

**BROOKSIDE LABORATORIES, INC.**  
**\*\* LIMING MATERIAL REPORT \*\***

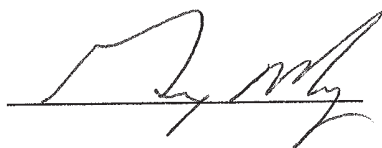
1020 Cliff Road  
 Burnsville, MN  
 Submitted By: Paskvan Consulting

File Number: 38311  
 Date Recv'd: 12/20/99  
 Date Rept'd: 12/21/99

Lab Number Description	L187 LIME SAND <sup>594</sup> PORTABLE PLANT		L188 LIME SAND <sup>711</sup> MAIN PLANT	
	As Is	Dry	As Is	Dry
<b>PERCENTAGES (%)</b>				
Moisture	3.3		4.5	
Calcium (Ca)	17.8	18.4	17.4	18.2
as Ca Oxide	24.9	25.8	24.3	25.5
as Ca Carbonate	44.4	46.0	43.4	45.4
Magnesium (Mg)	10.1	10.5	10.0	10.5
as Mg Oxide	16.8	17.4	16.7	17.4
as Mg Carbonate	35.1	36.3	34.8	36.5
as CaCO3 equivalent	41.7	43.1	41.4	43.3
Total Neutralizing Power (C.C.E.) in terms of CaCO3	87.7	90.7	93.0	97.4
Sodium (Na)	0.02	0.02	0.02	0.02
Potassium (K)	0.07	0.08	0.08	0.09
Sulfur (S)	0.29	0.30	0.27	0.28
<b>PARTS PER MILLION (ppm)</b>				
Iron (Fe)	10689.05	11058.40	9300.17	9738.40
Manganese (Mn)	1079.69	1117.00	1021.28	1069.40
Copper (Cu)	13.63	14.10	13.66	14.30
Zinc (Zn)	36.25	37.50	32.47	34.00
Boron (B)	30.45	31.50	24.83	26.00

**FINENESS TEST**

Sieve Number	% Passing	
8	66.1	61.1
20	37.1	39.6
60	14.6	25.3
100	9.7	17.3
<b>E.C.C. %</b>	<b>29 %</b>	<b>30 %</b>
	<b>34 %</b>	<b>36 %</b>

Reviewed by: 

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Lab Number Description	L189 AG LIME <sup>10<sup>80</sup></sup> PEP SCREEN		L190 AG LIME <sup>10<sup>82</sup></sup> DRY PLANT	
	As Is	Dry	As Is	Dry
<b>PERCENTAGES (%)</b>				
Moisture	6.1		3.4	
Calcium (Ca)	15.9	17.0	18.7	19.3
as Ca Oxide	22.3	23.7	26.1	27.0
as Ca Carbonate	39.8	42.4	46.6	48.2
Magnesium (Mg)	9.2	9.8	10.8	11.2
as Mg Oxide	15.2	16.2	17.9	18.5
as Mg Carbonate	31.8	33.9	37.4	38.7
as CaCO3 equivalent	37.8	40.2	44.3	45.9
Total Neutralizing Power (C.C.E.) in terms of CaCO3	79.9	85.0	92.4	95.7
Sodium (Na)	0.02	0.02	0.02	0.02
Potassium (K)	0.13	0.13	0.11	0.11
Sulfur (S)	0.19	0.20	0.24	0.25
<b>PARTS PER MILLION (ppm)</b>				
Iron (Fe)	9710.20	10338.80	8554.90	8856.00
Manganese (Mn)	960.05	1022.20	1029.66	1065.90
Copper (Cu)	13.71	14.60	14.97	15.50
Zinc (Zn)	40.29	42.90	38.74	40.10
Boron (B)	23.86	25.40	25.50	26.40

**FINENESS TEST**

Sieve Number	% Passing	% Passing
8	91.6	92.2
20	72.1	59.7
60	51.2	40.5
100	41.1	32.3
E.C.C. %	53 %	56 %

Reviewed by: 