|                                              |                                                                                       |       | Ŷ                               |                                                            | SC                                      | IL TI                                  | EST                        | REPOF                | RT          |                               |           |                        |                 | Ņ                             |                     |                     |                     |
|----------------------------------------------|---------------------------------------------------------------------------------------|-------|---------------------------------|------------------------------------------------------------|-----------------------------------------|----------------------------------------|----------------------------|----------------------|-------------|-------------------------------|-----------|------------------------|-----------------|-------------------------------|---------------------|---------------------|---------------------|
| Soil Analysis<br>(http:/<br>Northwo<br>Benso | book Agvise Laborato<br>//www.agvise.com)<br>bod: (701) 587-6010<br>n: (320) 843-4109 | ries  | F<br>S<br>F<br>C<br>T<br>S<br>F | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>FWP<br>SECTIO<br>PREV. | ID<br>LE ID<br>NAME<br>TY<br>ON<br>CROP | Frasers<br>SE 12-!<br>5<br>12<br>Wheat | s<br>5-19<br>QTR<br>-Sprin | RANGE 1<br>Se /<br>g | L9<br>Acres | 5 0                           | V         | V                      |                 |                               |                     |                     | E                   |
| SUE<br>BFWA JACKSON                          | BMITTED FOR:<br>FARMS                                                                 |       |                                 | PEMB<br>210 S<br>BOX 1                                     | INA C<br>RAIL\<br>43                    | SUBN<br>DOP-M<br>WAY AN                | 1ITTE<br>INTO<br>/E        | D BY:                | PE41        | .10                           | REF       | # 300                  | 0187            | <b>S</b><br>76 BC             | DX #                | 4000                | <u>כ</u>            |
| MINTO,                                       | R0K1M0                                                                                | D     |                                 | мінто                                                      | ), МВ                                   |                                        |                            | ROK 1                | LMO         |                               |           | # <b>NW</b>            | 911             | 68                            |                     |                     |                     |
| Date Sampled                                 |                                                                                       |       |                                 |                                                            |                                         | [                                      | Date Re                    | eceived              | 09/1        | 8/202                         | D         |                        | [               | Date R                        | eporte              | ed <b>10/</b> 3     | 13/202              |
| Nutrient                                     | In The Soil                                                                           | In    | terp                            | retati                                                     | ion                                     | 15                                     | st Cro                     | p Choic              | e           | 2n                            | d Cro     | p Choice               |                 | 3                             | rd Cr               | op Cho              | ice                 |
|                                              |                                                                                       | VLow  | Low                             | Med                                                        | High                                    |                                        | Peas                       | s-Field              |             |                               | Peas      | -Field                 |                 |                               | Pea                 | as-Field            |                     |
| 0-6                                          | 11 lb/acre                                                                            |       |                                 |                                                            |                                         |                                        | YIELD                      | GOAL                 |             |                               | YIELD     | GOAL                   |                 |                               | YIEL                | D GOAL              |                     |
| 6-24                                         | " 15 lb/acre                                                                          | ***** | ****                            |                                                            |                                         |                                        | 30                         | BU                   |             |                               | 40        | BU                     |                 |                               | 50                  | BU                  |                     |
| 0-24                                         | " 26 lb/acre                                                                          |       |                                 |                                                            |                                         | SUG                                    | GESTED                     | GUIDELIN             | NES         | SUGO                          | GESTED    | GUIDELINE              | s               | SUC                           | GESTE               |                     | LINES               |
| Nitrate                                      |                                                                                       |       |                                 |                                                            |                                         |                                        |                            | and                  |             |                               |           | and                    |                 |                               |                     | Pand                |                     |
| intrace                                      |                                                                                       |       |                                 |                                                            |                                         |                                        | De                         |                      |             |                               | De        |                        |                 |                               |                     |                     |                     |
| Olse                                         | n 9 ppm                                                                               | ***** | *****                           | ***                                                        |                                         | LB/A                                   | ACRE                       | APPLICA              | TION        | LB/A                          | CRE       | APPLICATI              | ION             | LB/                           | ACRE                | APPLI               | CATION              |
| Phosphorus                                   |                                                                                       | -     |                                 |                                                            |                                         | N                                      | 19                         |                      |             | N                             | 19        |                        |                 | N                             | 19                  |                     |                     |
| Potassium                                    | 136 ppm                                                                               | ***** | *****                           | * ****                                                     |                                         | P <sub>2</sub> O <sub>5</sub>          | 19                         | Band                 | *           | P <sub>2</sub> O <sub>5</sub> | 26        | Band *                 |                 | P <sub>2</sub> O <sub>5</sub> | 32                  | Bar                 | nd *                |
| 0-24                                         | " 28 lb/acre                                                                          | ***** | *****                           |                                                            |                                         | K20                                    | 15                         | Band                 | *           | K2O                           | 19        | Band *                 |                 | K <sub>2</sub> O              | 24                  | Bar                 | nd *                |
| Chloride<br>0-6<br>6-24                      | 5" 36 lb/acre<br>204 lb/acre                                                          | ***** | ******                          | * * * * * * * *                                            | ***                                     | СІ                                     |                            | Not<br>Availat       | :<br>ple    | CI                            |           | Not<br>Available       | e               | CI                            |                     | Not A               | vailable            |
| Sulfur                                       |                                                                                       |       |                                 |                                                            |                                         | S                                      | 0                          |                      |             | S                             | 0         |                        |                 | S                             | 0                   |                     |                     |
| Boron                                        | 0.9 ppm                                                                               | ***** | *****                           | **                                                         |                                         | В                                      | 0                          |                      |             | В                             | 0         |                        |                 | В                             | 0                   |                     |                     |
| Zinc                                         | 0.53 ppm                                                                              | ***** | *****                           |                                                            |                                         | Zn                                     | 0                          |                      |             | Zn                            | 0         |                        |                 | Zn                            | 1                   | Ba                  | ind                 |
| Iron                                         | 18.5 ppm                                                                              | ***** | *****                           | *****                                                      | *****                                   | Fe                                     | 0                          |                      |             | Fe                            | 0         |                        |                 | Fe                            | 0                   |                     |                     |
| Manganese                                    | 3.2 ppm                                                                               | ***** | *****                           | *****                                                      | ***                                     | N4                                     | с<br>С                     |                      |             | N.                            | 0         |                        |                 | Ma                            | 0                   |                     |                     |
| Copper                                       | 0.57 ppm                                                                              | ***** | *****                           | **                                                         |                                         | Mn                                     | U                          |                      |             | Mn                            | U         |                        |                 | Mn                            | 0                   |                     |                     |
| Magnesium                                    | 747 ppm                                                                               | ***** | *****                           | *****                                                      | *****                                   | Cu                                     | 0                          |                      |             | Cu                            | 0         |                        |                 | Cu                            | 0                   |                     |                     |
| Calcium                                      | 4712 ppm                                                                              | ***** | *****                           | * * * * * * *                                              | *****                                   | Mg                                     | 0                          |                      |             | Mg                            | 0         |                        |                 | Mg                            | 0                   |                     |                     |
| Sodium                                       | 36 ppm                                                                                | ****  |                                 |                                                            |                                         | Lime                                   |                            |                      |             | Lime                          |           |                        |                 | Lime                          |                     |                     |                     |
| Org.Matter                                   | 5.4 %                                                                                 | ***** | *****                           | *****                                                      | ****                                    |                                        |                            | -                    | Cati        | ion Excl                      | ange      | % Bas                  | e Sa            | turatio                       | on (Tv              | pical Ra            | nge)                |
| Carbonate(CCE)                               | 2.3 %                                                                                 | ***** | *****                           |                                                            |                                         | Soil p                                 | oH B                       | uffer pH             | Cat         | Capacit                       | ange<br>y | % Ca                   | %               | Mg                            | % K                 | % Na                | % H                 |
| 0-6<br>6-24<br>Sol. Salts                    | 0.37 mmho/cm<br>0.47 mmho/cm                                                          | ***** | ****                            |                                                            |                                         | 0-6" <b>7</b><br>6-24" <b>8</b>        | 7.8<br>8.4                 |                      |             | 30.3 me                       | q         | (65-75)<br><b>77.8</b> | (15<br><b>2</b> | -20)<br><b>0.6</b>            | (1-7)<br><b>1.2</b> | (0-5)<br><b>0.5</b> | (0-5)<br><b>0.0</b> |

Crop 1: Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 21 K20 = 22 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 28 K20 = 29 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 36 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                  |                                                                                  |       |                  |                                                           | SO                              | IL TE                                  | ST                                  | REPOF                      | RT          |                  |             |                                |       | N                |        |             |              |
|--------------------------------------------------|----------------------------------------------------------------------------------|-------|------------------|-----------------------------------------------------------|---------------------------------|----------------------------------------|-------------------------------------|----------------------------|-------------|------------------|-------------|--------------------------------|-------|------------------|--------|-------------|--------------|
| Soil Analysis<br>(http://<br>Northwood<br>Benson | by Agvise Laborator<br>www.agvise.com)<br>od: (701) 587-6010<br>: (320) 843-4109 | ies   | F<br>C<br>F<br>F | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>FWP<br>SECTI<br>PREV. | ID<br>LE ID<br>NAME<br>TY<br>ON | NH 14-<br>Brent M<br>5<br>14<br>Fallow | <b>5-19</b><br><b>forrov</b><br>QTR | w Half<br>RANGE 1<br>RNH A | L9<br>Acres | 310              | v           | V                              |       |                  |        |             | E            |
| SUBI<br>Rourke Farms<br>Box 144                  | MITTED FOR:                                                                      |       |                  | PEMB<br>210 S                                             | INA CO<br>RAILV                 | SUBM<br>DOP-MI<br>WAY AV               | 1ITTE<br>INTO<br>/E                 | D BY:                      | PE41        | .10              | RFF         | # 298                          | 0549  | S<br>BOX         | ( #    | 2105        |              |
| Minto,                                           | ROK 1M                                                                           | 0     |                  | MINTO                                                     | .43<br>D, MB                    |                                        |                                     | ROK 1                      | 1M0         |                  | LAB         | # <b>NW</b>                    | 72793 |                  |        |             |              |
|                                                  |                                                                                  |       |                  |                                                           |                                 |                                        |                                     |                            |             |                  |             |                                |       |                  |        |             | $\equiv$     |
| Date Sampled                                     |                                                                                  |       |                  |                                                           |                                 | D                                      | Date Re                             | eceived                    | 09/0        | 8/202            | 0           |                                | Dat   | e Rej            | ported | 9/10        | /2020        |
| Nutrient I                                       | n The Soil                                                                       | In    | iterp            | retati                                                    | ion                             | 1s                                     | t Cro                               | p Choic                    | е           | 2n               | d Cro       | p Choice                       |       | 3re              | d Cro  | p Cho       | ice          |
|                                                  |                                                                                  | VLow  | Low              | Med                                                       | High                            |                                        | Wheat                               | t-Spring                   |             |                  | 08          | ats                            |       |                  | R      | ye          |              |
| 0-6"                                             | 19 lb/acre                                                                       |       |                  |                                                           |                                 |                                        | YIELD                               | D GOAL                     |             |                  | YIELD       | GOAL                           |       |                  | YIELD  | GOAL        |              |
| 0-24                                             | 10 10/ 2010                                                                      | ***** | *****            | ****                                                      |                                 |                                        | 60                                  | BU                         |             |                  | 100         | BU                             |       |                  | 50     | BU          |              |
| 0-24"                                            | 37 lb/acre                                                                       |       |                  |                                                           |                                 | SUGO                                   | GESTED                              | O GUIDELIN                 | NES         | SUG              | GESTED      | GUIDELINES                     | 5     | SUG              | GESTED | GUIDE       | LINES        |
| Nitrate                                          |                                                                                  |       |                  |                                                           |                                 |                                        | Ba                                  | and                        |             |                  | Ba          | ind                            |       |                  | Ba     | ind         |              |
|                                                  |                                                                                  |       |                  |                                                           |                                 | LB/A                                   | CRE                                 | APPLICA                    | TION        | LB/A             | CRE         | APPLICATI                      | ОЛ    | LB/A             | CRE    | APPLIC      | CATION       |
| Olsen<br>Phosphorus                              | 8 ppm                                                                            | ***** | *****            | ĸ                                                         |                                 | N                                      | 95                                  | Customi                    | zed         | N                | 39          | Customize                      | d     | N                | 54     | Custo       | mized        |
| Potassium                                        | 221 ppm                                                                          | ***** | *****            | * *****                                                   | *****                           | P2O5                                   | 35                                  | Band                       | *           | P2O5             | 26          | Band *                         | Р     | 205              | 29     | Ban         | d *          |
| 0-24"<br>Chloride                                | 256 lb/acre                                                                      | ***** | *****            | * * * * * * *                                             | *****                           | K <sub>2</sub> O                       | 10                                  | Band<br>(Starte            | d<br>r)*    | K <sub>2</sub> O | 10          | Band<br>(Starter) <sup>;</sup> | k k   | ( <sub>2</sub> 0 | 10     | Ba<br>(Star | ind<br>ter)* |
| 0-6"                                             | 120 +lb/acre                                                                     | ***** | *****            | * * * * * * *                                             | *****                           | CI                                     | 0                                   |                            |             | CI               | 0           |                                |       | CI               | 0      |             |              |
| Sulfur                                           | 500 115/ 4010                                                                    | ***** | *****            | ******                                                    |                                 | S                                      | 0                                   |                            |             | S                | 0           |                                |       | s                | 0      |             |              |
| Boron                                            | 0.9 ppm                                                                          | ***** | *****            | * **                                                      |                                 | В                                      | 0                                   |                            |             | В                | 0           |                                |       | в                | 0      |             |              |
| Zinc                                             | 0.62 ppm                                                                         | ***** | *****            | *                                                         |                                 | Zn                                     | 0                                   |                            |             | Zn               | 0           |                                |       | Zn               | 0      |             |              |
| Iron                                             | 17.0 ppm                                                                         | ***** | *****            | * *****                                                   | ******                          | Fe                                     | 0                                   |                            |             | Fe               | 0           |                                |       | Fe               | 0      |             |              |
| Copper                                           | 2.0 ppm                                                                          | ***** | *****            | * *****                                                   | k                               | Mn                                     | 0                                   |                            |             | Mn               | 0           |                                |       | Mn               | 0      |             |              |
| Magnesium                                        | 0.5 ppm                                                                          | ***** | *****            | *                                                         |                                 | Cu                                     | 2                                   | Band                       | 1           | Cu               | 1           | Band (Tria                     | I) (  | Cu               | 0      |             |              |
| Calcium                                          | 4422 ppm                                                                         | ***** | *****            | * *****                                                   | *****                           | Mg                                     | 0                                   |                            |             | Mg               | 0           |                                |       | Mg               | 0      |             |              |
| Sodium                                           | 49 ppm                                                                           | ***** | **               |                                                           |                                 | Lime                                   |                                     |                            |             | Lime             |             |                                |       | ime              |        |             |              |
| O rg.Matter                                      | 4.7 %                                                                            | ***** | *****            | * *****                                                   | k                               |                                        |                                     |                            |             |                  |             | 0/- 8                          |       | at a             | • (T)  | col Do      |              |
| Carbonate(CCE)                                   | 0.8 %                                                                            | ****  |                  |                                                           |                                 | Soil p                                 | DH B                                | uffer pH                   | Cati        | on Excl          | hange<br>ty | % Ca                           | % Mg  | g c              | % K    | % Na        | м н          |

