

Report Number: 1125-346

Account Number: 95000

# A & L Canada Laboratories Inc.

2136 Jetstream Road, London, Ontario, N5V 3P5  
Telephone: (519) 457-2575 Fax: (519) 457-2664



To: SPEC ENVIRONMENTAL SOLUTIONS I  
1774 PATRICE RD CONCESSION  
PO BOX 149  
CHURCH POINT, NS B0W 1M0

For: SMC1/11

Report Date: 5/17/2011

## COMPOST REPORT

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Sample Number	Lab Number	pH	Lime Index	Available Organic Matter %	Phosphorus P ppm	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm
SMC1	20318	6.2	6.3	16.0	901	338	468	1915

Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Sodium Na ppm	Nitrate-N NO <sub>3</sub> -N ppm	Soluble Salt ms/cm	Nitrogen (Total) (%)	Moisture %
27	52.4	25	311	2.4	1.4	74	47	0.5	1.16	

## INTERPRETATION

CEC meq/100g	Percent Base Saturation					Proportional Equivalents (meq)				Cation Ratio		C/N Ratio
	% BS	% K	% Mg	% Ca	% Na	K	Mg	Ca	Na	Mg/K	Ca/Mg	
15.8	92.4	5.48	24.34	60.55	2.03	0.87	3.85	9.57	0.32	4:1	2:1	
<i>Optimum Range:</i>		3 - 5	8 - 20	60 - 80		0.5 - 1.3				7:1	5:1	

CQA

\* Crop yield is influenced by a number of factors in addition to soil fertility. No guarantee or warranty concerning crop performance is made by A & L

\* Results reported on a dry weight basis.

Results Authorized By:  Ian McLachlin, Vice President

REPORT NO.

C11125-7009

ACCOUNT NUMBER

95000

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2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664



TO: SPEC ENVIRONMENTAL SOLUTIONS

1777 PATRICE RD

CONCESSION BOX 149 RR#1

CHURCH POINT, NS B0W1M0

CANADA

ATTN: MIKE QUINN



## CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:

LAB NUMBER: 125716

SAMPLE ID: SMC 1/11

SAMPLE MATRIX: COMPOST

DATE RECEIVED: 05/03/2011

DATE REPORTED: 05/17/2011

PAGE: 1

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Arsenic	4.10	ug/g	1.00	TMECC.04.13
Cadmium	BDL*	ug/g	1.00	TMECC.04.06
Chromium	30.35	ug/g	1.00	TMECC.04.06
Cobalt	4.20	ug/g	1.00	TMECC.04.06
Copper	44.15	ug/g	1.00	TMECC.04.06
Lead	5.65	ug/g	1.00	TMECC.04.06
Mercury	0.12	ug/g	0.10	TMECC.04.13A
Molybdenum	BDL*	ug/g	2.00	TMECC.04.06
Nickel	13.30	ug/g	1.00	TMECC.04.06
Selenium	BDL*	ug/g	1.00	TMECC.04.13
Zinc	355.60	ug/g	1.00	TMECC.04.06

BDL - Below detectable levels

Results reported on a dry weight basis

Results Authorized By:

James Beswick, Laboratory Supervisor

The results of this report relate to the sample submitted and analyzed

A&L Canada Laboratories Inc. is accredited by the Standards Council of Canada for specific tests as listed on www.scc.ca and by the Canadian Association for Laboratory Accreditation as listed on www.cala.ca

REPORT NO.

C11125-7009

ACCOUNT NUMBER

95000

# A & L Canada Laboratories Inc.

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TO: SPEC ENVIRONMENTAL SOLUTIONS

