www.compost.org

SUMMARY OF ANALYSIS REPORT

To: City of Brandon
410-9th Street
Brandon, Manitoba R7A 6A2

CQA Member#: 18-2500

Attention:

Sample I.D.: ROW 3

Report#: C25196-10051
C25196-70009

Sample Date: 7/11/2025
Reported Date: 7/23/2025

Compost Manufactured in: Manitoba
Feedstock: *Leaf & Yard Residues*

CQA COMPOST QUALITY & VALUE TESTING PARAMETERS REPORT

SAMPLE ID	RECOMMENDED END USE/MARKET
ROW 3	CATEGORY A
Regulatory	See Appendix I
Product Quality	See Appendix II
Product Value/ Soil Suitability*	See Appendix III (Soil, Enviro, Manure Compost)

The Compost Quality Alliance (CQA) is a voluntary quality monitoring program established by the Compost Council of Canada and the compost producers utilizing recognized standardized testing methodologies and uniform operating protocols to provide customer assurance in compost selection its use, and proper end-use utilization.

All analysis of this compost product was conducted and provided by A&L Canada Laboratories Inc. for the Compost Quality Alliance (CQA).

Haifeng Song, Senior Chemist

Ian McLachlin, Vice-President

A&L Canada Laboratories Inc.
London, Ontario Canada
(519) 457-2575

A proud member of

Fièrement membre du Conseil canadien du COMPOST Council of Canada
Proud to be a member

***PLEASE NOTE: Major Nutrients under the Fertilizer Act and Regulations (CFIA)**

Please see Appendix III for nutrient content (of impact to claims and labelling if used in declarations).

Compost is classified in Schedule II as a supplement, and as such nutrient guarantees are not mandatory. However, if any claims are made regarding nutritional value of the product, such as for composted manure, the product would then be classified as a supplement and a fertilizer, and the label would have to include the guarantees for the major nutrients. The guarantees for the major nutrients include the minimum amounts of Total Nitrogen (N), Available Phosphoric Acid (P2O5) and Soluble Potash K2O. Source: T-4-120 - Regulation of Compost under the Fertilizers Act and Regulations. http://www.inspection.gc.ca/plants/fertilizers/trade-memoranda/t-4-120/eng/1307910204607/1307910352783

Appendix I

CCME Guidelines 2005 & CFIA Fertilizer Act & Regulations:

Alberta, Manitoba, New Brunswick, Nova Scotia, Newfoundland, Prince Edward Island & Territories

A. Maximum Concentrations for Trace Metals in Compost‡

		Category A	Category B
Trace Elements	**Test Results** (ug/g)	**Maximum Concentration within Product** (mg/kg dry weight)	
Arsenic (As)	**4.15**	13	75
Cadmium (Cd)	**BDL**	3	20
Chromium (Cr)	**13.91**	210	**
Cobalt (Co)	**3.63**	34	150
Copper (Cu)	**29.02**	400	**
Lead (Pb)	**17.10**	150	500
Mercury (Hg)	**BDL**	0.8	5
Molybdenum (Mo)	**1.50**	5	20
Nickel (Ni)	**9.57**	62	180
Selenium (Se)	**BDL**	2	14
Zinc (Zn)	**107.05**	700	1850

** Upper limits are not established in the Trade Memorandum.

B. Foreign Matter in Compost‡

	Test Results	Category A	Category B
Foreign Matter		Contains no more than 1 piece of foreign matter >25mm/500ml	Contains no more than 2 pieces of foreign matter > 25mm/500mL
Pieces >25mm/500mL	0		
Sharp Foreign Matter		No sharp foreign matter >3mm per 500ml	No more than 3 pieces of sharp matter < 12.5mm/500mL Note: This compost shall not be used in pastures, parks, or residential
Pieces > 3mm/500mL	0		
Pieces > 12.5mm/500mL	0		

C. Maturity/Stability‡

Method	Test Results	Required Limits
CO2 Respiration Rate (mg CO2/g O.M./day)	**1.10**	≤ 4 mg of carbon in the form of carbon dioxide per gram of organic matter per day
02 Uptake Respiration Rate (mg 02/kg O.M./hr)		≤ 400 mg oxygen/kg of volatile solids (or organic matter)/hour

D. Pathogens‡

Pathogen	Test Results	Required Limits
Fecal Coliform (MPN/g dry)	119	<1000 MPN/g of total solids calculated on a dry weight basis
Salmonella (P-A/25g(ml))	**NEGATIVE**	<3 MPN/4g total solids calculated on a dry weight basis