0.64 mmho/cm

1.87 mmho/cm

\*\*\*\*\* \*\*\*\*\*\* \*\*\*

\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*\*\*

0-6"

6-24"

Sol. Salts

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

28.3 meq

(65-75)

78.1

(15-20)

19.1

(1-7)

2.0

(0-5)

0.8

(0-5)

0.0

0-6" 7.8

6-24" **8.1** 

\*\*\*\*

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 25 K20 = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 31 K2O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                   |                                                                               |        | so                                                                            | ILTE                                      | EST I                                                 | REPORT                 | Ĭ                             |        |            | Ņ                             |        |             |
|---------------------------------------------------|-------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------|------------------------|-------------------------------|--------|------------|-------------------------------|--------|-------------|
| Soil Analysis<br>(http://v<br>Northwoo<br>Benson: | by Agvise Laborator<br>www.agvise.com)<br>d: (701) 587-6010<br>(320) 843-4109 | ies    | FIELD ID<br>SAMPLE ID<br>FIELD NAME<br>COUNTY<br>TWP<br>SECTION<br>PREV. CROP | NH 15-<br>NH 15-<br>5-19W<br>15<br>Wheat- | <b>5-19W</b><br><b>5-19W</b><br>QTR<br>• <b>Sprin</b> | RANGE<br>NH ACRES<br>9 | 5 0                           | V      | V          |                               |        | E           |
| SUBN<br>BFWA JACKSON F                            | AITTED FOR:<br>F <b>ARMS</b>                                                  |        | PEMBINA CO<br>210 S RAILV                                                     | SUBM<br>DOP-M<br>VAY AV                   | 1ITTE<br>Into<br>/e                                   | D BY: PE41             | .10                           | REF    | # 298077   | <b>S</b>                      | X #    | 2142        |
| MINTO,                                            | R0K1M0                                                                        | )      | MINTO, MB                                                                     |                                           |                                                       | ROK 1MO                |                               | LAB    | # NW728    | 26                            |        | ļ           |
| Date Sampled                                      |                                                                               |        |                                                                               | C                                         | ate Re                                                | eceived <b>09/0</b>    | 8/202                         | 0      | [          | Date Re                       | ported | 10/13/2020  |
| Nutrient I                                        | n The Soil                                                                    | Inte   | erpretation                                                                   | 1s                                        | t Cro                                                 | p Choice               | 2n                            | d Cro  | p Choice   | 3r                            | d Cro  | p Choice    |
|                                                   |                                                                               | VLow l | Low Med High                                                                  |                                           | Cano                                                  | ola-bu                 |                               | Cano   | ola-bu     |                               | Soyt   | eans        |
| 0-6"<br>6-24"                                     | 14 lb/acre<br>12 lb/acre                                                      |        |                                                                               |                                           | YIELD                                                 | GOAL                   |                               | YIELD  | GOAL       |                               | YIELD  | GOAL        |
|                                                   |                                                                               | *****  | ***                                                                           |                                           | 45                                                    | BU                     |                               | 45     | BU         |                               | 40     | BU          |
| 0-24''                                            | 26 lb/acre                                                                    |        |                                                                               | SUG                                       | GESTED                                                | GUIDELINES             | SUG                           | GESTED | GUIDELINES | SUG                           | GESTED | GUIDELINES  |
| Nitrate                                           |                                                                               |        |                                                                               |                                           | Ba                                                    |                        |                               | Ba     |            |                               | Ва     |             |
| Olsen                                             | 7 ppm                                                                         | *****  | ****                                                                          | N                                         | 109                                                   | Customized             | N                             | 109    | Customized | N N                           | ***    | AFFLICATION |
| Potassium                                         | 220 ppm                                                                       | *****  | ****                                                                          | P <sub>2</sub> O <sub>5</sub>             | 41                                                    | Band *                 | P <sub>2</sub> O <sub>5</sub> | 41     | Band *     | P <sub>2</sub> O <sub>5</sub> | 34     | Band *      |
| 0-24''                                            | 188 lb/acre                                                                   | *****  | ***                                                                           | K <sub>2</sub> O                          | 0                                                     |                        | K <sub>2</sub> O              | 0      |            | K <sub>2</sub> O              | 0      |             |
| Chloride<br>0-6"                                  | 120 +lb/acre                                                                  | *****  | *****                                                                         | CI                                        |                                                       | Not                    | CI                            |        | Not        | CI                            | o      |             |
| <b>6-24''</b><br>Sulfur                           | 360 +lb/acre                                                                  | *****  | ****                                                                          | S                                         | 10                                                    | Band                   | S                             | 10     | Band       | S                             | 0      |             |
| Boron                                             | 1.1 ppm                                                                       | *****  | ****                                                                          | В                                         | 0                                                     | Balla                  | В                             | 0      | Barra      | В                             | 0      |             |
| Zinc                                              | 0.51 ppm                                                                      | *****  | ***                                                                           |                                           | -                                                     |                        |                               | -      |            |                               |        |             |

0.63 mmho/cm

2.21 mmho/cm

10.8 ppm

1.8 ppm

0.49 ppm

777 ppm

5556 ppm

58 ppm

4.9 %

1.8 %

\*\*\*\*\*

\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*

\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*<mark>\*\*\*\*</mark>\*

\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\* \*\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

Iron

Manganese

Magnesium

Copper

Calcium

Sodium

Org.Matter

Sol. Salts

Carbonate(CCE)

0-6"

6-24"

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 41 K20 = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

7n

Fe

Mn

Cu

Mg

Lime

Soil pH

0-6" 7.9

6-24" **8.2** 

2

0

0

0

0

**Buffer pH** 

Band

Zn

Fe

Mn

Cu

Mg

Lime

**Cation Exchange** 

Capacity

35.1 meq

2

0

0

0

0

Band

% Ca

(65 - 75)

79.2

7n

Fe

Mn

Cu

Mg

Lime

% Mg

(15 - 20)

18.5

% Base Saturation (Typical Range)

% K

(1-7)

1.6

% Na

(0-5)

0.7

1

0

0

0

0

Band

% H

(0-5)

0.0

. Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 41 K20 = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is moderate, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

|                                                 |                                                                                   |       |                                 |                                                            | SO                                               | IL TI                                  | EST                 | REPOF                    | RT                  |                               |        |               | Ņ            |                                                                                              |         |          |            |
|-------------------------------------------------|-----------------------------------------------------------------------------------|-------|---------------------------------|------------------------------------------------------------|--------------------------------------------------|----------------------------------------|---------------------|--------------------------|---------------------|-------------------------------|--------|---------------|--------------|----------------------------------------------------------------------------------------------|---------|----------|------------|
| Soil Analysis<br>(http://<br>Northwor<br>Benson | by Agvise Laborator<br>(www.agvise.com)<br>od: (701) 587-6010<br>: (320) 843-4109 | ries  | F<br>S<br>F<br>C<br>T<br>S<br>F | TIELD<br>SAMPL<br>TIELD<br>COUNT<br>TWP<br>SECTIO<br>PREV. | ID S<br>LE ID<br>NAME I<br>TY<br>SON S<br>CROP S | SE 15-!<br>McKinn<br>5<br>15<br>Soybea | 5-19<br>Ions<br>QTR | RANGE 1<br>R <b>SE</b> A | L <b>9</b><br>Acres | 5 150                         | V      | V             |              |                                                                                              |         |          | E          |
| SUB                                             | MITTED FOR:                                                                       |       |                                 |                                                            |                                                  | SUBN                                   | 1ITTE               | D BY:                    | PE41                | .10                           |        |               |              | S                                                                                            |         |          |            |
| Rourke Farms<br>Box 144                         |                                                                                   |       | 2                               | 210 S                                                      | INA CO<br>RAILV                                  | ор-м<br>VAY A\                         | INTO<br>/E          |                          |                     |                               |        |               |              | Ŭ                                                                                            |         |          |            |
| Minto,                                          | ROK 1M                                                                            | 0     | E                               | BOX 1                                                      | .43<br>), MB                                     |                                        |                     | ROK 1                    | 1M0                 |                               | REF =  | # 303<br># NW | 4589<br>1158 | ЭВ<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В<br>В | DX #    | 427      | 2          |
|                                                 |                                                                                   |       |                                 |                                                            | -                                                |                                        |                     |                          |                     |                               |        |               |              |                                                                                              |         |          |            |
| Date Sampled                                    |                                                                                   |       |                                 |                                                            |                                                  | L                                      | Date R              | eceived                  | 09/2                | 9/202                         | 0      |               | Da           | ate Re                                                                                       | eported | 10/6     | »/2020     |
| Nutrient 1                                      | In The Soil                                                                       | In    | terp                            | retati                                                     | ion                                              | 15                                     | st Cro              | p Choic                  | e                   | 2n                            | d Cro  | p Choice      |              | Зr                                                                                           | d Cro   | p Cho    | ice        |
|                                                 |                                                                                   | VLow  | Low                             | Med                                                        | High                                             |                                        | Whea                | t-Spring                 |                     |                               | Wheat  | -Spring       |              |                                                                                              | Wheat   | -Spring  |            |
| 0-6'<br>6-24'                                   | 9 lb/acre                                                                         |       |                                 |                                                            |                                                  |                                        | YIEL                | D GOAL                   |                     |                               | YIELD  | GOAL          |              |                                                                                              | YIELD   | GOAL     |            |
| 0 24                                            | 5 iby dere                                                                        | ***** | *                               |                                                            |                                                  |                                        | 60                  | BU                       |                     |                               | 60     | BU            |              |                                                                                              | 60      | BU       |            |
| 0-24'                                           | ' 18 lb/acre                                                                      |       |                                 |                                                            |                                                  | SUG                                    | GESTE               | D GUIDELIN               | NES                 | SUG                           | GESTED | GUIDELINE     | s            | SUG                                                                                          | GESTED  | GUIDE    | LINES      |
| Nitrate                                         |                                                                                   |       |                                 |                                                            |                                                  |                                        | В                   | and                      |                     |                               | Ba     | and           |              |                                                                                              | Ba      | and      |            |
|                                                 |                                                                                   |       |                                 |                                                            |                                                  | LB/A                                   | ACRE                | APPLICA                  | TION                | LB/A                          | ACRE   | APPLICATI     | ON           | LB/A                                                                                         | ACRE    | APPLIC   | CATION     |
| Phosphorus                                      | n 6 ppm                                                                           | ***** | ****                            |                                                            |                                                  | N                                      | 99                  | Customi                  | zed                 | N                             | 99     | Customize     | ed           | N                                                                                            | 99      | Custo    | mized      |
| Potassium                                       | 161 ppm                                                                           | ***** | *****                           | *****                                                      | k *                                              | P <sub>2</sub> O <sub>5</sub>          | 39                  | Band                     | *                   | P <sub>2</sub> O <sub>5</sub> | 39     | Band *        |              | P <sub>2</sub> O <sub>5</sub>                                                                | 39      | Ban      | id *       |
| 0-24'                                           | 76 lb/acre                                                                        | ***** | *****                           | *****                                                      | *****                                            | K <sub>2</sub> O                       | 16                  | Band                     | *                   | K <sub>2</sub> O              | 16     | Band *        |              | K20                                                                                          | 16      | Ban      | id *       |
| Chloride                                        | ' 120 +lb/acre                                                                    | ***** | *****                           | *****                                                      | *****                                            | CI                                     | 0                   |                          |                     | CI                            | 0      |               |              | CI                                                                                           | 0       |          |            |
| 6-24'                                           | ' 360 +lb/acre                                                                    | ***** | *****                           | *****                                                      | *****                                            | S                                      | 0                   |                          |                     | S                             | 0      |               |              | S                                                                                            | 0       |          |            |
| Boron                                           | 1.1 ppm                                                                           | ***** | *****                           | ****                                                       |                                                  | В                                      | 0                   |                          |                     | В                             | 0      |               |              | В                                                                                            | 0       |          |            |
| Zinc                                            | 0.54 ppm                                                                          | ***** | ****                            |                                                            |                                                  | Zn                                     | 0                   |                          |                     | Zn                            | 0      |               |              | Zn                                                                                           | 0       |          |            |
| Iron                                            | 11.9 ppm                                                                          | ***** | *****                           | *****                                                      | *****                                            | Fe                                     | 0                   |                          |                     | Fe                            | 0      |               |              | Fe                                                                                           | 0       |          |            |
| Manganese                                       | 3.2 ppm                                                                           | ***** | *****                           | *****                                                      | ***                                              | Mn                                     | 0                   |                          |                     | Mn                            | 0      |               |              | Mn                                                                                           | 0       |          |            |
| Copper                                          | 0.59 ppm                                                                          | ***** | *****                           | ***                                                        |                                                  | C                                      | 1                   | Band (T                  | rial)               | C                             | 1      | Band (Tria    |              | Cu                                                                                           | 1       | Band     | (Trial)    |
| Magnesium                                       | 906 ppm                                                                           | ***** | *****                           | *****                                                      | *****                                            | Cu                                     | -                   | Ballu (11                | (10)                | Cu                            | -      |               | ,            | Cu                                                                                           | -       | Dallu    | , i i di j |
| Sodium                                          | 5140 ppm                                                                          | ***** | *****                           | *****                                                      | *****                                            | Mg                                     | U                   |                          |                     | Mg                            | U      |               |              | Mg                                                                                           | U       |          |            |
| Org Matter                                      | 43 ppm                                                                            | ***** |                                 |                                                            |                                                  | Lime                                   |                     |                          |                     | Lime                          |        |               |              | Lime                                                                                         |         |          |            |
| Carbonate(CCE)                                  | 4.6 %                                                                             | ***** | *****                           | *****                                                      | k                                                | Soil                                   | oH B                | Buffer pH                | Cati                | on Excl                       | hange  | % Bas         | e Sat        | uratio                                                                                       | n (Typ  | ical Rai | nge)       |
|                                                 | 2.4 %                                                                             | ***** | *****                           | ĸ                                                          |                                                  |                                        |                     |                          |                     | Capaci                        | ty     | % Ca          | %            | Mg                                                                                           | % K     | % Na     | % H        |

0.63 mmho/cm

1.11 mmho/cm

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

0-6"

6-24"

Sol. Salts

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

33.8 meq

(65-75)

75.9

(15-20)

22.3

(1-7)

1.2

(0-5)

0.6

(0-5)

0.0

0-6" 8.0

6-24" **8.3** 

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 A GVISE Band guideline will build P & K test levels to the medium range over several years.

