Triangle Brick

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Durham, NC 27713-9413
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July 11, 2013

North Carolina Department of Environment and Natural Resources

Division of Waste Management

1646 Mail Service Center

Raleigh, NC 27699-1646

RECEIVED
JUL 23 2013
SOLID WASTE SECTION

Dear Mr. Brad Bailey,

I am writing to submit an annual report on behalf of Triangle Brick Company, Merry Oaks Plant, for the land application of the limestone by-product that we generate. This is in accordance with the BMP plan that was approved on June 2, 2009 by Michael E. Scott.

Triangle Brick Company has distributed 150.69 tons of limestone by-product from July 1, 2012 thru June 30, 2013. Mr. Tony Ragan has land applied 401.5 tons of material during this time (see attached documentation provided by Mr. Ragan). 50 tons of material is currently held in storage to be applied in the current year.

Please find enclosed Waste Analysis Reports from North Carolina Department of Agriculture & Consumer Services.

Sincerely,

Ricky Merritt

Director of Engineering

Triangle Brick Company

3/8 Chemical Stone

Delivery Date	Kiln #	Qty. (Tons)	Recv'd By:
8/15/2012	3	24.72	BR
10/2/2012	3	25.18	BR
12/11/2012	3	24.82	BR
2/19/2013	3	25.15	RR
4/23/2013	3	25.08	BR
6/6/2013	3	25.11	BR
Total		150.06	

Ragan Farms Lime Spread July 2012 - July 2013					
Date	Field	Land Used For	Tons/Acres	Acres	Tons
10/19/2012	Matthews	Pasture	1/2	17	8.5
10/19/2012	Matthews	Crop	1	15	15
10/19/2012	Davenport	Crop	1	12.5	12.5
10/20/2012	Davenport	Hay	1	7.5	7.5
10/20/2013	Davenport	Crop	1	6	6
10/20/2012	Davenport	crop	1	5	5
10/20/2013	Davenport	Crop	1	18	18
10/21/2012	DC Holler	Crop	1	18	18
12/10/2012	Ammons	Hay & Crop	1	80	80
3/7/2013	Ragan	Pasture	1/2	5	2.5
3/8/2013	Davenport	Hay	1	77	77
3/8/2013	Ragan	Crop	1	15	15
3/8/2013	Ragan	Crop	1/2	10	5
3/9/2013	Adcock	Crop	1	3.5	3.5
5/4/2013	Phillips	Pasture	1	28	28
6/6/2013	Adcock (River)	Crop	1	10	10
6/13/2013	Adcock	Crop	1	10	10
6/12/2013	Dowdy	Crop	1	25	25
6/12/2013	Underwood	Crop	1	25	25
6/13/2013	Ammons	Crop	1	30	30
					401.5

50 Tons - Stored

NCDA&CS Agronomic Division **Phone: (919) 733-2655** **Website: www.ncagr.gov/agronomi/** **Report No.** FY13-W000427

Diagnostic

Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: Ricky Merritt
294 King Rd
Moncure, NC 27559

County: Chatham

Links to Helpful Information

Sampled: **Received:** 07/13/2012 **Completed:** 07/13/2012 *Farm:*

Sample Information

Sample ID: TBCDLA
Waste Code: SAO
Description:
Indust.-Stack Ash

Comments:

Nutrient and Other Measurements

Nitrogen (N) (ppm)		*P (ppm)*	*K (ppm)*	*Ca (ppm)*	*Mg (ppm)*	*S (ppm)*	*Fe (ppm)*	*Mn (ppm)*	*Zn (ppm)*	*Cu (ppm)*	*B (ppm)*	*Na (ppm)*	*C (ppm)*
Total N	0	50.5	604	247000	3950	5370	768	69.6	77.0	2.13	679	818	
Total Kjeldahl N													

Inorganic N	*pH*	*DM (%)*	*SS (10^{-5}S/cm)*	*EC (mS/cm)*	*CCE (%)*	*ALE*(tons)	*C:N*
NH_4-N	7.42	99.7			73.8	1.22	
NO_3-N							

Organic N	*Ni (ppm)*	*Cd (ppm)*	*Pb (ppm)*	*Al (ppm)*	*Se (ppm)*	*Li (ppm)*	*As (ppm)*	*Cr (ppm)*	*Co (ppm)*	*Cl (ppm)*	*Mo (ppm)*
Urea	1.32	0.35									