‡The following references are from the CCME guidelines (PN1340), October 2005

*BDL = Below Detectable Limits

E. CFIA

Parameter	Test Results
Total Organic Matter (%)	26.89%
Moisture (%)	37.00%

All analysis conducted and prepared by:
A L Canada Laboratories
2136 Jetstream Rd London, Ontario N5V 3P5 (519) 457-2575

Appendix II
Finished Compost Quality

Parameter	Test Results
pH	7.8
Carbon to Nitrogen Ratio	11:1
Particle Size/Texture (inch)+	1/4
Soluble Salts (ms/cm)	3.9
Sodium Base Saturation (%Na)	1.24%
Major Nutrients	
Available Potassium (%K)	23.04%
Available Magnesium (%Mg)	16.26%
Available Calcium (%Ca)	59.46%

+ Majority of sample passes through this sieve size

Category A - Compost that can be used in any application, such as agricultural lands, residential gardens, horticultural operations, the nursery industry, and other businesses.

Category B - Compost that has a restricted use because of the presence of sharp foreign matter or higher trace element content. Category B compost may require additional control when deemed necessary by a province or territory.

The Compost Directions-for-Use must reflect application rates that adhere to the CFIA long-term element loading limits. Please use the CFIA compost loading rate calculator with trace elements details procided in this report to calculate and meet appropriate application rates: Labelling as appropriate. If you have questions, please contact Susan at santhler@compost.org or 416 670 0510

Reference Compost Quality Parameters for CQA

Use	pH	C:N	Moisture	Particle Size	Soluble Salts	%Na
Remediation	5.8-8.5	10-40	NA	<2 in	<20	<3%
Soil Amendment	5.8-8.5	10-30	NA	<1/2 in	<6	<2%
Landscaping	5.8-8.5	12-22	<50%	<1/2 in	<5	<2%
Planting Media	5.5-7.8	12-22	<50%	<1/2 in	<4	<2%
Turf Establishment & Topdressing	5.5-7.8	12-22	<50%	<3/8 in	<3	<1%
Greenhouse Seeding	6-7	12-22	<25%	<1/4 in	<2	<0.5%
Greenhouse Establishement	6-7	12-22	<30%	<1/2 in	2-3.5	<0.5%
Field Nursery	5.8-8	10-30	<50%	<1/2 in	<3.5	<1%
Agricultural Soil Amendments	6-8	10-30	<50%	<1/2 in	<20	none
Potting Soil	5.5-7.2	12-22	<50%	<1/4 in	<2	<1%

These are examples of some of the many end uses suitable for compost

The Compost Quality Assurance program goes beyond the provincial requirements to establish full value and appropriate end-use. The Compost Report and Compost End-use table in Appendix II, has 10 different compost application uses from soil remediation, through to potting soil blends. Of note are available soluble salt limits and the percent available sodium for sensitive plants. Appendix III, lists the primary agricultural use parameters and quantitative nutrient content that reflects this compost samples agricultural end-use, and application value. This value includes macro and micro nutrients, soil building properties such as the addition of organic matter, increasing moisture holding capacity, and the soils slow release nutrients. These parameters improve beneficial soil health components soil

Note: For a compost to meet the unrestricted use category, it must meet the unrestricted (Category A) requirements for all trace elements and sharp foreign matter. If the compost fails one criterion of the guideline for unrestricted use but meets the criteria for restricted (Category B) use, then is is classified as a Category B product. Products that do not meet the criteria for either Category A or B must be used or disposed of appropriately.

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Appendix III

Compost Agricultural Product Value

on as is basis

Agricultural End-Use	Analysis Result	Unit	Quantity in lbs/Ton
Physical Parameters			
Dry Matter	63.0%	%	
pH	7.8		
Bulk Density	679	kg/m3	
C:N Ratio	11:1		
Fertilizer Equivalent Minerals			
Nitrogen Total	1.04%	%	20.8
Ammonium Nitrogen	16.36	ppm	0.03
Total Phosphate (P as P205)	0.35%	%	7.0
Total Potash (K as K20)	0.7%	%	14.0
Calcium	2.16%	%	43.2
Magnesium	0.59%	%	11.8
Sulfur	1042.68	ppm	2.1
Agricultural Index			
Ag Index	24	Can be used on all soils	