|              |                                                 |                                                                               |       | $\gamma$                                |                                                           | SO                                                | ILTE                                      | EST I              | REPOF              | RT    |                               | )          |                     | N                             |        |               |
|--------------|-------------------------------------------------|-------------------------------------------------------------------------------|-------|-----------------------------------------|-----------------------------------------------------------|---------------------------------------------------|-------------------------------------------|--------------------|--------------------|-------|-------------------------------|------------|---------------------|-------------------------------|--------|---------------|
| Soil         | Analysis b<br>(http://v<br>Northwood<br>Benson: | by Agvise Laborator<br>www.agvise.com)<br>d: (701) 587-6010<br>(320) 843-4109 | ries  | <br> <br> <br> <br> <br> <br> <br> <br> | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>TWP<br>SECTI<br>PREV. | ID 1<br>LE ID 5<br>NAME<br>TY 5<br>ON 5<br>CROP 1 | fifteen<br>SW 15-<br>5-19<br>15<br>Wheat- | <b>5-19</b><br>QTR | RANGE<br>Sw A<br>9 | ACRES | 5 0                           | ۷          | v                   |                               |        | E             |
| BFWA JA      | SUBM<br>CKSON F                                 | 1ITTED FOR:<br>ARMS                                                           |       | I                                       | PEMB                                                      |                                                   | SUBM                                      | 1ITTE<br>INTO      | D BY:              | PE41  | .10                           |            |                     | S                             |        |               |
| MINTO,       |                                                 | R0K1M0                                                                        | )     |                                         | BOX 1<br>MINTO                                            | .43<br>D, MB                                      | VATAV                                     |                    | ROK 1              | LMO   |                               | REF<br>LAB | # 298077<br># NW728 | 76 BO                         | X #    | 2105          |
| Date Sar     | mpled                                           |                                                                               |       |                                         |                                                           |                                                   | C                                         | Date Re            | eceived            | 09/0  | 8/202                         | 0          | [                   | Date Re                       | ported | 10/13/2020    |
| Nu           | utrient In                                      | n The Soil                                                                    | In    | nterp                                   | retati                                                    | ion                                               | 1s                                        | t Cro              | p Choic            | e     | 2n                            | d Cro      | p Choice            | 3r                            | d Cro  | p Choice      |
|              |                                                 |                                                                               | VLow  | Low                                     | Med                                                       | High                                              |                                           | Cano               | ola-bu             |       |                               | Cano       | ola-bu              |                               | Cano   | ola-bu        |
|              | 0-6"                                            | 11 lb/acre                                                                    |       |                                         |                                                           |                                                   |                                           | YIELD              | GOAL               |       |                               | YIELD      | GOAL                |                               | YIELD  | GOAL          |
|              | 0-24                                            | 21 lb/acre                                                                    | ***** | * * * * * * *                           | *                                                         |                                                   |                                           | 40                 | BU                 |       |                               | 50         | BU                  |                               | 60     | BU            |
|              | 0-24''                                          | 32 lb/acre                                                                    |       |                                         |                                                           |                                                   | SUG                                       | GESTED             | GUIDELIN           | IES   | SUG                           | GESTED     | GUIDELINES          | SUG                           | GESTED | GUIDELINES    |
| Nitrate      |                                                 |                                                                               |       |                                         |                                                           |                                                   |                                           | Ba                 | and                |       |                               | Ba         | ind                 |                               | Ba     | and           |
|              |                                                 |                                                                               |       |                                         |                                                           |                                                   | LB/A                                      | CRE                | APPLICA            | TION  | LB/A                          | ACRE       | APPLICATION         | LB/A                          | CRE    | APPLICATION   |
| Phosphorus   | Olsen                                           | 11 ppm                                                                        | ***** | *****                                   | * * * * * * *                                             | ĸ                                                 | N                                         | 88                 | Customi            | zed   | N                             | 118        | Customized          | N                             | 148    | Customized    |
| Potassium    |                                                 | 181 ppm                                                                       | ***** | * *****                                 | * *****                                                   | ****                                              | P <sub>2</sub> O <sub>5</sub>             | 28                 | Band               | *     | P <sub>2</sub> O <sub>5</sub> | 35         | Band *              | P <sub>2</sub> O <sub>5</sub> | 42     | Band *        |
|              | 0-24''                                          | 68 lb/acre                                                                    | ***** | * *****                                 | * *****                                                   | *****                                             | K <sub>2</sub> O                          | 0                  |                    |       | K <sub>2</sub> O              | 0          |                     | K <sub>2</sub> O              | 0      |               |
| Chloride     | 0-6"<br>6-24"                                   | 120 +lb/acre<br>360 +lb/acre                                                  | ***** | * * * * * * *                           | * * * * * * * *                                           | *****                                             | CI                                        |                    | Not<br>Availat     | ole   | CI                            |            | Not<br>Available    | CI                            |        | Not Available |
| Sulfur       |                                                 |                                                                               |       |                                         |                                                           |                                                   | S                                         | 10                 | Band               |       | S                             | 10         | Band                | S                             | 10     | Band          |
| Boron        |                                                 | 1.0 ppm                                                                       | ***** | * *****                                 | * ***                                                     |                                                   | В                                         | 0                  |                    |       | В                             | 0          |                     | В                             | 0      |               |
| Zinc         |                                                 | 0.86 ppm                                                                      | ***** | * ****                                  | ****                                                      |                                                   | Zn                                        | 0                  |                    |       | Zn                            | 1          | Band                | Zn                            | 1      | Band          |
| Iron         |                                                 | 19.2 ppm                                                                      | ***** | * *****                                 | * *****                                                   | *****                                             | Fe                                        | 0                  |                    |       | Fe                            | 0          |                     | Fe                            | 0      |               |
| Copper       |                                                 | 3.1 ppm                                                                       | ***** | * *****                                 | * *****                                                   | **                                                | Mn                                        | 0                  |                    |       | Mn                            | 0          |                     | Mn                            | 0      |               |
| Magnesium    |                                                 | 0.55 ppm                                                                      | ***** | * *****                                 | * *                                                       |                                                   | Cu                                        | 0                  |                    |       | Cu                            | 0          |                     | Cu                            | 0      |               |
| Calcium      |                                                 | 868 ppm<br>4227 ppm                                                           | ***** | * * * * * * *                           | * * * * * * * *                                           | *****                                             | Ma                                        | 0                  |                    |       | Ma                            | 0          |                     | Ma                            | 0      |               |
| Sodium       |                                                 | 48 ppm                                                                        | ***** | **                                      |                                                           |                                                   | Lime                                      |                    |                    |       | Lime                          |            |                     | Lime                          |        |               |
| Org.Matter   |                                                 | 5.1 %                                                                         | ***** | * *****                                 | * *****                                                   | ***                                               | 2                                         |                    |                    |       |                               |            | 0/                  |                               | . (7   |               |
| Carbonate(CC | CE)                                             | 0.0.00                                                                        |       |                                         |                                                           |                                                   | Soil p                                    | он в               | uffer pH           | Cati  | on Excl                       | hange      | % Base Sa           | turatio                       | п (Гур | ical Range)   |

0-6"

6-24"

Sol. Salts

0.8 %

0.5 mmho/cm

1.52 mmho/cm

\*\*\*\*

\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 36 K2O = 18 AGVISE Band guideline will build P & K test levels to the medium range over several years.

0-6" 7.7

6-24" **8.3** 

% Mg

(15-20)

24.9

% K

(1-7)

1.6

% Na

(0-5)

0.7

% H

(0-5)

0.0

% Ca

(65-75)

72.8

Capacity

29.0 meq

. Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 54 K2O = 27 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                 |                                                                                  |                | Ĭ                          |                                                            | SO                                    | DIL TI                                              | EST                            | REPOF                                 | RT          |                               |        |                        |                 | Ņ                             |                     |                     |                     |
|-------------------------------------------------|----------------------------------------------------------------------------------|----------------|----------------------------|------------------------------------------------------------|---------------------------------------|-----------------------------------------------------|--------------------------------|---------------------------------------|-------------|-------------------------------|--------|------------------------|-----------------|-------------------------------|---------------------|---------------------|---------------------|
| Soil Analysis<br>(http://<br>Northwoo<br>Benson | by Agvise Laborator<br>www.agvise.com)<br>od: (701) 587-6010<br>: (320) 843-4109 | ies            | F<br>5<br>7<br>7<br>9<br>7 | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>FWP<br>SECTIO<br>PREV. | ID<br>E ID<br>NAME<br>Y<br>ON<br>CROP | AL 16-5<br>S STRIF<br>full sec<br>5<br>16<br>Soybea | 5-19W<br>P 16-5<br>tion<br>QTR | V<br>5-19<br>RANGE 1<br>R <b>AL</b> 4 | L9<br>Acres | 5 0                           | V      | v                      |                 |                               |                     |                     | E                   |
| SUB<br>BFWA JACKSON                             | MITTED FOR:<br>F <b>ARMS</b>                                                     |                |                            | PEMB<br>210 S<br>BOX 1                                     | INA CO<br>RAILV<br>43                 | SUBN<br>OOP-M<br>NAY AN                             | 1ITTE<br>INTO<br>/E            | D BY:                                 | PE41        | .10                           | REF    | # 306                  | <b>95</b> 3     | S<br>s1 B                     | 30X #               | 728                 | •                   |
| MINTO,                                          | R0K1M0                                                                           | )              |                            | мінтс                                                      | ), МВ                                 |                                                     |                                | ROK 1                                 | LMO         |                               | LAB    | # <b>NW</b>            | 143             | 543                           |                     |                     |                     |
| Date Sampled                                    |                                                                                  |                |                            |                                                            |                                       | C                                                   | Date Re                        | eceived                               | 10/0        | 7/202                         | D      |                        | [               | Date R                        | eporte              | d <b>10/</b> :      | 13/2020             |
| Nutrient I                                      | n The Soil                                                                       | In             | terp                       | retati                                                     | on                                    | 15                                                  | st Cro                         | p Choic                               | e           | 2n                            | d Cro  | p Choice               |                 | 3                             | rd Cr               | op Cho              | ice                 |
|                                                 |                                                                                  | VLow           | Low                        | Med                                                        | High                                  |                                                     | 0                              | ats                                   |             |                               | Oa     | ats                    |                 |                               |                     | Oats                |                     |
| 0-6'                                            | 14 lb/acre                                                                       |                |                            |                                                            |                                       |                                                     | YIELD                          | ) GOAL                                |             |                               | YIELD  | GOAL                   |                 |                               | YIEL                | D GOAL              |                     |
| 6-24                                            | 27 ID/acre                                                                       | *****          | *****                      | ****                                                       |                                       |                                                     | 100                            | BU                                    |             |                               | 120    | BU                     |                 |                               | 140                 | ) BU                |                     |
| 0-24'                                           | 41 lb/acre                                                                       |                |                            |                                                            |                                       | SUG                                                 | GESTED                         | ) GUIDELIN                            | NES         | SUGO                          | GESTED | GUIDELINE              | s               | SUC                           | GGESTE              | D GUIDE             | LINES               |
| Nitrate                                         |                                                                                  |                |                            |                                                            |                                       |                                                     | Ba                             | and                                   |             |                               | Ba     | and                    |                 |                               | E                   | Band                |                     |
|                                                 |                                                                                  |                |                            |                                                            |                                       | LB/A                                                | ACRE                           | APPLICA                               | TION        | LB/A                          | CRE    | APPLICATI              |                 | LB/                           | ACRE                | APPLI               | CATION              |
| <b>Olser</b><br>Phosphorus                      | 13 ppm                                                                           | *****          | *****                      | * * * * * *                                                | **                                    | N                                                   | 36                             | Customi                               | zed         | N                             | 52     | Customize              | ed              | N                             | 70                  | Custo               | mized               |
| Potassium                                       | 207 ppm                                                                          | *****          | *****                      | * *****                                                    | *****                                 | P <sub>2</sub> O <sub>5</sub>                       | 18                             | Band                                  | *           | P <sub>2</sub> O <sub>5</sub> | 21     | Band *                 |                 | P <sub>2</sub> O <sub>5</sub> | 25                  | Bar                 | 1d *                |
| <b>0-24'</b><br>Chloride                        | 200 lb/acre                                                                      | *****          | *****                      | * * * * * * *                                              | *****                                 | K <sub>2</sub> O                                    | 10                             | Band<br>(Starte                       | d<br>r)*    | K <sub>2</sub> O              | 10     | Band<br>(Starter)      | )*              | K <sub>2</sub> O              | 10                  | Ba<br>(Star         | and<br>rter)*       |
| 0-6'                                            | 120 +lb/acre                                                                     | *****          | *****                      | * * * * * * *                                              | *****                                 | CI                                                  | 0                              |                                       |             | CI                            | 0      |                        |                 | CI                            | 0                   |                     |                     |
| Sulfur                                          | JOU TID/ acre                                                                    | *****          | *****                      | *****                                                      | ****                                  | S                                                   | 0                              |                                       |             | S                             | 0      |                        |                 | S                             | 0                   |                     |                     |
| Boron                                           | 1.2 ppm                                                                          | *****          | *****                      | * *****                                                    |                                       | В                                                   | 0                              |                                       |             | В                             | 0      |                        |                 | В                             | 0                   |                     |                     |
| Zinc                                            | 0.76 ppm                                                                         | *****          | *****                      | * **                                                       |                                       | Zn                                                  | 0                              |                                       |             | Zn                            | 0      |                        |                 | Zn                            | 0                   |                     |                     |
| Iron                                            | 14.7 ppm                                                                         | *****          | *****                      | * *****                                                    | *****                                 | Eo                                                  | 0                              |                                       |             |                               | 0      |                        |                 | Eo                            | 0                   |                     |                     |
| Manganese                                       | 3.1 ppm                                                                          | *****          | *****                      | * *****                                                    | **                                    | ге                                                  | 0                              |                                       |             | re                            | 0      |                        |                 | re                            | 0                   |                     |                     |
| Copper                                          | 0.58 ppm                                                                         | *****          | *****                      | * *                                                        |                                       | Mn                                                  | 0                              |                                       |             | Mn                            | 0      |                        |                 | Mn                            | 0                   |                     |                     |
| Magnesium                                       | 972 ppm                                                                          | *****          | *****                      | * *****                                                    | *****                                 | Cu                                                  | 1                              | Band (Tr                              | rial)       | Cu                            | 1      | Band (Tria             | al)             | Cu                            | 1                   | Band                | (Trial)             |
| Calcium                                         | 5169 ppm                                                                         | *****          | *****                      | * *****                                                    | *****                                 | Mg                                                  | 0                              |                                       |             | Mg                            | 0      |                        |                 | Mg                            | 0                   |                     |                     |
| Sodium                                          | 86 ppm                                                                           | *****          | *****                      | * *                                                        |                                       | Lime                                                |                                |                                       |             | Lime                          |        |                        |                 | Lime                          |                     |                     |                     |
| Org.Matter                                      | 4.6 %                                                                            | *****          | *****                      | * *****                                                    |                                       |                                                     |                                |                                       | Cati        | on Excl                       | nange  | % Bas                  | e Sa            | turati                        | on (Ty              | pical Ra            | nge)                |
| Carbonate(CCE)                                  | 2.1 %                                                                            | *****          | ****                       |                                                            |                                       | Soil p                                              | oH B                           | uffer pH                              | Suc         | Capacit                       | y .    | % Ca                   | %               | Mg                            | % K                 | % Na                | % H                 |
| 0-6'<br>6-24'<br>Sol. Salts                     | 1.11 mmho/cm<br>1.73 mmho/cm                                                     | *****<br>***** | *****                      | * ******                                                   | **<br>*****                           | 0-6" <b>7</b><br>6-24" <b>8</b>                     | 7.8                            |                                       |             | 34.8 me                       | q      | (65-75)<br><b>74.2</b> | (15<br><b>2</b> | -20)<br><b>3.2</b>            | (1-7)<br><b>1.5</b> | (0-5)<br><b>1.1</b> | (0-5)<br><b>0.0</b> |

