g	3,00E+02	1,30E+03	3	<3	<3
pH	10,09				
Moisture content %	8,6	6,4	106,0	22,9	16,8
<i>Cryptosporidium</i> oocysts count per 10g dry weight	ND				
<i>Giardia</i> cysts count per 10g dry weight	ND				
<i>Ascaris</i> eggs per 10g dry weight	272*	76* / 8**	29* / 0**	4* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		18	9	1	
<i>Taenia</i> eggs per 10g dry weight		0	0	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT E2 (FAECES + NaOH; CONCRETE LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	3,90E+07	2,20E+08	5,40E+04	<33	
Total coliform bacteria count per g	1,50E+04	2,00E+04	2,10E+04	<3	<3
Faecal coliform bacteria count per g	1,50E+04	6,60E+03	637	<3	<3
<i>E coli</i> bacteria count per g				<3	<3
Faecal streptococci bacteria count per g	2,50E+04	2,80E+03	318	<3	
<i>Salmonella spp</i> per g	Present	Present	Absent	Absent	
Coliphage count per g	5,20E+03	410	3	<3	<3
Clostridium count per g	3,00E+02	1,70E+03	3	<3	<3
pH	10,09				
Moisture content %	8,6	9,5	21,4	23,6	23,4
<i>Cryptosporidium</i> oocysts count per 10g dry weight	ND				
<i>Giardia</i> cysts count per 10g dry weight	ND				
<i>Ascaris</i> eggs per 10g dry weight	272*	310* / 23**	308* / 2**	16* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		69	31	2	
<i>Taenia</i> eggs per 10g dry weight		2	2	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT F1 (FAECES + GRASS; CONCRETE LID; VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	2,10E+08	1,40E+09	3,80E+08	5,70E+07	
Total coliform bacteria count per g	2,80E+05	3,00E+06	3,10E+04	<3	1,80E+05
Faecal coliform bacteria count per g	5,40E+04	8,20E+04	279	<3	368
<i>E coli</i> bacteria count per g				<3	<3
Faecal streptococci bacteria count per g	1,80E+05	1,80E+05	4,00E+04	9,60E+04	
<i>Salmonella spp</i> per g	Present	Present	Absent	Absent	
Coliphage count per g	2,00E+03	190	573	2	<3
Clostridium count per g	8,80E+03	6,30E+03	1,60E+04	4,50E+04	8,80E+03
pH	6,80				
Moisture content %	59,6	8,8	10,7	21,7	18,6
<i>Cryptosporidium</i> oocysts count per 10g dry weight	ND				
<i>Giardia</i> cysts count per 10g dry weight	ND				
<i>Ascaris</i> eggs per 10g dry weight	237*	295* / 0**	215* / 0**	23* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		96	39	11	
<i>Taenia</i> eggs per 10g dry weight		1	1	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

### VAULT F2 (FAECES + GRASS; CONCRETE LID; NO VENTPIPE)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	2,10E+08	4,70E+08	1,20E+08	1,20E+08	
Total coliform bacteria count per g	2,80E+05	2,40E+05	7,20E+04	<3	3,60E+03
Faecal coliform bacteria count per g	5,40E+04	1,30E+04	329	<3	<3
<i>E coli</i> bacteria count per g				<3	<3
Faecal streptococci bacteria count per g	1,80E+05	9,40E+04	3,90E+03	403	
<i>Salmonella spp</i> per g	Present	Present	Absent	Present	
Coliphage count per g	2,00E+03	1,80E+03	3	<3	<3
Clostridium count per g	8,80E+03	440	6,50E+04	8,40E+04	1,20E+04
pH	6,80				
Moisture content %	59,6	15,2	24,1	25,5	23,2
<i>Cryptosporidium</i> oocysts count per 10g dry weight	ND				
<i>Giardia</i> cysts count per 10g dry weight	ND				
<i>Ascaris</i> eggs per 10g dry weight	237*	337* / 27**	286* / 0**	72* / 0**	
<i>Entamoeba spp</i> eggs per 10 g dry weight		84	28	10	
<i>Taenia</i> eggs per 10g dry weight		3	2	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

