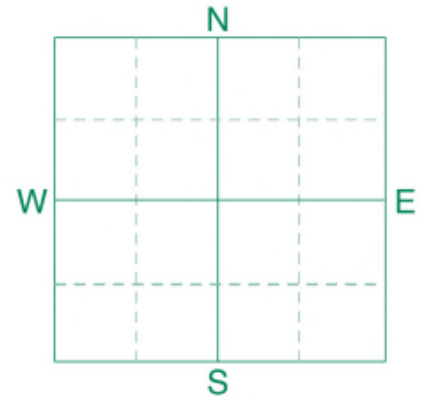




Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **8896** Field 1
 SAMPLE ID
 FIELD NAME **Randolph & Jeanine Court**
 COUNTY
 TWP **SE 31-17-11w** RANGE
 SECTION QTR ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
Topigs Gladstone

SUBMITTED BY: **EL1911**
AGRA-GOLD CONSULTING LTD
CLIFF LOEWEN
33020 RD 40 N
BLUMENORT, MB ROA 0C1

REF # **3189950** BOX # **2847**
 LAB # **NW2821**

Date Sampled **01/15/2021** Date Received **01/19/2021** Date Reported **1/20/2021**

| Nutrient In The Soil | | Interpretation | | | | 1st Crop Choice | | 2nd Crop Choice | | 3rd Crop Choice | | | | |
|----------------------|---------------|----------------|--------------|-----|------|-------------------------------|-------------|--------------------------|-------------------------------|-----------------------------------|-------------------------------|-------|-------|--|
| | | VLow | Low | Med | High | Wheat-Spring | | | | | | | | |
| Nitrate | 0-6" 6-24" | 22 lb/acre | 21 lb/acre | | | YIELD GOAL | | YIELD GOAL | | YIELD GOAL | | | | |
| | | | | | | 70 BU | | | | | | | | |
| | 0-24" | 43 lb/acre | | | | SUGGESTED GUIDELINES | | SUGGESTED GUIDELINES | | SUGGESTED GUIDELINES | | | | |
| | | | | | | Band | | | | | | | | |
| | | | | | | LB/ACRE | APPLICATION | LB/ACRE | APPLICATION | LB/ACRE | APPLICATION | | | |
| Phosphorus | Olsen | 10 ppm | | | | N | 146 | N | | N | | | | |
| Potassium | | 187 ppm | | | | P ₂ O ₅ | 36 | Band * | P ₂ O ₅ | | P ₂ O ₅ | | | |
| Chloride | | | | | | K ₂ O | 10 | Band (Starter)* | K ₂ O | | K ₂ O | | | |
| Sulfur | 0-6" 6-24" | 120 +lb/acre | 360 +lb/acre | | | Cl | | Cl | | Cl | | | | |
| Boron | | | | | | S | 0 | S | | S | | | | |
| Zinc | | 0.43 ppm | | | | B | | B | | B | | | | |
| Iron | | | | | | Zn | 0 | Zn | | Zn | | | | |
| Manganese | | | | | | Fe | | Fe | | Fe | | | | |
| Copper | | | | | | Mn | | Mn | | Mn | | | | |
| Magnesium | | 918 ppm | | | | Cu | | Cu | | Cu | | | | |
| Calcium | | 5955 ppm | | | | Mg | 0 | Mg | | Mg | | | | |
| Sodium | | 51 ppm | | | | Lime | | Lime | | Lime | | | | |
| Org.Matter | | 5.1 % | | | | Soil pH | | Cation Exchange Capacity | | % Base Saturation (Typical Range) | | | | |
| Carbonate(CCE) | | | | | | Buffer pH | | | % Ca | % Mg | % K | % Na | % H | |
| Sol. Salts | 0-6" 6-24" | 0.7 mmho/cm | 1.64 mmho/cm | | | | | 38.1 meq | (65-75) | (15-20) | (1-7) | (0-5) | (0-5) | |
| | | | | | | 0-6" 8.0 | | | 78.1 | 20.1 | 1.3 | 0.6 | 0.0 | |
| | | | | | | 6-24" 8.4 | | | | | | | | |

