

EASTERN COMPOST, LLC

P.O. BOX 460

BATTLEBORO, NC 27809

YEAR END REPORT

JUNE 30, 2014

According to (G.S. 130A-309.09D(b)) completed forms must be returned by August 1, 2014 and a copy of this report must be sent to the County Manager of each county from which waste was received. If you have questions or require assistance in completing this report, contact your Regional Environmental Senior Specialist.

Facility Name: EASTERN COMPOST LLC

Permit: 3303-COMPOST-2010

Physical Address		Mailing Address	
Street 1: <u>8487 BATTLEBORO-LEGGETT ROAD</u>		Street 1: <u>P. O. BOX 460</u>	
Street 2: _____		Street 2: _____	
City: <u>BATTLEBORO</u>	County: <u>Edgecombe</u>	City: <u>BATTLEBORO</u>	
State: <u>North Carolina</u>	Zip: <u>27809</u>	State: <u>North Carolina</u>	Zip: <u>27809</u>
Primary Facility Contact Person		Billing Contact Person	
Name: <u>JASON SMITH</u>		Name: <u>JEAN SMITH</u>	
Phone: <u>(252) 903-5367</u>	Fax: <u>(919) 690-1157</u>	Phone: <u>(252) 446-2536</u>	Fax: _____
Email: <u>jsmith@granvillefarmsinc.com</u>		Email: _____	

1. Tipping Fee: \$25.00 _____ per Ton (Attach a schedule of tipping fees if appropriate.)

2. Did your facility stop receiving waste during this past Fiscal Year? Yes No

If so, please report the date this occurred: _____

3. Please attach results of monthly temperature monitoring for the period of July 1, 2013 thru June 30, 2014.

4. For Type II, III, and IV facilities, attach results of tests (Waste Analysis with metals, foreign matter and pathogens) as required in Table 3 of Rule 15A NCAC 13B .1408 for the period of July 1, 2013 thru June 30, 2014. **Current Rules state that "Compost shall be analyzed at intervals of every 20,000 tons of compost produced or every six months, whichever comes first."**

5. What type and quantity of waste was composted by your facility?

Materials COMPOSTED	Check X if Received	Tons RECEIVED	Tons COMPOSTED	Unusable Tons DISPOSED
Yard Waste	<input checked="" type="checkbox"/>	1,125	1,125	
Clean Wood	<input type="checkbox"/>			
Sawdust	<input checked="" type="checkbox"/>	1,112.5	1,112.5	
Wooden Pallets	<input checked="" type="checkbox"/>	7,369.56	7,369.56	
Food Waste	<input checked="" type="checkbox"/>	5,757.76	5,757.76	
Animal Waste	<input type="checkbox"/>			
Sludge and Biosolids	<input checked="" type="checkbox"/>	12,141.45	12,141.45	
Grease Trap Waste	<input type="checkbox"/>			
Animal Mortalities	<input type="checkbox"/>			
Sheetrock	<input checked="" type="checkbox"/>	91.45	91.45	
Commingled (Describe)	<input type="checkbox"/>			
Other (Describe) Cotton Gin Trash	<input checked="" type="checkbox"/>	2,675	2,675	
Other (Describe) Land Clearing	<input checked="" type="checkbox"/>	875	875	
Other (Describe)	<input type="checkbox"/>			
TOTAL		31,147.72	31,147.72	

Eastern Compost, LLC Annual Report for July 1, 2013 through June 30, 2014

TO: Martin Gallaher/DWM
FROM: Eastern Compost, LLC
DATE: August 1, 2014

1. Composting site location, contact and background information

The Type 4 composting site is located approximately 400 yards off Battleboro-Leggett Road approximately one mile east of Battleboro in Edgecombe County, North Carolina. Eastern Compost, LLC is the legal entity responsible for the corporate operation of the facility. Jason Smith, Principal Partner, is the primary contact for this facility. Jason Smith's contact information is 252-903-5367.

The Division of Waste Management issued approval of the modified application for solid waste composting permit on March 16, 2005. During the site preparation phase for the aerated composting method Eastern Compost, LLC discovered the required 3-Phase electricity and water to the site were not readily available. The Division issued a modified permit on July 6, 2006 to allow windrow composting on this site. A site visit was conducted on July 13, 2005 with Division of Waste Management representatives to review the site conditions prior to the initiation of composting activities.

On March 4, 2010 Eastern Compost, LLC was issued a permit to operate a Large Type 4 Solid Waste Composting Facility. Facility Permit No.: SWC-33-03.

2. Operational Information

Eastern Compost, LLC began its composting operation in August 2005. Appendix A contains the daily operational logs for the period from July 1, 2013 until June 30, 2014. The operational logs include the results of the temperature monitoring for each windrow produced.

3. Type and Amount of Materials Composted

Waste Received	Tons
Food Byproduct	5757.76
Sawdust	1112.50
Yard Waste	1125.00
Cotton Gin Waste	2675.00
Wood Pallets	7369.56
Land Clearing Debris	875.00
Class B Cake	12141.45
Sheet Rock	91.45

4. Quantity and Class of Compost Produced and Distributed

All materials produced were Grade A Compost. Once a windrow had reached its pathogen reduction requirements, it was moved to the passive curing area. A majority of finished compost was land applied for agricultural soil amendment. A portion was screened and particles over 2 inches were reused in composting. Distribution of the compost included land application by Boseman Farms and landscaping clients such as Carolina Mulch and Parish Nursery.

Waste Processed	Tons
Coarse Compost Produced- reused in composting	3114.77
Fine Compost Produced	31147.72
On-site Stockpile	9907.95
Distributed - Landscaping	500.00
Distributed - Land Application	17625.00

5. Laboratory Results

Laboratory results for Eastern Compost, LLC are included in Appendix B.

Appendix A

Daily Operational Logs

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
 P.O. Box 460
 Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B2

Row Construction Date(s):

Section #1: 7/29/2013 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	7/29/2013	8:00 AM		90	91	92	90	Built	
2	7/30/2013	12:00 PM		100	99	100	101		
3	7/31/2013	7:00 AM		106	104	105	104		
4	8/1/2013	9:00 AM		115	110	116	112	Turned	
5	8/2/2013	7:00 AM		118	115	120	116		
6	8/3/2013	7:00 AM		120	119	122	120		
7	8/4/2013	8:00 AM		124	127	24	124	Turned	
8	8/5/2013	7:00 AM		126	125	126	128		
9	8/6/2013	8:00 AM		130	130	131	134		
10	8/7/2013	5:00 PM		133	132	134	138		
11	8/8/2013	6:00 PM		138	136	136	140	Turned	
12	8/9/2013	9:00 AM		140	139	140	141		
13	8/10/2013	7:00 AM		144	142	146	142		
14	8/11/2013	8:00 AM		142	144	148	146	Turned	
15	8/12/2013	5:00 PM		145	146	150	148		
16	8/13/2013	7:00 PM		148	150	149	150		
17	8/14/2013	9:00 AM		150	152	152	154		
18	8/15/2013	10:00 AM		152	155	154	155		
19	8/16/2013	7:00 AM		155	154	156	152	Turned	
20	8/17/2013	8:00 AM		153	152	154	154		
21	8/18/2013	8:00 AM		150	150	152	151		
22	8/19/2013	12:00 PM		145	144	146	145	Turned	
23	8/20/2013	5:00 PM		149	152	151	152	Turned	
24	8/21/2013	7:30 AM		152	155	156	158		
25	8/22/2013	6:00 PM		146	148	149	150		
26	8/23/2013	8:00 AM		144	145	146	148	Turned	
27	8/24/2013	8:00 PM		140	142	144	145		
28	8/25/2013	8:00 AM		142	140	142	142		
29	8/26/2013	12:00 PM		140	138	140	140		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON B#3

Row Construction Date(s):

Section #1: 8/12/2013 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	8/12/2013	5:00 PM		92	90	91	95	Built	
2	8/13/2013	7:00 AM		100	98	101	102		
3	8/14/2013	9:00 AM		112	100	109	114		
4	8/15/2013	10:00 AM		116	111	114	116		
5	8/16/2013	7:00 AM		120	110	118	120	Turned	
6	8/17/2013	8:00 AM		122	121	122	124		
7	8/18/2013	8:00 AM		128	126	125	128		
8	8/19/2013	12:00 PM		134	131	130	134	Turned	
9	8/20/2013	5:00 PM		140	139	138	141	Turned	
10	8/21/2013	7:30 AM		145	144	144	146		
11	8/22/2013	6:00 AM		150	151	152	155		
12	8/23/2013	8:00 AM		148	146	149	150	Turned	
13	8/24/2013	8:00 AM		149	148	150	152		
14	8/25/2013	8:00 AM		152	150	152	154	Turned	
15	8/26/2013	12:00 PM		150	148	150	152		
16	8/27/2013	7:00 AM		155	154	153	154		
17	8/28/2013	7:00 AM		150	152	150	151	Turned	
18	8/29/2013	12:00 PM		148	150	148	147		
19	8/30/2013	8:00 AM		150	152	150	151		
20	8/31/2013	8:00 AM		152	155	154	154		
21	9/1/2013	12:00 PM		154	158	153	158		
22	9/2/2013	8:00 PM		158	160	155	155		
23	9/3/2013	7:00 AM		155	156	158	152		
24	9/4/2013	9:00 AM		150	152	155	150		
25	9/5/2013	8:00 AM		148	150	152	151		
26	9/6/2013	12:00 PM		145	149	150	148	Turned	
27	9/7/2013	12:00 PM		142	144	148	146	Turned	
28	9/8/2013	7:00 AM		140	145	144	142		
29	9/9/2013	7:00 AM		138	140	141	140		

EASTERN COMPOST, LLC

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON B #4

Row Construction Date(s):

Section #1: 8/20/2014 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	8/20/2013	5:00 PM		83	88	82	81	Built	
2	8/21/2013	7:30 AM		95	95	90	92		
3	8/22/2013	6:00 PM		106	108	104	103		
4	8/23/2013	8:00 AM		112	114	110	111	Turned	
5	8/24/2013	8:00 AM		116	118	11	115		
6	8/25/2013	8:00 AM		119	122	122	118		
7	8/26/2013	12:00 PM		122	120	126	120		
8	8/27/2013	7:00 AM		126	130	131	124	Turned	
9	8/28/2013	7:00 AM		133	135	138	128		
10	8/29/2013	12:00 PM		140	141	144	136	Turned	
11	8/30/2013	8:00 AM		144	145	148	144	Turned	
12	8/31/2013	8:00 AM		148	149	152	147		
13	9/1/2013	12:00 PM		152	152	155	151		
14	9/2/2013	8:00 AM		155	154	156	155		
15	9/3/2013	7:00 AM		157	156	154	156		
16	9/4/2013	7:00 AM		155	156	156	158		
17	9/5/2013	8:00 AM		158	159	154	156		
18	9/6/2013	12:00 PM		156	155	157	154	Turned	
19	9/7/2013	12:00 PM		154	153	152	152	Turned	
20	9/8/2013	7:00 AM		155	151	149	150		
21	9/9/2013	7:00 AM		149	148	147	151		
22	9/10/2013	8:00 AM		152	151	150	152	Turned	
23	9/11/2013	12:00 PM		150	154	148	151		
24	9/12/2013	7:00 AM		151	150	146	150		
25	9/13/2013	7:00 AM		150	146	144	148	Turned	
26	9/14/2013	8:00 AM		146	144	146	146		
27	9/15/2013	12:00 PM		144	142	143	144		
28	9/16/2013	5:00 PM		145	145	140	145		
29	9/17/2013	7:00 AM		142	141	142	142		

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8487 Battleboro-Leggett Road
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DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON B#5

Row Construction Date(s):

Section #1: 9/4/2014 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	9/4/2013	7:00 AM		90	88	91	86	Built	
2	9/5/2013	8:00 AM		92	91	94	90		
3	9/6/2013	12:00 PM		95	93	98	92	Turned	
4	9/7/2013	12:00 PM		98	96	100	99	Turned	
5	9/8/2013	7:00 AM		100	102	102	105		
6	9/9/2013	7:00 AM		106	108	106	108		
7	9/10/2013	12:00 PM		114	111	110	114	Turned	
8	9/11/2013	12:00 PM		118	115	116	119		
9	9/12/2013	7:00 AM		125	120	120	128		
10	9/13/2013	7:00 AM		128	125	128	134	Turned	
11	9/14/2013	8:00 AM		136	133	135	138		
12	9/15/2013	7:00 AM		140	138	141	144		
13	9/16/2013	12:00 PM		142	142	146	146	Turned	
14	9/17/2013	8:00 AM		146	144	152	149		
15	9/18/2013	7:00 AM		150	148	155	152	Turned	
16	9/19/2013	7:00 AM		152	154	154	155		
17	9/20/2013	8:00 AM		155	158	157	158	Turned	
18	9/21/2013	8:00 AM		154	155	155	110		
19	9/22/2013	8:00 AM		156	152	156	154		
20	9/23/2013	8:00 AM		152	150	153	152	Turned	
21	9/24/2013	7:00 AM		150	149	150	150		
22	9/25/2013	8:00 AM		157	154	157	152		
23	9/26/2013	8:00 AM		149	152	159	153	Turned	
24	9/27/2013	7:00 AM		147	150	149	149		
25	9/28/2013	7:00 AM		145	149	148	148		
26	9/29/2013	12:00 PM		142	144	144	144	Turned	
27	9/30/2013	5:00 PM		140	144	142	140		
28	10/1/2013	6:00 PM		138	142	140	142		
29	10/2/2013	7:00 AM		140	141	143	138	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
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DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON B#6

Row Construction Date(s):

Section #1: 9/16/2013 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	9/16/2013	12:00 PM		92	91	93	88	Built	
2	9/17/2013	8:00 AM		96	94	95	92		
3	9/18/2013	7:00 AM		105	99	102	96	Turned	
4	9/19/2013	7:00 AM		111	105	106	104		
5	9/20/2013	8:00 AM		118	115	114	110	Turned	
6	9/21/2013	8:00 AM		125	119	120	118		
7	9/22/2013	8:00 AM		132	124	130	125		
8	9/23/2013	8:00 AM		140	130	138	132	Turned	
9	9/24/2013	7:00 AM		142	138	144	140		
10	9/25/2013	8:00 AM		144	143	146	145		
11	9/26/2013	8:00 AM		148	146	148	147	Turned	
12	9/27/2013	7:00 AM		150	148	150	149		
13	9/28/2013	7:00 AM		155	152	152	150		
14	9/29/2013	12:00 PM		157	155	154	152	Turned	
15	9/30/2013	5:00 PM		154	158	158	153		
16	10/1/2013	6:00 PM		152	154	154	156		
17	10/2/2013	7:00 AM		157	152	152	154	Turned	
18	10/3/2013	8:00 AM		148	154	155	152		
19	10/4/2013	12:00 PM		152	156	152	155		
20	10/5/2013	8:00 AM		154	155	153	152	Turned	
21	10/6/2013	12:00 PM		150	152	150	150		
22	10/7/2013	7:00 AM		147	149	147	148		
23	10/8/2013	7:00 AM		145	146	145	144	Turned	
24	10/9/2013	8:00 AM		146	148	144	146		
25	10/10/2013	5:00 PM		144	145	144	145		
26	10/11/2013	8:00 AM		142	144	142	144	Turned	
27	10/12/2013	12:00 PM		140	142	140	142		
28	10/13/2013	8:00 AM		141	140	138	149		
29	10/14/2013	5:00 PM		138	138	139	139	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B7

Row Construction Date(s):

Section #1: 10/4/2013 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	10/4/2013	12:00 PM		90	90	92	88	Built	
2	10/5/2013	8:00 AM		95	93	96	92	Turned	
3	10/6/2013	12:00 PM		100	98	99	98		
4	10/7/2013	7:00 AM		105	104	104	105		
5	10/8/2013	7:00 AM		109	110	109	111	Turned	
6	10/9/2013	8:00 AM		120	118	119	121		
7	10/10/2013	5:00 PM		125	122	126	126		
8	10/11/2013	8:00 AM		133	126	131	130	Turned	
9	10/12/2013	12:00 PM		135	129	136	136		
10	10/13/2013	8:00 AM		138	134	140	142		
11	10/14/2013	5:00 PM		142	139	144	146	Turned	
12	10/15/2013	7:00 AM		146	144	148	149		
13	10/16/2013	12:00 PM		152	148	149	152		
14	10/17/2013	5:00 PM		155	150	152	155	Turned	
15	10/18/2013	8:00 AM		152	155	154	158		
16	10/19/2013	8:00 AM		154	156	156	155		
17	10/20/2013	7:00 AM		156	158	159	156	Turned	
18	10/21/2013	7:00 AM		150	155	154	152		
19	10/22/2013	12:00 PM		152	152	151	150		
20	10/23/2013	8:00 AM		148	149	147	146	Turned	
21	10/24/2013	5:00 PM		146	144	145	144		
22	10/25/2013	8:00 AM		144	146	146	147		
23	10/26/2013	12:00 PM		147	144	142	143	Turned	
24	10/27/2013	8:00 AM		140	142	141	142		
25	10/28/2013	7:30 AM		142	140	142	144		
26	10/29/2013	8:00 AM		144	144	143	142	Turned	
27	10/30/2013	8:00 AM		142	145	144	144		
28	10/31/2013	8:00 AM		140	143	145	142		
29	11/1/2013	8:00 AM		141	140	144	140	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
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DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B8

Row Construction Date(s):

Section #1: 10/15/2013 Linear Feet: 300
Section #2: Linear Feet:
Section #3: Linear Feet:

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	10/15/2013	7:00 AM		95	92	94	97	Built	
2	10/16/2013	12:00 PM		103	98	99	104		
3	10/17/2013	5:00 PM		109	104	106	109		
4	10/18/2013	8:00 AM		118	119	111	114	Turned	
5	10/19/2013	8:00 AM		125	115	114	122		
6	10/20/2013	7:00 AM		134	125	119	129		
7	10/21/2013	7:00 AM		138	134	125	138	Turned	
8	10/22/2013	12:00 PM		140	138	135	141		
9	10/23/2013	8:00 AM		145	146	144	147	Turned	
10	10/24/2013	5:00 PM		148	149	147	149		
11	10/25/2013	8:00 AM		157	152	149	152		
12	10/26/2013	12:00 PM		154	153	150	154	Turned	
13	10/27/2013	8:00 AM		156	155	154	156		
14	10/28/2013	4:30 PM		152	154	156	158		
15	10/29/2013	8:00 AM		155	156	155	156	Turned	
16	10/30/2013	8:00 AM		158	159	158	155		
17	10/31/2013	8:00 AM		156	150	156	154		
18	11/1/2013	8:00 AM		154	155	154	155	Turned	
19	11/2/2013	12:00 PM		157	157	152	154		
20	11/3/2013	5:00 PM		148	155	155	152		
21	11/4/2013	5:00 PM		146	154	154	150	Turned	
22	11/5/2013	8:00 AM		145	152	159	146		
23	11/6/2013	7:00 AM		144	147	148	149		
24	11/7/2013	7:00 AM		146	152	146	146	Turned	
25	11/8/2013	7:00 AM		150	155	144	149		
26	11/9/2013	7:00 AM		152	150	140	146		
27	11/10/2013	12:00 PM		148	147	150	144	Turned	
28	11/11/2013	7:00 AM		144	144	151	142		
29	11/12/2013	8:00 AM		141	140	146	140		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

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DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON B#9

Row Construction Date(s):

Section #1:	11/4/2013	Linear Feet:	300
Section #2:		Linear Feet:	
Section #3:		Linear Feet:	