Estimate of Nutrients Available for First Crop (lb / ton)

Application Method	*N*	*P_2O_5*	*K_2O*	*Ca*	*Mg*	*S*	*Fe*	*Mn*	*Zn*	*Cu*	*B*	*Mo*
Broadcast	0	0.68	4.83	1440	23.1	31.4	4.48	0.41	0.45	0.01	3.96	0
Soil Incorporated	0	0.77	5.44	1650	26.4	35.8	5.12	0.46	0.51	0.01	4.53	0

Other Elements (lb / ton)

	Cl	*Na*	*Ni*	*Cd*	*Pb*	*Al*	*Se*	*Li*
Broadcast	0	6.82	0.01	0.00	0	0	0	0
Soil Incorporated	0	6.82	0.01	0.00	0	0	0	0

Agronomist's Comments:

*******NOTE: Values of 0.0 indicate nutrients/metals were below detection limits.*******

Brenda R. Cleveland 8/2/2012 11:45 AM

North Carolina
Tobacco Trust Fund Commission

Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission.

Thank you for using agronomic services to manage nutrients and safeguard environmental quality.
- Steve Troxler, Commissioner of Agriculture.

NCDA&CS Agronomic Division | Phone: (919) 733-2655 | Website: www.ncagr.gov/agronomi/ | Report No. FY13-W002550

Diagnostic

Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: Ricky Merritt
294 King Rd
Moncure, NC 27559

County: Chatham

Links to Helpful Information

Sampled: **Received:** 10/15/2012 **Completed:** 10/16/2012 *Farm:*

Sample Information

Sample ID: TBCDLA
Waste Code: SAO
Description:
Indust.-Stack Ash

Comments:

Nutrient and Other Measurements

Nitrogen (N) (ppm)		*P (ppm)*	*K (ppm)*	*Ca (ppm)*	*Mg (ppm)*	*S (ppm)*	*Fe (ppm)*	*Mn (ppm)*	*Zn (ppm)*	*Cu (ppm)*	*B (ppm)*	*Na (ppm)*	*C (ppm)*
Total N	110	31.7	703	230000	3910	5610	752	57.5	139	1.54	374	574	
Total Kjeldahl N													

Inorganic N	*pH*	*DM (%)*	*SS (10^{-5}S/cm)*	*EC (mS/cm)*	*CCE (%)*	*ALE* (tons)	*C:N*
NH4-N	7.62	99.0			67.5	1.35	
NO3-N							

Organic N	*Ni (ppm)*	*Cd (ppm)*	*Pb (ppm)*	*Al (ppm)*	*Se (ppm)*	*Li (ppm)*	*As (ppm)*	*Cr (ppm)*	*Co (ppm)*	*Cl (ppm)*	*Mo (ppm)*
Urea	1.42	0.41	1.36								

Estimate of Nutrients Available for First Crop (lb / ton)

Application Method	*N*	*P2O5*	*K2O*	*Ca*	*Mg*	*S*	*Fe*	*Mn*	*Zn*	*Cu*	*B*	*Mo*
Broadcast	0.09	0.10	1.34	319	5.42	7.78	1.04	0.08	0.19	0.00	0.52	
Soil Incorporated	0.11	0.11	1.50	364	6.20	8.89	1.19	0.09	0.22	0.00	0.59	

Other Elements (lb / ton)

	Cl	*Na*	*Ni*	*Cd*	*Pb*	*Al*	*Se*	*Li*
Broadcast		1.14	0.00	0.00	0.00			
Soil Incorporated		1.14	0.00	0.00	0.00			

Agronomist's Comments:

The ALE (agricultural lime equivalency) indicates the quantity of waste material (in tons) that will provide a liming effect equivalent to one ton of agricultural grade limestone (90% CaCO3). The ALE of this sample is very low. Do not apply more than a 1/2" thick layer (or approximately 32 tons per acre) each year without soil testing to monitor soil pH. Over application can lead to high soil pH and reduced availability of some plant nutrients. Also, confirm that nutrient concentrations are not rate limiting. Brenda R. Cleveland 10/17/2012

North Carolina
Tobacco Trust Fund Commission

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Thank you for using agronomic services to manage nutrients and safeguard environmental quality.
- Steve Troxler, Commissioner of Agriculture.