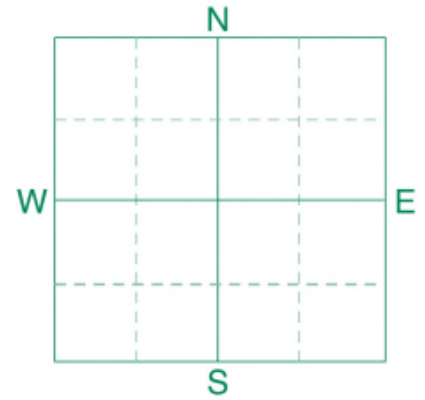
General Comments: Soil texture is not estimated on high pH soils.
 Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26
 AGVISE Band guideline will build P & K test levels to the medium range over several years.



Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **8895** Field 2
 SAMPLE ID
 FIELD NAME **Randolph & Jeanine Court**
 COUNTY
 TWP **NW 30-17-11w** RANGE
 SECTION QTR ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
Topigs Gladstone

SUBMITTED BY: **EL1911**
AGRA-GOLD CONSULTING LTD
CLIFF LOEWEN
33020 RD 40 N
BLUMENORT, MB ROA 0C1

REF # **3189949** BOX # **2847**
 LAB # **NW2820**

Date Sampled **01/15/2021** Date Received **01/19/2021** Date Reported **1/20/2021**

| Nutrient In The Soil | | Interpretation | | | | 1st Crop Choice | | 2nd Crop Choice | | 3rd Crop Choice | | | | | |
|----------------------|---------------|----------------|-------|-------|-------|----------------------------------|-----------------|-------------------------------|-------------|-------------------------------|-----------------|-----------------------------------|--------------|--------------|--|
| | | VLow | Low | Med | High | Wheat-Spring | | | | | | | | | |
| Nitrate | 0-6" 6-24" | ***** | ***** | ***** | ***** | YIELD GOAL | | YIELD GOAL | | YIELD GOAL | | | | | |
| | 0-24" | | | | | 70 BU | | | | | | | | | |
| | 26 lb/acre | | | | | SUGGESTED GUIDELINES | | SUGGESTED GUIDELINES | | SUGGESTED GUIDELINES | | | | | |
| | | | | | | Band | | | | | | | | | |
| | | | | | | LB/ACRE | APPLICATION | LB/ACRE | APPLICATION | LB/ACRE | APPLICATION | | | | |
| Phosphorus | Olsen 10 ppm | ***** | ***** | ***** | ***** | N 163 | | N | | N | | | | | |
| Potassium | 202 ppm | ***** | ***** | ***** | ***** | P ₂ O ₅ 36 | Band * | P ₂ O ₅ | | P ₂ O ₅ | | | | | |
| Chloride | | | | | | K ₂ O 10 | Band (Starter)* | K ₂ O | | K ₂ O | | | | | |
| Sulfur | 0-6" 6-24" | ***** | ***** | ***** | ***** | Cl | | Cl | | Cl | | | | | |
| Boron | | | | | | S 0 | | S | | S | | | | | |
| Zinc | 0.41 ppm | ***** | ***** | | | B | | B | | B | | | | | |
| Iron | | | | | | Zn 0 | | Zn | | Zn | | | | | |
| Manganese | | | | | | Fe | | Fe | | Fe | | | | | |
| Copper | | | | | | Mn | | Mn | | Mn | | | | | |
| Magnesium | 941 ppm | ***** | ***** | ***** | ***** | Cu | | Cu | | Cu | | | | | |
| Calcium | 5710 ppm | ***** | ***** | ***** | ***** | Mg 0 | | Mg | | Mg | | | | | |
| Sodium | 52 ppm | ***** | ***** | | | Lime | | Lime | | Lime | | | | | |
| Org.Matter | 4.2 % | ***** | ***** | ***** | ***** | Soil pH | | Buffer pH | | Cation Exchange Capacity | | % Base Saturation (Typical Range) | | | |
| Carbonate(CCE) | | | | | | 0-6" 8.1 | | | | % Ca | % Mg | % K | % Na | % H | |
| Sol. Salts | 0-6" 6-24" | ***** | ***** | ***** | ***** | 6-24" 8.5 | | 37.1 meq | | (65-75) 76.9 | (15-20) 21.1 | (1-7) 1.4 | (0-5) 0.6 | (0-5) 0.0 | |

General Comments: Soil texture is not estimated on high pH soils.
Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26
 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Report Number: C21022-10009
 Account Number: 02088

A & L Canada Laboratories Inc.