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	11/4/2013	5:00 PM		95	92	94	98	Built	
2	11/5/2013	8:00 AM		99	98	96	102		
3	11/6/2013	7:00 AM		108	109	104	110		
4	11/7/2013	7:00 AM		116	114	111	112	Turned	
5	11/8/2013	7:00 AM		118	119	116	116		
6	11/9/2013	7:00 AM		122	125	123	126		
7	11/10/2013	12:00 PM		128	129	126	129	Turned	
8	11/11/2013	8:00 AM		133	135	129	134		
9	11/12/2013	7:00 AM		136	139	135	140		
10	11/13/2013	7:00 AM		142	144	138	142	Turned	
11	11/14/2013	8:00 AM		148	150	143	146		
12	11/15/2013	6:00 AM		152	154	140	151		
13	11/16/2013	7:00 AM		155	156	144	155	Turned	
14	11/17/2013	7:00 AM		154	155	148	156		
15	11/18/2013	5:00 PM		156	153	153	154		
16	11/19/2013	5:00 PM		158	152	155	153	Turned	
17	11/20/2013	7:00 AM		155	154	154	155		
18	11/21/2013	7:00 AM		152	152	151	153		
19	11/22/2013	7:00 AM		148	150	152	152	Turned	
20	11/23/2013	7:00 AM		149	148	150	150		
21	11/24/2013	5:00 PM		146	145	148	148		
22	11/25/2013	7:00 AM		144	143	146	145	Turned	
23	11/26/2013	12:00 PM		143	141	144	143		
24	11/27/2013	8:00 AM		140	140	141	142		
25	11/28/2013	7:00 AM		140	142	140	140	Turned	
26	11/29/2013	8:00 AM		138	139	137	136		
27	11/30/2013	8:00 AM		135	136	135	137		
28	12/1/2013	5:00 PM		133	134	134	135	Turned	
29	12/2/2013	12:00 PM		135	137	136	138		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON B#10

Row Construction Date(s):

Section #1: 11/10/2013 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	11/10/2013	7:00 AM		90	91	95	92	Built	
2	11/11/2013	12:00 PM		94	96	100	96		
3	11/12/2013	8:00 AM		98	100	108	101	Turned	
4	11/13/2013	7:00 AM		101	104	116	104		
5	11/14/2013	7:00 AM		106	109	120	108	Turned	
6	11/15/2013	8:00 AM		109	110	126	111		
7	11/16/2013	8:00 AM		113	115	133	114		
8	11/17/2013	7:00 AM		116	118	136	116	Turned	
9	11/18/2013	7:00 AM		119	122	140	120		
10	11/19/2013	5:00 PM		121	126	142	122		
11	11/20/2013	5:00 PM		125	131	140	126	Turned	
12	11/21/2013	7:00 AM		128	135	144	130		
13	11/22/2013	7:00 AM		135	140	146	133		
14	11/23/2013	7:00 AM		140	146	150	136	Turned	
15	11/24/2013	7:00 AM		145	149	152	140		
16	11/25/2013	5:00 PM		148	152	154	149	Turned	
17	11/26/2013	7:00 AM		146	150	152	148		
18	11/27/2013	12:00 PM		144	151	150	148		
19	11/28/2013	8:00 AM		142	148	149	146	Turned	
20	11/29/2013	7:00 AM		140	146	149	144		
21	11/30/2013	8:00 AM		141	142	144	140		
22	12/1/2013	8:00 AM		142	144	145	142		
23	12/2/2013	5:00 PM		140	141	142	140	Turned	
24	12/3/2013	8:00 AM		144	142	144	142		
25	12/4/2013	5:00 PM		145	140	141	140		
26	12/5/2013	8:00 AM		146	142	147	142	Turned	
27	12/6/2013	8:00 AM		145	144	144	141		
28	12/6/2013	12:00 PM		143	142	140	142		
29	12/7/2013	12:00 PM		141	140	138	140	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

LEAVES & COTTON A#1

Row Construction Date(s):

Section #1: 11/18/2013 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	11/18/2013	7:00 AM		80	81	84	82	Built	
2	11/19/2013	5:00 PM		85	89	89	86		
3	11/20/2013	5:00 PM		89	94	94	92	Turned	
4	11/21/2013	7:00 AM		95	104	99	96		
5	11/22/2013	7:00 AM		100	114	106	104		
6	11/23/2013	7:00 AM		111	119	118	115	Turned	
7	11/24/2013	7:00 AM		120	126	124	125		
8	11/25/2013	5:00 PM		129	132	130	129		
9	11/26/2013	7:00 AM		135	134	135	133	Turned	
10	11/27/2013	12:00 PM		138	137	139	137		
11	11/28/2013	8:00 AM		140	139	140	141		
12	11/29/2013	7:00 AM		144	142	144	144	Turned	
13	11/30/2013	8:00 AM		146	145	148	146		
14	12/1/2013	8:00 AM		150	148	150	149		
15	12/2/2013	5:00 PM		147	150	151	153	Turned	
16	12/3/2013	8:00 AM		145	151	153	154		
17	12/4/2013	5:00 PM		146	149	155	153		
18	12/5/2013	8:00 AM		142	146	150	146	Turned	
19	12/6/2013	8:00 AM		140	144	148	142		
20	12/7/2013	12:00 PM		141	142	146	140		
21	12/8/2013	12:00 PM		143	140	144	138	Turned	
22	12/9/2013	5:00 PM		140	139	142	135		
23	12/10/2013	3:00 PM		138	137	140	137		
24	12/11/2013	10:00 AM		140	140	142	141	Turned	
25	12/12/2013	8:00 AM		138	137	140	140		
26	12/13/2013	5:00 PM		135	135	138	139		
27	12/14/2013	5:00 PM		133	136	136	137	Turned	
28	12/15/2013	8:00 AM		136	134	134	134		
29	12/16/2013	8:00 AM		132	132	131	135		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B-2

Row Construction Date(s):

Section #1: 12/14/2013 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	12/14/2013	5:00 PM		91	90	88	89	Built	
2	12/15/2013	8:00 AM		95	94	97	94		
3	12/16/2013	8:00 AM		102	98	96	100		
4	12/17/2013	7:30 AM		106	102	100	104	Turned	
5	12/18/2013	7:00 AM		110	108	108	104		
6	12/19/2013	7:00 AM		115	114	116	116		
7	12/20/2013	7:00 AM		120	119	122	125	Turned	
8	12/21/2013	8:00 AM		128	125	126	128		
9	12/22/2013	8:00 AM		132	129	129	133		
10	12/23/2013	5:00 PM		138	134	139	136	Turned	
11	12/24/2013	4:00 PM		140	139	138	139		
12	12/25/2013	7:00 AM		144	142	141	144		
13	12/26/2013	8:00 AM		148	147	145	146	Turned	
14	12/27/2013	12:00 PM		149	152	148	149		
15	12/28/2013	5:00 PM		152	155	152	153		
16	12/29/2013	8:00 AM		155	159	154	155	Turned	
17	12/30/2013	12:00 PM		161	164	156	158		
18	12/31/2013	8:00 AM		164	166	159	162		
19	1/1/2014	8:00 AM		160	162	162	165	Turned	
20	1/2/2014	8:00 AM		156	156	164	159		
21	1/3/2014	9:00 AM		154	152	158	154		
22	1/4/2014	7:00 AM		152	150	155	150	Turned	
23	1/5/2014	8:00 AM		149	152	150	152		
24	1/6/2014	8:00 AM		146	148	151	149		
25	1/7/2014	5:00 PM		144	147	149	146	Turned	
26	1/8/2014	5:00 PM		142	145	146	144		
27	1/9/2014	5:00 PM		140	143	144	142		
28	1/10/2014	8:00 PM		144	140	142	141	Turned	
29	1/11/2014	7:00 PM		141	142	140	142		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B-3

Row Construction Date(s):

Section #1: 12/17/2013 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	12/17/2013	7:30 AM		82	80	86	84	Built	
2	12/18/2013	7:00 AM		88	86	90	89		
3	12/19/2013	7:00 AM		99	98	100	95		
4	12/20/2013	7:00 AM		111	110	113	108	Turned	
5	12/21/2013	8:00 AM		118	114	118	116		
6	12/22/2013	8:00 AM		124	116	120	121		
7	12/23/2013	5:00 PM		126	120	124	126	Turned	
8	12/24/2013	4:00 PM		130	126	129	133		
9	12/25/2013	7:00 AM		134	130	134	138		
10	12/26/2013	8:00 AM		136	135	139	141	Turned	
11	12/27/2013	12:00 PM		140	141	142	145		
12	12/28/2013	5:00 AM		143	145	145	148		
13	12/29/2013	8:00 AM		145	146	148	156	Turned	
14	12/30/2013	12:00 PM		148	149	152	154		
15	12/31/2013	8:00 AM		150	152	155	158		
16	1/1/2014	8:00 AM		152	155	161	161	Turned	
17	1/2/2014	8:00 AM		155	158	163	165		
18	1/3/2014	9:00 AM		150	155	154	156		
19	1/4/2014	7:00 AM		156	158	156	154	Turned	
20	1/5/2014	8:00 AM		159	156	158	158		
21	1/6/2014	8:00 AM		162	155	159	159		
22	1/7/2014	5:00 PM		160	152	165	163	Turned	
23	1/8/2014	5:00 PM		159	150	163	160		
24	1/9/2014	5:00 PM		155	149	168	158		
25	1/10/2014	8:00 AM		152	148	158	157	Turned	
26	1/11/2014	7:00 AM		149	148	155	156		
27	1/12/2014	8:00 AM		148	145	154	152		
28	1/13/2014	8:00 AM		146	144	150	150	Turned	
29	1/14/2014	8:00 AM		144	143	148	150		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B-4

Row Construction Date(s):

Section #1: 1/10/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	1/10/2014	8:00 AM		92	94	95	92	Built	
2	1/11/2014	7:00 AM		96	97	99	96		
3	1/12/2014	8:00 AM		100	101	104	102	Turned	
4	1/13/2014	8:00 AM		104	104	108	106		
5	1/14/2014	8:00 AM		110	109	114	109		
6	1/15/2014	12:00 PM		122	121	119	117	Turned	
7	1/16/2014	5:00 PM		129	128	128	126		
8	1/17/2014	8:00 AM		138	135	134	133		
9	1/18/2014	7:00 AM		144	139	138	139	Turned	
10	1/19/2014	3:00 PM		149	145	144	142		
11	1/20/2014	8:00 AM		155	149	146	146		
12	1/21/2014	8:00 AM		158	155	151	149	Turned	
13	1/22/2014	8:00 AM		153	160	156	152		
14	1/23/2014	5:00 PM		160	162	158	155		
15	1/24/2014	12:00 PM		158	165	163	160	Turned	
16	1/25/2014	12:00 PM		155	160	165	165		
17	1/26/2014	5:00 PM		150	159	161	160		
18	1/27/2014	12:00 PM		152	156	158	159	Turned	
19	1/28/2014	5:00 PM		154	154	155	154		
20	1/29/2014	5:00 PM		151	151	152	152		
21	1/30/2014	5:00 PM		148	150	150	155	Turned	
22	1/31/2014	8:00 PM		146	148	147	151		
23	2/1/2014	7:00 AM		149	144	145	148		
24	2/2/2014	8:00 AM		144	142	141	144	Turned	
25	2/3/2014	5:00 PM		145	140	142	141		
26	2/4/2014	5:00 PM		144	141	140	142		
27	2/5/2014	8:00 AM		142	138	139	139	Turned	
28	2/6/2014	5:00 PM		140	137	141	136		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B-4

Row Construction Date(s):

Section #1: 1/10/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	1/10/2014	8:00 AM		92	94	95	92	Built	
2	1/11/2014	7:00 AM		96	97	99	96		
3	1/12/2014	8:00 AM		100	101	104	102	Turned	
4	1/13/2014	8:00 AM		104	104	108	106		
5	1/14/2014	8:00 AM		110	109	114	109		
6	1/15/2014	12:00 PM		122	121	119	117	Turned	
7	1/16/2014	5:00 PM		129	128	128	126		
8	1/17/2014	8:00 AM		138	135	134	133		
9	1/18/2014	7:00 AM		144	139	138	139	Turned	
10	1/19/2014	3:00 PM		149	145	144	142		
11	1/20/2014	8:00 AM		155	149	146	146		
12	1/21/2014	8:00 AM		158	155	151	149	Turned	
13	1/22/2014	8:00 AM		153	160	156	152		
14	1/23/2014	5:00 PM		160	162	158	155		
15	1/24/2014	12:00 PM		158	165	163	160	Turned	
16	1/25/2014	12:00 PM		155	160	165	165		
17	1/26/2014	5:00 PM		150	159	161	160		
18	1/27/2014	12:00 PM		152	156	158	159	Turned	
19	1/28/2014	5:00 PM		154	154	155	154		
20	1/29/2014	5:00 PM		151	151	152	152		
21	1/30/2014	5:00 PM		148	150	150	155	Turned	
22	1/31/2014	8:00 PM		146	148	147	151		
23	2/1/2014	7:00 AM		149	144	145	148		
24	2/2/2014	8:00 AM		144	142	141	144	Turned	
25	2/3/2014	5:00 PM		145	140	142	141		
26	2/4/2014	5:00 PM		144	141	140	142		
27	2/5/2014	8:00 AM		142	138	139	139	Turned	
28	2/6/2014	5:00 PM		140	137	141	136		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSOM #B-5

Row Construction Date(s):

Section #1: 2/7/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	2/7/2014	8:00 AM		90	91	92	94	Built	
2	2/8/2014	12:00 PM		94	93	94	96		
3	2/9/2014	8:00 AM		100	98	99	101	Turned	
4	2/10/2014	3:00 PM		103	106	106	108		
5	2/11/2014	12:00 PM		109	114	114	112		
6	2/12/2014	5:00 PM		118	120	121	122	Turned	
7	2/13/2014	8:00 AM		128	130	131	132		
8	2/14/2014	8:00 AM		133	136	137	138		
9	2/15/2014	7:00 AM		140	144	145	146	Turned	
10	2/16/2014	5:00 PM		145	148	149	150		
11	2/17/2014	8:00 AM		148	152	154	155		
12	2/18/2014	12:00 PM		152	153	157	158	Turned	
13	2/19/2014	8:00 AM		155	156	160	161		
14	2/20/2014	5:00 PM		161	162	164	163		
15	2/21/2014	8:00 AM		164	165	162	160	Turned	
16	2/22/2014	12:00 PM		159	160	158	157		
17	2/23/2014	12:00 PM		156	158	155	154		
18	2/24/2014	7:00 AM		152	154	152	151	Turned	
19	2/25/2014	8:00 AM		149	152	150	148		
20	2/26/2014	8:00 AM		152	154	153	152		
21	2/27/2014	12:00 PM		150	155	155	155	Turned	
22	2/28/2014	8:00 AM		148	149	152	154		
23	3/1/2014	5:00 PM		146	152	150	152		
24	3/2/2014	7:00 AM		144	150	151	150	Turned	
25	3/3/2014	7:00 AM		142	149	149	148		
26	3/4/2014	10:00 AM		140	144	146	145		
27	3/5/2014	8:00 AM		138	142	144	142	Turned	
28	3/6/2014	12:00 PM		138	140	142	140		
29	3/7/2014	5:00 PM		137	138	139	136		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B-6

Row Construction Date(s):

Section #1: 2/21/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	2/21/2014	5:00 PM		90	91	92	91	Built	
2	2/22/2014	8:00 AM		94	93	95	94		
3	2/23/2014	12:00 PM		98	99	99	99		
4	2/24/2014	12:00 PM		105	108	109	111	Turned	
5	2/25/2014	8:00 AM		114	115	118	119		
6	2/26/2014	8:00 AM		119	120	122	125		
7	2/27/2014	12:00 PM		128	124	129	131	Turned	
8	2/28/2014	8:00 AM		136	138	139	138		
9	3/1/2014	5:00 PM		139	141	142	144		
10	3/2/2014	7:00 AM		145	145	147	148	Turned	
11	3/3/2014	7:00 AM		150	151	153	156		
12	3/4/2014	8:00 AM		154	157	158	160		
13	3/5/2014	8:00 AM		161	162	163	163	Turned	
14	3/6/2014	12:00 PM		163	165	165	165		
15	3/7/2014	5:00 PM		165	160	161	161		
16	3/8/2014	8:00 AM		159	158	157	155	Turned	
17	3/9/2014	12:00 PM		158	155	154	152		
18	3/10/2014	5:00 PM		151	150	151	148		
19	3/11/2014	7:00 AM		147	148	146	145	Turned	
20	3/12/2014	12:00 PM		144	146	144	142		
21	3/13/2014	5:00 PM		142	142	141	140		
22	3/14/2014	8:00 AM		140	140	138	137	Turned	
23	3/15/2014	8:00 AM		136	139	137	135		
24	3/16/2014	12:00 PM		140	142	140	141		
25	3/17/2014	7:00 PM		139	138	137	142	Turned	
26	3/18/2014	5:00 PM		136	135	134	138		
27	3/19/2014	8:00 AM		134	136	132	135		
28	3/20/2014	8:00 AM		132	135	133	134	Turned	
29	3/21/2014	7:00 AM		131	132	131	132		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON #B-8

Row Construction Date(s):

Section #1: 3/27/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	3/27/2014	11:00 AM		90	92	91	92	Built	
2	3/28/2014	7:00 AM		93	95	94	95		
3	3/29/2014	8:00 AM		97	99	98	99		
4	3/30/2014	8:00 AM		103	102	105	100	Turned	
5	3/31/2014	5:00 PM		106	104	108	98		
6	4/1/2014	8:00 AM		111	109	114	102		
7	4/2/2014	8:00 AM		116	114	116	109	Turned	
8	4/3/2014	12:00 PM		119	118	120	113		
9	4/3/2014	7:00 AM		127	120	122	117		
10	4/4/2014	5:00 PM		126	124	126	122	Turned	
11	4/5/2014	5:00 PM		130	128	131	127		
12	4/6/2014	8:00 AM		132	131	133	130		
13	4/7/2014	8:00 AM		135	139	136	134	Turned	
14	4/8/2014	5:00 PM		138	139	140	138		
15	4/9/2014	12:00 PM		141	142	143	141		
16	4/10/2014	8:00 AM		144	145	146	144	Turned	
17	4/11/2014	8:00 AM		146	147	148	147		
18	4/12/2014	12:00 PM		150	151	152	149		
19	4/13/2014	1:00 PM		157	153	155	154	Turned	
20	4/14/2014	6:00 PM		155	156	157	158		
21	4/15/2014	8:00 AM		158	159	160	161		
22	4/16/2014	8:00 AM		156	156	158	160	Turned	
23	4/17/2014	12:00 PM		154	155	156	158		
24	4/18/2014	5:00 PM		153	152	155	754		
25	4/19/2014	7:00 AM		151	150	152	151	Turned	
26	4/20/2014	8:00 AM		150	149	150	152		
27	4/21/2014	12:00 PM		149	147	148	148		
28	4/22/2014	5:00 PM		146	145	146	145	Turned	
29	4/23/2014	7:00 AM		144	144	142	149		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON HC-1

Row Construction Date(s):