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 25 K2O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 30 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 A GVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                |                                                                                   |                | Ŷ                          |                                                            | SO                                      | IL TE                                   | ST                                  | REPOF           | RT    |                               |             |                        |                 | Ņ                             |                     |                     |                     |
|------------------------------------------------|-----------------------------------------------------------------------------------|----------------|----------------------------|------------------------------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------|-----------------|-------|-------------------------------|-------------|------------------------|-----------------|-------------------------------|---------------------|---------------------|---------------------|
| Soil Analysis<br>(http://<br>Northwo<br>Bensor | by Agvise Laborato<br>/www.agvise.com)<br>od: (701) 587-6010<br>h: (320) 843-4109 | ries           | F<br>5<br>7<br>7<br>5<br>7 | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>FWP<br>SECTIO<br>PREV. | ID<br>LE ID<br>NAME<br>TY<br>ON<br>CROP | NH 17-<br>NH 17-<br>5-19W<br>17<br>Oats | <b>5-19V</b><br><b>5-19V</b><br>QTR | N<br>N<br>RANGE | ACRES | 5 0                           | ۷           | V                      |                 |                               |                     |                     | E                   |
| SUB<br>BFWA JACKSON                            | MITTED FOR:<br>FARMS                                                              |                | F                          | PEMB                                                       | INA CO<br>RAILV                         | SUBM<br>DOP-M:<br>VAY AV                | 1ITTE<br>INTO<br>/E                 | D BY:           | PE41  | 10                            | REF         | # 298                  | 8076            | <b>S</b>                      | )X #                | 2123                | 3                   |
| MINTO,                                         | R0K1M0                                                                            | )              |                            | MINTO                                                      | .45<br>), MB                            |                                         |                                     | ROK 1           | LMO   |                               | LAB         | # <b>NW</b>            | 728             | 25                            |                     |                     |                     |
| Date Sampled                                   |                                                                                   |                |                            |                                                            |                                         | C                                       | Date Re                             | eceived         | 09/0  | 8/202                         | 0           |                        | [               | Date R                        | eporte              | d <b>10/</b> :      | 13/202              |
| Nutrient 1                                     | In The Soil                                                                       | In             | terp                       | retati                                                     | ion                                     | 1s                                      | t Cro                               | p Choice        | e     | 2n                            | d Cro       | p Choice               |                 | 3                             | rd Cr               | op Cho              | ice                 |
|                                                |                                                                                   | VLow           | Low                        | Med                                                        | High                                    |                                         | Can                                 | ola-bu          |       |                               | Cano        | la-bu                  |                 |                               | Ca                  | nola-bu             |                     |
| 0-6<br>6-24                                    | " 14 lb/acre<br>" 12 lb/acre                                                      |                |                            |                                                            |                                         |                                         | YIELD                               | D GOAL          |       |                               | YIELD       | GOAL                   |                 |                               | YIEL                | D GOAL              |                     |
|                                                |                                                                                   | *****          | ****                       |                                                            |                                         |                                         | 40                                  | BU              |       |                               | 50          | BU                     |                 |                               | 60                  | BU                  |                     |
| 0-24                                           | 26 lb/acre                                                                        |                |                            |                                                            |                                         | SUGO                                    | GESTED                              | GUIDELIN        | NES   | SUGO                          | GESTED      | GUIDELINE              | S               | SUC                           | GGESTE              | D GUIDE             | LINES               |
| Nitrate                                        |                                                                                   |                |                            |                                                            |                                         |                                         | Ba                                  | and             |       |                               | Ba          | nd                     |                 |                               | I                   | Band                |                     |
| Olse                                           | n 8 nnm                                                                           | *****          | *****                      |                                                            |                                         | LB/A                                    | CRE                                 | APPLICA         | TION  | LB/A                          | CRE         | APPLICATI              | ON              | LB/                           | ACRE                | APPLI               | CATION              |
| Phosphorus                                     | o ppm                                                                             |                |                            |                                                            |                                         | N                                       | 94                                  | Customi         | zed   | N                             | 124         | Customize              | d               | N                             | 154                 | Custo               | mized               |
| Potassium                                      | 211 ppm                                                                           | *****          | *****                      | * *****                                                    | *****                                   | P <sub>2</sub> O <sub>5</sub>           | 34                                  | Band            | *     | P <sub>2</sub> O <sub>5</sub> | 43          | Band *                 |                 | P <sub>2</sub> O <sub>5</sub> | 51                  | Bar                 | ıd *                |
| 0-24                                           | 72 lb/acre                                                                        | *****          | *****                      | * * * * * * *                                              | *****                                   | K <sub>2</sub> O                        | 0                                   |                 |       | K <sub>2</sub> O              | 0           |                        |                 | K20                           | 0                   | _                   |                     |
| 0-6                                            | " 120 +lb/acre                                                                    | *****          | *****                      | * * * * * * *                                              | *****                                   | CI                                      |                                     | Not<br>Availat  | ole   | CI                            |             | Not<br>Available       | e               | CI                            |                     | Not Av              | /ailable            |
| Sulfur                                         | 500 +15/ 801 6                                                                    | *****          | *****                      | * * * * * * *                                              | *****                                   | S                                       | 10                                  | Band            |       | S                             | 10          | Band                   |                 | S                             | 10                  | Ba                  | nd                  |
| Boron                                          | 1.3 ppm                                                                           | *****          | *****                      | * *****                                                    | * *                                     | В                                       | 0                                   |                 |       | В                             | 0           |                        |                 | В                             | 0                   |                     |                     |
| Zinc                                           | 0.93 ppm                                                                          | *****          | *****                      | * ****                                                     |                                         | Zn                                      | 0                                   |                 |       | Zn                            | 1           | Band                   |                 | Zn                            | 1                   | Ba                  | nd                  |
| Mangaposo                                      | 11.7 ppm                                                                          | *****          | *****                      | * *****                                                    | *****                                   | Fe                                      | 0                                   |                 |       | Fe                            | 0           |                        |                 | Fe                            | 0                   |                     |                     |
| Copper                                         | 2.5 ppm                                                                           | *****          | *****                      | * *****                                                    | *                                       | Mn                                      | 0                                   |                 |       | Mn                            | 0           |                        |                 | Mn                            | 0                   |                     |                     |
| Magnesium                                      | 0.55 ppm                                                                          | *****          | *****                      | * *                                                        |                                         | Cu                                      | 0                                   |                 |       | Cu                            | 0           |                        |                 | Cu                            | 0                   |                     |                     |
| Calcium                                        | 4981 pnm                                                                          | *****          | *****                      | * ******                                                   | *****                                   | Mg                                      | 0                                   |                 |       | Mg                            | 0           |                        |                 | Mg                            | 0                   |                     |                     |
| Sodium                                         | 49 ppm                                                                            | *****          | *                          |                                                            |                                         | Lime                                    |                                     |                 |       | Lime                          |             |                        |                 | Lime                          |                     |                     |                     |
| Org.Matter                                     | 5.1 %                                                                             | *****          | *****                      | *****                                                      | **                                      |                                         |                                     |                 |       |                               |             | 0/2 Pac                |                 | turati                        | on (Tr              | nical Pa            | nge)                |
| Carbonate(CCE)                                 | 1.5 %                                                                             | *****          | **                         |                                                            |                                         | Soil p                                  | oH B                                | uffer pH        | Cati  | on Excl                       | hange<br>ty | % Bas                  | e sa<br>%       | Ma                            | % K                 | % Na                | % H                 |
| 0-6<br>6-24<br>Sol. Salts                      | " 0.61 mmho/cm<br>" 0.97 mmho/cm                                                  | *****<br>***** | *****<br>*****             | * * *<br>* * * * * * *                                     | **                                      | 0-6" <b>8</b><br>6-24" <b>8</b>         | 8.0<br>8.4                          |                 | :     | 34.5 me                       | eq          | (65-75)<br><b>72.3</b> | (15<br><b>2</b> | -20)<br><b>5.6</b>            | (1-7)<br><b>1.6</b> | (0-5)<br><b>0.6</b> | (0-5)<br><b>0.0</b> |

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 36 K2O = 18 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 54 K2O = 27 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                 |                                                                                 |        | $\gamma$                        |                                                                     | SO                              | IL TE                                  | EST                          | REPOR                    | RT          |                               |        |                        | Ņ               |                               |                     |                     |                     |
|-------------------------------------------------|---------------------------------------------------------------------------------|--------|---------------------------------|---------------------------------------------------------------------|---------------------------------|----------------------------------------|------------------------------|--------------------------|-------------|-------------------------------|--------|------------------------|-----------------|-------------------------------|---------------------|---------------------|---------------------|
| Soil Analysis<br>(http://<br>Northwoo<br>Benson | by Agvise Laborato<br>www.agvise.com)<br>od: (701) 587-6010<br>: (320) 843-4109 | ries   | F<br>S<br>F<br>C<br>T<br>S<br>F | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>COUNT<br>FWP<br>SECTIO<br>PREV. | ID<br>E ID<br>NAME:<br>TY<br>ON | SW 20-<br>Schreir<br>5<br>20<br>Peas-F | 5-19<br>ner's<br>QTI<br>ield | RANGE 1<br>R <b>SW</b> A | 19<br>Acres | 5 0                           | V      | v                      |                 |                               |                     |                     | E                   |
| SUB<br>AG Quest                                 | MITTED FOR:                                                                     |        | F                               | PEMB<br>210 S                                                       | INA CO<br>RAILV                 | SUBM<br>DOP-M:<br>VAY AV               | 1ITTE<br>INTO<br>'E          | ED BY:                   | PE41        | .10                           |        | # 203                  | 2460            | S                             | 2014 #              | ]                   | 07                  |
| Minto,                                          | R0K1M0                                                                          | )      | E                               | BOX 1<br>MINTO                                                      | .43<br>), MB                    |                                        |                              | ROK 1                    | 1M0         |                               | LAB    | # 303<br># NW          | 115             | 849                           | JUX #               | 117                 | <b>07</b>           |
| Date Sampled                                    |                                                                                 |        |                                 |                                                                     |                                 | C                                      | ate R                        | Received                 | 09/2        | 9/202                         | 0      |                        | [               | Date R                        | eporte              | d <b>10/6</b>       | 5/2020              |
| Nutrient 1                                      | n The Soil                                                                      | Int    | terpi                           | retati                                                              | ion                             | 1s                                     | t Cro                        | op Choic                 | e           | 2n                            | d Cro  | p Choice               |                 | 3                             | rd Cro              | op Cho              | ice                 |
|                                                 |                                                                                 | VLow   | Low                             | Med                                                                 | High                            |                                        | Whea                         | at-Spring                |             |                               | Wheat  | -Spring                |                 |                               | Whea                | at-Spring           |                     |
| 0-6'<br>6-24'                                   | 11 lb/acre<br>12 lb/acre                                                        |        |                                 |                                                                     |                                 |                                        | YIEL                         | D GOAL                   |             |                               | YIELD  | GOAL                   |                 |                               | YIEL                | D GOAL              |                     |
|                                                 |                                                                                 | *****  | ***                             |                                                                     |                                 |                                        | 60                           | BU                       |             |                               | 60     | BU                     |                 |                               | 60                  | BU                  |                     |
| 0-24'                                           | ' 23 lb/acre                                                                    |        |                                 |                                                                     |                                 | SUGO                                   | GESTE                        | D GUIDELIN               | NES         | SUG                           | GESTED | GUIDELINE              | S               | SUC                           | GGESTE              | D GUIDE             | LINES               |
| Nitrate                                         |                                                                                 |        |                                 |                                                                     |                                 |                                        | E                            | Band                     |             |                               | Ba     | ind                    |                 |                               | E                   | Band                |                     |
| Olser                                           | 13 ppm                                                                          | *****  | *****                           | *****                                                               | ***                             | LB/A                                   | CRE                          | APPLICA                  | TION        | LB/A                          | CRE    | APPLICAT               | ION             | LB,                           | ACRE/               | APPLI               | CATION              |
| Phosphorus<br>Rotacsium                         |                                                                                 |        |                                 |                                                                     |                                 | N                                      | 94                           | Customi                  | zed         | N                             | 94     | Customiz               | ed              | N                             | 94                  | Custo               | mized               |
| Polassium                                       | 161 ppm                                                                         | *****  | *****                           | *****                                                               | *                               | P <sub>2</sub> O <sub>5</sub>          | 25                           | Band                     | *           | P <sub>2</sub> O <sub>5</sub> | 25     | Band *                 |                 | P <sub>2</sub> O <sub>5</sub> | 25                  | Bar                 | ı <b>d</b> *        |
| <b>0-24'</b><br>Chloride                        | 120 lb/acre                                                                     | *****  | *****                           | *****                                                               | *****                           | K <sub>2</sub> O                       | 16                           | Band                     | *           | K <sub>2</sub> O              | 16     | Band *                 |                 | K20                           | 16                  | Bar                 | ıd *                |
| 0-6                                             | 120 +lb/acre                                                                    | *****  | *****                           | *****                                                               | *****                           | CI                                     | 0                            |                          |             | CI                            | 0      |                        |                 | CI                            | 0                   |                     |                     |
| Sulfur                                          | 360 +ib/acre                                                                    | *****  | *****                           | *****                                                               | *****                           | S                                      | 0                            |                          |             | S                             | 0      |                        |                 | S                             | 0                   |                     |                     |
| Boron                                           | 1.3 ppm                                                                         | *****  | *****                           | *****                                                               | **                              | В                                      | 0                            |                          |             | В                             | 0      |                        |                 | В                             | 0                   |                     |                     |
| Zinc                                            | 0.68 ppm                                                                        | *****  | *****                           | *                                                                   |                                 | Zn                                     | 0                            |                          |             | Zn                            | 0      |                        |                 | Zn                            | 0                   |                     |                     |
| Iron                                            | 6.0 ppm                                                                         | *****  | *****                           | *****                                                               | **                              | Fe                                     | 0                            |                          |             | Fe                            | 0      |                        |                 | Fe                            | 0                   |                     |                     |
| Manganese                                       | 1.9 ppm                                                                         | *****  | *****                           | *****                                                               |                                 | Mn                                     | 0                            | _                        |             | Mn                            | 0      |                        |                 | Mn                            | 0                   |                     |                     |
| Copper                                          | 0.48 ppm                                                                        | *****  | ****                            |                                                                     |                                 | CII                                    | 2                            | Band                     |             | CII                           | 2      | Band                   |                 | Cu                            | 2                   | Ba                  | nd                  |
| Magnesium                                       | 917 ppm                                                                         | *****  | *****                           | *****                                                               | *****                           | Ma                                     |                              | Dunu                     | -           | Ma                            | _      | Bana                   |                 | Ma                            | -                   |                     |                     |
| Sodium                                          | 4551 ppm                                                                        | *****  | *****                           | *****                                                               | *****                           | Mg                                     | U                            |                          |             | Mg                            | U      |                        |                 | Mg                            | U                   |                     |                     |
| Org Matter                                      | 141 ppm                                                                         | *****  | *****                           | *****                                                               | ***                             | Lime                                   |                              |                          |             | Lime                          |        |                        |                 | Lime                          |                     |                     |                     |
|                                                 | 4.3 %                                                                           | *****  | *****                           | *****                                                               |                                 | Soil r                                 | он в                         | Buffer pH                | Cati        | on Excl                       | nange  | % Bas                  | e Sa            | turati                        | on (Ty              | pical Ra            | nge)                |
| 0-6                                             | 1.6 %                                                                           | ****** | **                              | ******                                                              | ***                             |                                        |                              |                          |             | Capacit                       | ty     | % Ca                   | %               | Mg                            | % K                 | % Na                | % H                 |
| 6-24<br>Sol. Salts                              | ' 0.72 mmho/cm                                                                  | *****  | *****                           | *****                                                               |                                 | 0-6" <b>8</b><br>6-24" <b>8</b>        | 3.0<br>3.5                   |                          | :           | 31.4 me                       | pd     | (65-75)<br><b>72.4</b> | (15<br><b>2</b> | -20)<br><b>4.3</b>            | (1-7)<br><b>1.3</b> | (0-5)<br><b>2.0</b> | (0-5)<br><b>0.0</b> |