1777 PATRICE RD

CONCESSION BOX 149 RR#1

CHURCH POINT, NS B0W1M0

CANADA

ATTN: MIKE QUINN



## CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:

LAB NUMBER: 125717

SAMPLE ID: SMC 1/11

SAMPLE MATRIX: COMPOST

DATE RECEIVED: 05/03/2011

DATE REPORTED: 05/17/2011

PAGE: 2

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Fecal Coliform	<3	MPN/g		TMECC.07.01
Salmonella	<3	MPN/4g		TMECC.07.02
Total Inert Materials	BDL*	%	0.10	TMECC.03.08
Total Sharp Inert Materials (> 3.0mm)	BDL*	%	0.01	TMECC.03.08
Total Plastic Inert Materials	BDL*	%	0.01	TMECC.03.08
OM @ 550 deg C	30.13	%	0.10	LOI@550C
Moisture	49.40	%	0.10	TMECC.03.09
C:N Ratio	14:1			TMECC.05.02
Sieve 2 Inch (% Passing)	100.00	%	0.10	ASTMD422
Sieve 1 Inch (% Passing)	100.00	%	0.10	ASTMD422
Sieve 1/2 Inch (% Passing)	100.00	%	0.10	ASTMD422
Sieve 3/8 Inch (% Passing)	98.40	%	0.01	ASTMD422
Sieve 1/4 Inch (% Passing)	95.80	%	0.01	ASTMD422
Compost Stability Index	8	---		TMECC.05.08-B
Respiration-CO2-C/g OM/day	BDL*	mgCO2	0.01	TMECC.05.08-B
Respiration - CO2-C/g TS/day	BDL*	mgCO2	0.01	TMECC.05.08-B

BDL - Below detectable levels

Results reported on a dry weight basis

Maturity Index: 8 - Inactive, highly matured compost,

very well aged, possibly over-aged, like soil; no

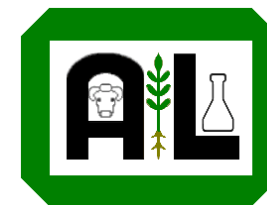
limitations for usage.

Results Authorized By:

James Beswick, Laboratory Supervisor

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**Compost Summary Report**

**To: Spec Environmental Solutions  
 1777 Patrice Road Concession  
 P.O Box 149  
 Church Point, NS,  
 B0W 1M0**

**Attn. Mike Quinn**

**CQA Reports (inclusive): C1125-346, C11125-7009**  
**Results for Sample ID: SMC 1/11 (3/5/2011)**

**Date Reported: May 16, 2011**

**CQA Product Quality Test Requirements**

<b>Sample I.D.#</b>	<b>Recommended Product Use</b>	<b>PH</b>	<b>C/N ratio</b>	<b>Moisture</b>	<b>Particle size</b>	<b>Soluble Salts</b>	<b>CO<sub>2</sub> Respiration</b>
<b>SMC 1/11 (3/5/2011)</b>	Landscaping/Soil Amendment, light topdressing	6.2	14:1	49.4 %	1/4 in.	0.5 ms/cm	<0.01 mg. CO <sub>2</sub> -C/g O.M./day

Recommendations for product use are only a suggestion based on the analysis that was performed on this material. This compost has mature properties (low CO<sub>2</sub>, respiration), is finer (95% 1/4 in.+) textured, and could primarily suit for soil mix blending, soil amendment and light topdressing end-uses due to its physical and chemical properties. The suggested use is meant only as a guide for interpretation on what the best end use may be.

**Comments:**

**Heavy Metals:** The results of our testing indicate sample identified as “SMC 1/11 (3/5/2011)” meets both the CCME and BNQ (2005) current standards for maximum allowable trace metal content in Category A compost.

**Microbiological:** The results of our testing indicate this sample “meets” the CCME and BNQ (2005) standards for maximum allowable microbiological levels.

**Maturity and Stability:** The CO<sub>2</sub> respiration at <0.01 mg CO<sub>2</sub> C/g O.M./day is “mature” in comparison to Dewar (8) rating indicating mature compost properties and exceeding mature compost guidelines.

**Compost Quality Requirements:** \* Our testing indicates this compost is finer textured at primarily 1/4 in. particle size. The properties of this material would meet criteria best suited for landscaping soil amendment, and mulching. The sodium for landscaping and soil amendment purposes should be less than 2.0 % Na saturation in the final mix, and this material is slightly higher at 2.0 % Na, which could be considered safe to use in many different uses and applications as long as the overall proportion of the compost to soil in the end is within tolerance levels (< 2.0% Na). We would recommend blending this compost at a minimum proportion of 2-3 parts soil to one part compost, to be considered safe to use in many different uses and applications due to the possibility of some higher sodium.