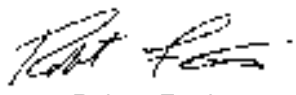


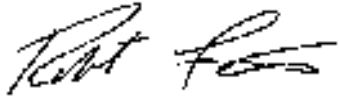


13611 B Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121 • www.midwestlabs.com

Lab #	2224503	Report of Analysis		Report Number: 14-027-2053																																																																																																																																																																
Account: 28674	MIKE WOLFE C AND C PEAT COMPANY 1650 CR 470 OKAHUMPKA FL 34762		 Robert Ferris Client Service Representative 402-829-9871																																																																																																																																																																	
Date Sampled: Date Received: Sample ID:	15-Jan-14 16-Jan-14 COMPOST																																																																																																																																																																			
			MONTHLY COMPOST SAMPLE																																																																																																																																																																	
<table border="1"> <thead> <tr> <th></th> <th></th> <th>Analysis (as rec'd)</th> <th>Analysis (dry weight)</th> <th>Total content, lbs per ton (as rec'd)</th> </tr> </thead> <tbody> <tr> <td colspan="5">NUTRIENTS</td> </tr> <tr> <td colspan="5"><u>Nitrogen</u></td> </tr> <tr> <td>Total Nitrogen</td> <td>%</td> <td>0.43</td> <td>1.06</td> <td>8.6</td> </tr> <tr> <td>Organic Nitrogen</td> <td>%</td> <td>0.31</td> <td>0.77</td> <td>6.3</td> </tr> <tr> <td>Ammonium Nitrogen</td> <td>%</td> <td>0.117</td> <td>0.289</td> <td>2.3</td> </tr> <tr> <td>Nitrate Nitrogen</td> <td>%</td> <td>< 0.01</td> <td>----</td> <td>----</td> </tr> <tr> <td colspan="5"><u>Major and Secondary Nutrients</u></td> </tr> <tr> <td>Phosphorus</td> <td>%</td> <td>0.20</td> <td>0.49</td> <td>4.0</td> </tr> <tr> <td>Phosphorus as P2O5</td> <td>%</td> <td>0.46</td> <td>1.14</td> <td>9.2</td> </tr> <tr> <td>Potassium</td> <td>%</td> <td>0.32</td> <td>0.79</td> <td>6.4</td> </tr> <tr> <td>Potassium as K2O</td> <td>%</td> <td>0.38</td> <td>0.94</td> <td>7.6</td> </tr> <tr> <td>Sulfur</td> <td>%</td> <td>0.12</td> <td>0.30</td> <td>2.4</td> </tr> <tr> <td>Calcium</td> <td>%</td> <td>0.70</td> <td>1.73</td> <td>14.0</td> </tr> <tr> <td>Magnesium</td> <td>%</td> <td>0.09</td> <td>0.22</td> <td>1.8</td> </tr> <tr> <td>Sodium</td> <td>%</td> <td>0.060</td> <td>0.148</td> <td>1.2</td> </tr> <tr> <td colspan="5"><u>Micronutrients</u></td> </tr> <tr> <td>Zinc</td> <td>ppm</td> <td>62</td> <td>153</td> <td>0.1</td> </tr> <tr> <td>Iron</td> <td>ppm</td> <td>582</td> <td>1439</td> <td>1.2</td> </tr> <tr> <td>Manganese</td> <td>ppm</td> <td>30</td> <td>74</td> <td>----</td> </tr> <tr> <td>Copper</td> <td>ppm</td> <td>49</td> <td>121</td> <td>----</td> </tr> <tr> <td>Boron</td> <td>ppm</td> <td>< 20</td> <td>----</td> <td>----</td> </tr> <tr> <td colspan="5">OTHER PROPERTIES</td> </tr> <tr> <td>Moisture</td> <td>%</td> <td colspan="2">59.56</td> <td></td> </tr> <tr> <td>Total Solids</td> <td>%</td> <td colspan="2">40.44</td> <td>808.8</td> </tr> <tr> <td>Organic Matter</td> <td>%</td> <td>31.00</td> <td>76.66</td> <td>620.0</td> </tr> <tr> <td>Ash</td> <td>%</td> <td>9.45</td> <td>23.37</td> <td>189.0</td> </tr> <tr> <td>C:N Ratio</td> <td></td> <td colspan="2">36.1:1</td> <td></td> </tr> <tr> <td>Total Carbon</td> <td>%</td> <td>15.53</td> <td>38.40</td> <td></td> </tr> <tr> <td>Chloride</td> <td>%</td> <td>0.08</td> <td>0.20</td> <td></td> </tr> <tr> <td>pH</td> <td></td> <td colspan="2">8.7</td> <td></td> </tr> <tr> <td>Conductivity 1:5 (Soluble Salts)</td> <td>mS/cm</td> <td colspan="2">28.8</td> <td></td> </tr> </tbody> </table>							Analysis (as rec'd)	Analysis (dry weight)	Total content, lbs per ton (as rec'd)	NUTRIENTS					<u>Nitrogen</u>					Total Nitrogen	%	0.43	1.06	8.6	Organic Nitrogen	%	0.31	0.77	6.3	Ammonium Nitrogen	%	0.117	0.289	2.3	Nitrate Nitrogen	%	< 0.01	----	----	<u>Major and Secondary Nutrients</u>					Phosphorus	%	0.20	0.49	4.0	Phosphorus as P2O5	%	0.46	1.14	9.2	Potassium	%	0.32	0.79	6.4	Potassium as K2O	%	0.38	0.94	7.6	Sulfur	%	0.12	0.30	2.4	Calcium	%	0.70	1.73	14.0	Magnesium	%	0.09	0.22	1.8	Sodium	%	0.060	0.148	1.2	<u>Micronutrients</u>					Zinc	ppm	62	153	0.1	Iron	ppm	582	1439	1.2	Manganese	ppm	30	74	----	Copper	ppm	49	121	----	Boron	ppm	< 20	----	----	OTHER PROPERTIES					Moisture	%	59.56			Total Solids	%	40.44		808.8	Organic Matter	%	31.00	76.66	620.0	Ash	%	9.45	23.37	189.0	C:N Ratio		36.1:1			Total Carbon	%	15.53	38.40		Chloride	%	0.08	0.20		pH		8.7			Conductivity 1:5 (Soluble Salts)	mS/cm	28.8		
		Analysis (as rec'd)	Analysis (dry weight)	Total content, lbs per ton (as rec'd)																																																																																																																																																																
NUTRIENTS																																																																																																																																																																				
<u>Nitrogen</u>																																																																																																																																																																				