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 A GVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                      |                                                                             | SO                                                         | IL TEST REPORT                                        |                         | N                        |
|------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|-------------------------|--------------------------|
|                                                      | <b>NISE</b>                                                                 | FIELD ID                                                   | IH 21-5-19W                                           |                         |                          |
| Soil Analysis b<br>(http://w<br>Northwood<br>Benson: | y Agvise Laborator<br>ww.agvise.com)<br>d: (701) 587-6010<br>(320) 843-4109 | FIELD NAME<br>COUNTY<br>TWP 5<br>SECTION 2<br>PREV. CROP C | RANGE <b>19</b><br>1 QTR <b>NH</b> ACRES<br>Canola-bu | 5 0 W                   | E                        |
| SUBM<br>BFWA JACKSON F                               | IITTED FOR:<br>ARMS                                                         | PEMBINA CO                                                 | SUBMITTED BY: PE4:<br>POP-MINTO                       |                         | S                        |
| MINTO,                                               | R0K1M0                                                                      | 210 S RAILW<br>BOX 143<br>MINTO, MB                        | YAY AVE<br>ROK 1MO                                    | REF # 3002<br>LAB # NW9 | 2076 BOX # 3942<br>01169 |
| Date Sampled                                         |                                                                             |                                                            | Date Received 09/1                                    | 18/2020                 | Date Reported 10/13/2020 |
| Nutrient Ir                                          | n The Soil                                                                  | Interpretation                                             | 1st Crop Choice                                       | 2nd Crop Choice         | 3rd Crop Choice          |
|                                                      |                                                                             | VLow Low Med High                                          | Soybeans                                              | Soybeans                | Soybeans                 |
| 0-6"                                                 | 10 lb/acre                                                                  |                                                            | YIELD GOAL                                            | YIELD GOAL              | YIELD GOAL               |

|                                           |                              |       | Lon rica riigi                          | · |                                 | 30 y l   | Jeans    |      |                               | JUYL   | cuns                   |                 |                               | 50,                 | beans               |                     |
|-------------------------------------------|------------------------------|-------|-----------------------------------------|---|---------------------------------|----------|----------|------|-------------------------------|--------|------------------------|-----------------|-------------------------------|---------------------|---------------------|---------------------|
| 0-6"<br>6-24"                             | 10 lb/acre<br>9 lb/acre      |       |                                         |   |                                 | YIELD    | GOAL     |      |                               | YIELD  | GOAL                   |                 |                               | YIEL                | D GOAL              |                     |
|                                           |                              | ***** | **                                      |   |                                 | 30       | BU       |      |                               | 40     | BU                     |                 |                               | 50                  | BU                  |                     |
| 0-24''                                    | 19 lb/acre                   |       |                                         |   | SUGG                            | GESTED   | GUIDELIN | IES  | SUGG                          | GESTED | GUIDELINE              | S               | SUG                           | GESTEI              | o guidei            | INES                |
| Nitrate                                   |                              |       |                                         |   |                                 | Ba       | and      |      |                               | Ba     | ind                    |                 |                               | В                   | and                 |                     |
| Olsen                                     | 5 nnm                        | ***** | ***                                     |   | LB/A                            | CRE      | APPLICA  | TION | LB/A                          | CRE    | APPLICATI              | ON              | LB/                           | ACRE                | APPLIC              | CATION              |
| Phosphorus                                | 5 pp                         |       |                                         |   | N                               | ***      |          |      | N                             | ***    |                        |                 | N                             | ***                 |                     |                     |
| Potassium                                 | 176 ppm                      | ***** | * ****** ****** ***                     | _ | P <sub>2</sub> O <sub>5</sub>   | 28       | Band     | *    | P <sub>2</sub> O <sub>5</sub> | 37     | Band *                 |                 | P <sub>2</sub> O <sub>5</sub> | 46                  | Ban                 | d *                 |
| 0-24''                                    | 56 lb/acre                   | ***** | * *****                                 | ¢ | K20                             | 12       | Band     | *    | K2O                           | 16     | Band *                 |                 | K <sub>2</sub> O              | 20                  | Ban                 | d *                 |
| 0-6"                                      | 120 +lb/acre                 | ***** | * ***** *****                           | * | CI                              | 0        |          |      | CI                            | 0      |                        |                 | CI                            | 0                   |                     |                     |
| <b>6-24"</b><br>Sulfur                    | 360 +lb/acre                 | ***** | * ***** ****** *****                    | * | S                               | 0        |          |      | S                             | 0      |                        |                 | S                             | 0                   |                     |                     |
| Boron                                     | 1.3 ppm                      | ***** | * ***** *****                           |   | В                               | 0        |          |      | В                             | 0      |                        |                 | В                             | 0                   |                     |                     |
| Zinc                                      | 0.57 ppm                     | ***** | * ****                                  |   | Zn                              | 1        | Band     |      | Zn                            | 1      | Band                   |                 | Zn                            | 2                   | Ba                  | nd                  |
| Iron                                      | 14.4 ppm                     | ***** | * ***** ****** *****                    | * | Fe                              | 0        |          |      | Fe                            | 0      |                        |                 | Fe                            | 0                   |                     |                     |
| Manganese                                 | 3.3 ppm                      | ***** | * ****** ****** ***                     | - | Mn                              | 0        |          |      | Mn                            | 0      |                        |                 | Mn                            | 0                   |                     |                     |
| Magnesium                                 | 0.58 ppm                     | ***** | * *****                                 |   | Cu                              | 0        |          |      | Cu                            | 0      |                        |                 | Cu                            | 0                   |                     |                     |
| Calcium                                   | 5575 ppm                     | ***** | * ************************************* | * | Mg                              | 0        |          |      | Mg                            | 0      |                        |                 | Mg                            | 0                   |                     |                     |
| Sodium                                    | 49 ppm                       | ***** | **                                      |   | Lime                            |          |          |      | Lime                          |        |                        |                 | Lime                          |                     |                     |                     |
| O rg.Matter                               | 4.7 %                        | ***** | * ****                                  |   |                                 |          |          | Cati | ion Excl                      | ange   | % Bas                  | e Sa            | turatio                       | on (Tyr             | oical Rar           | nae)                |
| Carbonate(CCE)                            | 3.1 %                        | ***** | * ****                                  |   | Soil p                          | H B      | uffer pH | Cat  | Capacit                       | y .    | % Ca                   | %               | Mg                            | % K                 | % Na                | % H                 |
| <b>0-6"</b><br><b>6-24"</b><br>Sol. Salts | 0.52 mmho/cm<br>1.03 mmho/cm | ***** | * ******                                |   | 0-6" <b>7</b><br>6-24" <b>8</b> | .9<br>.3 |          |      | 35.8 me                       | q      | (65-75)<br><b>77.8</b> | (15<br><b>2</b> | -20)<br><b>0.4</b>            | (1-7)<br><b>1.3</b> | (0-5)<br><b>0.6</b> | (0-5)<br><b>0.0</b> |

Crop 1: \*CAUTION: Seed-placed fertilizer can cause injury. \* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is high, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 23 K2O = 35 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

Crop 2: \*CAUTION: Seed-placed fertilizer can cause injury. \* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is high, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

Crop 3: \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is high, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 38 K2O = 59 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

|                                     |                                               |                                                                |       | ľ                               | SC                                                                         | DIL TI                                          | EST                                   | REPOF                  | RT                  | ·                             |        |                        |                 | N                             |                     |                     |                     |
|-------------------------------------|-----------------------------------------------|----------------------------------------------------------------|-------|---------------------------------|----------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------|------------------------|---------------------|-------------------------------|--------|------------------------|-----------------|-------------------------------|---------------------|---------------------|---------------------|
| Soil Analy<br>(http<br>North<br>Ben | ysis by A<br>p://www<br>wood: (7<br>ason: (32 | gvise Laborator<br>agvise.com)<br>701) 587-6010<br>0) 843-4109 | ies   | F<br>S<br>F<br>C<br>T<br>S<br>P | TELD ID<br>SAMPLE ID<br>TELD NAME<br>COUNTY<br>WP<br>SECTION<br>PREV. CROP | NW 21-<br>NW 21-<br>NW 21-<br>5<br>21<br>Canola | •5-19<br>•5-19<br>•5-19<br>QTI<br>-bu | RANGE 1<br>R <b>NW</b> | L <b>9</b><br>Acres | 5 O                           | ۷      | v                      |                 |                               |                     |                     | E                   |
| SI<br>BFWA JACKSO                   | UBMITT<br>ON FARM                             | TED FOR:<br>IS                                                 |       | P<br>2<br>E                     | PEMBINA C<br>210 S RAIL<br>30X 143                                         | SUBN<br>OOP-M<br>NAY AN                         | 1ITTE<br>INTO<br>/E                   | ED BY:                 | PE41                | 10                            | REF :  | # 303                  | 814             | S<br>8 E                      | 30X #               | 424                 | 1                   |
| MINTO,                              |                                               | R0K1M0                                                         | )     |                                 | ИІМТО, МВ                                                                  |                                                 |                                       | R0K 1                  | LMO                 |                               | LAB :  | # <b>NW</b>            | 115             | 934                           |                     |                     |                     |
| Date Sampled                        | 1                                             |                                                                |       |                                 |                                                                            | C                                               | Date F                                | Received               | 09/2                | 9/202                         | 0      |                        | [               | Date F                        | Reporte             | ed <b>10/</b> 3     | 13/2020             |
| Nutrier                             | nt In Th                                      | ne Soil                                                        | In    | terpr                           | retation                                                                   | 1s                                              | st Cro                                | op Choic               | e                   | 2n                            | d Cro  | p Choice               |                 | 3                             | rd Cr               | op Cho              | ice                 |
|                                     |                                               |                                                                | VLow  | Low                             | Med High                                                                   |                                                 | Whea                                  | at-Spring              |                     |                               | Wheat  | -Spring                |                 |                               | Whe                 | at-Spring           |                     |
| (                                   | 0-6"                                          | 12 lb/acre                                                     |       |                                 |                                                                            |                                                 | YIEL                                  | D GOAL                 |                     |                               | YIELD  | GOAL                   |                 |                               | YIE                 | D GOAL              |                     |
| 0-                                  | -24                                           | 9 ID/acre                                                      | ***** | **                              |                                                                            |                                                 | 50                                    | BU                     |                     |                               | 60     | BU                     |                 |                               | 70                  | BU                  |                     |
| 0-                                  | -24''                                         | 21 lb/acre                                                     |       |                                 |                                                                            | SUG                                             | GESTE                                 |                        | IES                 | SUG                           | GESTED | GUIDELINE              | S               | SU                            | GGESTE              | D GUIDE             | LINES               |
| Nitrate                             |                                               |                                                                |       |                                 |                                                                            |                                                 | E                                     | Band                   |                     |                               | Ba     | ind                    |                 |                               |                     | Band                |                     |
|                                     |                                               |                                                                |       |                                 |                                                                            | LB/A                                            | CRE                                   | APPLICA                | TION                | LB/A                          | CRE    | APPLICAT               | ON              | LB                            | /ACRE               | APPLI               | CATION              |
| O<br>Phosphorus                     | lsen                                          | 7 ppm                                                          | ***** | *****                           |                                                                            | N                                               | 89                                    | Customi                | zed                 | N                             | 111    | Customiz               | ed              | N                             | 133                 | Custo               | mized               |
| Potassium                           |                                               | 199 ppm                                                        | ***** | *****                           | *****                                                                      | P <sub>2</sub> O <sub>5</sub>                   | 31                                    | Band                   | *                   | P <sub>2</sub> O <sub>5</sub> | 37     | Band *                 |                 | P <sub>2</sub> O <sub>5</sub> | 43                  | Bar                 | nd *                |
| 0-<br>Chloride                      | -24''                                         | 60 lb/acre                                                     | ***** | *****                           | *****                                                                      | K <sub>2</sub> O                                | 10                                    | Band<br>(Starte        | d<br>r)*            | K <sub>2</sub> O              | 10     | Band<br>(Starter)      | *               | K <sub>2</sub> O              | 10                  | Ba<br>(Star         | and<br>rter)*       |
| (                                   | 0-6"                                          | 120 +lb/acre                                                   | ***** | *****                           | *****                                                                      | CI                                              | 0                                     |                        |                     | CI                            | 0      |                        |                 | CI                            | 0                   |                     |                     |
| Sulfur                              | 24                                            | JOU TID/ acre                                                  | ****  | ****                            | *****                                                                      | S                                               | 0                                     |                        |                     | S                             | 0      |                        |                 | S                             | 0                   |                     |                     |
| Boron                               |                                               | 1.5 ppm                                                        | ***** | *****                           | ****                                                                       | В                                               | 0                                     |                        |                     | В                             | 0      |                        |                 | В                             | 0                   |                     |                     |
| Zinc                                |                                               | 0.45 ppm                                                       | ***** | ***                             |                                                                            | Zn                                              | 0                                     |                        |                     | Zn                            | 0      |                        |                 | Zn                            | 0                   |                     |                     |
| Iron                                |                                               | 7.5 ppm                                                        | ***** | *****                           | ****                                                                       | Fe                                              | 0                                     |                        |                     | Fe                            | 0      |                        |                 | Fe                            | 0                   |                     |                     |
| Manganese                           |                                               | 2.5 ppm                                                        | ***** | *****                           | *****                                                                      | Mn                                              | 0                                     |                        |                     | Mn                            | 0      |                        |                 | Mn                            | 0                   |                     |                     |
| Copper                              |                                               | 0.61 ppm                                                       | ***** | *****                           | **                                                                         |                                                 | 1                                     | Band (T                | اردار               |                               | 1      | Pand (Tri              |                 |                               | 1                   | Band                | (Trial)             |
| Magnesium                           |                                               | 995 ppm                                                        | ***** | *****                           | *****                                                                      | Cu                                              | 1                                     |                        | 1a1)                | Cu                            | -      | Balla (111             | ai)             | Cu                            | 1                   | Band                | (inai)              |
| Cadium                              |                                               | 5221 ppm                                                       | ***** | *****                           | *****                                                                      | Mg                                              | 0                                     |                        |                     | Mg                            | 0      |                        |                 | Mg                            | 0                   | _                   |                     |
| Ora Matter                          |                                               | 63 ppm                                                         | ***** | ***                             |                                                                            | Lime                                            |                                       |                        |                     | Lime                          |        |                        |                 | Lime                          | 2                   |                     |                     |
| Carbonate(CCC)                      |                                               | 4.6 %                                                          | ***** | *****                           | *****                                                                      | Soil                                            | н                                     | Buffer nH              | Cati                | on Excl                       | nange  | % Bas                  | e Sa            | turati                        | ion (Ty             | pical Ra            | nge)                |
| Carbonate(CCE)                      | 0-6"                                          | 3.5 %                                                          | ***** | *****                           | **                                                                         |                                                 |                                       |                        |                     | Capacit                       | ty     | % Ca                   | %               | Mg                            | % K                 | % Na                | % H                 |
| 6-<br>Sol. Salts                    | -24"                                          | 1.58 mmho/cm                                                   | ***** | *****                           | ***                                                                        | 0-6" <b>8</b><br>6-24" <b>8</b>                 | 8.1<br>8.4                            |                        | :                   | 35.2 me                       | q      | (65-75)<br><b>74.2</b> | (15<br><b>2</b> | -20)<br><b>3.6</b>            | (1-7)<br><b>1.5</b> | (0-5)<br><b>0.8</b> | (0-5)<br><b>0.0</b> |

