

Report Number: C17062-10159  
 Account Number: 98043

# A & L Canada Laboratories Inc.

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



C17062-10159



To: ESSEX-WINDSOR SWA  
 360 FAIRVIEW AVE WEST  
 SUITE 211  
 ESSEX, ON N8M 3G4

For: ROW O-15

519-776-6370

Reported Date: 2017-03-10  
 Printed Date: Mar 13, 2017

## COMPOST REPORT

Page: 1 / 1

Sample Number	Lab Number	pH	Lime Index	Available Organic Matter %	Phosphorus P ppm	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm
ROW O-15	48182	8.0	6.9	27.1	918	6319	1531	6373

Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Sodium Na ppm	Nitrate-N NO3-N ppm	Soluble Salt ms/cm	Nitrogen (Total) (%)	Moisture %
143	40.1	43	282	4.0	6.6	249	125	3.6	1.95	

### INTERPRETATION

CEC		Percent Base Saturation				Proportional Equivalents (meq)				Cation Ratio		C/N Ratio
meq/100g	% BS	% K	% Mg	% Ca	% Na	K	Mg	Ca	Na	Mg/K	Ca/Mg	
61.7	100.0	26.24	20.39	51.61	1.75	16.20	12.59	31.87	1.08	1:1	3:1	
Optimum Range:		3 - 5	8 - 20	60 - 80		0.5 - 1.3				7:1	5:1	

### CQA

\* Results reported on a dry weight basis.

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

\* 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.**

A&L Canada Laboratories Inc. is accredited by the Standards Council of Canada for specific tests as listed on [www.scc.ca](http://www.scc.ca) and by the Canadian Association for Laboratory Accreditation as listed on [www.cala.ca](http://www.cala.ca)  
 Additional information available upon request

Results Authorized By:

Ian McLachlin, Vice President

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REPORT NUMBER: C17062-10159  
ACCOUNT NUMBER: 98043

## REPORT OF ANALYSIS

TO: ESSEX-WINDSOR SWA  
360 FAIRVIEW AVE WEST  
SUITE 211  
ESSEX, ON N8M 3G4

RE: ROW O-15

DATE RECEIVED: 2017-03-03  
DATE REPORTED: 2017-03-13  
PAGE: 1 / 1

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
48182	ROW O-15	Nitrogen (Total)	1.9	%	TMECC.04.02-D



C17062-10159

Results Authorized By:

A handwritten signature in black ink, appearing to be 'm. [unclear]', written over a horizontal line.

REPORT NO.  
C17062-70007

ACCOUNT NUMBER  
98043

# A & L Canada Laboratories Inc.

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



TO: ESSEX-WINDSOR SWA  
360 FAIRVIEW AVE WEST  
SUITE 211  
ESSEX, ON N8M 3G4

FOR: ROW "O-15"

ATTN: RALPH REISER

Phone: 800-563-3377  
Fax: 519-776-6370



## CERTIFICATE OF ANALYSIS

PAGE: 1 / 2

PROJECT NO:  
PO#:  
LAB NUMBER: 627010  
SAMPLE ID: ROW "O-15"

SAMPLE MATRIX: COMPOST  
DATE SAMPLED: 2017-02-28  
DATE RECEIVED: 2017-03-03  
DATE REPORTED: 2017-03-10  
DATE PRINTED: 2017-03-13

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
Arsenic	7.82	ug/g	1.00	EPA 3050/6010 (mod) *
Cadmium	1.03	ug/g	1.00	TMECC.04.06; EPA 3050/6010(mod)*
Cobalt	3.59	ug/g	1.00	TMECC.04.06; EPA 3050/6010(mod)
Chromium	15.27	ug/g	1.00	TMECC.04.06; EPA 3050/6010(mod)*
Copper	56.80	ug/g	1.00	TMECC.04.06; EPA 3050/6010(mod)
Mercury	0.24	ug/g	0.10	EPA 7471 *
Molybdenum	1.7	ug/g	1.0	TMECC.04.06; EPA 3050/6010(mod)*
Nickel	9.59	ug/g	1.00	TMECC.04.06; EPA 3050/6010(mod)
Lead	40.53	ug/g	1.00	TMECC.04.06; EPA 3050/6010(mod)
Selenium	BDL*	ug/g	1.00	EPA 3050/6010 (mod) *
Zinc	300.40	ug/g	1.00	TMECC.04.06; EPA 3050/6010(mod)

Comment:

Results reported on a dry weight basis

\* - accredited test

BDL - Below detectable levels

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



C17062-70007

Results Authorized By:

Haifeng Song, Ph.D., C.Chem. Lab Director

REPORT NO.  
C17062-70007

ACCOUNT NUMBER  
98043

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TO:ESSEX-WINDSOR SWA  
360 FAIRVIEW AVE WEST  
SUITE 211  
ESSEX, ON N8M 3G4

FOR:ROW "O-15"

ATTN:RALPH REISER

Phone:800-563-3377  
Fax:519-776-6370



## CERTIFICATE OF ANALYSIS

PAGE: 2 / 2

PROJECT NO:  
PO#:  
LAB NUMBER:627011  
SAMPLE ID:ROW "O-15"