Section #1: 3/27/2014 Linear Feet: 300
Section #2: _____ Linear Feet: _____
Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	3/27/2014	11:00 AM		88	90	91	90	Built	
2	3/28/2014	7:00 AM		89	92	94	96		
3	3/29/2014	8:00 AM		92	94	96	98		
4	3/30/2014	8:00 AM		98	98	100	106	Turned	
5	3/31/2014	5:00 PM		105	104	110	111		
6	4/1/2014	8:00 AM		108	109	118	116		
7	4/2/2014	8:00 AM		112	114	121	119	Turned	
8	4/3/2014	12:00 PM		116	118	124	122		
9	4/4/2014	5:00 PM		120	120	126	125		
10	4/5/2014	5:00 PM		126	125	130	130	Turned	
11	4/6/2014	8:00 AM		131	128	135	133		
12	4/7/2014	8:00 AM		133	131	138	138		
13	4/8/2014	5:00 PM		136	134	140	144	Turned	
14	4/9/2014	12:00 PM		140	139	141	146		
15	4/10/2014	8:00 AM		142	147	148	149		
16	4/11/2014	8:00 AM		144	145	150	152	Turned	
17	4/12/2014	12:00 PM		150	148	152	156		
18	4/13/2014	1:00 PM		152	151	156	159		
19	4/14/2014	6:00 PM		155	155	159	163	Turned	
20	4/15/2014	8:00 AM		158	161	162	160		
21	4/16/2014	8:00 AM		155	162	160	159		
22	4/17/2014	12:00 PM		152	158	154	155	Turned	
23	4/18/2014	5:00 PM		150	155	153	152		
24	4/19/2014	7:00 AM		148	149	152	150		
25	4/20/2014	8:00 AM		146	144	150	151	Turned	
26	4/21/2014	12:00 PM		144	142	152	148		
27	4/22/2014	5:00 PM		141	145	147	146		
28	4/23/2014	7:00 AM		140	143	144	146	Turned	
29	4/24/2014	8:00 AM		143	141	142	144		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON HC-2H

Row Construction Date(s):

Section #1:	4/24/2014	Linear Feet:	300
Section #2:		Linear Feet:	
Section #3:		Linear Feet:	

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	4/24/2014	8:00 AM		90	91	88	90	Built	
2	4/25/2014	7:00 AM		92	93	91	93		
3	4/26/2014	8:00 AM		95	95	93	94	Turned	
4	4/27/2014	7:00 AM		96	98	97	98		
5	4/28/2014	12:00 PM		99	104	102	103		
6	4/29/2014	1:00 PM		105	107	108	107	Turned	
7	4/30/2014	3:00 PM		109	111	109	110		
8	5/1/2014	8:00 AM		112	113	111	113		
9	5/2/2014	7:00 AM		114	116	117	117	Turned	
10	5/3/2014	5:00 PM		118	120	121	122		
11	5/4/2014	7:00 AM		122	123	124	125		
12	5/5/2014	8:00 AM		125	124	126	127	Turned	
13	5/6/2014	7:00 AM		127	129	129	131		
14	5/7/2014	8:00 AM		132	133	134	135		
15	5/8/2014	9:00 AM		135	136	137	138		
16	5/9/2014	12:00 AM		142	139	140	144	Turned	
17	5/10/2014	12:00 PM		145	144	146	148		
18	5/11/2014	7:00 AM		149	149	150	154		
19	5/12/2014	8:00 AM		155	153	154	156	Turned	
20	5/13/2014	5:00 PM		158	159	157	160		
21	5/14/2014	8:00 AM		161	162	161	163		
22	5/15/2014	7:00 AM		163	160	163	160	Turned	
23	5/16/2014	8:00 AM		157	156	158	158		
24	5/17/2014	8:00 AM		155	154	152	154		
25	5/18/2014	7:00 AM		153	152	150	153	Turned	
26	5/19/2014	7:00 AM		151	150	148	149		
27	5/20/2014	10:00 AM		150	148	146	148		
28	5/21/2014	11:00 AM		148	146	144	145	Turned	
29	5/22/2014	5:00 PM		144	142	141	142		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON HC-4

Row Construction Date(s):

Section #1: 5/23/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	5/23/2014	5:00 PM		90	91	87	89	Built	
2	5/24/2014	8:00 AM		91	93	91	97		
3	5/25/2014	7:00 AM		96	98	97	98	Turned	
4	5/26/2014	12:00 PM		102	104	104	105		
5	5/27/2014	3:00 PM		106	108	110	111		
6	5/28/2014	5:00 PM		112	113	114	115	Turned	
7	5/29/2014	8:00 AM		116	117	119	118		
8	5/30/2014	8:00 AM		121	121	123	124		
9	5/31/2014	7:00 AM		124	124	125	126	Turned	
10	6/1/2014	8:00 AM		128	129	131	137		
11	6/2/2014	7:00 AM		133	134	136	138		
12	6/3/2014	8:00 AM		140	141	145	148	Turned	
13	6/4/2014	7:00 AM		144	143	147	151		
14	6/5/2014	5:00 PM		148	149	151	155		
15	6/6/2014	8:00 PM		154	152	156	159	Turned	
16	6/7/2014	8:00 PM		160	160	163	165		
17	6/8/2014	12:00 PM		163	162	165	164		
18	6/9/2014	5:00 PM		160	163	162	163	Turned	
19	6/10/2014	8:00 AM		163	160	158	159		
20	6/11/2014	7:00 AM		158	156	155	154		
21	6/12/2014	8:00 AM		155	154	154	152	Turned	
22	6/13/2014	8:00 AM		154	157	149	150		
23	6/14/2014	5:00 PM		157	151	147	151		
24	6/15/2014	5:00 PM		150	154	148	148	Turned	
25	6/16/2014	5:00 PM		140	157	150	147		
26	6/17/2014	12:00 PM		146	150	151	143		
27	6/18/2014	7:00 AM		145	151	148	142	Turned	
28	6/19/2014	5:00 PM		143	148	146	140		
29	6/20/2014	8:00 AM		141	146	144	141		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON HC-5

Row Construction Date(s):

Section #1: 5/30/2014 Linear Feet: 300
Section #2: _____ Linear Feet: _____
Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	5/30/2014	8:00 AM		89	87	86	88	Built	
2	5/31/2014	7:00 AM		97	90	91	92		
3	6/1/2014	8:00 AM		96	94	95	97		
4	6/2/2014	7:00 AM		99	98	101	104	Turned	
5	6/3/2014	8:00 AM		102	100	104	105	Turned	
6	6/4/2014	7:00 AM		104	103	102	103		
7	6/5/2014	5:00 PM		111	112	109	113		
8	6/6/2014	8:00 AM		110	118	115	110	Turned	
9	6/7/2014	8:00 AM		120	122	120	122		
10	6/8/2014	12:00 PM		125	127	126	128		
11	6/9/2014	5:00 PM		133	131	130	135	Turned	
12	6/10/2014	8:00 AM		138	136	134	139		
13	6/11/2014	7:00 AM		140	141	139	144		
14	6/12/2014	8:00 AM		144	144	147	146	Turned	
15	6/13/2014	8:00 AM		146	145	144	149		
16	6/14/2014	5:00 PM		145	149	148	152		
17	6/15/2014	5:00 PM		149	152	151	150	Turned	
18	6/16/2014	5:00 PM		152	154	153	153		
19	6/17/2014	12:00 PM		154	155	156	156		
20	6/18/2014	7:00 AM		158	159	161	160	Turned	
21	6/19/2014	5:00 AM		160	161	162	163		
22	6/20/2014	8:00 AM		163	163	160	161		
23	6/21/2014	12:00 PM		161	160	158	158	Turned	
24	6/22/2014	12:00 PM		158	161	159	155		
25	6/23/2014	8:00 AM		155	158	155	153		
26	6/24/2014	7:00 AM		150	155	152	151	Turned	
27	6/25/2014	5:00 PM		151	150	149	150		
28	6/26/2014	8:00 AM		148	147	146	148		
29	6/27/2014	12:00 PM		146	144	144	146	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON HC-6

Row Construction Date(s):

Section #1: 6/5/2014 Linear Feet: 300
Section #2: _____ Linear Feet: _____
Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	6/5/2014	5:00 PM		88	90	89	92	Built	
2	6/6/2014	8:00 AM		91	92	92	93		
3	6/7/2014	8:00 AM		94	94	95	96		
4	6/8/2014	12:00 PM		99	98	99	101	Turned	
5	6/9/2014	5:00 PM		104	103	105	107	Turned	
6	6/10/2014	8:00 AM		109	108	109	112		
7	6/11/2014	7:00 AM		110	112	113	114		
8	6/12/2014	8:00 AM		114	115	116	118	Turned	
9	6/13/2014	8:00 AM		119	120	122	124		
10	6/14/2014	5:00 PM		125	123	125	127		
11	6/15/2014	5:00 PM		129	127	130	133	Turned	
12	6/16/2014	5:00 PM		135	136	139	141		
13	6/17/2014	12:00 PM		141	142	145	145		
14	6/18/2014	7:00 AM		148	149	151	152	Turned	
15	6/19/2014	5:00 PM		155	156	155	156		
16	6/20/2014	8:00 AM		158	154	156	158		
17	6/21/2014	12:00 PM		161	159	158	162	Turned	
18	6/22/2014	12:00 PM		162	163	160	161		
19	6/23/2014	8:00 AM		158	159	157	160		
20	6/24/2014	7:00 AM		155	150	155	159	Turned	
21	6/25/2014	5:00 PM		156	154	158	156		
22	6/26/2014	8:00 AM		154	150	149	150		
23	6/27/2014	12:00 PM		150	148	146	148	Turned	
24	6/28/2014	8:00 AM		148	148	144	145		
25	6/29/2014	5:00 PM		145	144	142	143		
26	6/30/2014	8:00 AM		142	141	140	141	Turned	
27	7/1/2014	4:00 PM		140	142	142	143		
28	7/2/2014	8:00 AM		142	139	140	141		
29	7/3/2014	12:00 PM		138	136	136	135	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

WILSON C-7

Row Construction Date(s):

Section #1: 6/17/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	6/17/2014	12:00 PM		91	90	92	93	Built	
2	6/18/2014	7:00 AM		95	99	99	99	Turned	
3	6/19/2014	5:00 PM		99	106	106	109		
4	6/20/2014	8:00 AM		107	111	109	116		
5	6/21/2014	12:00 PM		110	116	114	123	Turned	
6	6/22/2014	12:00 PM		118	120	120	127		
7	6/23/2014	8:00 AM		125	126	124	131		
8	6/24/2014	7:00 AM		127	129	127	139	Turned	
9	6/25/2014	5:00 PM		129	131	129	133		
10	6/26/2014	8:00 AM		131	134	135	140	Turned	
11	6/27/2014	12:00 PM		134	136	139	142	Turned	
12	6/28/2014	8:00 AM		136	139	141	144		
13	6/29/2014	5:00 PM		140	142	145	140		
14	6/30/2014	8:00 AM		147	144	147	149	Turned	
15	7/1/2014	7:00 AM		144	146	149	152		
16	7/2/2014	8:00 AM		147	149	157	155		
17	7/3/2014	12:00 PM		151	152	155	158	Turned	
18	7/4/2014	8:00 AM		152	155	159	158		
19	7/5/2014	7:00 AM		155	158	163	162		
20	7/6/2014	5:00 PM		161	162	161	159	Turned	
21	7/7/2014	12:00 PM		163	163	160	161		
22	7/8/2014	8:00 AM		159	158	157	157		
23	7/9/2014	7:00 AM		158	155	155	155	Turned	
24	7/10/2014	5:00 PM		156	154	152	151		
25	7/11/2014	12:00 PM		149	152	150	149		
26	7/12/2014	12:00 PM		148	150	147	140	Turned	
27	7/13/2014	7:00 AM		145	148	144	144		
28	7/14/2014	7:00 AM		142	145	142	142		
29	7/15/2014	8:00 AM		140	141	140	138	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

RALEIGH THAMMY

Row Construction Date(s):

Section #1: 5/24/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	5/24/2014	8:00 AM		85	87	88	89	Built	
2	5/25/2014	7:00 AM		90	92	91	94		
3	5/26/2014	12:00 PM		97	94	95	96	Turned	
4	5/27/2014	3:00 PM		95	96	97	99		
5	5/28/2014	5:00 PM		97	99	100	104		
6	5/29/2014	8:00 AM		99	101	103	103	Turned	
7	5/30/2014	8:00 AM		104	105	104	105		
8	5/31/2014	7:00 AM		107	108	106	107		
9	6/1/2014	8:00 AM		109	110	110	112	Turned	
10	6/2/2014	7:00 AM		110	113	114	115		
11	6/3/2014	8:00 AM		118	120	119	126	Turned	
12	6/4/2014	7:00 AM		128	126	128	133		
13	6/5/2014	5:00 PM		130	138	139	141		
14	6/6/2014	8:00 AM		144	145	148	148	Turned	
15	6/7/2014	8:00 AM		149	150	152	156		
16	6/8/2014	12:00 PM		150	157	158	162		
17	6/9/2014	5:00 PM		163	164	162	165	Turned	
18	6/10/2014	8:00 AM		160	162	161	160		
19	6/11/2014	7:00 AM		158	160	157	158		
20	6/12/2014	8:00 AM		162	163	161	160	Turned	
21	6/13/2014	8:00 AM		100	160	163	103		
22	6/14/2014	5:00 PM		155	159	160	157		
23	6/15/2014	5:00 PM		154	158	157	154	Turned	
24	6/16/2014	5:00 PM		152	154	155	151		
25	6/17/2014	12:00 PM		150	152	154	150		
26	6/18/2014	7:00 AM		148	150	152	148	Turned	
27	6/19/2014	5:00 PM		148	151	150	145		
28	6/20/2014	8:00 AM		145	148	149	141		
29	6/21/2014	12:00 PM		143	144	147	142	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

RALEIGH THAMMY

Row Construction Date(s):

Section #1: 6/22/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	6/22/2014	12:00 PM		90	91	92	93	Built	
2	6/23/2014	8:00 AM		95	92	94	98		
3	6/24/2014	7:00 AM		99	96	97	99	Turned	
4	6/25/2014	5:00 PM		104	101	99	105		
5	6/26/2014	8:00 AM		108	107	104	107	Turned	
6	6/27/2014	12:00 PM		112	111	108	112	Turned	
7	6/28/2014	8:00 AM		114	115	112	116		
8	6/29/2014	5:00 PM		117	119	114	118		
9	6/30/2014	8:00 AM		121	129	118	122	Turned	
10	7/1/2014	7:00 AM		123	126	122	125		
11	7/2/2014	8:00 AM		125	129	128	128		
12	7/3/2014	12:00 PM		128	131	133	132	Turned	
13	7/4/2014	8:00 AM		133	136	134	136		
14	7/5/2014	7:00 AM		138	140	140	141		
15	7/6/2014	5:00 PM		144	145	143	145	Turned	
16	7/7/2014	12:00 AM		148	147	145	148		
17	7/8/2014	8:00 AM		152	149	148	151		
18	7/9/2014	7:00 AM		150	152	151	153	Turned	
19	7/10/2014	5:00 PM		159	155	154	155		
20	7/11/2014	12:00 PM		162	161	158	159		
21	7/12/2014	12:00 PM		163	163	161	162	Turned	
22	7/13/2014	7:00 AM		159	159	163	164		
23	7/14/2014	7:00 AM		154	155	159	160		
24	7/15/2014	8:00 AM		155	153	154	157	Turned	
25	7/16/2014	8:00 AM		152	157	157	155		
26	7/17/2014	12:00 PM		150	150	155	154		
27	7/18/2014	5:00 PM		154	148	158	153	Turned	
28	7/19/2014	7:00 AM		150	151	155	155		
29	7/20/2014	12:00 PM		151	149	152	150		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

RALEIGH THAMMY

Row Construction Date(s):

Section #1: 5/24/2014 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	5/24/2014	8:00 AM		85	87	88	89	Built	
2	5/25/2014	7:00 AM		90	92	91	94		
3	5/26/2014	12:00 PM		92	94	95	96	Turned	
4	5/27/2014	3:00 PM		95	96	97	99		
5	5/28/2014	5:00 PM		97	99	100	104		
6	5/29/2014	8:00 AM		99	101	103	103	Turned	
7	5/30/2014	8:00 AM		104	105	104	105		
8	5/31/2014	7:00 AM		107	108	106	107		
9	6/1/2014	8:00 AM		109	110	110	112	Turned	
10	6/2/2014	7:00 AM		110	113	114	165		
11	6/3/2014	8:00 AM		118	120	119	126	Turned	
12	6/4/2014	7:00 AM		128	126	128	133		
13	6/5/2014	5:00 PM		136	138	139	141		
14	6/6/2014	8:00 AM		144	145	148	148	Turned	
15	6/7/2014	8:00 AM		149	150	152	156		
16	6/8/2014	12:00 PM		150	157	158	162		
17	6/9/2014	5:00 PM		163	164	162	165	Turned	
18	6/10/2014	8:00 AM		160	162	161	160		
19	6/11/2014	7:00 AM		158	160	157	158		
20	6/12/2014	8:00 AM		162	163	161	160	Turned	
21	6/13/2014	8:00 AM		160	160	103	163		
22	6/14/2014	5:00 PM		158	159	163	157		
23	6/15/2014	5:00 PM		154	158	157	154	Turned	
24	6/16/2014	5:00 PM		152	154	155	151		
25	6/17/2014	12:00 PM		150	152	154	159		
26	6/18/2014	7:00 AM		148	150	152	148	Turned	
27	6/19/2014	5:00 PM		148	151	150	145		
28	6/20/2014	8:00 AM		145	148	149	141		
29	6/21/2014	12:00 PM		143	144	147	142	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

RALEIGH - THAMMY

Row Construction Date(s):

Section #1: 4/25/2014 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	4/25/2014	7:00 AM		80	85	88	84	Built	
2	4/26/2014	8:00 AM		88	90	91	92		
3	4/27/2014	7:00 AM		92	93	94	95	Turned	
4	4/28/2014	12:00 PM		96	95	96	98		
5	4/29/2014	1:00 PM		100	99	102	104		
6	4/30/2014	3:00 PM		106	105	104	108	Turned	
7	5/1/2014	8:00 AM		112	110	111	114		
8	5/2/2014	7:00 AM		116	115	118	119		
9	5/3/2014	5:00 PM		120	121	125	124	Turned	
10	5/4/2014	7:00 AM		125	124	126	127		
11	5/5/2014	8:00 AM		130	129	131	132		
12	5/6/2014	7:00 AM		138	135	136	138	Turned	
13	5/7/2014	8:00 AM		142	140	141	144		
14	5/8/2014	9:00 AM		145	146	147	148		
15	5/9/2014	12:00 PM		149	150	152	154	Turned	
16	5/10/2014	12:00 PM		154	156	156	158		
17	5/11/2014	7:00 AM		156	158	159	161		
18	5/12/2014	8:00 AM		162	163	162	164	Turned	
19	5/13/2014	5:00 PM		160	161	163	160		
20	5/14/2014	5:00 PM		158	156	159	157		
21	5/15/2014	8:00 AM		156	154	157	155	Turned	
22	5/16/2014	7:00 AM		152	152	152	153		
23	5/17/2014	8:00 AM		150	159	151	151		
24	5/18/2014	8:00 AM		148	147	146	147	Turned	
25	5/19/2014	7:00 AM		140	145	144	143		
26	5/20/2014	9:00 AM		144	147	141	140		
27	5/21/2014	10:00 AM		142	143	142	143	Turned	
28	5/22/2014	11:00 AM		140	140	141	141		
29	5/23/2014	5:00 PM		141	142	143	144		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY #1A

Row Construction Date(s):

