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REPORT OF ANALYSIS

Report Number: CA100-4448-5

May 21, 2009

Reported To:
British Columbia Ministry of Agriculture and Lands
Resource Management Branch
1767 Angus Campbell Road
Abbotsford, BC V3G 2M3

JOB:	**Submitted Sample**
PRODUCT DESCRIBED AS:	**Broiler Chicken Litter (manure)**
DATE RECEIVED:	**May 1, 2009**

Based on the submitted sample received May 1, 2009 and subsequently tested at our laboratories, we report the following test results:

TEST	RESULT			UNIT	METHOD
	AS RECEIVED BASIS	DRY BASIS	AIR DRY BASIS		
Moisture	48.90	---	2.57	% Wt.	ASTM D3302/D3173
Ash	9.83	19.23	18.74	% Wt.	ASTM D3174
Volatile	34.19	66.90	65.18	% Wt.	ASTM D3175
Fixed Carbon	7.08	13.87	13.51	% Wt.	ASTM D3172
	100.00	100.00	100.00		
Sulphur	0.31	0.60	0.58	% Wt.	ASTM D4239
Calorific Value Gross	3614	7072	6890	BTU/lb	ASTM D5865
Calorific Value Gross	2008	3929	3828	Kcal/kg	ASTM D5865
Calorific Value Net	2860	6590	6394	BTU/lb	ASTM D5865
Calorific Value Net	1589	3661	3552	Kcal/kg	ASTM D5865
Free Swelling Index	0	0	0	Index	ASTM D720
Chlorine		0.614		% Wt.	ASTM D4208-02
Fluorine		0.003		% Wt.	ASTM D3761

Reviewed:

Paul Sall
Laboratory Manager

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ULTIMATE ANALYSIS

ASTM METHOD: D3176

TEST	RESULT				UNIT
	AS RECEIVED BASIS	AIR DRY BASIS	DRY BASIS	DAF	
Moisture	48.90	2.57			%
Carbon	20.65	39.37	40.41	50.03	%
Hydrogen	2.66	5.07	5.20	6.44	%
Nitrogen	2.20	4.20	4.31	5.34	%
Sulphur	0.31	0.58	0.60	0.74	%
Ash	9.83	18.74	19.23		%
Oxygen (diff)	15.45	29.47	30.25	37.45	%
	100.00	100.00	100.00	100.00	

Reviewed:

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Laboratory Manager

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MINERAL ANALYSIS

ASTM METHOD: D6349, D5016

TEST	RESULT	UNIT
Silica, SiO_2	5.87	%
Alumina, Al_2O_3	0.95	%
Titania, TiO_2	0.04	%
Ferric Oxide, Fe_2O_3	0.68	%
Lime, CaO	28.29	%
Magnesia, MgO	5.70	%
Potassium Oxide, K_2O	12.11	%
Sodium Oxide, Na_2O	3.79	%
Sulfur Trioxide, SO_3	5.98	%
Phos. Pentoxide, P_2O_5	32.44	%
StromiumOxide, SrO	0.03	%
Barium Oxide, BaO	0.03	%
Manganese Oxide, MnO	0.44	%
Undetermined	3.65	%
	100.00	

Reviewed:

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FUSION TEMPERATURE OF ASH

TEST	RESULT	UNIT	METHOD
REDUCING ATMOSPHERE			ASTM D1857
Initial Deformation Temperature, IT	+1482	°C	
Softening Temperature, (H=W), ST	+1482	°C	
Hemispherical Temperature, HT	+1482	°C	
Fluid Temperature, FT	+1482	°C	
OXIDIZING ATMOSPHERE			ASTM D1857
Initial Deformation Temperature, IT	1266	°C	
Softening Temperature, (H=W), ST	+1482	°C	
Hemispherical Temperature, HT	+1482	°C	
Fluid Temperature, FT	+1482	°C	

Reviewed:

Paul Sall
Laboratory Manager