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



C21022-10009



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: SURE-CHECK
 888-886-1181

For: LOEWEN, CLIFF

Farm: AGRA-GOLD
 Field: 38810-NW-35-17-12-W1 (140 acres)
 Field 3.

Grower Code: 4734

Reported Date: 2021-01-26 Printed Date: Jan 27, 2021

SOIL TEST REPORT

Page: 1 / 1

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P ppm Bicarb Bray-P1 | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|--------------------------------------|-----------------|------------------|----------------|--------|--------------|--------------------------|------|------|-----|------|
| | | | | | | | | | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8890-38810-1A | | 6 | 56245 | 3.2 | 9 L 20 M | 73 L | 762 H | 4870 H | 8.1 | 31.0 | 0.6 | 20.5 | 78.5 | 0.7 | |
| 8890-38810-1E | | 24 | 56246 | 1.0 | 5 VL 5 VL | 44 L | 622 H | 3150 M | 8.9 | 21.7 | 0.5 | 23.8 | 72.4 | 3.5 | |

| Sample Number | Sulfur S ppm | Nitrate Nitrogen NO3-N ppm | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|--------------|----------------------------|-------------|------------------|-------------|---------------|-------------|------------------------|---------------|-----------------|----------------|------------|-----|-----------------|---------------|
| 8890-38810-1A | 17 VL 31 | 6 L 11 | | | | | | | 2 L | 25 | 0.0 G | 0.03 | 44 | | 52 M |
| 8890-38810-1E | 9 VL 49 | 1 VL 5 | | | | | | | | 87 | 0.0 G | 0.02 | 22 | | 176 VH |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|----------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:

Ian McLachlin, Vice President

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

This Certificate of Analysis has been prepared for use by the Recipient only. Possession of this Certificate of Analysis, does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF

Report Number: C20288-10147
 Account Number: 00616

A & L Canada Laboratories Inc.

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



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14809-W-36-17-12-W1
 Soil test includes 7 zones (285 acres)
 Field 4.

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 1 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P ppm | | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|--------------------|---------|-----------------|------------------|----------------|-----|--------|--------------|--------------------------|------|------|-----|------|
| | | | | | Bicarb | Bray-P1 | | | | pH | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8330-14809-1A | | 6 | 20452 | 3.3 | 14 M | | 143 M | 1257 H | 7200 M | 7.8 | | 48.2 | 0.8 | 21.7 | 74.6 | 3.2 | |
| 8330-14809-1E | | 24 | 20453 | 1.6 | 4 VL | | 63 L | 1270 H | 7200 M | 8.1 | | 48.6 | 0.3 | 21.8 | 74.0 | 4.2 | |
| 8330-14809-2A | | 6 | 20454 | 4.0 | 9 M | | 152 M | 1443 H | 7200 M | 8.0 | | 48.8 | 0.8 | 24.6 | 73.7 | 1.2 | |
| 8330-14809-2E | | 24 | 20455 | 1.4 | 2 VL | | 47 VL | 1452 H | 7200 M | 8.2 | | 48.9 | 0.2 | 24.7 | 73.6 | 1.8 | |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|----------|--------|------------------------|--------|-------------|------------------|-------------|---------------|-------------|------------------------|---------------|-----------------|----------------|------------|------|-----------------|---------------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | |
| 8330-14809-1A | 90 M | 162 | 12 M | 22 | | | | | | | | | | | 0.04 | 45 | 351 VH |
| 8330-14809-1E | 92 M | 497 | 10 M | 54 | | | | | | | | | | | 0.01 | 28 | 469 VH |
| 8330-14809-2A | 154 VH | 277 | 4 VL | 7 | | | | | | | | | | | 0.03 | 52 | 131 H |
| 8330-14809-2E | 270 VH | 1458 | 2 VL | 11 | | | | | | | | | | | 0.01 | 26 | 202 H |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|----------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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
 This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEL and OMAF

Report Number: C20288-10147
 Account Number: 00616

A & L Canada Laboratories Inc.