Section #1: 6/21/2013 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	6/21/2013	8:00 AM		102	104	101	103	Built	
2	6/22/2013	3:00 PM		108	109	106	108		
3	6/23/2013	8:00 AM		110	113	114	116		
4	6/24/2013	7:30 AM		107	105	108	105	Turned	
5	6/25/2013	7:00 AM		116	114	112	113		
6	6/26/2013	8:00 AM		110	109	108	107	Turned	
7	6/27/2013	5:00 PM		118	120	117	116		
8	6/28/2013	5:30 PM		112	115	114	111	Turned	
9	6/29/2013	6:00 PM		119	120	120	121		
10	6/30/2013	8:00 AM		116	115	117	118	Turned	
11	7/1/2013	8:00 AM		125	124	126	128		
12	7/2/2013	9:00 AM		120	121	120	124	Turned	
13	7/3/2013	8:00 AM		128	128	130	131		
14	7/4/2013	12:00 PM		128	126	125	125	Turned	
15	7/5/2013	8:00 AM		134	135	136	134		
16	7/6/2013	5:00 PM		132	133	134	131	Turned	
17	7/7/2013	5:30 PM		140	141	142	141		
18	7/8/2013	7:00 AM		138	139	140	138	Turned	
19	7/9/2013	8:00 AM		144	146	148	146		
20	7/10/2013	9:00 AM		142	144	146	144	Turned	
21	7/11/2013	8:00 AM		148	149	150	152		
22	7/12/2013	7:00 AM		146	145	148	148	Turned	
23	7/13/2013	8:00 AM		150	148	150	149		
24	7/14/2013	12:00 PM		152	150	152	154		
25	7/15/2013	8:00 AM		148	152	150	150	Turned	
26	7/16/2013	5:00 PM		145	148	148	148		
27	7/17/2013	8:00 AM		142	145	146	144		
28	7/18/2013	7:00 AM		140	142	144	142	Turned	
29	7/19/2013	12:00 PM		141	140	142	140		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY #2A

Row Construction Date(s):

Section #1: 6/30/2013 Linear Feet: 300
Section #2: _____ Linear Feet: _____
Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	6/30/2013	8:00 AM		103	104	102	103	Built	
2	7/1/2013	8:00 AM		108	109	108	109		
3	7/2/2013	9:00 AM		105	104	105	105	Turned	
4	7/3/2013	8:00 AM		112	114	115	116		
5	7/4/2013	12:00 PM		110	111	112	114	Turned	
6	7/5/2013	8:00 AM		118	116	119	120		
7	7/6/2013	5:00 PM		116	116	117	116	Turned	
8	7/7/2013	5:30 PM		120	121	124	125		
9	7/8/2013	7:00 AM		119	119	120	121	Turned	
10	7/9/2013	8:00 AM		125	126	127	128		
11	7/10/2013	9:00 AM		122	124	125	126	Turned	
12	7/11/2013	8:00 AM		128	128	129	130		
13	7/12/2013	7:00 AM		135	132	134	138	Turned	
14	7/13/2013	8:00 AM		138	138	140	144		
15	7/14/2013	12:00 PM		142	144	145	147		
16	7/15/2013	8:00 AM		148	149	148	150	Turned	
17	7/16/2013	5:00 PM		152	154	155	156		
18	7/17/2013	8:00 AM		155	156	158	154		
19	7/18/2013	7:00 AM		158	154	152	150	Turned	
20	7/19/2013	12:00 PM		150	151	149	148		
21	7/20/2013	8:00 AM		148	148	146	145		
22	7/21/2013	8:00 AM		140	145	144	142		
23	7/22/2013	12:00 PM		142	140	141	138	Turned	
24	7/23/2013	7:00 AM		140	138	140	140	Turned	
25	7/24/2013	7:00 AM		142	140	141	142		
26	7/25/2013	8:00 AM		140	141	142	140		
27	7/26/2013	5:00 PM		138	139	140	138		
28	7/27/2013	7:00 AM		140	141	142	144	Turned	
29	7/28/2013	8:00 AM		138	137	138	140		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY #3A

Row Construction Date(s):

Section #1: 7/11/2013 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	7/11/2013	8:00 AM		104	105	103	105	Built	
2	7/12/2013	7:00 AM		105	107	105	108	Turned	
3	7/13/2013	8:00 AM		111	113	110	114		
4	7/14/2013	12:00 PM		116	114	114	118		
5	7/15/2013	8:00 AM		120	119	118	122	Turned	
6	7/16/2013	5:00 PM		125	124	126	128		
7	7/17/2013	8:00 AM		129	128	130	134		
8	7/18/2013	7:00 AM		132	135	136	138	Turned	
9	7/19/2013	12:00 PM		136	138	140	142		
10	7/20/2013	8:00 AM		141	144	142	144		
11	7/21/2013	8:00 AM		144	146	144	148		
12	7/22/2013	12:00 PM		146	148	147	150		
13	7/23/2013	7:00 AM		150	154	152	155	Turned	
14	7/24/2013	7:00 AM		155	152	148	154		
15	7/25/2013	8:00 AM		150	148	150	150	Turned	
16	7/26/2013	5:00 PM		148	150	148	147		
17	7/27/2013	7:00 AM		150	152	151	150		
18	7/28/2013	8:00 AM		148	148	147	148		
19	7/29/2013	7:00 AM		146	145	148	146		
20	7/30/2013	12:00 PM		145	144	142	144	Turned	
21	7/31/2013	7:00 AM		144	142	140	141		
22	8/1/2013	9:00 AM		142	140	141	138		
23	8/2/2013	7:00 AM		138	142	142	140	Turned	
24	8/3/2013	7:00 AM		140	140	141	138		
25	8/4/2013	8:00 AM		134	138	140	141		
26	8/5/2013	7:00 AM		135	136	138	138	Turned	
27	8/6/2013	8:00 AM		138	139	140	141		
28	8/7/2013	5:00 PM		136	142	138	136		
29	8/8/2013	6:00 PM		140	140	140	138	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY #A4

Row Construction Date(s):

Section #1: 7/23/2013 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	7/23/2013	7:00 AM		100	104	106	100	Built	
2	7/24/2013	7:00 AM		118	120	122	120		
3	7/25/2013	7:00 AM		120	127	124	122		
4	7/26/2013	8:00 AM		125	126	127	126		
5	7/27/2013	5:00 PM		128	129	130	129	Turned	
6	7/28/2013	7:00 AM		131	132	133	134		
7	7/29/2013	8:00 AM		137	134	135	136		
8	7/30/2013	12:00 PM		134	136	134	137	Turned	
9	7/31/2013	7:00 AM		138	138	137	136		
10	8/1/2013	9:00 AM		142	140	142	142		
11	8/2/2013	7:00 AM		145	143	140	144	Turned	
12	8/3/2013	8:00 AM		148	145	144	142		
13	8/4/2013	7:00 AM		150	148	146	145		
14	8/5/2013	7:00 AM		146	150	150	148	Turned	
15	8/6/2013	8:00 AM		148	152	153	150		
16	8/7/2013	5:00 PM		132	155	155	154		
17	8/8/2013	6:00 PM		155	154	157	156	Turned	
18	8/9/2013	9:00 AM		158	156	158	158		
19	8/10/2013	7:00 AM		155	152	155	154		
20	8/11/2013	8:00 AM		154	155	152	152	Turned	
21	8/12/2013	5:00 PM		152	150	150	148		
22	8/13/2013	7:00 AM		150	151	152	140		
23	8/14/2013	7:00 AM		152	148	148	144	Turned	
24	8/15/2013	12:00 PM		148	146	146	145		
25	8/16/2013	8:00 AM		146	144	143	145		
26	8/17/2013	8:00 AM		144	145	140	142	Turned	
27	8/18/2013	8:00 AM		142	142	138	139		
28	8/19/2013	12:00 PM		140	141	130	140		
29	8/20/2013	5:00 PM		144	146	142	144	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY #A5

Row Construction Date(s):

Section #1:	<u>8/1/2013</u>	Linear Feet:	<u>300</u>
Section #2:		Linear Feet:	
Section #3:		Linear Feet:	

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	8/1/2013	9:00 AM		95	92	96	94	Built	
2	8/2/2013	7:00 AM		100	101	106	105		
3	8/3/2013	8:00 AM		110	111	114	112		
4	8/4/2013	7:00 AM		115	116	117	118	Turned	
5	8/5/2013	7:00 AM		120	121	125	124		
6	8/6/2013	8:00 AM		124	125	128	126		
7	8/7/2013	5:00 PM		130	131	134	133	Turned	
8	8/8/2013	6:00 PM		135	136	140	141	Turned	
9	8/9/2013	9:00 AM		140	142	144	145		
10	8/10/2013	7:00 AM		142	144	142	143		
11	8/11/2013	8:00 AM		145	148	146	147	Turned	
12	8/12/2013	5:00 PM		148	146	144	145		
13	8/13/2013	7:00 AM		149	149	147	149		
14	8/14/2013	7:00 AM		150	152	151	153	Turned	
15	8/15/2013	12:00 PM		155	154	154	156		
16	8/16/2013	8:00 AM		158	158	157	154		
17	8/17/2013	8:00 AM		160	161	159	158	Turned	
18	8/18/2013	8:00 AM		157	156	155	154		
19	8/19/2013	12:00 PM		156	150	152	150		
20	8/20/2013	5:00 PM		154	152	154	152	Turned	
21	8/21/2013	7:30 AM		100	162	163	160		
22	8/22/2013	6:00 PM		156	156	154	154		
23	8/23/2013	8:00 AM		144	148	145	146	Turned	
24	8/24/2013	8:00 AM		146	150	148	144		
25	8/25/2013	8:00 AM		150	147	146	145		
26	8/26/2013	12:00 PM		148	145	144	142		
27	8/27/2013	7:00 AM		147	142	147	146	Turned	
28	8/28/2013	7:00 AM		145	146	144	144		
29	8/29/2013	12:00 PM		144	142	140	141		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY A#6

Row Construction Date(s):

Section #1: 10/4/2013 Linear Feet: 300
 Section #2: _____ Linear Feet: _____
 Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	10/4/2013	12:00 PM		90	91	90	92	Built	
2	10/5/2013	8:00 AM		96	97	98	100	Turned	
3	10/6/2013	12:00 PM		104	102	106	109		
4	10/7/2013	7:00 AM		108	107	104	114		
5	10/8/2013	7:00 AM		112	111	110	118	Turned	
6	10/9/2013	8:00 AM		121	124	119	126		
7	10/10/2013	5:00 PM		125	124	126	132		
8	10/11/2013	8:00 AM		132	128	131	138	Turned	
9	10/12/2013	12:00 PM		138	135	136	140		
10	10/13/2013	8:00 AM		142	138	139	144		
11	10/14/2013	5:00 PM		150	142	144	148	Turned	
12	10/15/2013	7:00 AM		152	146	146	150		
13	10/16/2013	12:00 PM		155	149	150	152		
14	10/17/2013	5:00 PM		158	152	155	156	Turned	
15	10/18/2013	8:00 AM		155	154	154	157		
16	10/19/2013	8:00 AM		157	156	155	154		
17	10/20/2013	7:00 AM		152	155	154	156	Turned	
18	10/21/2013	7:00 AM		150	152	158	154		
19	10/22/2013	12:00 AM		150	150	153	150		
20	10/23/2013	8:00 AM		148	146	150	148	Turned	
21	10/24/2013	5:00 PM		148	149	148	146		
22	10/25/2013	8:00 AM		146	147	146	144		
23	10/26/2013	12:00 PM		144	145	144	142	Turned	
24	10/27/2013	8:00 AM		145	144	147	145		
25	10/28/2013	7:30 AM		147	144	145	144		
26	10/29/2013	8:00 AM		144	145	146	146	Turned	
27	10/30/2013	8:00 AM		144	144	145	144		
28	10/31/2013	8:00 AM		142	143	144	145		
29	11/1/2013	8:00 AM		143	144	144	143	Turned	

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY A#8

Row Construction Date(s):

Section #1:	11/26/2013	Linear Feet:	300
Section #2:		Linear Feet:	
Section #3:		Linear Feet:	

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	11/26/2013	7:00 AM		90	91	88	89	Built	
2	11/27/2013	12:00 PM		94	95	92	91		
3	11/28/2013	8:00 AM		100	102	99	98		
4	11/29/2013	7:00 AM		105	108	104	103	Turned	
5	11/30/2013	8:00 AM		109	115	111	109		
6	12/1/2013	8:00 AM		118	122	120	121		
7	12/2/2013	5:00 PM		128	127	126	127	Turned	
8	12/3/2013	8:00 AM		133	130	131	134		
9	12/4/2013	5:00 PM		136	134	135	138		
10	12/5/2013	8:00 AM		141	138	139	142	Turned	
11	12/6/2013	8:00 AM		144	141	142	145		
12	12/7/2013	12:00 PM		148	145	146	148		
13	12/8/2013	12:00 PM		152	149	151	153	Turned	
14	12/9/2013	5:00 PM		155	153	154	155		
15	12/10/2013	3:00 PM		158	156	158	159		
16	12/11/2013	10:00 AM		149	117	149	148	Turned	
17	12/12/2013	8:00 AM		147	147	146	151		
18	12/13/2013	5:00 PM		146	150	151	149		
19	12/14/2013	5:00 PM		144	148	150	146	Turned	
20	12/15/2013	8:00 AM		148	145	147	144		
21	12/16/2013	8:00 AM		150	143	148	149		
22	12/17/2013	7:30 AM		148	146	152	152	Turned	
23	12/18/2013	7:00 AM		149	150	150	155		
24	12/19/2013	7:00 AM		146	148	146	149		
25	12/20/2013	7:00 AM		144	145	140	147	Turned	
26	12/21/2013	7:00 AM		148	148	146	150		
27	12/22/2013	8:00 AM		146	146	143	148		
28	12/23/2013	8:00 AM		145	144	141	145	Turned	
29	12/24/2013	5:00 PM		144	140	140	142		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY #A-9

Row Construction Date(s):

Section #1: 1/9/2014 Linear Feet: 300

Section #2: _____ Linear Feet: _____

Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	1/9/2014	8:00 AM		85	90	91	89	Built	
2	1/10/2014	7:00 AM		89	94	95	92		
3	1/11/2014	8:00 AM		92	96	99	95		
4	1/12/2014	8:00 AM		94	99	106	96	Turned	
5	1/13/2014	8:00 AM		98	104	109	99		
6	1/14/2014	12:00 PM		104	107	110	103		
7	1/15/2014	5:00 PM		114	115	116	114	Turned	
8	1/16/2014	7:00 AM		119	121	122	122		
9	1/17/2014	8:00 AM		125	128	128	128		
10	1/18/2014	7:00 AM		131	136	136	135	Turned	
11	1/19/2014	3:00 PM		136	142	141	140		
12	1/20/2014	8:00 AM		140	145	145	143		
13	1/21/2014	8:00 AM		142	149	148	148	Turned	
14	1/22/2014	8:00 AM		148	153	152	153		
15	1/23/2014	5:00 PM		146	154	150	151		
16	1/24/2014	12:00 PM		150	155	154	154	Turned	
17	1/25/2014	12:00 PM		155	161	160	158		
18	1/26/2014	5:00 PM		160	158	157	160		
19	1/27/2014	12:00 PM		156	154	155	154	Turned	
20	1/28/2014	3:00 PM		152	151	152	151		
21	1/29/2014	3:00 PM		149	150	150	151		
22	1/30/2014	5:00 PM		146	148	147	148	Turned	
23	1/31/2014	8:00 AM		144	145	145	145		
24	2/1/2014	7:00 AM		142	141	144	142		
25	2/2/2014	8:00 AM		140	140	142	140	Turned	
26	2/3/2014	5:00 PM		138	142	140	142		
27	2/4/2014	5:00 PM		136	138	137	140		
28	2/5/2014	8:00 AM		135	135	135	143	Turned	
29	2/6/2014	5:00 PM		134	134	133	140		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road
P.O. Box 460
Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY #A-10

Row Construction Date(s):

Section #1: 2/13/2014 Linear Feet: 300
Section #2: _____ Linear Feet: _____
Section #3: _____ Linear Feet: _____

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	2/13/2014	8:00 AM		88	90	91	92	Built	
2	2/14/2014	8:00 AM		94	96	97	98		
3	2/15/2014	7:00 AM		100	102	104	106		
4	2/16/2014	5:00 PM		106	107	109	110	Turned	
5	2/17/2014	8:00 AM		109	112	114	115		
6	2/18/2014	12:00 PM		118	120	124	125		
7	2/19/2014	8:00 AM		126	128	126	131	Turned	
8	2/20/2014	5:00 PM		135	137	139	138		
9	2/21/2014	8:00 AM		140	142	144	146		
10	2/22/2014	12:00 PM		145	140	149	148	Turned	
11	2/23/2014	12:00 PM		150	152	155	158		
12	2/24/2014	7:00 AM		154	156	159	162		
13	2/25/2014	8:00 AM		160	161	163	160	Turned	
14	2/26/2014	12:00 PM		163	162	161	162		
15	2/27/2014	12:00 PM		160	164	159	158		
16	2/28/2014	7:00 AM		158	160	161	156	Turned	
17	3/1/2014	8:00 AM		155	158	158	159		
18	3/2/2014	5:00 PM		154	155	156	157		
19	3/3/2014	5:00 PM		156	154	154	155	Turned	
20	3/4/2014	8:00 AM		158	152	151	152		
21	3/5/2014	7:00 AM		155	150	152	150		
22	3/6/2014	7:00 AM		154	150	156	154	Turned	
23	3/7/2014	12:00 PM		152	148	152	151		
24	3/8/2014	5:00 PM		159	146	149	150		
25	3/9/2014	5:00 PM		151	144	148	148	Turned	
26	3/10/2014	8:00 AM		150	148	149	146		
27	3/11/2014	8:00 AM		149	150	151	144		
28	3/12/2014	12:00 PM		148	147	149	140	Turned	
29	3/13/2014	3:00 PM		146	145	147	146		

EASTERN COMPOST, LLC

8487 Battleboro-Leggett Road

P.O. Box 460

Battleboro, North Carolina 27809

DAILY OPERATION RECORD

COMPOST ROW NO.