NCDA&CS Agronomic Division Phone: (919) 733-2655 Website: www.ncagr.gov/agronomi/ Report No. FY13-W004626

Predictive

Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: Ricky Merritt
294 King Rd
Moncure, NC 27559

County: Chatham

Links to Helpful Information

Sampled: Received: 01/25/2013 Completed: 01/28/2013 Farm:

Sample Information

Sample ID: TBCDLA
Waste Code: SAO
Description:
Indust.-Stack Ash

Comments:

Nutrient and Other Measurements

Nitrogen (N) (ppm)		P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	C (ppm)
Total N	638	33.1	609	246000	4320	7020	720	82.8	463	2.96	434	688	
Total Kjeldahl N													

Inorganic N	pH	DM (%)	SS (10^{-5}S/cm)	EC (mS/cm)	CCE (%)	ALE (tons)	C:N
NH_4-N	6.80	99.6			65.0	1.39	
NO_3-N							

Organic N	Ni (ppm)	Cd (ppm)	Pb (ppm)	Al (ppm)	Se (ppm)	Li (ppm)	As (ppm)	Cr (ppm)	Co (ppm)	Cl (ppm)	Mo (ppm)
Urea	1.34	0.31	0								

Application Method

Estimate of Nutrients Available for First Crop (lb / ton)

N	P_2O_5	K_2O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo

Other Elements (lb / ton)

Cl	Na	Ni	Cd	Pb	Al	Se	Li

Agronomist's Comments:

Brenda R. Cleveland 1/30/2013 1:53 PM

North Carolina Tobacco Trust Fund Commission

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Thank you for using agronomic services to manage nutrients and safeguard environmental quality.
- Steve Troxler, Commissioner of Agriculture.

NCDA&CS Agronomic Division **Phone: (919) 733-2655** **Website: www.ncagr.gov/agronomi/** **Report No.** FY13-W007133

Predictive

Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: Ricky Merritt
294 King Rd
Moncure, NC 27559

County: Chatham

Links to Helpful Information

Sampled: **Received:** 04/29/2013 **Completed:** 04/30/2013 *Farm:*

Sample Information

Sample ID: TBCDLA
Waste Code: SAO
Description:
Indust.-Stack Ash

Comments:

Nutrient and Other Measurements

Nitrogen (N) (ppm)		*P (ppm)*	*K (ppm)*	*Ca (ppm)*	*Mg (ppm)*	*S (ppm)*	*Fe (ppm)*	*Mn (ppm)*	*Zn (ppm)*	*Cu (ppm)*	*B (ppm)*	*Na (ppm)*	*C (ppm)*
Total N	143	68.3	1170	284000	3480	9030	749	86.7	391	2.64	367	1330	
Total Kjeldahl N													

Inorganic N	*pH*	*DM (%)*	*SS (10^{-5}S/cm)*	*EC (mS/cm)*	*CCE (%)*	*ALE* (tons)	*C:N*
NH_4-N	7.57	99.5			62.8	1.44	
NO_3-N							

Organic N	*Ni (ppm)*	*Cd (ppm)*	*Pb (ppm)*	*Al (ppm)*	*Se (ppm)*	*Li (ppm)*	*As (ppm)*	*Cr (ppm)*	*Co (ppm)*	*Cl (ppm)*	*Mo (ppm)*
Urea	1.60	0.78	2.61								

Estimate of Nutrients Available for First Crop (lb / ton)

Application Method	*N*	*P_2O_5*	*K_2O*	*Ca*	*Mg*	*S*	*Fe*	*Mn*	*Zn*	*Cu*	*B*	*Mo*
Soil Incorporated	0.14	0.25	2.52	452	5.54	14.4	1.19	0.14	0.62	T	0.58	
Broadcast	0.11	0.22	2.24	396	4.85	12.6	1.04	0.12	0.54	T	0.51	

Other Elements (lb / ton)

Cl	*Na*	*Ni*	*Cd*	*Pb*	*Al*	*Se*	*Li*
	2.64	T	T	0.01			
	2.64	T	T	0.01			

Agronomist's Comments:

Aaron Pettit 5/3/2013 10:41 AM

North Carolina
Tobacco Trust Fund Commission

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- Steve Troxler, Commissioner of Agriculture.