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



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14809-W-36-17-12-W1

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 2 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P Bicarb | Phosphorus - P Bray-P1 | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | pH Buffer | CEC meq/100g | Percent Base Saturations | | | |
|---------------|--------------------|-------|------------|----------------|-----------------------|------------------------|-----------------|------------------|----------------|-----|-----------|--------------|--------------------------|------|------|------|
| | | | | | | | | | | | | % K | % Mg | % Ca | % H | % Na |
| 8330-14809-3A | | 6 | 20456 | 5.8 | 7 L | | 177 M | 1640 VH | 7200 M | 8.1 | | 50.0 | 0.9 | 27.1 | 71.5 | 0.8 |
| 8330-14809-3E | | 24 | 20457 | 1.7 | 2 VL | | 73 L | 1885 VH | 7200 M | 8.2 | | 50.0 | 0.4 | 29.9 | 68.4 | 1.8 |
| 8330-14809-4A | | 6 | 20458 | 4.9 | 7 L | | 190 M | 1650 VH | 7200 M | 8.0 | | 50.0 | 1.0 | 27.2 | 71.2 | 1.0 |
| 8330-14809-4E | | 24 | 20459 | 1.8 | 2 VL | | 94 L | 2094 VH | 7200 M | 8.3 | | 50.0 | 0.4 | 31.6 | 65.3 | 3.1 |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|----------|---------|------------------------|--------|-------------|------------------|-------------|---------------|-------------|------------------------|---------------|-----------------|----------------|------------|------|-----------------|---------------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | |
| 8330-14809-3A | 96 | M 173 | 15 | M 27 | | | | | | | | | | | 0.03 | 71 | 98 M |
| 8330-14809-3E | 214 | VH 1156 | 2 | VL 11 | | | | | | | | | | | 0.01 | 29 | 215 H |
| 8330-14809-4A | 1052 | VH 1894 | 11 | M 20 | | | | | | | | | | | 0.04 | 62 | 120 M |
| 8330-14809-4E | 657 | VH 3548 | 13 | M 70 | | | | | | | | | | | 0.01 | 30 | 389 VH |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|----------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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
 This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF

Report Number: C20288-10147
 Account Number: 00616

A & L Canada Laboratories Inc.

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



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14809-W-36-17-12-W1

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 3 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P ppm Bicarb Bray-P1 | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|--------------------------------------|-----------------|------------------|----------------|--------|--------------|--------------------------|------|------|-----|------|
| | | | | | | | | | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8330-14809-5A | | 6 | 20460 | 3.0 | 5 L | 120 L | 1866 VH | 7200 M | 8.1 | 50.0 | 0.6 | 30.0 | 69.4 | | 0.4 |
| 8330-14809-5E | | 24 | 20461 | 1.3 | 2 VL | 56 VL | 2134 VH | 7200 M | 8.6 | 50.0 | 0.3 | 32.8 | 66.5 | | 0.9 |
| 8330-14809-6A | | 6 | 20462 | 4.0 | 6 L | 141 M | 1298 H | 7200 H | 8.5 | 47.3 | 0.8 | 22.9 | 76.1 | | 0.6 |
| 8330-14809-6E | | 24 | 20463 | 0.8 | 2 VL | 38 VL | 1802 VH | 7200 M | 8.6 | 50.0 | 0.2 | 29.0 | 69.5 | | 1.7 |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|----------|--------|------------------------|--------|-------------|------------------|-------------|---------------|-------------|------------------------|---------------|-----------------|----------------|------------|------|-----------------|---------------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | |
| 8330-14809-5A | 53 VL | 95 | 6 L | 11 | | | | | | | | | | | 0.02 | 42 | 53 L |
| 8330-14809-5E | 85 L | 459 | 4 VL | 22 | | | | | | | | | | | 0.01 | 25 | 107 M |
| 8330-14809-6A | 38 VL | 68 | 12 M | 22 | | | | | | | | | | | 0.03 | 52 | 65 L |
| 8330-14809-6E | 83 L | 448 | 3 VL | 16 | | | | | | | | | | | 0.01 | 20 | 199 H |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|----------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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
 This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF

Report Number: C20288-10147
 Account Number: 00616

A & L Canada Laboratories Inc.

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



C20288-10147



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14809-W-36-17-12-W1

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 4 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P Bicarb Bray-P1 | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|----------------------------------|--------------------|---------------------|-------------------|--------|-----------------|--------------------------|------|------|-----|------|
| | | | | | | | | | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8330-14809-7A | | 6 | 20464 | 3.2 | 5 L | 271 H | 1083 H | 7200 H | 8.3 | 45.7 | 1.5 | 19.7 | 78.7 | | 0.3 |
| 8330-14809-7E | | 24 | 20465 | 0.6 | 2 VL | 37 VL | 876 H | 7200 H | 8.4 | 43.5 | 0.2 | 16.8 | 82.7 | | 0.5 |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm | |
|---------------|-------------|--------|---------------------------|--------|----------------|---------------------|----------------|------------------|----------------|------------------------------|------------------|--------------------|-------------------|---------------|-----|-----------------------|------------------|-------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | | |
| 8330-14809-7A | 52 VL | 94 | 22 H | 40 | | | | | | | | | | | | 0.08 | 44 | 30 VL |
| 8330-14809-7E | 82 H | 443 | 10 M | 54 | | | | | | | | | | | | 0.01 | 18 | 52 L |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|-------------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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

This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF

Report Number: C20267-10039
 Account Number: 00616

A & L Canada Laboratories Inc.

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



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14812-SC-25-17-12-W1
 Soil test includes 7 zones (640 acres)
 Field 5.

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 1 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P ppm | | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|--------------------|---------|-----------------|------------------|----------------|-----|--------|--------------|--------------------------|------|------|-----|------|
| | | | | | Bicarb | Bray-P1 | | | | pH | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8330-14812-1A | | 6 | 64625 | 6.9 | 9 M | | 107 L | 824 H | 7200 H | 8.2 | | 43.2 | 0.6 | 15.9 | 83.3 | 0.4 | |
| 8330-14812-1E | | 24 | 64626 | 1.7 | 3 VL | | 33 VL | 1152 H | 7200 H | 8.6 | | 45.8 | 0.2 | 21.0 | 78.6 | 0.5 | |
| 8330-14812-2A | | 6 | 64627 | 4.1 | 7 L | | 93 L | 757 H | 6110 H | 8.3 | | 37.1 | 0.6 | 17.0 | 82.2 | 0.4 | |
| 8330-14812-2E | | 24 | 64628 | 1.0 | 2 VL | | 14 VL | 1440 H | 7200 M | 8.3 | | 48.2 | 0.1 | 24.9 | 74.7 | 0.7 | |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|----------|--------|------------------------|--------|-------------|------------------|-------------|---------------|-------------|------------------------|---------------|-----------------|----------------|------------|------|-----------------|---------------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | |
| 8330-14812-1A | 47 | L 85 | 8 | L 14 | | | | | | | | | | | 0.04 | 82 | 37 L |
| 8330-14812-1E | 93 | H 502 | 2 | VL 11 | | | | | | | | | | | 0.01 | 29 | 52 L |
| 8330-14812-2A | 26 | VL 47 | 5 | L 9 | | | | | | | | | | | 0.04 | 53 | 30 L |
| 8330-14812-2E | 105 | H 567 | 1 | VL 5 | | | | | | | | | | | 0.00 | 22 | 75 M |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|----------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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
 This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14812-SC-25-17-12-W1