THAMMY

Row Construction Date(s):

Section #1:	3/24/2014	Linear Feet:	300
Section #2:		Linear Feet:	
Section #3:		Linear Feet:	

Cycle Day	Date	Time	Section #	Temp	Temp	Temp	Temp	Turned	Service Provider
1	3/27/2014	11:25 AM		92	93	91	92	Built	
2	3/28/2014	7:00 AM		90	91	88	89		
3	3/29/2014	8:00 AM		91	85	90	91		
4	3/30/2014	8:00 AM		93	92	94	93	Turned	
5	3/31/2014	5:00 PM		95	96	98	97		
6	4/1/2014	8:00 AM		100	101	110	100		
7	4/2/2014	8:00 AM		105	108	114	106	Turned	
8	4/3/2014	12:00 PM		109	114	116	110		
9	4/4/2014	7:00 AM		112	116	120	115		
10	4/5/2014	6:00 PM		114	118	122	118	Turned	
11	4/6/2014	6:00 PM		118	120	126	121		
12	4/7/2014	4:00 PM		120	122	128	124		
13	4/8/2014	8:00 AM		124	126	134	126	Turned	
14	4/9/2014	7:00 AM		126	130	138	129		
15	4/10/2014	7:00 AM		129	133	138	139		
16	4/11/2014	12:00 PM		131	135	140	134	Turned	
17	4/12/2014	12:00 PM		140	138	144	138		
18	4/13/2014	8:00 AM		142	140	140	141		
19	4/14/2014	8:00 AM		144	144	149	144	Turned	
20	4/15/2014	8:00 AM		148	146	150	148		
21	4/16/2014	12:00 PM		150	157	152	151		
22	4/17/2014	5:00 PM		153	154	154	154	Turned	
23	4/18/2014	6:00 PM		150	150	156	158		
24	4/19/2014	7:00 AM		151	152	151	152	Turned	
25	4/20/2014	8:00 AM		150	150	150	152		
26	4/21/2014	12:00 PM		146	159	149	150		
27	4/22/2014	8:00 AM		144	146	146	148		
28	4/23/2014	5:00 PM		142	144	145	146	Turned	
29	4/24/2014	5:00 PM		141	143	144	144		

Appendix B

Laboratory Results

SOIL CONTROL LAB

42 HANGAR WAY
WATSONVILLE
CALIFORNIA
95076
USA

Account #: 3090162-1/1-1299
Group: Sep.13 A #18
Reporting Date: September 18, 2013

Eastern Compost LLC
P.O. Box 1396
Oxford, NC 27565
Attn: Jason Smith

Date Received: 06 Sep. 13
Sample Identification: Course
Sample ID #: 3090162 - 1/1

Nutrients	Dry wt.	As Rcvd.	units	Stability Indicator:	Respirometry	Biologically Available C		
Total Nitrogen:	2.4	1.0	%	CO2 Evolution				
Ammonia (NH ₄ -N):	6200	2700	mg/kg	mg CO ₂ -C/g OM/day	0.90	1.5		
Nitrate (NO ₃ -N):	1.8	0.79	mg/kg	mg CO ₂ -C/g TS/day	0.56	0.91		
Org. Nitrogen (Org.-N):	1.8	0.77	%	Stability Rating	very stable	very stable		
Phosphorus (as P ₂ O ₅):	2.9	1.3	%					
Phosphorus (P):	13000	5500	mg/kg	Maturity Indicator: Cucumber Bioassay				
Potassium (as K ₂ O):	0.31	0.13	%	Compost:Vermiculite(v:v)	1:1	1:3		
Potassium (K):	2600	1100	mg/kg	Emergence (%)	100	*		
Calcium (Ca):	0.82	0.35	%	Seedling Vigor (%)	0	NA		
Magnesium (Mg):	0.16	0.070	%	Description of Plants	stunted	NA		
Sulfate (SO ₄ -S):	5200	2200	mg/kg	*Sample volume insufficient for test				
Boron (Total B):	17	7.4	mg/kg	Pathogens	Results	Units	Rating	
Moisture:	0	57.3	%	Fecal Coliform	< 2.0	MPN/g	pass	
Sodium (Na):	0.13	0.057	%	Salmonella	< 3	MPN/4g	pass	
Chloride (Cl):	0.082	0.035	%	Date Tested: 06 Sep. 13				
pH Value:	NA	7.64	unit	Inerts	% by weight			
Bulk Density :	21	48	lb/cu ft	Plastic	< 0.5			
Carbonates (CaCO ₃):	<0.1	<0.1	lb/ton	Glass	< 0.5			
Conductivity (EC5):	9.9	NA	mmhos/cm	Metal	< 0.5			
Organic Matter:	62.1	26.5	%	Sharps	ND			
Organic Carbon:	29.0	12.0	%	Size & Volume Distribution	MM	% by weight	% by volume	BD g/cc
Ash:	37.9	16.2	%	> 50	0.0	0.0	0.00	
C/N Ratio	12	12	ratio	25 to 50	0.0	0.0	0.00	
AgIndex	> 10	> 10	ratio	16 to 25	7.2	7.1	0.34	
				9.5 to 16	25.3	25.0	0.34	
				6.3 to 9.5	23.4	26.8	0.30	
				4.0 to 6.3	15.6	17.9	0.30	
				2.0 to 4.0	14.1	14.3	0.34	
				< 2.0	14.4	8.9	0.55	
				Bulk Density Description:<.35 Light Materials, .35-.60 medium weight materials, >.60 Heavy Materials				
				Analyst: Assaf Sadeh				

*Sample was received and handled in accordance with TMECC procedures.

Account No.:
3090162 - 1/1 - 1299
Group: Sep.13 A No. 18

Date Received: 06 Sep. 13
Sample i.d. Course
Sample I.d. No. 1/1 3090162

INTERPRETATION:

Is Your Compost Stable?

Respiration Rate 0.90 mg CO ₂ -C/ g OM/day	Biodegradation Rate of Your Pile +++ < Stable > < Moderately Unstable> < Unstable > < High For Mulch
Biologically Available Carbon (BAC) 1.5 mg CO ₂ -C/ g OM/day	Optimum Degradation Rate +++++ < Stable > < Moderately Unstable> < Unstable > < High For Mulch

Is Your Compost Mature?

AmmoniaN/NitrateN ratio 3400 Ratio	+++++ VeryMature> < Mature > < Immature
Ammonia N ppm 6200 mg/kg dry wt.	+++++ VeryMature> < Mature > < Immature
Nitrate N ppm 1.8 mg/kg dry wt.	+ < Immature > < Mature
pH value 7.64 units	+++++ < Immature > < Mature > < Immature
Cucumber Emergence 100.0 percent	+++++ < Immature > < Mature

Is Your Compost Safe Regarding Health?

Fecal Coliform < 1000 MPN/g dry wt.	+++++ < Safe > < High Fecal Coliform
Salmonella Less than 3 /4g dry wt.	+++++ <Safe (none detected) > < High Salmonella Count(> 3 per 4 grams)
Metals US EPA 503 Pass dry wt.	+++++ <All Metals Pass > < One or more Metals Fail

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P2O5+K2O) 5.7 Percent dry wt.	+++++ <Low > < Average > < High Nutrient Content
AgIndex (Nutrients / Sodium and Chloride Salts) 15 Ratio	((N+P2O5+K2O) / (Na + Cl)) +++++ Na & Cl > < Nutrient and Sodium and Chloride Provider > < Nutrient Provider
Plant Available Nitrogen (PAN) 7 lbs/ton wet wt.	Estimated release for first season +++++ Low Nitrogen Provider> < Average Nitrogen Provider > <High Nitrogen Provider
C/N Ratio 12 Ratio	+++++ < Nitrogen Release > < N-Neutral > < N-Demand> < High Nitrogen Demand
Soluble Available Nutrients & Salts (EC5 w/w dw) 9.9 mmhos/cm dry wt.	+++++ SlowRelease> < Average Nutrient Release Rate > <High Available Nutrients
Lime Content (CaCO3) 0 Lbs/ton dry wt.	+ < Low > < Average > < High Lime Content (as CaCO3)

What are the physical properties of your compost?

Percent Ash 37.9 Percent dry wt.	+++++ < High Organic Matter > < Average > < High Ash Content
Sieve Size % > 6.3 MM (0.25") 55.8 Percent dry wt.	+++++ All Uses > < Size May Restrict Uses for Potting mix and Golf Courses

Account No.:
3090162 - 1/1 - 1299
Group: Sep.13 A No. 18

Date Received 06 Sep. 13
Sample i.d. Course
Sample I.d. No. 1/1 3090162

INTERPRETATION:

Page two of three

Is Your Compost Stable?

Respiration Rate

0.90 Low: Good for all uses mg CO₂-C/g OM/day

The respiration rate is a measurement of the biodegradation rate of the organic matter in the sample (as received). The respiration rate is determined by measuring the rate at which CO₂ is released under optimized moisture and temperature conditions.

Biologically Available Carbon

1.5 Low: Good for all uses mg CO₂-C/g OM/day

Biologically Available Carbon (BAC) is a measurement of the rate at which CO₂ is released under optimized moisture, temperature, porosity, nutrients, pH and microbial conditions. If both the RR and the BAC test values are close to the same value, the pile is optimized for composting. If both values are high the compost pile just needs more time. If both values are low the compost has stabilized and should be moved to curing. BAC test values that are higher than RR indicate that the compost pile has stalled. This could be due to anaerobic conditions, lack of available nitrogen due to excessive air converting ammonia to the unavailable nitrate form, lack of nitrogen or other nutrients due to poor choice of feedstock, pH value out of range, or microbes rendered non-active.

Is Your Compost Mature?

Ammonia:NitrateN ratio

3400 immature

Ammonia N ppm

6200 immature

Nitrate N ppm

1.8 immature

pH value

7.64 mature

Composting to stabilize carbon can occur at such a rapid rate that sometimes phytotoxins remain in the compost and must be neutralized before using in high concentrations or in high-end uses. This step is called curing. Typically ammonia is in excess with the break-down of organic materials resulting in an increase in pH. This combination results in a loss of volatile ammonia (it smells). Once this toxic ammonia has been reduced and the pH drops, the microbes convert the ammonia to nitrates. A low ammonia + high nitrate score is indicative of a mature compost, however there are many exceptions. For example, a compost with a low pH (<7) will retain ammonia, while a compost with high lime content can lose ammonia before the organic fraction becomes stable. Composts must first be stable before curing indicators apply.

Cucumber Bioassay

100.0 Percent

Cucumbers are chosen for this test because they are salt tolerant and very sensitive to ammonia and organic acid toxicity. Therefore, we can germinate seeds in high concentrations of compost to measure phytotoxic effects without soluble salts being the limiting factor. Values above 80% for both percent emergence and vigor are indicative of a well-cured compost. Exceptions include very high salts that affect the cucumbers, excessive concentrations of nitrates and other nutrients that will be in range when formulated to make a growing media. In addition to testing a 1:1 compost: vermiculite blend, we also test a diluted 1:3 blend to indicate a more sensitive toxicity level.

Is Your Compost Safe Regarding Health?

Fecal Coliform

< 1000 /g dry wt.

Fecal coliforms can survive in both aerobic and anaerobic conditions and is common in all initial compost piles. Most human pathogens occur from fecal matter and all fecal matter is loaded in fecal coliforms. Therefore fecal coliforms are used as an indicator to determine if the chosen method for pathogen reduction (heat for compost) has met the requirements of sufficient temperature, time and mixing. If the fecal coliforms are reduced to below 1000 per gram dry wt. it is assumed all other pathogens are eliminated. Potential problems are that fecal coliform can regrow during the curing phase or during shipping. This is because the conditions are now more favorable for growth than during the composting process.

Salmonella Bacteria

Less than 3 / 4g dry wt. Salmonella is not only another indicator organism but also a toxic microbe. It has been used in the case of biosolids industry to determine adequate pathogen reduction.

Metals

Pass

The ten heavy metals listed in the EPA 503 regulations are chosen to determine if compost can be applied to ag land and handled without toxic effects. Most high concentrations of heavy metals are derived from woodwaste feedstock such as chrome-arsenic treated or lead painted demolition wood. Biosolids are rarely a problem.

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P2O5+K2O)

5.7 High nutrient content

This value is the sum of the primary nutrients Nitrogen, Phosphorus and Potassium. Reported units are consistent with those found on fertilizer formulations. A sum greater than 5 is indicative of a compost with high nutrient content, and best used to supply nutrients to a receiving soil. A sum below 2 indicates low nutrient content, and is best-used to improve soil structure via the addition of organic matter. Most compost falls between 2 and 5.

Account No.:
 3090162 - 1/1 - 1299
 Group: Sep.13 A No. 18

Date Received 06 Sep. 13
 Sample i.d. Course
 Sample I.d. No. 1/1 3090162

INTERPRETATION:

AgIndex (Nutrients/Na+Cl)

15 High nutrient ratio Composts with low AgIndex values have high concentrations of sodium and/or chloride compared to nutrients. Repeated use of a compost with a low AgIndex (< 2) may result in sodium and/or chloride acting as the limiting factor compared to nutrients, governing application rates. These composts may be used on well-draining soils and/or with salt-tolerant plants. Additional nutrients from another source may be needed if the application rate is limited by sodium or chloride. If the AgIndex is above 10, nutrients optimal for plant growth will be available without concern of sodium and/or chloride toxicity. Composts with an AgIndex of above 10 are good for increasing nutrient levels for all soils. Most composts score between 2 and 10. Concentrations of nutrients, sodium, and chloride in the receiving soil should be considered when determining compost application rates. The AgIndex is a product of feedstock quality. Feedstock from dairy manure, marine waste, industrial wastes, and halophytic plants are likely to produce a finished compost with a low AgIndex.

Plant Available Nitrogen (lbs/ton)

7 Average N Provider Plant Available Nitrogen (PAN) is calculated by estimating the release rate of Nitrogen from the organic fraction of the compost. This estimate is based on information gathered from the BAC test and measured ammonia and nitrate values. Despite the PAN value of the compost, additional sources of Nitrogen may be needed during the growing season to offset the Nitrogen demand of the microbes present in the compost. With ample nutrients these microbes can further breakdown organic matter in the compost and release bound Nitrogen. Nitrogen demand based on a high C/N ratio is not considered in the PAN calculation because additional Nitrogen should always be supplemented to the receiving soil when composts with a high C/N ratio are applied.

C/N Ratio

12 Indicates maturity As a guiding principal, a C/N ratio below 14 indicates maturity and above 14 indicates immaturity, however, there are many exceptions. Large woodchips (>6.3mm), bark, and redwood are slow to breakdown and therefore can result in a relatively stable product while the C/N ratio value is high. Additionally, some composts with chicken manure and/or green grass feedstocks can start with a C/N ratio below 15 and are very unstable. A C/N ratio below 10 supplies Nitrogen, while a ratio above 20 can deplete Nitrogen from the soil. The rate at which Nitrogen will be released or used by the microbes is indicated by the respiration rate (BAC). If the respiration rate is too high the transfer of Nitrogen will not be controllable.

Soluble Nutrients & Salts (EC5 w/w dw - mmhos/cm)

9.9 High salts This value refers to all soluble ions including nutrients, sodium, chloride and some soluble organic compounds. The concentration of salts will change due to the release of salts from the organic matter as it degrades, volatilization of ammonia, decomposition of soluble organics, and conversion of molecular structure. High salts + high AgIndex is indicative of a compost high in readily available nutrients. The application rate of these composts should be limited by the optimum nutrient value based on soil analysis of the receiving soil. High Salts + low AgIndex is indicative of a compost low in nutrients with high concentrations of sodium and/or chloride. Limit the application rate according to the toxicity level of the sodium and/or chloride. Low salts indicates that the compost can be applied without risking salt toxicity, is likely a good source of organic matter, and that nutrients will release slowly over time.

Lime Content (lbs. per ton)

0 Low lime content Compost high in lime or carbonates are often those produced from chicken manure (layers) ash materials, and lime products. These are excellent products to use on a receiving soil where lime has been recommended by soil analysis to raise the pH. Composts with a high lime content should be closely considered for pH requirements when formulating potting mixes.

Physical Properties

Percent Ash

37.9 Average ash content Ash is the non-organic fraction of a compost. Most composts contain approximately 50% ash (dry weight basis). Compost can be high in ash content for many reasons including: excess mineralization (old compost), contamination with soil base material during turning, poor quality feedstock, and soil or mineral products added. Finding the source and reducing high ash content is often the fastest means to increasing nutrient quality of a compost.

Particle Size % > 6.3 MM (0.25")

55.8 May restrict use Large particles may restrict use for potting soils, golf course topdressings, seed-starter mixes, and where a fine size distribution is required. Composts with large particles can still be used as excellent additions to field soils, shrub mixes and mulches.

Particle Size Distribution

Each size fraction is measured by weight, volume and bulk density. These results are particularly relevant with decisions to screen or not, and if screening, which size screen to use. The bulk density indicates if the fraction screened is made of light weight organic material or heavy mineral material. Removing large mineral material can greatly improve compost quality by increasing nutrient and organic concentrations.

Appendix:	Estimated available nutrients for use when calculating application rates lbs/ton (As Rcvd.)
Plant Available Nitrogen (PAN) calculations: PAN = (X * (organic N)) + ((NH4-N) + (NO3-N))	
X value = If BAC < 2 then X = 0.1	Plant Available Nitrogen (PAN) 6.9
If BAC =2.1 to 5 then X = 0.2	Ammonia (NH4-N) 5.40
If BAC =5.1 to 10 then X = 0.3	Nitrate (NO3-N) 0.00
If BAC > 10 then X = 0.4	Available Phosphorus (P2O5*0.64) 16.0
Note: If C/N ratio > 15 additional N should be applied.	Available Potassium (K2O) 2.6

SOIL CONTROL LAB

42 HANGAR WAY
WATSONVILLE
CALIFORNIA
95076
USA

Account #: 3090161-1/1-1299
Group: Sep.13 A #17
Reporting Date: September 18, 2013

Eastern Compost LLC
P.O. Box 1396
Oxford, NC 27565
Attn: Jason Smith

Date Received: 06 Sep. 13
Sample Identification: Fine
Sample ID #: 3090161 - 1/1

Nutrients	Dry wt.	As Rcvd.	units	Stability Indicator:	Respirometry	Biologically Available C		
Total Nitrogen:	1.9	0.90	%	CO2 Evolution				
Ammonia (NH ₄ -N):	2700	1300	mg/kg	mg CO ₂ -C/g OM/day	0.60	0.81		
Nitrate (NO ₃ -N):	530	250	mg/kg	mg CO ₂ -C/g TS/day	0.31	0.41		
Org. Nitrogen (Org.-N):	1.6	0.77	%	Stability Rating	very stable	very stable		
Phosphorus (as P ₂ O ₅):	2.9	1.4	%					
Phosphorus (P):	13000	6200	mg/kg					
Potassium (as K ₂ O):	0.35	0.17	%	Maturity Indicator: Cucumber Bioassay				
Potassium (K):	2900	1400	mg/kg	Compost:Vermiculite(v:v)	1:1	1:3		
Calcium (Ca):	1.2	0.58	%	Emergence (%)	100	*		
Magnesium (Mg):	0.19	0.093	%	Seedling Vigor (%)	97	NA		
Sulfate (SO ₄ -S):	4100	2000	mg/kg	Description of Plants	mushroom	NA		
Boron (Total B):	21	10	mg/kg	*Sample volume insufficient for test				
Moisture:	0	51.8	%	Pathogens	Results	Units	Rating	
Sodium (Na):	0.054	0.026	%	Fecal Coliform	69	MPN/g	pass	
Chloride (Cl):	0.038	0.018	%	Salmonella	< 3	MPN/4g	pass	
pH Value:	NA	5.37	unit	Date Tested: 06 Sep. 13				
Bulk Density :	21	44	lb/cu ft	Inerts	% by weight			
Carbonates (CaCO ₃):	<0.1	<0.1	lb/ton	Plastic	0.13			
Conductivity (EC5):	7.6	NA	mmhos/cm	Glass	< 0.5			
Organic Matter:	51.1	24.6	%	Metal	< 0.5			
Organic Carbon:	28.0	13.0	%	Sharps	ND			
Ash:	48.9	23.6	%	Size & Volume Distribution	MM	% by weight	% by volume	BD g/cc
C/N Ratio	15	15	ratio	> 50	0.0	0.0	0.00	
AgIndex	> 10	> 10	ratio	25 to 50	0.0	0.0	0.00	
				16 to 25	7.8	9.2	0.31	
				9.5 to 16	13.0	12.3	0.38	
				6.3 to 9.5	13.9	20.0	0.25	
				4.0 to 6.3	13.2	15.4	0.31	
				2.0 to 4.0	16.7	20.0	0.31	
				< 2.0	35.4	23.1	0.56	
				Bulk Density Description:<.35 Light Materials, .35-.60 medium weight materials, >.60 Heavy Materials				
				Analyst: Assaf Sadeh				

*Sample was received and handled in accordance with TMECC procedures.

Account No.:
3090161 - 1/1 - 1299
Group: Sep.13 A No. 17

Date Received: 06 Sep. 13
Sample i.d.: Fine
Sample I.d. No.: 1/1 3090161

INTERPRETATION:

Is Your Compost Stable?