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 31 K20 = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K20 = 26 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                       |                                              |                                                                               |       | $\gamma$                                                                                         |                                                            | SO                                                       | ILTE                                  | EST I                    | REPOF           | RT                 |                               |          |                     | Ņ                             |          |              |
|-----------------------|----------------------------------------------|-------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------|---------------------------------------|--------------------------|-----------------|--------------------|-------------------------------|----------|---------------------|-------------------------------|----------|--------------|
| Soil Ar<br>(<br>No    | nalysis b<br>http://v<br>orthwood<br>Benson: | by Agvise Laborator<br>www.agvise.com)<br>d: (701) 587-6010<br>(320) 843-4109 | ies   | F<br>9<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>TWP<br>SECTIO<br>PREV. | ID I<br>LE ID<br>NAME (<br>TY<br>SON 2<br>CROP 1         | NW 22-<br>Coupla<br>5<br>22<br>Soybea | <b>5-19</b><br>nd<br>QTR | RANGE 1<br>NW A | <b>19</b><br>Acres | 5 145                         | v        | v                   |                               |          | <br>E        |
| Rourke Fai<br>Box 144 | SUBM<br>rms                                  | 1ITTED FOR:                                                                   |       | I                                                                                                | PEMB:<br>210 S                                             | INA CO<br>RAILV                                          | SUBM<br>DOP-M<br>VAY AV               | 1ITTE<br>INTO<br>/E      | D BY:           | PE41               | .10                           |          |                     | S                             |          |              |
| Minto,                |                                              | R0K 1M                                                                        | D     |                                                                                                  | BOX 1<br>MINTO                                             | .43<br>Э. MB                                             |                                       |                          | ROK :           | 1M0                |                               | LAB      | # 303458<br># NW115 | 84 BC<br>846                  | )X #     | 11/8/        |
|                       |                                              |                                                                               |       |                                                                                                  |                                                            | ,                                                        |                                       |                          |                 |                    |                               |          |                     |                               |          | )            |
| Date Samp             | oled                                         |                                                                               |       |                                                                                                  |                                                            |                                                          | D                                     | ate Re                   | eceived         | 09/2               | 9/202                         | 0        | I                   | Date Re                       | ported   | 10/6/2020    |
| Nuti                  | rient Iı                                     | n The Soil                                                                    | In    | terp                                                                                             | retati                                                     | ion                                                      | 1s                                    | t Cro                    | p Choic         | e                  | d Cro                         | p Choice | 3r                  | d Cro                         | p Choice |              |
|                       |                                              |                                                                               | VLow  | Low                                                                                              | W Med High Wheat-Spring                                    |                                                          |                                       |                          |                 |                    |                               | Wheat    | -Spring             |                               | Wheat    | -Spring      |
|                       | 0-6"                                         | 6 lb/acre                                                                     |       |                                                                                                  |                                                            | Med High Wheat-Spring   YIELD GOAL YIELD GOAL YIELD GOAL |                                       |                          |                 |                    |                               |          | GOAL                |                               | YIELD    | GOAL         |
|                       | 0-24                                         | 9 10/ 2016                                                                    | ***** | k                                                                                                |                                                            |                                                          |                                       | 60                       | BU              |                    |                               | 60       | BU                  |                               | 60       | BU           |
|                       | 0-24''                                       | 15 lb/acre                                                                    |       |                                                                                                  |                                                            |                                                          | SUGO                                  | GESTED                   | GUIDELI         | NES                | SUG                           | GESTED   | GUIDELINES          | SUG                           | GESTED   | GUIDELINES   |
| Nitrate               |                                              |                                                                               |       |                                                                                                  |                                                            |                                                          |                                       | Ba                       | and             |                    |                               | Ba       | and                 |                               | Ba       | ind          |
|                       | 01                                           | 12                                                                            |       |                                                                                                  |                                                            |                                                          | LB/A                                  | CRE                      | APPLICA         | TION               | LB/A                          | ACRE     | APPLICATION         | LB/A                          | CRE      | APPLICATION  |
| Phosphorus            | Olsen                                        | 12 ppm                                                                        | ***** | *****                                                                                            | * *****                                                    | k                                                        | N                                     | 102                      | Customi         | ized               | N                             | 102      | Customized          | N                             | 102      | Customized   |
| Potassium             |                                              | 173 ppm                                                                       | ***** | *****                                                                                            | * *****                                                    | ***                                                      | P <sub>2</sub> O <sub>5</sub>         | 27                       | Band            | *                  | P <sub>2</sub> O <sub>5</sub> | 27       | Band *              | P <sub>2</sub> O <sub>5</sub> | 27       | Band *       |
|                       | 0-24''                                       | 92 lb/acre                                                                    | ***** | *****                                                                                            | * * * * * * *                                              | *****                                                    | K <sub>2</sub> O                      | 11                       | Band            | *                  | K <sub>2</sub> O              | 11       | Band *              | K <sub>2</sub> O              | 11       | Band *       |
| Chloride              | 0-6"                                         | 120 +lb/acre                                                                  | ***** | *****                                                                                            | * *****                                                    | *****                                                    | CI                                    | 0                        |                 |                    | СІ                            | 0        |                     | CI                            | 0        |              |
| Sulfur                | 6-24"                                        | 360 +lb/acre                                                                  | ***** | *****                                                                                            | * *****                                                    | *****                                                    | S                                     | 0                        |                 |                    | S                             | 0        |                     | S                             | 0        |              |
| Boron                 |                                              | 1.2 ppm                                                                       | ***** | *****                                                                                            | * *****                                                    | k                                                        | В                                     | 0                        |                 |                    | В                             | 0        |                     | В                             | 0        |              |
| Zinc                  |                                              | 0.73 ppm                                                                      | ***** | *****                                                                                            | * **                                                       |                                                          | Zn                                    | 0                        |                 |                    | Zn                            | 0        |                     | Zn                            | 0        |              |
| Iron                  |                                              | 9.6 ppm                                                                       | ***** | *****                                                                                            | * *****                                                    | *****                                                    | Fe                                    | 0                        |                 |                    | Fe                            | 0        |                     | Fe                            | 0        |              |
| Manganese             |                                              | 1.8 ppm                                                                       | ***** | *****                                                                                            | * ****                                                     |                                                          | Mn                                    | 0                        |                 |                    | Mn                            | 0        |                     | Mn                            | 0        |              |
| Copper                |                                              | 0.62 ppm                                                                      | ***** | *****                                                                                            | * **                                                       |                                                          | Cu                                    | 1                        | Band (Ti        | rial)              | Cu                            | 1        | Band (Trial)        | Cu                            | 1        | Band (Trial) |
| Calcium               |                                              | 941 ppm                                                                       | ***** | *****                                                                                            | * *****                                                    | *****                                                    | Ma                                    | 0                        |                 | ,                  | Ma                            | 0        |                     | Ma                            | 0        |              |
| Sodium                |                                              | 5262 ppm                                                                      | ***** | *****                                                                                            | * *****                                                    | *****                                                    | Limo                                  |                          |                 |                    | Limo                          |          |                     | Limo                          |          |              |
| Org.Matter            |                                              | ۵۵ ppm<br>۵ 5 %                                                               | ***** | *****                                                                                            | * * * * * * *                                              |                                                          | Line                                  |                          |                 |                    | Lime                          |          |                     | Lime                          |          |              |
| Carbonate(CCE         | )                                            | 4.5 %                                                                         | ***** | *****                                                                                            | ******                                                     |                                                          | Soil p                                | н в                      | uffer pH        | Cati               | on Exc                        | hange    | % Base Sa           | turatio                       | n (Typi  | cal Range)   |

2.6 %

1.1 mmho/cm

1.74 mmho/cm

\*\*\*\*

\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

Carbonate(CCE)

Sol. Salts

0-6"

6-24"

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 A GVISE Band guideline will build P & K test levels to the medium range over several years.

0-6" 8.0

6-24" **8.3** 

Capacity

35.0 meq

% Ca

(65-75)

75.2

% Mg

(15-20)

22.4

% K

(1-7)

1.3

% Na

(0-5)

1.1

% H

(0-5)

0.0

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|             |                                                 |                                                                               |                                                                   | Ŷ                                                 | SO                                         | IL TE                         | EST I                  | REPORT              | N                             |                                          |                  |                               |        |               |    |     |  |
|-------------|-------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------|-------------------------------|------------------------|---------------------|-------------------------------|------------------------------------------|------------------|-------------------------------|--------|---------------|----|-----|--|
| Soil A<br>N | Analysis b<br>(http://w<br>lorthwood<br>Benson: | by Agvise Laborator<br>www.agvise.com)<br>d: (701) 587-6010<br>(320) 843-4109 | FIELD I<br>SAMPLE<br>FIELD N<br>COUNT<br>TWP<br>SECTIC<br>PREV. C | D S<br>E ID S<br>NAME<br>Y<br>E<br>DN 2<br>CROP V | 5E 22-5<br>5E 22-5<br>5-19<br>22<br>Wheat- | 5-19<br>5-19<br>QTR<br>Spring | RANGE<br>SE ACRES<br>9 | V                   | v                             |                                          |                  | E                             |        |               |    |     |  |
| BFWA JAC    | SUBM<br>C <b>KSON F</b>                         | IITTED FOR:<br>ARMS                                                           |                                                                   | PEMBI<br>210 S I                                  | NA CO<br>RAILV                             | SUBM<br>DOP-M                 | IITTE<br>Into<br>'e    | D BY: <b>PE41</b>   | 10                            | DEE # 2080780 BOX # 2105                 |                  |                               |        |               |    |     |  |
| MINTO.      |                                                 | R0K1M0                                                                        | )                                                                 | BOX 14                                            | 43<br>. MB                                 |                               |                        | ROK 1MO             |                               | KEF # 2980/80 BOX # 2105   LAB # NW72828 |                  |                               |        |               |    |     |  |
|             |                                                 |                                                                               |                                                                   |                                                   | ,                                          |                               |                        |                     | )                             | <u> </u>                                 |                  |                               |        |               |    |     |  |
| Date Sam    | npled                                           |                                                                               |                                                                   |                                                   |                                            | D                             | ate Re                 | eceived <b>09/0</b> | 8/202                         | 0                                        | [                | Date Re                       | ported | 10/13/2020    |    |     |  |
| Nut         | trient Iı                                       | n The Soil                                                                    | Inte                                                              | erpretatio                                        | on                                         | 1s                            | t Cro                  | p Choice            | 2n                            | nd Crop Choice 3rd Crop Cho              |                  |                               |        |               |    |     |  |
|             |                                                 |                                                                               | VLow L                                                            | Low Med                                           | High                                       |                               | Cano                   | ola-bu              |                               | Cano                                     | ola-bu           |                               | Cano   | ola-bu        |    |     |  |
|             | 0-6"                                            | 19 lb/acre                                                                    |                                                                   |                                                   | YIELD GOAL                                 |                               |                        |                     |                               |                                          | GOAL             |                               | YIELD  | GOAL          |    |     |  |
|             | 6-24"                                           | 21 lb/acre                                                                    | *****                                                             | ****                                              |                                            |                               | 40                     | BU                  |                               | 50                                       | BU               |                               | 60     | BU            |    |     |  |
|             | 0-24''                                          | 40 lb/acre                                                                    |                                                                   |                                                   |                                            | SUGO                          | GESTED                 | GUIDELINES          | SUG                           | GESTED                                   | GUIDELINES       | SUG                           | GESTED | GUIDELINES    |    |     |  |
| Nitrate     |                                                 |                                                                               |                                                                   |                                                   |                                            |                               |                        |                     | Ba                            | and                                      |                  | Ba                            | and    |               | Ba | ind |  |
|             | 01                                              | 10                                                                            |                                                                   |                                                   |                                            | LB/A                          | CRE                    | APPLICATION         | LB/A                          | CRE                                      | APPLICATION      | LB/A                          | CRE    | APPLICATION   |    |     |  |
| Phosphorus  | Olsen                                           | 10 ppm                                                                        | *****                                                             | ****                                              |                                            | N                             | 80                     | Customized          | N                             | 110                                      | Customized       | N                             | 140    | Customized    |    |     |  |
| Potassium   |                                                 | 188 ppm                                                                       | *****                                                             | ****                                              | ****                                       | P <sub>2</sub> O <sub>5</sub> | 30                     | Band *              | P <sub>2</sub> O <sub>5</sub> | 38                                       | Band *           | P <sub>2</sub> O <sub>5</sub> | 45     | Band *        |    |     |  |
|             | 0-24''                                          | 76 lb/acre                                                                    | *****                                                             | ****                                              | *****                                      | K <sub>2</sub> O              | 0                      |                     | K2O                           | 0                                        |                  | K2O                           | 0      |               |    |     |  |
| Chloride    | 0-6"<br>6-24"                                   | 120 +lb/acre<br>360 +lb/acre                                                  | ******                                                            | *****                                             | *****                                      | CI                            |                        | Not<br>Available    | CI                            |                                          | Not<br>Available | CI                            |        | Not Available |    |     |  |
| Sulfur      |                                                 |                                                                               |                                                                   |                                                   |                                            | S                             | 10                     | Band                | S                             | 10                                       | Band             | S                             | 10     | Band          |    |     |  |
| Zinc        |                                                 | 1.0 ppm                                                                       | ****** **                                                         | ****                                              |                                            | В                             | 0                      |                     | В                             | 0                                        |                  | В                             | 0      |               |    |     |  |
| Iron        |                                                 | 0.97 ppm                                                                      | *******                                                           | *****                                             |                                            | Zn                            | 0                      |                     | Zn                            | 1                                        | Band             | Zn                            | 1      | Band          |    |     |  |
| Manganese   |                                                 | 2.6 ppm                                                                       | *****                                                             | *****                                             | ** ***** *****                             |                               | 0                      |                     | Fe                            | 0                                        |                  | Fe                            | 0      |               |    |     |  |
| Copper      |                                                 | 0.55 ppm                                                                      | *****                                                             | ****                                              |                                            | Mn                            | 0                      |                     | Mn                            | 0                                        |                  | Mn                            | 0      |               |    |     |  |
| Magnesium   |                                                 | 668 ppm                                                                       | *****                                                             | ****                                              | *****                                      | Cu                            | 0                      |                     | Cu                            | 0                                        |                  | Cu                            | 0      |               |    |     |  |
| Calcium     |                                                 | 4065 ppm                                                                      | *****                                                             | ****                                              | *****                                      | Mg                            | 0                      |                     | Mg                            | 0                                        |                  | Mg                            | 0      |               |    |     |  |
| Sodium      |                                                 | 49 ppm                                                                        | *****                                                             |                                                   |                                            | Lime                          |                        |                     | Lime                          |                                          |                  | Lime                          |        |               |    |     |  |
| Org.Matter  |                                                 | 5.0 %                                                                         | ******                                                            | ****                                              |                                            |                               |                        |                     |                               |                                          |                  |                               |        |               |    |     |  |