SAMPLE MATRIX:COMPOST  
DATE SAMPLED:2017-02-28  
DATE RECEIVED:2017-03-03  
DATE REPORTED:2017-03-10  
DATE PRINTED:2017-03-13

PARAMETER	RESULT	UNIT	DETECTION LIMIT	METHOD REFERENCE
E. coli	<3	MPN/g dry	3	TMECC 07.01
Salmonella spp.	NEGATIVE	P-A/25.0g(ml)	1 CFU	MFLP-75 *
Total FM > 2.8 mm*	BDL*	%	0.01	TMECC 03.08
Total FM > 25 mm	BDL*	pieces/500ml		TMECC 03.08
Total plastics > 2.8 mm*	BDL*	%	0.01	TMECC 03.08
Total sharps > 2.8 mm*	BDL*	pieces/500ml		TMECC 03.08
Total sharps > 12.5 mm	BDL*	pieces/500ml		TMECC 03.08
Total Organic Matter @ 550 deg C	30.03	%	0.10	LOI@550C
Moisture	31.22	%	0.10	TMECC.03.09-A
C:N Ratio	10:1			TMECC.05.02-A
Sieve 2 Inch (% Passing)	100.00	%	0.10	ASTMD422
Sieve 1 Inch (% Passing)	100.00	%	0.10	ASTMD422
Sieve 1/2 Inch (% Passing)	97.90	%	0.10	ASTMD422
Sieve 3/8 Inch (% Passing)	95.50	%	0.01	ASTMD422
Sieve 1/4 Inch (% Passing)	91.20	%	0.10	ASTMD422
Compost Stability Index	8	---		TMECC.05.08-B
Respiration-mgCO <sub>2</sub> -C/g OM/day	1.30	mgCO <sub>2</sub> -C/ gOM/day	0.01	TMECC.05.08-B
Respiration - mgCO <sub>2</sub> -C/g TS/day	0.40	mgCO <sub>2</sub> -C/gTS/ day	0.01	TMECC.05.08-B

**Comment:**

Maturity Index: 8 - Inactive, highly matured compost, very well aged, possibly over-aged, like soil; no limitations for usage.

- 1.FM(Foreign matter) = glass,metal,plastic
- 2.Sharps = foreign matter pieces of a size or shape that can cause human or animal injury
- 3.8 mesh screen = 2.36mm
- 4.\*2.8mm screen is used since 3.0mm screen does not exist

Results reported on a dry weight basis

\* - accredited test

BDL - Below detectable levels

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



C17062-70007

Results Authorized By:

Haifeng Song, Ph.D., C.Chem. Lab Director

# Compost Quality Alliance

## Summary of Analysis Report

To: Essex-Windsor Solid Waste Authority  
 360 Fairview Ave - Suite 211  
 Essex, ON N8M 3G4

Account # 98043  
 Report # C17062-10159  
 C17062-70007

Attention: Ralph Reiser

Sampled Date: 28-Feb-17  
 Reported Date: 13-Mar-17

### CQA Product Quality Test Requirements

Sample ID#	Recommended Product Use	pH	Total Organic Matter (550°C)	C:N Ratio	Moisture
ROW "0-15"	Soil/agricultural amendment, topdressing	8	70.1%	10:1	31.2%

### General Recommendations

Recommendations for product use are only a suggestion based on the analysis that was performed on this material. The suggested use is meant only as a guide for interpretation on what the best end use may be.

<b>Particle Size</b>	This compost indicates a fine texture and is primarily suited for soil/agricultural amendments and topdressing end uses due to the physical and chemical properties.
91% < 1/4 in	
<b>Heavy Metals</b>	The sample "ROW "0-15" (February 28, 2017)" meets the current CCME <b>Category A</b> and Ontario <b>Category AA</b> compost standards for maximum allowable trace metal content in compost.
see comment	
<b>Microbiology</b>	The results of our testing indicate this sample meets the current CCME and Ontario compost standards for maximum allowable microbiological levels.
E.Coli <3	
Salmonella neg	
<b>CO<sub>2</sub> Respiration</b>	The CO <sub>2</sub> respiration is 1.30 mg CO <sub>2</sub> -C/g O.M./day and <b>meets</b> CCME guidelines for a mature compost.
1.30 mg CO <sub>2</sub> -C/g O.M./day	
<b>Stability</b>	The Solvita rating of this compost suggests a stable and mature material.
8	
<b>Foreign Matter</b>	This compost <b>meets</b> the CCME <b>Category A</b> and Ontario <b>Category AA</b> compost standard for foreign matter.
Total BDL	
Plastics BDL	
Sharps BDL	
<b>Soluble Salts</b>	This material has a base saturation of sodium at <b>1.75%Na</b> . From a sodium perspective anything above 2% Na could cause plant injury when used as a top dressing or a soil mix. It is safe to use as an agricultural amendment. We recommend blending this material at a minimum of 2-3 parts soil to compost to dilute the sodium concentration.
3.6 ms/cm	