Total Nitrogen	%	0.43	1.06	8.6																																																																																																																																																																
Organic Nitrogen	%	0.31	0.77	6.3																																																																																																																																																																
Ammonium Nitrogen	%	0.117	0.289	2.3																																																																																																																																																																
Nitrate Nitrogen	%	< 0.01	----	----																																																																																																																																																																
<u>Major and Secondary Nutrients</u>																																																																																																																																																																				
Phosphorus	%	0.20	0.49	4.0																																																																																																																																																																
Phosphorus as P2O5	%	0.46	1.14	9.2																																																																																																																																																																
Potassium	%	0.32	0.79	6.4																																																																																																																																																																
Potassium as K2O	%	0.38	0.94	7.6																																																																																																																																																																
Sulfur	%	0.12	0.30	2.4																																																																																																																																																																
Calcium	%	0.70	1.73	14.0																																																																																																																																																																
Magnesium	%	0.09	0.22	1.8																																																																																																																																																																
Sodium	%	0.060	0.148	1.2																																																																																																																																																																
<u>Micronutrients</u>																																																																																																																																																																				
Zinc	ppm	62	153	0.1																																																																																																																																																																
Iron	ppm	582	1439	1.2																																																																																																																																																																
Manganese	ppm	30	74	----																																																																																																																																																																
Copper	ppm	49	121	----																																																																																																																																																																
Boron	ppm	< 20	----	----																																																																																																																																																																
OTHER PROPERTIES																																																																																																																																																																				
Moisture	%	59.56																																																																																																																																																																		
Total Solids	%	40.44		808.8																																																																																																																																																																
Organic Matter	%	31.00	76.66	620.0																																																																																																																																																																
Ash	%	9.45	23.37	189.0																																																																																																																																																																
C:N Ratio		36.1:1																																																																																																																																																																		
Total Carbon	%	15.53	38.40																																																																																																																																																																	
Chloride	%	0.08	0.20																																																																																																																																																																	
pH		8.7																																																																																																																																																																		
Conductivity 1:5 (Soluble Salts)	mS/cm	28.8																																																																																																																																																																		