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 2 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P Bicarb Bray-P1 | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|----------------------------------|--------------------|---------------------|-------------------|--------|-----------------|--------------------------|------|------|-----|------|
| | | | | | | | | | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8330-14812-3A | | 6 | 64629 | 2.6 | 4 VL | 79 L | 1555 VH | 7200 M | 8.5 | 49.3 | 0.4 | 26.3 | 73.0 | | 0.7 |
| 8330-14812-3E | | 24 | 64630 | 1.2 | 5 VL | 50 L | 1191 VH | 3460 M | 8.3 | 28.2 | 0.5 | 35.2 | 61.3 | | 3.5 |
| 8330-14812-4A | | 6 | 64631 | 4.0 | 5 L | 89 L | 991 H | 7200 H | 8.4 | 44.5 | 0.5 | 18.5 | 80.8 | | 0.4 |
| 8330-14812-4E | | 24 | 64632 | 1.5 | 2 VL | 27 VL | 1420 H | 7200 H | 8.8 | 47.9 | 0.1 | 24.7 | 75.1 | | 0.4 |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|-------------|---------|---------------------------|--------|----------------|---------------------|----------------|------------------|----------------|---------------------------|------------------|--------------------|-------------------|---------------|------|--------------------|------------------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | |
| 8330-14812-3A | 74 | L 133 | 6 | L 11 | | | | | | | | | | | 0.02 | 38 | 75 M |
| 8330-14812-3E | 191 | VH 1031 | 3 | VL 16 | | | | | | | | | | | 0.01 | 24 | 226 VH |
| 8330-14812-4A | 38 | VL 68 | 4 | VL 7 | | | | | | | | | | | 0.03 | 52 | 36 L |
| 8330-14812-4E | 78 | L 421 | 1 | VL 5 | | | | | | | | | | | 0.00 | 27 | 43 L |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|-------------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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
 This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14812-SC-25-17-12-W1

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 3 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P ppm | | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | | CEC meq/100g | Percent Base Saturations | | | | | |
|---------------|--------------------|-------|------------|----------------|--------------------|---------|-----------------|------------------|----------------|----|--------|--------------|--------------------------|------|------|------|------|-----|
| | | | | | Bicarb | Bray-P1 | | | | pH | Buffer | | % K | % Mg | % Ca | % H | % Na | |
| 8330-14812-5A | | 6 | 64633 | 4.2 | 4 | VL | 60 | VL | 1730 | VH | 7200 | M | 8.4 | 50.0 | 0.3 | 28.4 | 70.9 | 0.8 |
| 8330-14812-5E | | 24 | 64634 | 1.1 | 2 | VL | 27 | VL | 1721 | VH | 7200 | M | 8.5 | 50.0 | 0.1 | 28.2 | 70.7 | 1.4 |
| 8330-14812-6A | | 6 | 64635 | 4.4 | 4 | VL | 59 | VL | 1603 | VH | 7200 | M | 7.9 | 49.6 | 0.3 | 26.9 | 72.6 | 0.5 |
| 8330-14812-6E | | 24 | 64636 | 1.4 | 2 | VL | 28 | VL | 2190 | VH | 7200 | M | 8.2 | 50.0 | 0.1 | 33.3 | 65.7 | 1.2 |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm | |
|---------------|----------|--------|------------------------|--------|-------------|------------------|-------------|---------------|-------------|------------------------|---------------|-----------------|----------------|------------|-----|-----------------|---------------|-----|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | | |
| 8330-14812-5A | 61 | VL | 110 | 7 | L | 13 | | | | | | | | | | 0.01 | 54 | 92 |
| 8330-14812-5E | 83 | L | 448 | 2 | VL | 11 | | | | | | | | | | 0.00 | 23 | 164 |
| 8330-14812-6A | 248 | VH | 446 | 5 | L | 9 | | | | | | | | | | 0.01 | 56 | 60 |
| 8330-14812-6E | 212 | VH | 1145 | 1 | VL | 5 | | | | | | | | | | 0.00 | 26 | 155 |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|----------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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
 This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF

Report Number: C20267-10039
 Account Number: 00616

A & L Canada Laboratories Inc.