0.54 mmho/cm

1.17 mmho/cm

0.7 %

\*\*\*\*

\*\*\*\*\*

Carbonate(CCE)

Sol. Salts

0-6"

6-24"

\*\*\*\*\*\*

\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*\*\*\*\*\*

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 36 K2O = 18 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Soil pH

0-6" 7.7

6-24" **8.3** 

**Buffer pH** 

**Cation Exchange** 

Capacity

26.6 meq

% Ca

(65-75)

76.4

% Base Saturation (Typical Range)

% K

(1-7)

1.8

% Na

(0-5)

0.8

% H

(0-5)

0.0

% Mg

(15-20)

20.9

. Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 54 K2O = 27 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                        |                       | SC             | DIL TEST RE             | PORT               |             | N        |          |            |
|------------------------|-----------------------|----------------|-------------------------|--------------------|-------------|----------|----------|------------|
| A                      | <b>SVISE</b>          | FIELD ID       | SE 25-5-19              |                    | $\neg$      |          |          |            |
| LAI                    | BORATORIES            | SAMPLE ID      | SE 25-5-19              |                    |             |          |          |            |
| Soil Analysis b        | oy Agvise Laboratorie | s FIELD NAME   |                         |                    |             |          |          |            |
| (http://w              | www.agvise.com)       | COUNTY         |                         |                    |             |          |          | -          |
| Northwood              | d: (701) 587-6010     | TWP            | 5 RA                    | NGE 19             | vv          |          | 1        | E          |
| Benson:                | (320) 843-4109        | SECTION        | <b>25</b> QTR <b>SE</b> | ACRES 0            |             |          |          |            |
|                        |                       | PREV. CROP     | Canola-bu               |                    |             |          |          |            |
| SUBM<br>BFWA JACKSON F | IITTED FOR:           | PEMBINA C      | SUBMITTED I             | 3Y: <b>PE4110</b>  |             | S        |          |            |
|                        |                       | 210 S RATI V   |                         |                    |             |          |          |            |
|                        |                       | BOX 143        |                         |                    | REF #       | 3001762  | BOX #    | 4230       |
| MINTO,                 | R0K1M0                | МІЛТО, МВ      |                         | R0K 1M0            | LAB #       | NW115571 |          |            |
| Date Sampled           |                       |                | Date Rece               | ved <b>09/29/2</b> | 2020        | Date     | Reported | 10/13/2020 |
| Nutriont Tr            | a The Soil            | Interpretation | 1st Crop (              | boice              | 2nd Crop Cl |          | 3rd Cro  | n Choice   |

|                 | interpretation         |       |        |        | ist crop choice |                               |                  |          |             |                               |            |           |       |                               |                |             |             |
|-----------------|------------------------|-------|--------|--------|-----------------|-------------------------------|------------------|----------|-------------|-------------------------------|------------|-----------|-------|-------------------------------|----------------|-------------|-------------|
|                 |                        | VLow  | Low    | Med    | High            |                               | Wheat            | t-Spring |             |                               | Wheat      | -Spring   |       |                               | Wheat          | t-Spring    |             |
| 0-6"<br>6-24"   | 7 lb/acre<br>9 lb/acre |       |        |        |                 |                               | YIELD            | GOAL     |             |                               | YIELD      | GOAL      |       |                               | YIELD          | GOAL        |             |
|                 |                        | ***** | k      |        |                 | 60                            |                  | BU       |             |                               | 70         | BU        |       |                               | 80             | BU          |             |
| 0-24''          | 16 lb/acre             |       |        |        |                 | SUGGESTED GUIDELINES          |                  |          |             | SUGO                          | GESTED     | GUIDELINE | s     | SUG                           | GESTED         | GUIDEL      | INES        |
| Nitrate         |                        |       |        |        |                 |                               | Band             |          |             |                               | Ba         | ind       |       |                               | B              | and         |             |
| Olsen           | 6 ppm                  | ***** | ****   |        |                 | LB/A                          | CRE              | APPLICA  | APPLICATION |                               | LB/ACRE    |           | ION   | LB/                           | ACRE           | APPLICATION |             |
| Phosphorus      | - PP                   |       | ****   |        | N               | 116                           | Customi          | zed      | N           | 138                           | Customiz   | ed        | N     | 160                           | Custor         | nized       |             |
| Potassium       | 167 ppm                | ***** | *****  | ****** | **              | P <sub>2</sub> O <sub>5</sub> | 39               | Band     | *           | P <sub>2</sub> O <sub>5</sub> | 46         | Band *    |       | P <sub>2</sub> O <sub>5</sub> | 52             | Ban         | d *         |
| 0-24''          | 64 lb/acre             | ***** | *****  | ****** | *****           | K2O                           | 14               | Band     | *           | K2O                           | 16         | Band *    |       | K <sub>2</sub> O              | 18             | Ban         | d *         |
| 0-6"            | 120 +lb/acre           | ***** | *****  | *****  | *****           | CI                            | 0                |          |             | CI                            | 0          |           |       | CI                            | 0              |             |             |
| 6-24"<br>Sulfur | 360 +lb/acre           | ***** | *****  | ****** | *****           | S                             | 0                |          |             | S                             | 0          |           |       | S                             | 0              |             |             |
| Boron           | 1.5 ppm                | ***** | *****  | ****** | ****            | В                             | 0                |          |             | В                             | 0          |           |       | В                             | 0              |             |             |
| Zinc            | 0.37 ppm               | ***** | k *    |        |                 | Zn                            | 0                |          |             | Zn                            | 0          |           |       | Zn                            | 1              | Ba          | nd          |
| Iron            | 15.4 ppm               | ***** | *****  | ****** | *****           | Fe                            | 0                |          |             | Fe                            | 0          |           |       | Fe                            | 0              |             |             |
| Manganese       | 3.1 ppm                | ***** | *****  | *****  | **              | Mn                            | 0                |          |             | Mn                            | 0          |           |       | Mn                            | 0              |             |             |
| Magnesium       | 0.63 ppm               | ***** | *****  | ***    |                 | Cu                            | 1                | Band (Ti | rial)       | Cu                            | 1          | Band (Tri | al)   | Cu                            | 1              | Band (      | Trial)      |
| Calcium         | 885 ppm                | ***** | ****** | ****** | *****           | Mg                            | 0                |          |             | Mg                            | 0          |           |       | Mg                            | 0              |             |             |
| Sodium          | 152 ppm                | ***** | ****** | *****  | ****            | Lime                          |                  |          |             | Lime                          |            |           |       | Lime                          |                |             |             |
| Org.Matter      | 3.7 %                  | ***** | *****  | ****   |                 | Linie                         |                  |          |             |                               |            |           |       |                               |                |             |             |
| Carbonate(CCE)  | 3.4 %                  | ***** | *****  | ***    |                 | Soil pH Buffer pH             |                  | uffer pH | Cati        | on Excl<br>Capacit            | nange<br>v | % Bas     | se Sa | Ma                            | οn (Typ<br>% κ | % Na        | nge)<br>% H |
| 0-6"<br>6-24"   | 1.14 mmho/cm           | ***** | ****** | *****  | **              | 0-6" 7                        | 0-6" <b>7.8</b>  |          | :           | 34.8 meq                      |            | (65-75)   | (15   | -20)                          | (1-7)          | (0-5)       | (0-5)       |
| Sol. Salts      | 1.77 mmm0/cm           | ****  | *****  | *****  | ****            | 6-24" <b>8</b>                | 6-24" <b>8.4</b> |          |             |                               | 75.7       | 75.7 21   |       | 1.2                           | 1.9            | 0.0         |             |

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K20 = 26 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 50 K20 = 30 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                 |                                                                                 |                                         |                                                            | SO                                         | ILTE                                    | EST I                                 | REPORT                              | N                                            |                                        |                    |                  |          |                    |  |  |  |
|-------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------|--------------------------------------------|-----------------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|----------------------------------------|--------------------|------------------|----------|--------------------|--|--|--|
| Soil Analysis<br>(http://<br>Northwoo<br>Benson | by Agvise Laborator<br>www.agvise.com)<br>d: (701) 587-6010<br>: (320) 843-4109 | ries                                    | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>TWP<br>SECTIO<br>PREV. | ID<br>LE ID<br>NAMEI<br>TY<br>ON<br>CROP S | WH 26-<br>Bill Mor<br>5<br>26<br>Soybea | - <b>5-19</b><br>rrow H<br>QTR<br>ans | lalf<br>RANGE <b>19</b><br>WH ACRES | v                                            | v                                      |                    |                  | E        |                    |  |  |  |
| SUBI<br>Rourke Farms                            | MITTED FOR:                                                                     |                                         | PEMB                                                       | INA CO                                     | SUBM<br>SOP-M                           | 1ITTE<br>INTO                         | D BY: <b>PE41</b>                   | .10                                          | S                                      |                    |                  |          |                    |  |  |  |
| Box 144                                         |                                                                                 |                                         | 210 S                                                      | RAILV                                      | VAY AV                                  | /E                                    |                                     |                                              | REF # <b>3034578</b> BOX # <b>4241</b> |                    |                  |          |                    |  |  |  |
| Minto,                                          | ROK 1M                                                                          | 0                                       | BOX 1<br>MINTO                                             | .43<br>D, MB                               |                                         |                                       | # 303457<br># NW115                 | <b>3034578</b> BOX # <b>4241</b><br>NW115845 |                                        |                    |                  |          |                    |  |  |  |
|                                                 |                                                                                 | )                                       | <u> </u>                                                   | ,                                          |                                         |                                       |                                     | )                                            |                                        |                    |                  |          |                    |  |  |  |
| Date Sampled                                    |                                                                                 |                                         |                                                            |                                            | D                                       | Date Re                               | eceived 09/2                        | 9/202                                        | 0                                      | I                  | Date Re          | ported   | 10/6/2020          |  |  |  |
| Nutrient I                                      | n The Soil                                                                      | Inter                                   | pretati                                                    | ion                                        | 1s                                      | t Cro                                 | p Choice                            | d Cro                                        | p Choice                               | 3r                 | d Cro            | p Choice |                    |  |  |  |
|                                                 |                                                                                 | VLow Lo                                 | w Med                                                      | High                                       |                                         | Wheat                                 | -Spring                             | Wheat                                        | -Spring                                |                    | Wheat            | -Spring  |                    |  |  |  |
| 0-6"                                            | 11 lb/acre                                                                      |                                         |                                                            |                                            |                                         | YIELD                                 | GOAL                                |                                              | YIELD                                  | GOAL               |                  | YIELD    | GOAL               |  |  |  |
| 6-24                                            | 9 lb/acre                                                                       | *****                                   |                                                            |                                            |                                         | 60                                    | BU                                  |                                              | 60                                     | BU                 |                  | 60       | BU                 |  |  |  |
| 0-24''                                          | 20 lb/acre                                                                      |                                         |                                                            |                                            | SUGO                                    | GESTED                                | GUIDELINES                          | SUG                                          | GESTED                                 | GUIDELINES         | SUG              | GESTED   | GUIDELINES         |  |  |  |
| Nitrate                                         |                                                                                 |                                         |                                                            |                                            |                                         | Band                                  |                                     |                                              | Ba                                     | and                |                  | Ba       | ind                |  |  |  |
|                                                 |                                                                                 |                                         |                                                            |                                            | LB/A                                    | CRE                                   | APPLICATION                         | LB/ACRE                                      |                                        | APPLICATION        | LB/ACRE          |          | APPLICATION        |  |  |  |
| Phosphorus                                      | 5 ppm                                                                           | *****                                   |                                                            |                                            | N                                       | 97                                    | Customized                          | N                                            | 97                                     | Customized         | N                | 97       | Customized         |  |  |  |
| Potassium                                       | 202 ppm                                                                         | *****                                   | *** *****                                                  | *****                                      | P <sub>2</sub> O <sub>5</sub>           | 41                                    | Band *                              | P2O5                                         | 41                                     | Band *             | P2O5             | 41       | Band *             |  |  |  |
| 0-24''<br>Chloride                              | 412 lb/acre                                                                     | *****                                   | *** *****                                                  | *****                                      | K <sub>2</sub> O                        | 10                                    | Band<br>(Starter)*                  | K <sub>2</sub> O                             | 10                                     | Band<br>(Starter)* | K <sub>2</sub> O | 10       | Band<br>(Starter)* |  |  |  |
| 0-6"<br>6-24"                                   | 120 +lb/acre<br>360 +lb/acre                                                    | *************************************** | *** <mark>*****</mark>                                     | * ******<br>* *****                        | CI                                      | 0                                     |                                     | CI                                           | 0                                      |                    | CI               | 0        |                    |  |  |  |
| Sulfur                                          |                                                                                 |                                         |                                                            |                                            | S                                       | 0                                     |                                     | S                                            | 0                                      |                    | S                | 0        |                    |  |  |  |
| Zinc                                            | 1.6 ppm                                                                         | *****                                   | *** *****                                                  | ******                                     | В                                       | 0                                     |                                     | В                                            | 0                                      |                    | В                | 0        |                    |  |  |  |
| Iron                                            | 12.8 ppm                                                                        | *****                                   | *                                                          | *****                                      | Zn                                      | 0                                     |                                     | Zn                                           | 0                                      |                    | Zn               | 0        |                    |  |  |  |
| Manganese                                       | 3.0 ppm                                                                         | *****                                   | *** *****                                                  | ***                                        | Fe O Fe                                 |                                       |                                     |                                              |                                        |                    | Fe               | 0        |                    |  |  |  |
| Copper                                          | 0.61 ppm                                                                        | *****                                   | *** **                                                     |                                            | Mn                                      | 0                                     |                                     | Mn                                           | 0                                      |                    | Mn               | 0        |                    |  |  |  |
| Magnesium                                       | 1182 ppm                                                                        | *****                                   | *** *****                                                  | *****                                      | Cu                                      | 1                                     | Band (Trial)                        | Cu                                           | 1                                      | Band (Trial)       | Cu               | 1        | Band (Trial)       |  |  |  |

Calcium Mg Mg 0 Mg 0 0 5210 ppm Sodium 298 ppm Lime Lime Lime \*\*\*\* \*\*\*\*\* \*\*\*\* Org.Matter 4.7 % \*\*\*\* \*\*\*\*\* \*\*\*\*\* % Base Saturation (Typical Range) **Cation Exchange Buffer pH** Soil pH Carbonate(CCE) 3.2 % \*\*\*\* Capacity % Ca % Mg % K % Na 0-6" 1.89 mmho/cm \*\*\*\* \*\*\*\* \*\*\*\* 0-6" 7.9 37.7 meq (65-75) (15-20) (1-7) (0-5) 6-24" 1.87 mmho/cm 6-24" **8.3** 69.1 26.1 1.4 3.4 Sol. Salts

% H

(0-5)

0.0

General Comments: Soil texture is not estimated on high pH soils.