13611 B Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121 • www.midwestlabs.com

Lab #	2224503	Additional Metals Report	Report Number: 14-027-2053
Account: 28674	MIKE WOLFE C AND C PEAT COMPANY 1650 CR 470 OKAHUMPKA FL 34762		 Robert Ferris Client Service Representative 402-829-9871
Date Sampled: Date Received: Sample ID:	15-Jan-14 16-Jan-14 COMPOST		

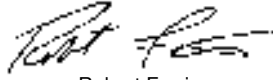
MONTHLY COMPOST SAMPLE

	Analysis (as rec'd)	Analysis (dry weight)	Units	Detection Limit	Method	Ceiling Conc.* (dry weight)
ADDITIONAL METALS						
Arsenic	< 0.5	----	mg/kg	0.5	EPA 6020	75 ppm
Cadmium	< 0.5	----	mg/kg	0.50	EPA 6010	85 ppm
Chromium	2.1	5.2	mg/kg	1.0	EPA 6010	3000 ppm
Lead	< 5	----	mg/kg	5.0	EPA 6010	840 ppm
Mercury	0.05	0.12	mg/kg	0.05	EPA 7471A	57 ppm
Molybdenum	< 1	----	mg/kg	1.0	EPA 6010	75 ppm
Nickel	1.6	4.0	mg/kg	1.0	EPA 6010	420 ppm
Selenium	< 10	----	mg/kg	10.0	EPA 6010	100 ppm

* Reference 40 CFR Table 1 of 503.13 for Ceiling Concentrations.
 * Sample was prepared for EPA 6010 analysis by EPA Method 3050b.



13611 B Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121 • www.midwestlabs.com

Lab # 2224503		Biological & Physical Properties		Report Number: 14-027-2053		
Account: 28674		MIKE WOLFE C AND C PEAT COMPANY 1650 CR 470 OKAHUMPKA FL 34762		 Robert Ferris Client Service Representative 402-829-9871		
Date Sampled: Date Received: Sample ID:		15-Jan-14 16-Jan-14 COMPOST				MONTHLY COMPOST SAMPLE
		Analysis (as rec'd)	Analysis (dry weight)	Units	Detection Limit	Method
Biological Properties						
5 Day Germination		95		%	1	TMECC
7 Day Vigor		89		%	1	TMECC
CO ₂ OM Evolution		0.07		mgCO ₂ -C/gOM/day	0.01	TMECC 05.08A
CO ₂ Solids Evolution		0.17		mgCO ₂ -C/gTS/day	0.01	TMECC 05.08A
Fecal Coliform			n.d.	mpn/g	2	EPA 1681
Salmonella			n.d.	mpn/4g	0.01	EPA 1682
Stability Rating		Stable		N/A	N/A	TMECC 05.08A
Physical Properties						
Bulk Density (Loose)		573		lbs/cu yard	1	WT/VOL
Bulk Density (Packed)		910		lbs/cu yard	1	WT/VOL
Man Made Materials			n.d.	%	0.1	Microscopic
Max. Particle Length			4.5	inches	N/A	TMECC Sieve
Sieve % Passing 3"			100	%	0.01	TMECC Sieve
Sieve % Passing 2"			100	%	0.01	TMECC Sieve
Sieve % Passing 1.5"			100	%	0.01	TMECC Sieve
Sieve % Passing 1"			100	%	0.01	TMECC Sieve
Sieve % Passing 3/4"			100	%	0.01	TMECC Sieve
Sieve % Passing 5/8"			100	%	0.01	TMECC Sieve
Sieve % Passing 3/8"			89	%	0.01	TMECC Sieve
Sieve % Passing 1/4"			83	%	0.01	TMECC Sieve



13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121
www.midwestlabs.com

Compost Results Interpretations
Page 1

Report #:

14-027-2053

DATE RECEIVED:

16-Jan-14

Organic Matter %

31.00 As Received

76.66 Dry Weight

Greater than 20% indicates a desirable range for compost on a dry weight basis.