Respiration Rate	Biodegradation Rate of Your Pile
0.60 mg CO ₂ -C/ g OM/day	++ < Stable > < Moderately Unstable> < Unstable > < High For Mulch
Biologically Available Carbon (BAC)	Optimum Degradation Rate
0.81 mg CO ₂ -C/ g OM/day	+++ < Stable > < Moderately Unstable> < Unstable > < High For Mulch

Is Your Compost Mature?

AmmoniaN/NitrateN ratio	
5.1 Ratio	+++++ VeryMature> < Mature > < Immature
Ammonia N ppm	
2700 mg/kg dry wt.	+++++ VeryMature> < Mature > < Immature
Nitrate N ppm	
530 mg/kg dry wt.	+++++ < Immature > < Mature
pH value	
5.37 units	+++++ < Immature > < Mature > < Immature
Cucumber Emergence	
100.0 percent	+++++ < Immature > < Mature

Is Your Compost Safe Regarding Health?

Fecal Coliform	
< 1000 MPN/g dry wt.	+++++ < Safe > < High Fecal Coliform
Salmonella	
Less than 3 /4g dry wt.	+++++ <Safe (none detected) > < High Salmonella Count(> 3 per 4 grams)
Metals US EPA 503	
Pass dry wt.	+++++ <All Metals Pass > < One or more Metals Fail

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P ₂ O ₅ +K ₂ O)	
5.2 Percent dry wt.	+++++ <Low > < Average > < High Nutrient Content
AgIndex (Nutrients / Sodium and Chloride Salts)	((N+P ₂ O ₅ +K ₂ O) / (Na + Cl))
15 Ratio	+++++ Na & Cl > < Nutrient and Sodium and Chloride Provider > < Nutrient Provider
Plant Available Nitrogen (PAN)	Estimated release for first season
5 lbs/ton wet wt.	+++++ Low Nitrogen Provider> < Average Nitrogen Provider > <High Nitrogen Provider
C/N Ratio	
15 Ratio	+++++ < Nitrogen Release > < N-Neutral > < N-Demand> < High Nitrogen Demand
Soluble Available Nutrients & Salts (EC5 w/w dw)	
7.6 mmhos/cm dry wt.	+++++ SloRelease> < Average Nutrient Release Rate > <High Available Nutrients
Lime Content (CaCO ₃)	
0 Lbs/ton dry wt.	+ < Low > < Average > < High Lime Content (as CaCO ₃)

What are the physical properties of your compost?

Percent Ash	
48.9 Percent dry wt.	+++++ < High Organic Matter > < Average > < High Ash Content
Sieve Size % > 6.3 MM (0.25")	
34.7 Percent dry wt.	+++++ All Uses > < Size May Restrict Uses for Potting-mix and Golf Courses

Account No.:
3090161 - 1/1 - 1299
Group: Sep.13 A No. 17

Date Received 06 Sep. 13
Sample i.d. Fine
Sample I.d. No. 1/1 3090161

INTERPRETATION:

Is Your Compost Stable?

Page two of three

Respiration Rate

0.60 Low: Good for all uses mg CO₂-C/g OM/day

The respiration rate is a measurement of the biodegradation rate of the organic matter in the sample (as received). The respiration rate is determined by measuring the rate at which CO₂ is released under optimized moisture and temperature conditions.

Biologically Available Carbon

0.81 Low: Good for all uses mg CO₂-C/g OM/day

Biologically Available Carbon (BAC) is a measurement of the rate at which CO₂ is released under optimized moisture, temperature, porosity, nutrients, pH and microbial conditions. If both the RR and the BAC test values are close to the same value, the pile is optimized for composting. If both values are high the compost pile just needs more time. If both values are low the compost has stabilized and should be moved to curing. BAC test values that are higher than RR indicate that the compost pile has stalled. This could be due to anaerobic conditions, lack of available nitrogen due to excessive air converting ammonia to the unavailable nitrate form, lack of nitrogen or other nutrients due to poor choice of feedstock, pH value out of range, or microbes rendered non-active.

Is Your Compost Mature?

Ammonia:NitrateN ratio

5.1 immature

Ammonia N ppm

2700 immature

Nitrate N ppm

530 mature

pH value

5.37 immature

Composting to stabilize carbon can occur at such a rapid rate that sometimes phytotoxins remain in the compost and must be neutralized before using in high concentrations or in high-end uses. This step is called curing. Typically ammonia is in excess with the break-down of organic materials resulting in an increase in pH. This combination results in a loss of volatile ammonia (it smells). Once this toxic ammonia has been reduced and the pH drops, the microbes convert the ammonia to nitrates. A low ammonia + high nitrate score is indicative of a mature compost, however there are many exceptions. For example, a compost with a low pH (<7) will retain ammonia, while a compost with high lime content can lose ammonia before the organic fraction becomes stable. Composts must first be stable before curing indicators apply.

Cucumber Bioassay

100.0 Percent

Cucumbers are chosen for this test because they are salt tolerant and very sensitive to ammonia and organic acid toxicity. Therefore, we can germinate seeds in high concentrations of compost to measure phytotoxic effects without soluble salts being the limiting factor. Values above 80% for both percent emergence and vigor are indicative of a well-cured compost. Exceptions include very high salts that affect the cucumbers, excessive concentrations of nitrates and other nutrients that will be in range when formulated to make a growing media. In addition to testing a 1:1 compost: vermiculite blend, we also test a diluted 1:3 blend to indicate a more sensitive toxicity level.

Is Your Compost Safe Regarding Health?

Fecal Coliform

< 1000 / g dry wt.

Fecal coliforms can survive in both aerobic and anaerobic conditions and is common in all initial compost piles. Most human pathogens occur from fecal matter and all fecal matter is loaded in fecal coliforms. Therefore fecal coliforms are used as an indicator to determine if the chosen method for pathogen reduction (heat for compost) has met the requirements of sufficient temperature, time and mixing. If the fecal coliforms are reduced to below 1000 per gram dry wt. it is assumed all others pathogens are eliminated. Potential problems are that fecal coliform can regrow during the curing phase or during shipping. This is because the conditions are now more favorable for growth than during the composting process.

Salmonella Bacteria

Less than 3 3 / 4g dry wt. Salmonella is not only another indicator organism but also a toxic microbe. It has been used in the case of biosolids industry to determine adequate pathogen reduction.

Metals

Pass

The ten heavy metals listed in the EPA 503 regulations are chosen to determine if compost can be applied to ag land and handled without toxic effects. Most high concentrations of heavy metals are derived from woodwaste feedstock such as chrome-arsenic treated or lead painted demolition wood. Biosolids are rarely a problem.

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P₂O₅+K₂O)

5.2 High nutrient content

This value is the sum of the primary nutrients Nitrogen, Phosphorus and Potassium. Reported units are consistent with those found on fertilizer formulations. A sum greater than 5 is indicative of a compost with high nutrient content, and best used to supply nutrients to a receiving soil. A sum below 2 indicates low nutrient content, and is best-used to improve soil structure via the addition of organic matter. Most compost falls between 2 and 5.

Account No.:
3090161 - 1/1 - 1299
Group: Sep.13 A No. 17

Date Received 06 Sep. 13
Sample i.d. Fine
Sample I.d. No. 1/1 3090161

INTERPRETATION:

AgIndex (Nutrients/Na+Cl)

15 High nutrient ratio Composts with low AgIndex values have high concentrations of sodium and/or chloride compared to nutrients. Repeated use of a compost with a low AgIndex (< 2) may result in sodium and/or chloride acting as the limiting factor compared to nutrients, governing application rates. These composts may be used on well-draining soils and/or with salt-tolerant plants. Additional nutrients from another source may be needed if the application rate is limited by sodium or chloride. If the AgIndex is above 10, nutrients optimal for plant growth will be available without concern of sodium and/or chloride toxicity. Composts with an AgIndex of above 10 are good for increasing nutrient levels for all soils. Most composts score between 2 and 10. Concentrations of nutrients, sodium, and chloride in the receiving soil should be considered when determining compost application rates. The AgIndex is a product of feedstock quality. Feedstock from dairy manure, marine waste, industrial wastes, and halophytic plants are likely to produce a finished compost with a low AgIndex.

Plant Available Nitrogen (lbs/ton)

5 Low N Provider Plant Available Nitrogen (PAN) is calculated by estimating the release rate of Nitrogen from the organic fraction of the compost. This estimate is based on information gathered from the BAC test and measured ammonia and nitrate values. Despite the PAN value of the compost, additional sources of Nitrogen may be needed during the growing season to offset the Nitrogen demand of the microbes present in the compost. With ample nutrients these microbes can further breakdown organic matter in the compost and release bound Nitrogen. Nitrogen demand based on a high C/N ratio is not considered in the PAN calculation because additional Nitrogen should always be supplemented to the receiving soil when composts with a high C/N ratio are applied.

C/N Ratio

15 Indicates immaturity As a guiding principal, a C/N ratio below 14 indicates maturity and above 14 indicates immaturity, however, there are many exceptions. Large woodchips (>6.3mm), bark, and redwood are slow to breakdown and therefore can result in a relatively stable product while the C/N ratio value is high. Additionally, some composts with chicken manure and/or green grass feedstocks can start with a C/N ratio below 15 and are very unstable. A C/N ratio below 10 supplies Nitrogen, while a ratio above 20 can deplete Nitrogen from the soil. The rate at which Nitrogen will be released or used by the microbes is indicated by the respiration rate (BAC). If the respiration rate is too high the transfer of Nitrogen will not be controllable.

Soluble Nutrients & Salts (EC5 w/w dw - mmhos/cm)

7.6 Average salts This value refers to all soluble ions including nutrients, sodium, chloride and some soluble organic compounds. The concentration of salts will change due to the release of salts from the organic matter as it degrades, volatilization of ammonia, decomposition of soluble organics, and conversion of molecular structure. High salts + high AgIndex is indicative of a compost high in readily available nutrients. The application rate of these composts should be limited by the optimum nutrient value based on soil analysis of the receiving soil. High Salts + low AgIndex is indicative of a compost low in nutrients with high concentrations of sodium and/or chloride. Limit the application rate according to the toxicity level of the sodium and/or chloride. Low salts indicates that the compost can be applied without risking salt toxicity, is likely a good source of organic matter, and that nutrients will release slowly over time.

Lime Content (lbs. per ton)

0 Low lime content Compost high in lime or carbonates are often those produced from chicken manure (layers) ash materials, and lime products. These are excellent products to use on a receiving soil where lime has been recommended by soil analysis to raise the pH. Composts with a high lime content should be closely considered for pH requirements when formulating potting mixes.

Physical Properties

Percent Ash

48.9 Average ash content Ash is the non-organic fraction of a compost. Most composts contain approximately 50% ash (dry weight basis). Compost can be high in ash content for many reasons including: excess mineralization (old compost), contamination with soil base material during turning, poor quality feedstock, and soil or mineral products added. Finding the source and reducing high ash content is often the fastest means to increasing nutrient quality of a compost.

Particle Size % > 6.3 MM (0.25")

34.7 May restrict use Large particles may restrict use for potting soils, golf course topdressings, seed-starter mixes, and where a fine size distribution is required. Composts with large particles can still be used as excellent additions to field soils, shrub mixes and mulches.

Particle Size Distribution

Each size fraction is measured by weight, volume and bulk density. These results are particularly relevant with decisions to screen or not, and if screening, which size screen to use. The bulk density indicates if the fraction screened is made of light weight organic material or heavy mineral material. Removing large mineral material can greatly improve compost quality by increasing nutrient and organic concentrations.

Appendix:	Estimated available nutrients for use when calculating application rates lbs/ton (As Rcvd.)	
Plant Available Nitrogen (PAN) calculations: PAN = (X * (organic N)) + ((NH4-N) + (NO3-N))		
X value = If BAC < 2 then X = 0.1	Plant Available Nitrogen (PAN)	4.6
If BAC =2.1 to 5 then X = 0.2	Ammonia (NH4-N)	2.60
If BAC =5.1 to 10 then X = 0.3	Nitrate (NO3-N)	0.50
If BAC > 10 then X = 0.4	Available Phosphorus (P2O5*0.64)	18.0
Note: If C/N ratio > 15 additional N should be applied.	Available Potassium (K2O)	3.4

SOIL CONTROL LAB

42 HANGAR WAY
WALTONVILLE
CALIFORNIA
95774
USA

Account #: 4060756-1/1-1299
Group: Jun.14 C #29
Reporting Date: July 9, 2014

Eastern Compost LLC
P.O. Box 1396
Oxford, NC 27565
Attn: Jason Smith

Date Received: 20 Jun. 14
Sample Identification: Course
Sample ID #: 4060756 - 1/1

Nutrients				Stability Indicator:			
	Dry wt.	As Rcvd.	units	CO2 Evolution	Respirometry	Biologically Available C	
Total Nitrogen:	2.0	1.0	%	mg CO ₂ -C/g OM/day	2.7	3.8	
Ammonia (NH ₄ -N):	3500	1800	mg/kg	mg CO ₂ -C/g TS/day	1.4	2.0	
Nitrate (NO ₃ -N):	25	13	mg/kg	Stability Rating	stable	stable	
Org. Nitrogen (Org.-N):	1.6	0.83	%	Maturity Indicator: Cucumber Bioassay			
Phosphorus (as P ₂ O ₅):	2.2	1.2	%	Compost:Vermiculite(v:v)	1:1	1:3	
Phosphorus (P):	9800	5100	mg/kg	Emergence (%)	0	*	
Potassium (as K ₂ O):	0.30	0.16	%	Seedling Vigor (%)	NA	NA	
Potassium (K):	2500	1300	mg/kg	Description of Plants		NA	
Calcium (Ca):	0.54	0.28	%	*Sample volume insufficient for test			
Magnesium (Mg):	0.12	0.064	%	Pathogens	Results	Units	Rating
Sulfate (SO ₄ -S):	2800	1400	mg/kg	Fecal Coliform	< 2.0	MPN/g	pass
Boron (Total B):	11	5.9	mg/kg	Salmonella	< 3	MPN/4g	pass
Moisture:	0	48.1	%	Date Tested: 20 Jun. 14			
Sodium (Na):	0.10	0.053	%	Inerts	% by weight		
Chloride (Cl):	0.07	0.036	%	Plastic	< 0.5		
pH Value:	NA	8.24	unit	Glass	< 0.5		
Bulk Density :	20	39	lb/cu ft	Metal	11		
Carbonates (CaCO ₃):	28	14	lb/ton	Sharps	ND		
Conductivity (EC5):	7.1	NA	mmhos/cm	Size & Volume Distribution			
Organic Matter:	52.6	27.3	%	MM	% by weight	% by volume	BD g/cc
Organic Carbon:	30.0	15.0	%	> 50	0.0	0.0	0.00
Ash:	47.4	24.6	%	25 to 50	0.0	0.0	0.00
C/N Ratio	15	15	ratio	16 to 25	2.2	3.1	0.25
AgIndex	> 10	> 10	ratio	9.5 to 16	11.6	12.4	0.33
				6.3 to 9.5	17.2	17.7	0.34
				4.0 to 6.3	20.9	25.8	0.28
				2.0 to 4.0	24.6	24.4	0.35
				< 2.0	23.5	16.6	0.49
				Bulk Density Description: <.35 Light Materials, .35-.60 medium weight materials, >.60 Heavy Materials			

Analyst: Assaf Sadeh



*Sample was received and handled in accordance with TMECC procedures.

Account No.:
4060756 - 1/1 - 1299
Group: Jun.14 C No. 29

Date Received: 20 Jun. 14
Sample i.d. Course
Sample I.d. No. 1/1 4060756

INTERPRETATION:

Page one of three

Is Your Compost Stable?

Respiration Rate	Biodegradation Rate of Your Pile			
2.7 mg CO ₂ -C/ g OM/day	+++++			
	< Stable	> < Moderately Unstable	< Unstable	> < High For Mulch
Biologically Available Carbon (BAC)	Optimum Degradation Rate			
3.8 mg CO ₂ -C/ g OM/day	+++++			
	< Stable	> < Moderately Unstable	< Unstable	> < High For Mulch

Is Your Compost Mature?

Ammonia N/Nitrate N ratio	+++++			
140 Ratio	Very Mature	> < Mature	> < Immature	
Ammonia N ppm	+++++			
3500 mg/kg dry wt.	Very Mature	> < Mature	> < Immature	
Nitrate N ppm	+++++			
25 mg/kg dry wt.	< Immature	> < Mature		
pH value	+++++			
8.24 units	< Immature	> < Mature	> < Immature	
Cucumber Emergence	+			
0.0 percent	< Immature	> < Mature		

Is Your Compost Safe Regarding Health?

Fecal Coliform	+++++			
< 1000 MPN/g dry wt.	< Safe	> < High Fecal Coliform		
Salmonella	+++++			
Less than 3 /4g dry wt.	< Safe (none detected)	> < High Salmonella Count (> 3 per 4 grams)		
Metals	+++++			
US EPA 503 Pass dry wt.	< All Metals Pass	> < One or more Metals Fail		

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P2O5+K2O)	+++++			
4.5 Percent dry wt.	< Low	> < Average	> < High Nutrient Content	
AgIndex (Nutrients / Sodium and Chloride Salts)	((N+P2O5+K2O) / (Na + Cl))			
15 Ratio	Na & Cl	> < Nutrient and Sodium and Chloride Provider	> < Nutrient Provider	
Plant Available Nitrogen (PAN)	Estimated release for first season			
7 lbs/ton wet wt.	Low Nitrogen Provider	> < Average Nitrogen Provider	> < High Nitrogen Provider	
C/N Ratio	+++++			
15 Ratio	< Nitrogen Release	> < N-Neutral	> < N-Demand	> < High Nitrogen Demand
Soluble Available Nutrients & Salts (EC5 w/w dw)	+++++			
7.1 mmhos/cm dry wt.	SloRelease	> < Average Nutrient Release Rate	> < High Available Nutrients	
Lime Content (CaCO3)	+++++			
28 Lbs/ton dry wt.	< Low	> < Average	> < High Lime Content (as CaCO3)	

What are the physical properties of your compost?

Percent Ash	+++++			
47.4 Percent dry wt.	< High Organic Matter	> < Average	> < High Ash Content	
Sieve Size % > 6.3 MM (0.25")	+++++			
31.0 Percent dry wt.	All Uses	> < Size May Restrict Uses for Potting mix and Golf Courses		

Account No.:
4060756 - 1/1 - 1299
Group: Jun.14 C No. 29

Date Received 20 Jun. 14
Sample i.d. Course
Sample I.d. No. 1/1 4060756

INTERPRETATION:

Is Your Compost Stable?

Page two of three

Respiration Rate

2.7 Low: Good for all uses mg CO₂-C/g OM/day

The respiration rate is a measurement of the biodegradation rate of the organic matter in the sample (as received). The respiration rate is determined by measuring the rate at which CO₂ is released under optimized moisture and temperature conditions.

Biologically Available Carbon

3.8 Low: Good for all uses mg CO₂-C/g OM/day

Biologically Available Carbon (BAC) is a measurement of the rate at which CO₂ is released under optimized moisture, temperature, porosity, nutrients, pH and microbial conditions. If both the RR and the BAC test values are close to the same value, the pile is optimized for composting. If both values are high the compost pile just needs more time. If both values are low the compost has stabilized and should be moved to curing. BAC test values that are higher than RR indicate that the compost pile has stalled. This could be due to anaerobic conditions, lack of available nitrogen due to excessive air converting ammonia to the unavailable nitrate form, lack of nitrogen or other nutrients due to poor choice of feedstock, pH value out of range, or microbes rendered non-active.

Is Your Compost Mature?