Salt injury probable	Limit use to soils with excellent drainage and low salt content				Can be used on soils with poor drainage or high salt content				Can be used on all soils
1	2	3	4	5	6	7	8	9	>10

Figure 1. Adapted from TMECC 05.02-F1 AgIndex interpretation and use guidelines for common edaphic conditions.
Where 10 is a compost material with low potential for salt injury and 1 materials require dilution to prevent salt injury

The results of our testing on this sample indicates that this product is a fine textured, mature compost (100%+ 1/4 in.), with rich mineral properties, which would meet criteria for agricultural soil amendment, blending and topdressing end-uses purposes. The C:N ratio 11:1 from Appendix II, on the soil suitability report indicates a low C:N ratio and indicating good nitrogen availability. The low C:N ratio in conjunction with the higher total nitrogen content listed in Appendix III indicates early high available nitrogen levels, and should be considered for crop planning.

The proportion of available sodium (1.24% Na), which if used in too heavy a proportion could cause some problems with sensitive species. The sodium levels of this compost sample though high, is suitable for agricultural broadcast field applications and are made to improve the organic matter level and major nutrients phosphorus, potassium and magnesium levels. The compost is also rich in available calcium, sulfur, and iron, which make it ideal for soil enriching, and amendment. We recommend blending this material at a minimum of 2-3 parts soil blended to each part of this compost to dilute the sodium concentration.

Major Nutrients - Compost is classified in Schedule II (CFIA Fertilizer Act & Regulations) as a supplement, and as such, nutrient guarantees are not mandatory. However, if any claims are made regarding nutritional value of the product, such as for composted manure, the product would then be classified as a supplement and a fertilizer, and label would have to include the guarantees for the major nutrients. The guarantees for the major nutrients include the minimum amounts of Total Nitrogen (N), Available Phosphoric Acid (P2O5) and Soluble Potash (K2O).

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Report Number: C25196-10051
Account Number: 06433

A & L Canada Laboratories Inc.

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

C25196-10051

To: CITY OF BRANDON
410-9TH STREET
BRANDON, MB R7A 6A2

For: ROW 3

204-726-8546

P.O. Number: CQA2500295

Reported Date:
Printed Date: Jul 23, 2025

COMPOST REPORT

Sample Number	Lab Number	pH	Lime Index	Available Organic Matter %	Phosphorus P ppm	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm
ROW 3	**46714**	**7.8**	**6.9**	**13.8**	**627**	**3967**	**873**	**5250**

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) (%)	Chloride ppm
221	**24.6**	**107**	**109**	**1.7**	**7.5**	**126**	**327**	**3.9**	**1.04**	**612**

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	
44.1	**100.0**	**23.04**	**16.26**	**59.46**	**1.24**	**10.17**	**7.18**	**26.25**	**0.55**	**1:1**	**4:1**	**9:1**
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. All results are released based on acceptable QC data.
* 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 Authorized By: BWood **Beth Wood, Agronomist**

REPORT NUMBER: C25196-10051
ACCOUNT NUMBER: 06433

A & L Canada Laboratories Inc.

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Telephone: (519) 457-2575 Fax: (519) 457-2664

REPORT OF ANALYSIS

TO: CITY OF BRANDON
410-9TH STREET
BRANDON, MB R7A 6A2

RE: ROW 3

CQA2500297

DATE RECEIVED: 2025-07-15
DATE REPORTED: 2025-07-23

P.O. NUMBER: CQA2500295

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
46714	ROW 3	Nitrogen (Total)	1.0	%	TMECC.04.02-D

C25196-10051

Results Authorized By:

REPORT NO.
C25196-70009

ACCOUNT NUMBER
06433

A & L Canada Laboratories Inc.

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

TO:CITY OF BRANDON
410-9TH STREET
BRANDON, MB R7A 6A2

FOR:ROW 3

Phone:204-729-2224
Fax:204-726-8546

CERTIFICATE OF ANALYSIS

PROJECT NO:

PO#:
LAB NUMBER:1967012
SAMPLE ID:ROW 3

SAMPLE MATRIX:COMPOST
DATE SAMPLED:2025-07-11
DATE RECEIVED:2025-07-15
DATE REPORTED:
DATE PRINTED:2025-07-23

PARAMETER	Result	UNIT	DETECTION LIMIT	METHOD REFERENCE
Arsenic	4.15	ug/g	1.00	EPA 3050B/6010B(mod) *
Cadmium	BDL	ug/g	1.00	EPA 3050B/6010B(mod) *
Cobalt	3.63	ug/g	1.00	TMECC 4.06;EPA 3050/6010(mod)*
Chromium	13.91	ug/g	1.00	TMECC.04.06;EPA 3050/6010(mod*
Copper	29.02	ug/g	1.00	TMECC 4.06;EPA 3050/6010(mod)*
Mercury	BDL	ug/g	0.10	EPA 7471 *
Molybdenum	1.5	ug/g	1.0	TMECC.04.06;EPA 3050/6010(mod*
Nickel	9.57	ug/g	1.00	TMECC 4.06;EPA 3050/6010(mod)*
Lead	17.10	ug/g	1.00	EPA 3050B/6010B(mod) *
Selenium	BDL	ug/g	1.00	EPA 3050/6010 (mod) *
Zinc	107.05	ug/g	1.00	TMECC 4.06;EPA 3050/6010(mod)*

* - accredited test
BDL - Below detectable levels

The results of this report relate to the sample submitted and analyzed. All results are released based on acceptable QC data.

C25196-70009

Results Authorized By:

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

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SAMPLE MATRIX:COMPOST
DATE SAMPLED:2025-07-11
DATE RECEIVED:2025-07-15
DATE REPORTED:
DATE PRINTED:2025-07-23

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 (Modified)
Fecal Coliform	119	MPN/g dry	3	TMECC 07.01
Total sharps > 2.8 mm*	0	pieces/500ml		TMECC 03.08
Total sharps > 12.5 mm	0	pieces/500ml		TMECC 03.08
Total FM > 2.8 mm*	BDL	%	0.01	TMECC 03.08
Total FM > 25 mm	0	pieces/500ml		TMECC 03.08
Total plastics > 2.8 mm*	BDL	%	0.01	TMECC 03.08
Total Organic Matter @ 550 deg C	26.89	%	0.10	LOI@550C
Moisture	37.00	%	0.10	TMECC.03.09-A
C : N Ratio	11 : 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)	100.00	%	0.10	ASTMD422
Sieve 3/8 Inch (% Passing)	100.00	%	0.10	ASTMD422
Sieve 1/4 Inch (% Passing)	100.00	%	0.10	ASTMD422
Compost Stability Index	8	---		TMECC.05.08-B
Respiration-mgCO2-C/g OM/day	1.10	mgCO2-C/ gOM/day	0.01	TMECC.05.08-B
Respiration - mgCO2-C/g TS/day	0.30	mgCO2-C/ gTS/day	0.01	TMECC.05.08-B

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

* - accredited test
BDL - Below detectable levels

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LAB NUMBER:1967012
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SAMPLE MATRIX:COMPOST
DATE SAMPLED:2025-07-11
DATE RECEIVED:2025-07-15
DATE REPORTED:
DATE PRINTED:2025-07-23

PARAMETER	Result Dry Weight	Result As Received	UNIT	DETECTION LIMIT	METHOD REFERENCE
Total Solids (as received)		63.00	%	0.10	Gravimetric
Nitrogen & Carbon					
Total Organic Carbon		14.94	%	0.10	Combustion
Ammonia (NH3/NH4-N)	25.97	16.36	ug/g	.01	Colourimetric
Metals					
Potassium	9239.68	5821.00	ug/g	5.00	TMECC.04.04*
Total Potassium (as K20)	1.11	0.70	%	0.05	ICP
Phosphorus	2455.82	1547.17	ug/g	5.00	TMECC.04.03 *
Total Phosphorus (as P205)	0.56	0.35	%	0.05	ICP
Aluminum	4526.48	2851.68	ug/g	5.00	TMECC.04.07 *
Boron	24.70	15.56	ug/g	1.00	TMECC.04.05 *
Calcium	3.43	2.16	%	0.01	TMECC.04.05*
Iron	11307.78	7123.90	ug/g	5.00	TMECC.04.05 *
Magnesium	0.94	0.59	%	0.01	TMECC.04.05 *
Manganese	767.69	483.64	ug/g	1.00	TMECC.04.05 *
Sodium	0.04	0.03	%	0.01	TMECC.04.05 *
Sulphur	1654.94	1042.61	ug/g	5.00	TMECC.04.05 *
Additional Parameters					
Bulk Density (as Recieved)		679	kg/m3	10	Gravimetric

* - accredited test
BDL - Below detectable levels

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Results Authorized By:

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

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
Additional information available upon request