Compost is a significant source of Organic Matter, which is an important supplier of carbon. Organic Matter improves soil and plant efficiency by improving soil physical properties, providing a source of energy to beneficial organisms, and enhancing the reservoir of soil nutrients.

C/N Ratio

36.1:1

20-30 indicates an ideal range for the initial compost process.

10-20 indicates an ideal range for a finished compost.

All organic matter is made up of substantial amounts of carbon with lesser amounts of nitrogen. The balance of these two elements is called the Carbon/Nitrogen Ratio. For the best performance, the compost pile requires the correct proportion of carbon for energy and nitrogen for protein production. If the C:N ratio is too high (excess carbon) decomposition slows down. If the C:N ratio is too low (excess Nitrogen) the compost pile could be difficult to manage.

Moisture %

59.56

<35% = Indicates overly dry compost

>55% = Indicates overly wet compost

Moisture Percent is the measure of water present in the compost and expressed as a percentage of total weight. Moisture present affects handling and transport. Overly dry will be light and dusty while overly wet will be heavy and clumpy. A desirable moisture content of finished compost will range between 40 to 50%.



13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121
www.midwestlabs.com

Compost Results Interpretations
Page 2

Report #:
DATE RECEIVED:

14-027-2053
16-Jan-14

Conductivity or Soluble Salts measures the conductance of electrical current in a liquid compost slurry. Excessive soluble salt content in a compost can prevent or delay seed germination and proper root growth. Conductivity analysis is done on a 1:5

Conductivity 1:5	
28.8	
Conductivity Level	Interpretation
Greater than 10	Very High nutrient content. Use for Ag Applications
5 - 10	High nutrient content. Use for Ag Applications
3 - 5	Higher than desirable for salt sensitive plants, some loss of vigor
0.6 - 3	Desirable range for most plants
0.3 - 0.6	Ideal range for greenhouse growth media
0.0 - 0.3	Very Low: Indicates very low nutrient status: plants may show deficiencies.

Compost Results Interpretations
Page 3

Report #: 14-027-2053
DATE RECEIVED: 16-Jan-14

pH Value
8.7

0 to 14 scale with 6 to 8 as normal pH levels for compost
A pH in the 6 to 8 pH range indicates a more mature compost

pH measures the acidity or alkalinity of the compost, and is a measurement of the hydrogen ion activity of a soil or compost on a logarithmic scale. The pH scale ranges from 0 to 14 and 7 indicates a neutral pH. Growing media with a higher pH or pH greater than 7 can benefit from a compost that has a more acidic pH or pH below 7. This type of application will possibly lower the soil pH making the soil more conducive to plants that thrive in a more acidic soil condition.

Nutrient Index (Ag Index)
9.1

The Nutrient Index normally runs between 1 and 10.

The Nutrient Index is obtained by dividing the total nutrients (N,P,K) by the amount of salt (Sodium and Chloride). The higher the Nutrient Index the less chance of having a toxic buildup of Sodium (salt) in the soil.

AG INDEX CHART										
salt injury		use on soils with excellent drainage characteristics, good water quality and low salts				you may use on soils with poor drainage, poor water quality, or high salts				for all soils
1	2	3	4	5	6	7	8	9	10	> 10

Nutrients (N+P205+K20)

3.14 Average Nutrient Content Dry Weight
0.5-0.5-0.5 Rating As Received

<2 = Low, >5 = High

The most commonly used compost data is the amount of Nitrogen, Phosphate, and Potash (abbreviated as N,P,K) present and the information is similar to that found in common fertilizers. If a compost result has the rating 1-2-2 it means that the compost has 1% Nitrogen, 2% Phosphate and 2% Potash. Most compost tests will have a average nutrient level (N+P+K) of < 5%.