Ammonia N: Nitrate N ratio

140 immature

Composting to stabilize carbon can occur at such a rapid rate that sometimes phytotoxins remain in the compost and must be neutralized before using in high concentrations or in high-end uses. This step is called curing. Typically ammonia is in excess with the break-down of organic materials resulting in an increase in pH. This combination results in a loss of volatile ammonia (it smells). Once this toxic ammonia has been reduced and the pH drops, the microbes convert the ammonia to nitrates. A low ammonia + high nitrate score is indicative of a mature compost, however there are many exceptions. For example, a compost with a low pH (<7) will retain ammonia, while a compost with high lime content can lose ammonia before the organic fraction becomes stable. Composts must first be stable before curing indicators apply.

Ammonia N ppm

3500 immature

Nitrate N ppm

25 immature

pH value

8.24 immature

Cucumber Bioassay

0.0 Percent

Cucumbers are chosen for this test because they are salt tolerant and very sensitive to ammonia and organic acid toxicity. Therefore, we can germinate seeds in high concentrations of compost to measure phytotoxic effects without soluble salts being the limiting factor. Values above 80% for both percent emergence and vigor are indicative of a well-cured compost. Exceptions include very high salts that affect the cucumbers, excessive concentrations of nitrates and other nutrients that will be in range when formulated to make a growing media. In addition to testing a 1:1 compost: vermiculite blend, we also test a diluted 1:3 blend to indicate a more sensitive toxicity level.

Is Your Compost Safe Regarding Health?

Fecal Coliform

< 1000 /g dry wt.

Fecal coliforms can survive in both aerobic and anaerobic conditions and is common in all initial compost piles. Most human pathogens occur from fecal matter and all fecal matter is loaded in fecal coliforms. Therefore fecal coliforms are used as an indicator to determine if the chosen method for pathogen reduction (heat for compost) has met the requirements of sufficient temperature, time and mixing. If the fecal coliforms are reduced to below 1000 per gram dry wt. it is assumed all other pathogens are eliminated. Potential problems are that fecal coliform can regrow during the curing phase or during shipping. This is because the conditions are now more favorable for growth than during the composting process.

Salmonella Bacteria

Less than 3 / 4g dry wt. Salmonella is not only another indicator organism but also a toxic microbe. It has been used in the case of biosolids industry to determine adequate pathogen reduction.

Metals

Pass

The ten heavy metals listed in the EPA 503 regulations are chosen to determine if compost can be applied to agricultural land and handled without toxic effects. Most high concentrations of heavy metals are derived from woodwaste feedstock such as chrome-arsenic treated or lead painted demolition wood. Biosolids are rarely a problem.

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P2O5+K2O)

4.5 Average nutrient content

This value is the sum of the primary nutrients Nitrogen, Phosphorus and Potassium. Reported units are consistent with those found on fertilizer formulations. A sum greater than 5 is indicative of a compost with high nutrient content, and best used to supply nutrients to a receiving soil. A sum below 2 indicates low nutrient content, and is best used to improve soil structure via the addition of organic matter. Most compost falls between 2 and 5.

Account No.:
4060756 - 1/1 - 1299
Group: Jun.14 C No. 29

Date Received: 20 Jun. 14
Sample i.d.: Course
Sample i.d. No.: 1/1 4060756

INTERPRETATION:

AgIndex (Nutrients/Na+Cl)

15 High nutrient ratio Composts with low AgIndex values have high concentrations of sodium and/or chloride compared to nutrients. Repeated use of a compost with a low AgIndex (< 2) may result in sodium and/or chloride acting as the limiting factor compared to nutrients, governing application rates. These composts may be used on well-draining soils and/or with salt-tolerant plants. Additional nutrients from another source may be needed if the application rate is limited by sodium or chloride. If the AgIndex is above 10, nutrients optimal for plant growth will be available without concern of sodium and/or chloride toxicity. Composts with an AgIndex of above 10 are good for increasing nutrient levels for all soils. Most composts score between 2 and 10. Concentrations of nutrients, sodium, and chloride in the receiving soil should be considered when determining compost application rates. The AgIndex is a product of feedstock quality. Feedstock from dairy manure, marine waste, industrial wastes, and halophytic plants are likely to produce a finished compost with a low AgIndex.

Plant Available Nitrogen (lbs/ton)

7 Average N Provider Plant Available Nitrogen (PAN) is calculated by estimating the release rate of Nitrogen from the organic fraction of the compost. This estimate is based on information gathered from the BAC test and measured ammonia and nitrate values. Despite the PAN value of the compost, additional sources of Nitrogen may be needed during the growing season to offset the Nitrogen demand of the microbes present in the compost. With ample nutrients these microbes can further breakdown organic matter in the compost and release bound Nitrogen. Nitrogen demand based on a high C/N ratio is not considered in the PAN calculation because additional Nitrogen should always be supplemented to the receiving soil when composts with a high C/N ratio are applied.

C/N Ratio

15 Indicates immaturity As a guiding principal, a C/N ratio below 14 indicates maturity and above 14 indicates immaturity, however, there are many exceptions. Large woodchips (>6.3mm), bark, and redwood are slow to breakdown and therefore can result in a relatively stable product while the C/N ratio value is high. Additionally, some composts with chicken manure and/or green grass feedstocks can start with a C/N ratio below 15 and are very unstable. A C/N ratio below 10 supplies Nitrogen, while a ratio above 20 can deplete Nitrogen from the soil. The rate at which Nitrogen will be released or used by the microbes is indicated by the respiration rate (BAC). If the respiration rate is too high the transfer of Nitrogen will not be controllable.

Soluble Nutrients & Salts (EC5 w/w dw - mmhos/cm)

7.1 Average salts This value refers to all soluble ions including nutrients, sodium, chloride and some soluble organic compounds. The concentration of salts will change due to the release of salts from the organic matter as it degrades, volatilization of ammonia, decomposition of soluble organics, and conversion of molecular structure. High salts + high AgIndex is indicative of a compost high in readily available nutrients. The application rate of these composts should be limited by the optimum nutrient value based on soil analysis of the receiving soil. High Salts + low AgIndex is indicative of a compost low in nutrients with high concentrations of sodium and/or chloride. Limit the application rate according to the toxicity level of the sodium and/or chloride. Low salts indicates that the compost can be applied without risking salt toxicity, is likely a good source of organic matter, and that nutrients will release slowly over time.

Lime Content (lbs. per ton)

28 High lime content Compost high in lime or carbonates are often those produced from chicken manure (layers) ash materials, and lime products. These are excellent products to use on a receiving soil where lime has been recommended by soil analysis to raise the pH. Composts with a high lime content should be closely considered for pH requirements when formulating potting mixes.

Physical Properties

Percent Ash

47.4 Average ash content Ash is the non-organic fraction of a compost. Most composts contain approximately 50% ash (dry weight basis). Compost can be high in ash content for many reasons including: excess mineralization (old compost), contamination with soil base material during turning, poor quality feedstock, and soil or mineral products added. Finding the source and reducing high ash content is often the fastest means to increasing nutrient quality of a compost.

Particle Size % > 6.3 MM (0.25")

31.0 May restrict use Large particles may restrict use for potting soils, golf course topdressings, seed-starter mixes, and where a fine size distribution is required. Composts with large particles can still be used as excellent additions to field soils, shrub mixes and mulches.

Particle Size Distribution

Each size fraction is measured by weight, volume and bulk density. These results are particularly relevant with decisions to screen or not, and if screening, which size screen to use. The bulk density indicates if the fraction screened is made of light weight organic material or heavy mineral material. Removing large mineral material can greatly improve compost quality by increasing nutrient and organic concentrations.

Appendix:

<p>Plant Available Nitrogen (PAN) calculations: $PAN = (X * (\text{organic N})) + ((\text{NH}_4\text{-N}) + (\text{NO}_3\text{-N}))$ X value = If BAC < 2 then X = 0.1 If BAC = 2.1 to 5 then X = 0.2 If BAC = 5.1 to 10 then X = 0.3 If BAC > 10 then X = 0.4</p> <p>Note: If C/N ratio > 15 additional N should be applied.</p>	<p>Estimated available nutrients for use when calculating application rates lbs/ton (As Rcvd.)</p> <table> <tr> <td>Plant Available Nitrogen (PAN)</td> <td>6.9</td> </tr> <tr> <td>Ammonia (NH4-N)</td> <td>3.60</td> </tr> <tr> <td>Nitrate (NO3-N)</td> <td>0.03</td> </tr> <tr> <td>Available Phosphorus (P2O5*0.64)</td> <td>14.8</td> </tr> <tr> <td>Available Potassium (K2O)</td> <td>3.1</td> </tr> </table>	Plant Available Nitrogen (PAN)	6.9	Ammonia (NH4-N)	3.60	Nitrate (NO3-N)	0.03	Available Phosphorus (P2O5*0.64)	14.8	Available Potassium (K2O)	3.1
Plant Available Nitrogen (PAN)	6.9										
Ammonia (NH4-N)	3.60										
Nitrate (NO3-N)	0.03										
Available Phosphorus (P2O5*0.64)	14.8										
Available Potassium (K2O)	3.1										

SOIL CONTROL LAB

42 HANGAR WAY
WATSONVILLE
CALIFORNIA
95076
USA

Account #: 4060755-1/1-1299
Group: Jun.14 C #28
Reporting Date: July 9, 2014

Eastern Compost LLC
P.O. Box 1396
Oxford, NC 27565
Attn: Jason Smith

Date Received: 20 Jun. 14
Sample Identification: Fine
Sample ID #: 4060755 - 1/1

Nutrients	Dry wt.	As Rcvd.	units	Stability Indicator:	Respirometry	Biologically Available C	
Total Nitrogen:	0.89	0.45	%	CO2 Evolution			
Ammonia (NH ₄ -N):	1700	880	mg/kg	mg CO ₂ -C/g OM/day	1.1	1.2	
Nitrate (NO ₃ -N):	1.2	0.62	mg/kg	mg CO ₂ -C/g TS/day	0.38	0.42	
Org. Nitrogen (Org.-N):	0.72	0.37	%	<i>Stability Rating</i>	<i>very stable</i>	<i>very stable</i>	
Phosphorus (as P ₂ O ₅):	0.56	0.29	%	Maturity Indicator: Cucumber Bioassay			
Phosphorus (P):	2500	1300	mg/kg	Compost:Vermiculite(v:v)	1:1	1:3	
Potassium (as K ₂ O):	0.090	0.046	%	Emergence (%)	100	*	
Potassium (K):	750	380	mg/kg	Seedling Vigor (%)	90	NA	
Calcium (Ca):	0.21	0.11	%	<i>Description of Plants</i>	<i>healthy</i>	<i>NA</i>	
Magnesium (Mg):	0.053	0.027	%	*Sample volume insufficient for test			
Sulfate (SO ₄ -S):	2300	1200	mg/kg	Pathogens	Results	Units	Rating
Boron (Total B):	6.4	3.3	mg/kg	Fecal Coliform	< 2.0	MPN/g	<i>pass</i>
Moisture:	0	49.1	%	Salmonella	< 3	MPN/4g	<i>pass</i>
Sodium (Na):	0.024	0.012	%	Date Tested: 20 Jun. 14			
Chloride (Cl):	0.019	0.0098	%	Inerts	% by weight		
pH Value:	NA	4.77	unit	Plastic	< 0.5		
Bulk Density :	28	56	lb/cu ft	Glass	< 0.5		
Carbonates (CaCO ₃):	5.1	2.6	lb/ton	Metal	< 0.5		
Conductivity (EC5):	4.0	NA	mmhos/cm	Sharps	ND		
Organic Matter:	35.7	18.2	%	Size & Volume Distribution			
Organic Carbon:	19.0	9.5	%	MM	% by weight	% by volume	BD g/cc
Ash:	64.3	32.8	%	> 50	0.0	0.0	0.00
C/N Ratio	21	21	ratio	25 to 50	0.0	0.0	0.00
AgIndex	> 10	> 10	ratio	16 to 25	1.4	1.6	0.47
				9.5 to 16	5.9	10.9	0.28
				6.3 to 9.5	6.6	14.0	0.25
				4.0 to 6.3	7.6	13.2	0.30
				2.0 to 4.0	13.8	18.6	0.38
				< 2.0	64.7	41.9	0.80
				Bulk Density Description:<.35 Light Materials, .35-.60 medium weight materials, >.60 Heavy Materials			
				Analyst: Assaf Sadeh			

Analyst: Assaf Sadeh



*Sample was received and handled in accordance with TMECC procedures.

Account No.:
4060755 - 1/1 - 1299
Group: Jun.14 C No. 28

Date Received 20 Jun. 14
Sample i.d. Fine
Sample I.d. No. 1/1 4060755

INTERPRETATION:

Is Your Compost Stable?

Respiration Rate	Biodegradation Rate of Your Pile
1.1 mg CO ₂ -C/ g OM/day	++++ < Stable > < Moderately Unstable> < Unstable > < High For Mulch
Biologically Available Carbon (BAC)	Optimum Degradation Rate
1.2 mg CO ₂ -C/ g OM/day	++++ < Stable > < Moderately Unstable> < Unstable > < High For Mulch

Is Your Compost Mature?

AmmoniaN/NitrateN ratio	
1400 Ratio	+++++ VeryMature> < Mature > < Immature
Ammonia N ppm	
1700 mg/kg dry wt.	+++++ VeryMature> < Mature > < Immature
Nitrate N ppm	
1.2 mg/kg dry wt.	+ < Immature > < Mature
pH value	
4.77 units	+++++ < Immature > < Mature > < Immature
Cucumber Emergence	
100.0 percent	+++++ < Immature > < Mature

Is Your Compost Safe Regarding Health?

Fecal Coliform	
< 1000 MPN/g dry wt.	+++++ < Safe > < High Fecal Coliform
Salmonella	
Less than 3 /4g dry wt.	+++++ <Safe (none detected) > < High Salmonella Count(> 3 per 4 grams)
Metals	
US EPA 503 Pass dry wt.	+++++ <All Metals Pass > < One or more Metals Fail

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P2O5+K2O)	
1.5 Percent dry wt.	+++++ <Low > < Average > < High Nutrient Content
AgIndex (Nutrients / Sodium and Chloride Salts)	((N+P2O5+K2O) / (Na + Cl))
15 Ratio	+++++ Na & Cl > < Nutrient and Sodium and Chloride Provider > < Nutrient Provider
Plant Available Nitrogen (PAN)	Estimated release for first season
2 lbs/ton wet wt.	+++++ Low Nitrogen Provider> < Average Nitrogen Provider > <High Nitrogen Provider
C/N Ratio	
21 Ratio	+++++ < Nitrogen Release > < N-Neutral > < N-Demand> < High Nitrogen Demand
Soluble Available Nutrients & Salts (EC5 w/w dw)	
4.0 mmhos/cm dry wt.	+++++ SloRelease> < Average Nutrient Release Rate > <High Available Nutrients
Lime Content (CaCO3)	
5.1 Lbs/ton dry wt.	+++++ < Low > < Average > < High Lime Content (as CaCO3)

What are the physical properties of your compost?

Percent Ash	
64.3 Percent dry wt.	+++++ < High Organic Matter > < Average > < High Ash Content
Sieve Size % > 6.3 MM (0.25")	
13.9 Percent dry wt.	+++++ All Uses > < Size May Restrict Uses for Potting mix and Golf Courses

Account No.:
4060755 - 1/1 - 1299
Group: Jun.14 C No. 28

Date Received 20 Jun. 14
Sample i.d. Fine
Sample I.d. No. 1/1 4060755

INTERPRETATION:

Is Your Compost Stable?

Page two of three

Respiration Rate

1.1 Low: Good for all uses mg CO₂-C/g OM/day

The respiration rate is a measurement of the biodegradation rate of the organic matter in the sample (as received). The respiration rate is determined by measuring the rate at which CO₂ is released under optimized moisture and temperature conditions.

Biologically Available Carbon

1.2 Low: Good for all uses mg CO₂-C/g OM/day

Biologically Available Carbon (BAC) is a measurement of the rate at which CO₂ is released under optimized moisture, temperature, porosity, nutrients, pH and microbial conditions. If both the RR and the BAC test values are close to the same value, the pile is optimized for composting. If both values are high the compost pile just needs more time. If both values are low the compost has stabilized and should be moved to curing. BAC test values that are higher than RR indicate that the compost pile has stalled. This could be due to anaerobic conditions, lack of available nitrogen due to excessive air converting ammonia to the unavailable nitrate form, lack of nitrogen or other nutrients due to poor choice of feedstock, pH value out of range, or microbes rendered non-active.

Is Your Compost Mature?

AmmoniaN:NitrateN ratio

1400 immature

Ammonia N ppm

1700 immature

Nitrate N ppm

1.2 immature

pH value

4.77 immature

Composting to stabilize carbon can occur at such a rapid rate that sometimes phytotoxins remain in the compost and must be neutralized before using in high concentrations or in high-end uses. This step is called curing. Typically ammonia is in excess with the break-down of organic materials resulting in an increase in pH. This combination results in a loss of volatile ammonia (it smells). Once this toxic ammonia has been reduced and the pH drops, the microbes convert the ammonia to nitrates. A low ammonia + high nitrate score is indicative of a mature compost, however there are many exceptions. For example, a compost with a low pH (<7) will retain ammonia, while a compost with high lime content can lose ammonia before the organic fraction becomes stable. Composts must first be stable before curing indicators apply.

Cucumber Bioassay

100.0 Percent

Cucumbers are chosen for this test because they are salt tolerant and very sensitive to ammonia and organic acid toxicity. Therefore, we can germinate seeds in high concentrations of compost to measure phytotoxic effects without soluble salts being the limiting factor. Values above 80% for both percent emergence and vigor are indicative of a well-cured compost. Exceptions include very high salts that affect the cucumbers, excessive concentrations of nitrates and other nutrients that will be in range when formulated to make a growing media. In addition to testing a 1:1 compost: vermiculite blend, we also test a diluted 1:3 blend to indicate a more sensitive toxicity level.

Is Your Compost Safe Regarding Health?

Fecal Coliform

< 1000 / g dry wt.

Fecal coliforms can survive in both aerobic and anaerobic conditions and is common in all initial compost piles. Most human pathogens occur from fecal matter and all fecal matter is loaded in fecal coliforms. Therefore fecal coliforms are used as an indicator to determine if the chosen method for pathogen reduction (heat for compost) has met the requirements of sufficient temperature, time and mixing. If the fecal coliforms are reduced to below 1000 per gram dry wt. it is assumed all others pathogens are eliminated. Potential problems are that fecal coliform can regrow during the curing phase or during shipping. This is because the conditions are now more favorable for growth than during the composting process.

Salmonella Bacteria

Less than 3 3 / 4g dry wt. Salmonella is not only another indicator organism but also a toxic microbe. It has been used in the case of biosolids industry to determine adequate pathogen reduction.

Metals

Pass

The ten heavy metals listed in the EPA 503 regulations are chosen to determine if compost can be applied to ag land and handled without toxic effects. Most high concentrations of heavy metals are derived from woodwaste feedstock such as chrome-arsenic treated or lead painted demolition wood. Biosolids are rarely a problem.

Does Your Compost Provide Nutrients or Organic Matter?

Nutrients (N+P2O5+K2O)

1.5 low nutrient content

This value is the sum of the primary nutrients Nitrogen, Phosphorus and Potassium. Reported units are consistent with those found on fertilizer formulations. A sum greater than 5 is indicative of a compost with high nutrient content, and best used to supply nutrients to a receiving soil. A sum below 2 indicates low nutrient content, and is best-used to improve soil structure via the addition of organic matter. Most compost falls between 2 and 5.