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



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14812-SC-25-17-12-W1

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 4 / 4

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P Bicarb Bray-P1 | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|----------------------------------|--------------------|---------------------|-------------------|--------|-----------------|--------------------------|------|------|-----|------|
| | | | | | | | | | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8330-14812-7A | | 6 | 64637 | 4.4 | 9 L | 89 L | 806 VH | 3940 M | 8.1 | 26.7 | 0.9 | 25.2 | 73.8 | | 0.5 |
| 8330-14812-7E | | 24 | 64638 | 1.3 | 2 VL | 41 VL | 1689 VH | 7200 M | 8.5 | 50.0 | 0.2 | 28.1 | 71.8 | | 0.3 |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|-------------|--------|---------------------------|--------|----------------|---------------------|----------------|------------------|----------------|------------------------------|------------------|--------------------|-------------------|---------------|------|-----------------------|------------------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | |
| 8330-14812-7A | 18 VL | 32 | 7 L | 13 | | | | | | | | | | | 0.04 | 56 | 33 L |
| 8330-14812-7E | 35 VL | 189 | 2 VL | 11 | | | | | | | | | | | 0.01 | 25 | 34 VL |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|-------------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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

This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF

Report Number: C20288-10145
 Account Number: 00616

A & L Canada Laboratories Inc.

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



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14811-NE-26-17-12-W1
 Soil test includes 4 zones (160 acres)
 Field 6.

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 1 / 2

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P Bicarb Bray-P1 | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|----------------------------------|--------------------|---------------------|-------------------|-----|-----------------|--------------------------|------|------|-----|------|
| | | | | | | | | | | | % K | % Mg | % Ca | % H | % Na |
| 8330-14811-1A | | 6 | 20436 | 4.3 | 15 M | 98 L | 1323 H | 7200 M | 7.7 | 50.0 | 0.5 | 21.4 | 69.8 | | 8.6 |
| 8330-14811-1E | | 24 | 20437 | 1.4 | 3 VL | 53 VL | 1361 H | 7200 M | 7.7 | 50.0 | 0.3 | 22.3 | 70.7 | | 7.0 |
| 8330-14811-2A | | 6 | 20438 | 3.9 | 14 M | 145 M | 785 H | 6280 H | 8.3 | 38.7 | 1.0 | 16.9 | 81.2 | | 1.2 |
| 8330-14811-2E | | 24 | 20439 | 1.5 | 3 VL | 71 L | 1056 H | 7200 H | 8.7 | 45.5 | 0.4 | 19.4 | 79.2 | | 1.3 |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm | |
|---------------|-------------|---------|---------------------------|--------|----------------|---------------------|----------------|------------------|----------------|------------------------------|------------------|--------------------|-------------------|---------------|------|-----------------------|------------------|----|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | | |
| 8330-14811-1A | 306 | VH 551 | 118 | VH 212 | | | | | | | | | | | 0.02 | 55 | 1023 | VH |
| 8330-14811-1E | 268 | VH 1447 | 33 | H 178 | | | | | | | | | | | 0.01 | 26 | 824 | VH |
| 8330-14811-2A | 42 | VL 76 | 5 | L 9 | | | | | | | | | | | 0.06 | 51 | 105 | H |
| 8330-14811-2E | 53 | L 286 | 1 | VL 5 | | | | | | | | | | | 0.02 | 27 | 135 | H |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|-------------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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

This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEL and OMAF

Report Number: C20288-10145
 Account Number: 00616

A & L Canada Laboratories Inc.