## MAIN HEAP (FAECES + SOIL)

Parameter	t=0	t=44d	t=97d	t=174d	t=278d
Heterotrophic plate count per g	2,90E+08	6,80E+07	5,10E+07	572	
Total coliform bacteria count per g	1,70E+06	270	2,30E+03	126	<3
Faecal coliform bacteria count per g	9,10E+05	270	1,20E+03	60	<3
<i>E coli</i> bacteria count per g				60	<3
Faecal streptococci bacteria count per g	3,00E+05	3,80E+04	9,10E+04	5	
<i>Salmonella spp</i> per g	Present	Present	Present	Present	
Coliphage count per g	1,30E+04	380	36	<3	<3
Clostridium count per g	8,00E+03	1,10E+04	1,70E+04	2,70E+04	899
pH	7,06				
Moisture content %	12,5	6,8	17,3	16,9	5,3
<i>Cryptosporidium</i> oocysts count per 10g dry weight	0,9	0**	0**		
<i>Giardia</i> cysts count per 10g dry weight	12	0**	0**		
<i>Ascaris</i> eggs per 10g dry weight	201*	174* / 0**	123* / 0**	62* / 0**	
<i>Entamoeba spp</i> eggs per 10g dry weight		68	13	6	
<i>Taenia</i> eggs per 10g dry weight		2	0	0	

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected

## MAIN HEAP (FAECES + SOIL); REHYDRATED FOR 7d AFTER 278d

Parameter	t=0	t=44d	t=97d	t=174d	t=278d	t=285d (soaked for 7d)
Heterotrophic plate count per g	2,90E+08	6,80E+07	5,10E+07	572		
Total coliform bacteria count per g	1,70E+06	270	2,30E+03	126	<3	<3
Faecal coliform bacteria count per g	9,10E+05	270	1,20E+03	60	<3	<3
<i>E coli</i> bacteria count per g				60	<3	<3
Faecal streptococci bacteria count per g	3,00E+05	3,80E+04	9,10E+04	5		
<i>Salmonella spp</i> per g	Present	Present	Present	Present		
Coliphage count per g	1,30E+04	380	36	<3	<3	<3
Clostridium count per g	8,00E+03	1,10E+04	1,70E+04	2,70E+04	899	75
pH	7,06					
Moisture content %	12,5	6,8	17,3	16,9	5,3	
<i>Cryptosporidium</i> oocysts count per 10g dry weight	0,9	0**	0**			
<i>Giardia</i> cysts count per 10g dry weight	12	0**	0**			
<i>Ascaris</i> eggs per 10g dry weight	201*	174* / 0**	123* / 0**	62* / 0**		
<i>Entamoeba spp</i> eggs per 10g dry weight		68	13	6		
<i>Taenia</i> eggs per 10g dry weight		2	0	0		

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

blank cells indicate no analysis done

ND = not detected



**MAIN HEAP (FAECES + SOIL); SPIKED FOR 7d AFTER 278d;  
NO MOISTURE ADDED**

Parameter	t=0	t=44d	t=97d	t=174d	t=278d	t=285d (spiked for 7d)
Heterotrophic plate count per g	2,90E+08	6,80E+07	5,10E+07	572		
Total coliform bacteria count per g	1,70E+06	270	2,30E+03	126	<3	
Faecal coliform bacteria count per g	9,10E+05	270	1,20E+03	60	<3	
<i>E coli</i> bacteria count per g				60	<3 / 1,0E+04***	1,60E+05
Faecal streptococci bacteria count per g	3,00E+05	3,80E+04	9,10E+04	5		
<i>Salmonella spp</i> per g	Present	Present	Present	Present	Present	Present
Coliphage count per g	1,30E+04	380	36	<3	<3 / 1,0E+04***	5
Clostridium count per g	8,00E+03	1,10E+04	1,70E+04	2,70E+04	899	
pH	7,06					
Moisture content %	12,5	6,8	17,3	16,9	5,3	
<i>Cryptosporidium</i> oocysts count per 10g dry weight	0,9	0**	0**			
<i>Giardia</i> cysts count per 10g dry weight	12	0**	0**			
<i>Ascaris</i> eggs per 10g dry weight	201*	174* / 0**	123* / 0**	62* / 0**		
<i>Entamoeba spp</i> eggs per 10g dry weight		68	13	6		
<i>Taenia</i> eggs per 10g dry weight		2	0	0		

Note:

\* indicates total no., i.e. viable plus non-viable

\*\* indicates viable only

\*\*\* indicates initial spiked value

blank cells indicate no analysis done

ND = not detected