Account No.:
4060755 - 1/1 - 1299
Group: Jun.14 C No. 28

Date Received: 20 Jun. 14
Sample i.d.: Fine
Sample I.d. No.: 1/1 4060755

INTERPRETATION:

AgIndex (Nutrients/Na+Cl)

15 High nutrient ratio Composts with low AgIndex values have high concentrations of sodium and/or chloride compared to nutrients. Repeated use of a compost with a low AgIndex (< 2) may result in sodium and/or chloride acting as the limiting factor compared to nutrients, governing application rates. These composts may be used on well-draining soils and/or with salt-tolerant plants. Additional nutrients from another source may be needed if the application rate is limited by sodium or chloride. If the AgIndex is above 10, nutrients optimal for plant growth will be available without concern of sodium and/or chloride toxicity. Composts with an AgIndex of above 10 are good for increasing nutrient levels for all soils. Most composts score between 2 and 10. Concentrations of nutrients, sodium, and chloride in the receiving soil should be considered when determining compost application rates. The AgIndex is a product of feedstock quality. Feedstock from dairy manure, marine waste, industrial wastes, and halophytic plants are likely to produce a finished compost with a low AgIndex.

Plant Available Nitrogen (lbs/ton)

2 Low N Provider Plant Available Nitrogen (PAN) is calculated by estimating the release rate of Nitrogen from the organic fraction of the compost. This estimate is based on information gathered from the BAC test and measured ammonia and nitrate values. Despite the PAN value of the compost, additional sources of Nitrogen may be needed during the growing season to offset the Nitrogen demand of the microbes present in the compost. With ample nutrients these microbes can further breakdown organic matter in the compost and release bound Nitrogen. Nitrogen demand based on a high C/N ratio is not considered in the PAN calculation because additional Nitrogen should always be supplemented to the receiving soil when composts with a high C/N ratio are applied.

C/N Ratio

21 Indicates immaturity As a guiding principal, a C/N ratio below 14 indicates maturity and above 14 indicates immaturity, however, there are many exceptions. Large woodchips (>6.3mm), bark, and redwood are slow to breakdown and therefore can result in a relatively stable product while the C/N ratio value is high. Additionally, some composts with chicken manure and/or green grass feedstocks can start with a C/N ratio below 15 and are very unstable. A C/N ratio below 10 supplies Nitrogen, while a ratio above 20 can deplete Nitrogen from the soil. The rate at which Nitrogen will be released or used by the microbes is indicated by the respiration rate (BAC). If the respiration rate is too high the transfer of Nitrogen will not be controllable.

Soluble Nutrients & Salts (EC5 w/w dw - mmhos/cm)

4.0 Average salts This value refers to all soluble ions including nutrients, sodium, chloride and some soluble organic compounds. The concentration of salts will change due to the release of salts from the organic matter as it degrades, volatilization of ammonia, decomposition of soluble organics, and conversion of molecular structure. High salts + high AgIndex is indicative of a compost high in readily available nutrients. The application rate of these composts should be limited by the optimum nutrient value based on soil analysis of the receiving soil. High Salts + low AgIndex is indicative of a compost low in nutrients with high concentrations of sodium and/or chloride. Limit the application rate according to the toxicity level of the sodium and/or chloride. Low salts indicates that the compost can be applied without risking salt toxicity, is likely a good source of organic matter, and that nutrients will release slowly over time.

Lime Content (lbs. per ton)

5.1 Average lime content Compost high in lime or carbonates are often those produced from chicken manure (layers) ash materials, and lime products. These are excellent products to use on a receiving soil where lime has been recommended by soil analysis to raise the pH. Composts with a high lime content should be closely considered for pH requirements when formulating potting mixes.

Physical Properties

Percent Ash

64.3 High ash content Ash is the non-organic fraction of a compost. Most composts contain approximately 50% ash (dry weight basis). Compost can be high in ash content for many reasons including: excess mineralization (old compost), contamination with soil base material during turning, poor quality feedstock, and soil or mineral products added. Finding the source and reducing high ash content is often the fastest means to increasing nutrient quality of a compost.

Particle Size % > 6.3 MM (0.25")

13.9 May restrict use Large particles may restrict use for potting soils, golf course topdressings, seed-starter mixes, and where a fine size distribution is required. Composts with large particles can still be used as excellent additions to field soils, shrub mixes and mulches.

Particle Size Distribution

Each size fraction is measured by weight, volume and bulk density. These results are particularly relevant with decisions to screen or not, and if screening, which size screen to use. The bulk density indicates if the fraction screened is made of light weight organic material or heavy mineral material. Removing large mineral material can greatly improve compost quality by increasing nutrient and organic concentrations.

Appendix:	Estimated available nutrients for use when calculating application rates lbs/ton (As Rcvd.)	
Plant Available Nitrogen (PAN) calculations: PAN = (X * (organic N)) + ((NH4-N) + (NO3-N))		
X value = If BAC < 2 then X = 0.1	Plant Available Nitrogen (PAN)	2.5
If BAC = 2.1 to 5 then X = 0.2	Ammonia (NH4-N)	1.76
If BAC = 5.1 to 10 then X = 0.3	Nitrate (NO3-N)	0.00
If BAC > 10 then X = 0.4	Available Phosphorus (P2O5*0.64)	3.8
Note: If C/N ratio > 15 additional N should be applied.	Available Potassium (K2O)	0.9

Report Number: 14-168-0210

Account Number: 46974

Submitted By: ALLEN WEATHINGTON



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4020 AJINOMOTO DR
RALEIGH, NC 27610

Project : AJINOMOTO NORTH AMERICA
NC CERT#257

Lab Number : 55977

Sample Id : SLUDGE CAKE

Date Sampled: 6/13/2014 11:30:00

Date Received: 06/17/2014 00:00

Date Reported: 06/20/2014

REPORT OF ANALYSIS

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Solids *	13.49	134900	100.0	JM	06/17/2014 15:00	SM-2540G
Moisture *	86.51		100.0	JM	06/17/2014 15:00	SM-2540G
Total Kjeldahl Nitrogen	8.67	86700	10.0	JM	06/19/2014 07:45	SM-4500-NH3C-TKN
Total Phosphorus	1.07	10700	100	KM	06/18/2014 13:27	SW 6010C
Total Potassium	0.89	8930	100	KM	06/18/2014 13:27	SW 6010C
Total Sulfur	1.16	11600	100	KM	06/18/2014 13:27	SW 6010C
Total Calcium	0.32	3160	100	KM	06/18/2014 13:27	SW 6010C
Total Magnesium	0.19	1870	100	KM	06/18/2014 13:27	SW 6010C
Total Sodium	1.47	14700	100	KM	06/18/2014 13:27	SW 6010C
Total Iron		813	100	KM	06/18/2014 13:27	SW 6010C
Total Aluminum		200	100	KM	06/18/2014 13:27	SW 6010C
Total Manganese		80	5	KM	06/18/2014 13:27	SW 6010C
Total Copper		33	5	KM	06/18/2014 13:27	SW 6010C
Total Zinc		59	5	KM	06/18/2014 13:27	SW 6010C
Ammonia Nitrogen	0.36	3560	10.0	JM	06/18/2014 07:59	SM-4500-NH3C
Organic N	8.31	83140	10.0		06/18/2014 07:59	CALCULATION
Nitrate+Nitrite-N'		23.7	2.00	JM	06/18/2014 08:00	SM-4500NO3F
Total Cadmium		<2.0	2.0	KM	06/18/2014 13:27	SW 6010C

All values are on a dry weight basis except as noted by asterisk. Detection limit on all N series is on a wet basis.

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Debbie Holt

Report Number: 14-168-0210
 Account Number: 46974
 Submitted By: ALLEN WEATHINGTON



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Project : AJINOMOTO NORTH AMERICA
 NC CERT#257

Lab Number : 55977
 Sample Id : SLUDGE CAKE

REPORT OF ANALYSIS

Date Sampled: 6/13/2014 11:30:00
 Date Received: 06/17/2014 00:00
 Date Reported: 06/20/2014

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Chromium		9	5	KM	06/18/2014 13:27	SW 6010C
Total Nickel		6	5	KM	06/18/2014 13:27	SW 6010C
Total Lead		<5	5	KM	06/18/2014 13:27	SW 6010C
Total Arsenic		<3.0	3.0	KM	06/18/2014 13:27	SW 6010C
Total Mercury		<0.4	0.4	KM	06/19/2014 00:00	SW-7471B
Total Selenium		<5.0	5.0	KM	06/18/2014 13:27	SW 6010C
pH (Standard Units)*	7.77		2.00	JM	06/18/2014 07:59	SW-9045D
Total Molybdenum		<5	5	KM	06/18/2014 13:27	SW 6010C

Comments:

SULFUR AND ORGANIC NITROGEN NOT FOR COMPLIANCE PURPOSES.

QUALIFIER: THE MATRIX SPIKE WAS OUT OF LIMITS FOR "Fe", "P", AND "S". ALL OTHER QC DATA IS ACCEPTABLE.

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Report Number: 13-249-0202
 Account Number: 46974
 Submitted By: KEVIN ADAMS



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Project : CAKE SLUDGE
 NC CERT#257

Lab Number : 95352
 Sample Id : CAKE SLUDGE

REPORT OF ANALYSIS

Date Sampled: 9/5/2013 08:45:00
 Date Received: 09/06/2013 00:00
 Date Reported: 09/12/2013

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Solids *	15.90	159000	100.0	JM	09/06/2013 14:30	SM-2540G
Moisture *	84.10		100.0	JM	09/06/2013 14:30	SM-2540G
Total Kjeldahl Nitrogen	8.62	86200	10.0	JM	09/09/2013 09:15	SM-4500-NH3C-TKN
Total Phosphorus	1.08	10800	100	KM	09/09/2013 12:33	SW 6010C
Total Potassium	0.81	8110	100	KM	09/09/2013 12:33	SW 6010C
Total Sulfur	0.84	8400	100	KM	09/09/2013 12:33	SW 6010C
Total Calcium	0.34	3380	100	KM	09/09/2013 12:33	SW 6010C
Total Magnesium	0.17	1730	100	KM	09/09/2013 12:33	SW 6010C
Total Sodium	1.21	12100	100	KM	09/09/2013 12:33	SW 6010C
Total Iron		711	100	KM	09/09/2013 12:33	SW 6010C
Total Aluminum		300	100	KM	09/09/2013 12:33	SW 6010C
Total Manganese		80	5	KM	09/09/2013 12:33	SW 6010C
Total Copper		17	5	KM	09/09/2013 12:33	SW 6010C
Total Zinc		46	5	KM	09/09/2013 12:33	SW 6010C
Ammonia Nitrogen	0.25	2450	10.0	JM	09/09/2013 09:15	SM-4500-NH3C
Organic N	8.37	83750	10.0		09/09/2013 09:15	CALCULATION
Nitrate+Nitrite-N		16.4	2.00	JM	09/09/2013 09:15	SM-4500NO3F
Total Cadmium		<2.0	2.0	KM	09/09/2013 12:33	SW 6010C

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Report Number: 13-249-0202
 Account Number: 46974
 Submitted By: KEVIN ADAMS



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Project : CAKE SLUDGE
 NC CERT#257

Lab Number : 95352
 Sample Id : CAKE SLUDGE

REPORT OF ANALYSIS

Date Sampled: 9/5/2013 08:45:00
 Date Received: 09/06/2013 00:00
 Date Reported: 09/12/2013

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Chromium		11	5	KM	09/09/2013 12:33	SW 6010C
Total Nickel		6	5	KM	09/09/2013 12:33	SW 6010C
Total Lead		<5	5	KM	09/09/2013 12:33	SW 6010C
Total Arsenic		<3.0	3.0	KM	09/09/2013 12:33	SW 6010C
Total Mercury		<0.4	0.4	KM	09/09/2013 09:00	SW-7471B
Total Selenium		<5.0	5.0	KM	09/09/2013 12:33	SW 6010C
pH (Standard Units) *	7.63		2.00	JM	09/09/2013 09:15	SW-9045D
Total Molybdenum		5	5	KM	09/09/2013 12:33	SW 6010C

Comments:

SULFUR AND ORGANIC NITROGEN NOT FOR COMPLIANCE PURPOSES.
 QUALIFIER: THE %RPD WAS OUT OF LIMITS FOR "TKN". THE MATRIX SPIKE WAS OUT OF LIMITS FOR "Fe", "P", AND "S". ALL OTHER QC DATA IS ACCEPTABLE.

All values are on a dry weight basis except as noted by asterisk. Detection limit on all N series is on a wet basis.

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Debbie Holt

Report Number: 13-352-0204

Account Number: 46974

Submitted By: ALLEN WEATHINGTON



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RALEIGH, NC 27610

Project : SLUDGE CAKE
NC CERT#257

Lab Number : 97177
Sample Id : SLUDGE CAKE

REPORT OF ANALYSIS

Date Sampled: 12/17/2013 11:30:00

Date Received: 12/18/2013 00:00

Date Reported: 12/23/2013

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Solids *	13.26	132600	100.0	JM	12/18/2013 15:29	SM-2540G
Moisture *	86.74		100.0	JM	12/18/2013 15:29	SM-2540G
Total Kjeldahl Nitrogen	8.97	89700	10.0	JM	12/19/2013 07:59	SM-4500-NH3C-TKN
Total Phosphorus	1.37	13700	100	KM	12/20/2013 10:55	SW 6010C
Total Potassium	0.99	9850	100	KM	12/20/2013 10:55	SW 6010C
Total Sulfur	1.02	10200	100	KM	12/20/2013 10:55	SW 6010C
Total Calcium	0.26	2580	100	KM	12/20/2013 10:55	SW 6010C
Total Magnesium	0.20	1970	100	KM	12/20/2013 10:55	SW 6010C
Total Sodium	1.40	14000	100	KM	12/20/2013 10:55	SW 6010C
Total Iron		1390	100	KM	12/20/2013 10:55	SW 6010C
Total Aluminum		200	100	KM	12/20/2013 10:55	SW 6010C
Total Manganese		70	5	KM	12/20/2013 10:55	SW 6010C
Total Copper		14	5	KM	12/20/2013 10:55	SW 6010C
Total Zinc		48	5	KM	12/20/2013 10:55	SW 6010C
Ammonia Nitrogen	0.32	3240	10.0	JM	12/19/2013 08:15	SM-4500-NH3C
Organic N	8.65	86460	10.0		12/19/2013 07:59	CALCULATION
Nitrate+Nitrite-N		11.3	2.00	JM	12/19/2013 08:15	SM-4500NO3F
Total Cadmium		<2.0	2.0	KM	12/20/2013 10:55	SW 6010C

All values are on a dry weight basis except as noted by asterisk. Detection limit on all N series is on a wet basis.

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Debbie Holt

Report Number: 13-352-0204
 Account Number: 46974
 Submitted By: ALLEN WEATHINGTON



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Project : SLUDGE CAKE
 NC CERT#257

Lab Number : 97177
 Sample Id : SLUDGE CAKE

REPORT OF ANALYSIS

Date Sampled: 12/17/2013 11:30:00
 Date Received: 12/18/2013 00:00
 Date Reported: 12/23/2013

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Chromium		11	5	KM	12/20/2013 10:55	SW 6010C
Total Nickel		5	5	KM	12/20/2013 10:55	SW 6010C
Total Lead		<5	5	KM	12/20/2013 10:55	SW 6010C
Total Arsenic		<3.0	3.0	KM	12/20/2013 10:55	SW 6010C
Total Mercury		<0.4	0.4	KM	12/20/2013 09:00	SW-7471B
Total Selenium		<5.0	5.0	KM	12/20/2013 10:55	SW 6010C
pH (Standard Units) *	7.53		2.00	JM	12/19/2013 08:15	SW-9045D
Total Molybdenum		<5	5	KM	12/20/2013 10:55	SW 6010C

Comments:

SULFUR AND ORGANIC NITROGEN NOT FOR COMPLIANCE PURPOSES.
 QUALIFIER: THE MATRIX SPIKE WAS OUT OF LIMITS FOR "K" AND "NO3/NO2-N". ALL OTHER QC DATA IS ACCEPTABLE.

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Debbie Holt

Report Number: 14-077-0214
 Account Number: 46974
 Submitted By: ALLEN WEATHINGTON



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Project : SLUDGE/NC CERT#257

Lab Number : 98423
 Sample Id : SLUDGE

REPORT OF ANALYSIS

Date Sampled: 3/13/2014 09:30:00
 Date Received: 03/18/2014 00:00
 Date Reported: 03/21/2014

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Solids *	12.33	123300	100.0	JM	03/18/2014 15:15	SM-2540G
Moisture *	87.67		100.0	JM	03/18/2014 15:15	SM-2540G
Total Kjeldahl Nitrogen	9.08	90800	10.0	JM	03/20/2014 09:49	SM-4500-NH3C-TKN
Total Phosphorus	1.34	13400	100	KM	03/19/2014 14:57	SW 6010C
Total Potassium	0.92	9230	100	KM	03/19/2014 14:57	SW 6010C
Total Sulfur	0.98	9780	100	KM	03/19/2014 14:57	SW 6010C
Total Calcium	0.26	2560	100	KM	03/19/2014 14:57	SW 6010C
Total Magnesium	0.23	2270	100	KM	03/19/2014 14:57	SW 6010C
Total Sodium	1.21	12100	100	KM	03/19/2014 14:57	SW 6010C
Total Iron		909	100	KM	03/19/2014 14:57	SW 6010C
Total Aluminum		1300	100	KM	03/19/2014 14:57	SW 6010C
Total Manganese		74	5	KM	03/19/2014 14:57	SW 6010C
Total Copper		9	5	KM	03/19/2014 14:57	SW 6010C
Total Zinc		44	5	KM	03/19/2014 14:57	SW 6010C
Ammonia Nitrogen	0.36	3570	10.0	JM	03/20/2014 09:49	SM-4500-NH3C
Organic N	8.72	87230	10.0		03/20/2014 09:49	CALCULATION
Nitrate+Nitrite-N		8.92	2.00	jm	03/19/2014 09:00	SM-4500NO3F
Total Cadmium		<2.0	2.0	KM	03/19/2014 14:57	SW 6010C

All values are on a dry weight basis except as noted by asterisk. Detection limit on all N series is on a wet basis.

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Debbie Holt

Report Number: 14-077-0214

Account Number: 46974

Submitted By: ALLEN WEATHINGTON



A&L Eastern Laboratories, Inc.

7621 Whitepine Road Richmond, Virginia 23237 (804) 743-9401 Fax (804) 271-6446

Send To: AJINOMOTO NORTH AMERICA INC
4020 AJINOMOTO DR
RALEIGH, NC 27610

Project : SLUDGE/NC CERT#257

Lab Number : 98423
Sample Id : SLUDGE

REPORT OF ANALYSIS

Date Sampled: 3/13/2014 09:30:00

Date Received: 03/18/2014 00:00

Date Reported: 03/21/2014

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Chromium		8	5	KM	03/19/2014 14:57	SW 6010C
Total Nickel		5	5	KM	03/19/2014 14:57	SW 6010C
Total Lead		<5	5	KM	03/19/2014 14:57	SW 6010C
Total Arsenic		<3.0	3.0	KM	03/19/2014 14:57	SW 6010C
Total Mercury		<0.4	0.4	KM	03/19/2014 09:00	SW-7471B
Total Selenium		<5.0	5.0	KM	03/19/2014 14:57	SW 6010C
pH (Standard Units) *	7.63		2.00	JM	03/19/2014 09:00	SW-9045D
Total Molybdenum		<5	5	KM	03/19/2014 14:57	SW 6010C

Comments:

SULFUR AND ORGANIC NITROGEN NOT FOR COMPLIANCE PURPOSES.

QUALIFIER: THE MATRIX SPIKE WAS OUT OF LIMITS FOR "AI". ALL OTHER QC DATA IS ACCEPTABLE.

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