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



To: DECISIVE FARMING CORP
 BOX 730
 334 2ND STREET
 IRRICANA, AB T0M 1B0
 Attn: OPTIMIZE
 403-644-2136

For: FRIESEN, KRIS

Farm: KRIS FRIESEN
 Field: 14811-NE-26-17-12-W1

Grower Code: 3104

Reported Date: 2020-12-14 Printed Date: Dec 14, 2020

SOIL TEST REPORT

Page: 2 / 2

| Sample Number | Legal Land Descpt: | Depth | Lab Number | Organic Matter | Phosphorus - P ppm | | Potassium K ppm | Magnesium Mg ppm | Calcium Ca ppm | pH | | CEC meq/100g | Percent Base Saturations | | | | |
|---------------|--------------------|-------|------------|----------------|--------------------|---------|-----------------|------------------|----------------|-----|--------|--------------|--------------------------|------|------|-----|------|
| | | | | | Bicarb | Bray-P1 | | | | pH | Buffer | | % K | % Mg | % Ca | % H | % Na |
| 8330-14811-3A | | 6 | 20440 | 3.2 | 7 L | | 158 M | 1491 VH | 7200 M | 7.9 | | 49.0 | 0.8 | 25.4 | 73.5 | 0.6 | |
| 8330-14811-3E | | 24 | 20441 | 0.9 | 2 VL | | 56 VL | 1262 H | 7200 H | 8.2 | | 47.2 | 0.3 | 22.3 | 76.2 | 1.5 | |
| 8330-14811-4A | | 6 | 20442 | 2.8 | 12 L | | 126 M | 731 H | 4250 H | 8.0 | | 27.7 | 1.2 | 22.0 | 76.7 | 0.5 | |
| 8330-14811-4E | | 24 | 20443 | 0.9 | 2 VL | | 39 VL | 1054 H | 7200 H | 8.4 | | 45.0 | 0.2 | 19.5 | 80.0 | 0.5 | |

| Sample Number | Sulfur S | | Nitrate Nitrogen NO3-N | | Zinc Zn ppm | Manganese Mn ppm | Iron Fe ppm | Copper Cu ppm | Boron B ppm | Soluble Salts mmhos/cm | Saturation %P | Aluminum Al ppm | Saturation %Al | K/Mg Ratio | ENR | Chloride Cl ppm | Sodium Na ppm |
|---------------|----------|--------|------------------------|--------|-------------|------------------|-------------|---------------|-------------|------------------------|---------------|-----------------|----------------|------------|------|-----------------|---------------|
| | ppm | lbs/ac | ppm | lbs/ac | | | | | | | | | | | | | |
| 8330-14811-3A | 379 | VH | 682 | 12 | M | 22 | | | | | | | | | 0.03 | 44 | 69 L |
| 8330-14811-3E | 177 | VH | 956 | 2 | VL | 11 | | | | | | | | | 0.01 | 21 | 163 H |
| 8330-14811-4A | 21 | VL | 38 | 9 | L | 16 | | | | | | | | | 0.05 | 40 | 30 L |
| 8330-14811-4E | 20 | VL | 108 | 2 | VL | 11 | | | | | | | | | 0.01 | 21 | 52 L |

W VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

| Sample Number | Previous Crop | Intended Crop | Yield Goal | Lime Tons/Acre | N | P2O5 | K2O | Mg | Ca | S | Zn | Mn | Fe | Cu | B |
|---------------|---------------|---------------|------------|----------------|---|------|-----|----|----|---|----|----|----|----|---|
| | | | | | | | | | | | | | | | |

* Recs are based on building nutrients to a level to maintain soil health. Banding and/or precision placement techniques can be utilized to increase fertilizer efficiency.
 * If this report contains soil in excess of 7500 ppm Ca it may or may not effect the calculated Cation Exchange Capacity. Excessive seed placed fertilizer can cause injury.
 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.

Results Authorized By:  Ian McLachlin, Vice President

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
 This Certificate of Analysis has been prepared for me by the Recipient only. Possession of this Certificate of Analysis does not carry with it the right to reproduction or publication in whole or in part, nor may it be used by anyone other than the Recipient without the prior written consent and approval of A & L Canada Laboratories Inc. ("A&L Canada"). Upon receipt of this Certificate of Analysis by the Recipient from A&L Canada, A&L Canada shall not be responsible for and no claim shall be advanced against A&L Canada as a result of the unauthorized reproduction, use or distribution of this Certificate of Analysis.

This report is not an original A&L Canada report. This report was printed from the A&L Data-Web, some data may have been altered by the end user.

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEL and OMAF