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                  |                                                                                  |        | $\gamma$                                         | SO                                                | IL TE                                 | EST I                    | REPORT                      | N                             |         |              |                               |         |              |  |
|--------------------------------------------------|----------------------------------------------------------------------------------|--------|--------------------------------------------------|---------------------------------------------------|---------------------------------------|--------------------------|-----------------------------|-------------------------------|---------|--------------|-------------------------------|---------|--------------|--|
| Soil Analysis<br>(http://<br>Northwoo<br>Benson: | by Agvise Laborator<br>www.agvise.com)<br>od: (701) 587-6010<br>: (320) 843-4109 | ies    | FIEL<br>SAM<br>FIEL<br>COU<br>TWP<br>SEC<br>PREV | D ID I<br>PLE ID<br>D NAMEI<br>NTY<br>!<br>TION : | EH 27-<br>Rondea<br>5<br>27<br>Soybea | 5-19<br>IU<br>QTR<br>INS | RANGE <b>19</b><br>EH ACRES | V                             | v       |              |                               | E       |              |  |
| SUBN<br>Rourke Farms<br>Box 144                  | MITTED FOR:                                                                      |        | РЕМ<br>210<br>ВОХ                                | BINA CO<br>S RAILV<br>143                         | SUBM<br>DOP-M<br>VAY AV               | 1ITTE<br>INTO<br>/E      | D BY: <b>PE41</b>           | .10                           | REF     | # 303457     | <b>S</b><br>76 BC             | )X #    | 4241         |  |
| Minto,                                           | ROK 1M                                                                           | 0      | MIN                                              | то, мв                                            |                                       |                          | ROK 1MO                     | LAB                           | # NW115 | 844          |                               |         |              |  |
| Date Sampled                                     |                                                                                  |        |                                                  |                                                   | C                                     | Date Re                  | eceived 09/2                | 9/202                         | 0       | I            | Date Re                       | ported  | 10/6/2020    |  |
|                                                  |                                                                                  |        |                                                  | _                                                 |                                       |                          |                             |                               |         |              |                               |         | )            |  |
| Nutrient I                                       | n The Soil                                                                       | Inte   | erpreta                                          | ition                                             | 1s                                    | t Cro                    | p Choice                    | 2n                            | d Cro   | p Choice     | 3r                            | d Cro   | o Choice     |  |
| 0-6"                                             | 10 lb/acre                                                                       | VLow L | Low Me                                           | d High                                            |                                       | Wheat                    | -Spring                     |                               | Wheat   | -Spring      |                               | Wheat   | -Spring      |  |
| 6-24"                                            | 9 lb/acre                                                                        | *****  |                                                  |                                                   |                                       | YIELD                    | GUAL                        |                               |         | GOAL         |                               | YIELD   | GUAL         |  |
| 0-24''                                           | 19 lb/acre                                                                       |        |                                                  |                                                   | SUCC                                  |                          |                             | SUC                           |         |              | SUC                           |         |              |  |
| Nitrate                                          |                                                                                  |        |                                                  |                                                   | 5060                                  | Ba                       | and                         | 5060                          | Ba      | and          | 5060                          | Ba      | nd           |  |
|                                                  |                                                                                  |        |                                                  |                                                   | LB/A                                  |                          | APPLICATION                 | LB/A                          |         | APPLICATION  | LB/A                          |         | APPLICATION  |  |
| Olsen<br>Phosphorus                              | 8 ppm                                                                            | *****  | ****                                             |                                                   | N                                     | 98                       | Customized                  | N                             | 98      | Customized   | N                             | 98      | Customized   |  |
| Potassium                                        | 148 ppm                                                                          | *****  | ****                                             | **                                                | P <sub>2</sub> O <sub>5</sub>         | 35                       | Band *                      | P <sub>2</sub> O <sub>5</sub> | 35      | Band *       | P <sub>2</sub> O <sub>5</sub> | 35      | Band *       |  |
| 0-24''                                           | 264 lb/acre                                                                      | *****  | ****                                             | ** *****                                          | K <sub>2</sub> O                      | 22                       | Band *                      | K <sub>2</sub> O              | 22      | Band *       | K2O                           | 22      | Band *       |  |
| Chloride<br>0-6"                                 | 120 +lb/acre                                                                     | *****  | ****                                             | ** *****                                          | CI                                    | 0                        |                             | CI                            | 0       |              | CI                            | 0       |              |  |
| <b>6-24''</b><br>Sulfur                          | 360 +lb/acre                                                                     | *****  | ****                                             | ******                                            | S                                     | 0                        |                             | S                             | 0       |              | S                             | 0       |              |  |
| Boron                                            | 1.5 ppm                                                                          | *****  | ****                                             | *****                                             | В                                     | 0                        |                             | В                             | 0       |              | В                             | 0       |              |  |
| Zinc                                             | 0.50 ppm                                                                         | *****  | ***                                              |                                                   | Zn                                    | 0                        |                             | Zn                            | 0       |              | Zn                            | 0       |              |  |
| Iron                                             | 7.5 ppm                                                                          | *****  | ****                                             | ***                                               | Fe                                    | 0                        |                             | Fe                            | 0       |              | Fe                            | 0       |              |  |
| Manganese                                        | 2.2 ppm                                                                          | *****  | ****                                             | **                                                | Mn                                    | 0                        |                             | Mn                            | 0       |              | Mn                            | 0       |              |  |
| Magnesium                                        | 0.59 ppm                                                                         | *****  | **** **                                          |                                                   | Cu                                    | 1                        | Band (Trial)                | Cu                            | 1       | Band (Trial) | Cu                            | 1       | Band (Trial) |  |
| Calcium                                          | 5363 ppm                                                                         | ****** | *****                                            | ** *****                                          | Mg                                    | 0                        |                             | Mg                            | 0       |              | Mg                            | 0       |              |  |
| Sodium                                           | 428 ppm                                                                          | *****  | ****                                             | ******                                            | Lime                                  |                          |                             | Lime                          |         |              | Lime                          |         |              |  |
| Org.Matter                                       | 4.5 %                                                                            | *****  | ****                                             | **                                                |                                       |                          | Cati                        | on Excl                       | hange   | % Base Sa    | turatio                       | n (Typi | cal Range)   |  |

2.15 mmho/cm

2.16 mmho/cm

2.1 %

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*\*\* \*\*\*\*\*

\*\*\*\*\*

\*\*\*\*

Carbonate(CCE)

Sol. Salts

0-6"

6-24"

Crop 1: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Soil pH

0-6" 8.0

6-24" **8.3** 

**Buffer pH** 

Capacity

38.8 meq

% Ca

(65-75)

69.1

% Mg

(15-20)

25.2

% K

(1-7)

1.0

% Na

(0-5)

4.8

% H

(0-5)

0.0

Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P205 = 38 K20 = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                     |                                  |                                                                             | SO             | IL TE                                                      | ST                                            | REPOF                                  |                                     | N                       |                  |          |                               |             |                        |                 |                               |                     |                     |                     |  |
|-------------------------------------|----------------------------------|-----------------------------------------------------------------------------|----------------|------------------------------------------------------------|-----------------------------------------------|----------------------------------------|-------------------------------------|-------------------------|------------------|----------|-------------------------------|-------------|------------------------|-----------------|-------------------------------|---------------------|---------------------|---------------------|--|
| Soil Analy<br>(http<br>North<br>Ben | ysis b<br>p://w<br>wood<br>ason: | y Agvise Laborator<br>ww.agvise.com)<br>I: (701) 587-6010<br>(320) 843-4109 |                | FIELD<br>SAMPL<br>FIELD<br>COUNT<br>TWP<br>SECTIO<br>PREV. | ID I<br>LE ID<br>NAMEI<br>LY<br>SON S<br>CROP | EH 28-<br>Hog Hil<br>5<br>26<br>Wheat- | 5-19<br>II<br>QTR<br>• <b>Sprin</b> | RANGE 1<br>Reh A        | ٧                | v        |                               |             |                        |                 | E                             |                     |                     |                     |  |
| SI<br>Rourke Farms<br>Box 144       | UBM<br>s                         | ITTED FOR:                                                                  |                | I                                                          | PEMB:<br>210 S                                | INA CO<br>RAILV                        | SUBM<br>DOP-M                       | 1ITTE<br>INTO<br>/E     | D BY:            | PE41     | 10                            |             |                        |                 | S                             |                     |                     |                     |  |
| Minto,                              |                                  | ROK 1M                                                                      | 0              |                                                            | BOX 1<br>MINTO                                | L43<br>D, MB                           |                                     |                         | R0K :            | 1M0      |                               | REF =       | # 298<br># NW          | 3054<br>727     | 48 BC<br>792                  | DX #                | 2123                |                     |  |
| Date Sampled                        | 1                                |                                                                             |                |                                                            |                                               |                                        | C                                   | Date Re                 | eceived          | 09/0     | 0                             |             | [                      | Date R          | eporte                        | d <b>9/10</b>       | 0/2020              |                     |  |
| Nutrier                             | nt In                            | The Soil                                                                    | In             | terp                                                       | retati                                        | ion                                    | 1s                                  | t Cro                   | op Choic         | e        | 2n                            | d Cro       | p Choice               |                 | 3                             | rd Cr               | op Cho              | ice                 |  |
|                                     |                                  |                                                                             | VLow           | Low                                                        | Med                                           | High                                   | ligh Barley-Peas Wh                 |                         |                  |          | Wheat-                        | -Spring     |                        |                 |                               |                     |                     |                     |  |
| 6-                                  | 0-6"<br>-24"                     | 16 lb/acre<br>18 lb/acre                                                    | *****          | ****                                                       | * *                                           |                                        |                                     | YIELD                   | D GOAL<br>Season |          |                               | YIELD<br>60 | GOAL<br>BU             |                 |                               | YIEL                | D GOAL              |                     |  |
| 0-                                  | -24''                            | 34 lb/acre                                                                  |                |                                                            |                                               |                                        | SUG                                 | GESTED                  | O GUIDELII       | NES      | SUG                           | GESTED      | GUIDELINE              | S               | SUC                           | GGESTE              | D GUIDE             | LINES               |  |
| Nitrate                             |                                  |                                                                             |                |                                                            |                                               |                                        |                                     | B                       | and              |          |                               | Ba          | ind                    |                 |                               |                     |                     |                     |  |
|                                     |                                  |                                                                             |                |                                                            |                                               |                                        | LB/A                                | CRE                     | APPLICA          | TION     | LB/A                          | CRE         | APPLICAT               | ION             | LB/                           | ACRE/               | APPLI               | CATION              |  |
| OI<br>Phosphorus                    | lsen                             | 23 ppm                                                                      | *****          | *****                                                      | * * * * * * *                                 | * * * * * * *                          | N                                   | 26                      |                  |          | N                             | 98          | Customiz               | ed              | N                             |                     |                     |                     |  |
| Potassium                           |                                  | 276 ppm                                                                     | *****          | ****                                                       | * *****                                       | * *****                                | P <sub>2</sub> O <sub>5</sub>       | 0                       |                  |          | P <sub>2</sub> O <sub>5</sub> | 15          | Band<br>(Starter)      | *               | P <sub>2</sub> O <sub>5</sub> |                     |                     |                     |  |
| <b>O-</b><br>Chloride               | -24''                            | 176 lb/acre                                                                 | *****          | ****                                                       | * * * * * * *                                 | *****                                  | K <sub>2</sub> O                    | 0                       |                  |          | K <sub>2</sub> O              | 10          | Band<br>(Starter)      | *               | K <sub>2</sub> O              |                     |                     |                     |  |
| G-<br>Sulfur                        | 0-6"<br>-24"                     | 120 +lb/acre<br>360 +lb/acre                                                | *****<br>***** | *****                                                      | * ******                                      | * * * * * * * * *                      | CI                                  |                         | Not<br>Availal   | t<br>ble | CI                            | 0           |                        |                 | CI                            |                     |                     |                     |  |
| Boron                               |                                  | 1.2 ppm                                                                     | *****          | ****                                                       | * *****                                       | *                                      | S                                   | 0                       |                  |          | S                             | 0           |                        |                 | S                             |                     |                     |                     |  |
| Zinc                                |                                  | 1.40 ppm                                                                    | *****          | ****                                                       | * *****                                       | * **                                   | В                                   | 0                       |                  |          | В                             | 0           |                        |                 | В                             |                     |                     |                     |  |
| Iron                                |                                  | 7.5 ppm                                                                     | *****          | ****                                                       | * *****                                       | * * * *                                | Zn                                  | 0                       |                  |          | Zn                            | 0           |                        |                 | Zn                            |                     |                     |                     |  |
| Manganese                           |                                  | 1.4 ppm                                                                     | *****          | ****                                                       | * **                                          |                                        | Fe                                  | 0                       |                  |          | Fe                            | 0           |                        |                 | Fe                            |                     |                     |                     |  |
| Copper                              |                                  | 0.8 ppm                                                                     | *****          | *****                                                      | * *****                                       | *                                      | Mn                                  | 0                       |                  |          | Mn                            | 0           |                        |                 | Mn                            |                     |                     |                     |  |
| Magnesium                           |                                  | 856 ppm                                                                     | *****          | ****                                                       | * *****                                       | * *****                                | Cu                                  | Cu O                    |                  |          | Cu                            | 1           | Band (Tria             | al)             | Cu                            |                     |                     |                     |  |
| Calcium                             |                                  | 5403 ppm                                                                    | *****          | ****                                                       | * *****                                       | * *****                                | Mg O                                |                         | Mg               | 0        |                               |             | Mg                     |                 |                               |                     |                     |                     |  |
| Ora Matter                          |                                  | 79 ppm                                                                      | *****          | ****                                                       | *                                             |                                        | Lime                                |                         |                  | Lime     |                               |             |                        | Lime            |                               |                     |                     |                     |  |
| Org.Matter                          |                                  | 5.4 %                                                                       | *****          | ****                                                       | * *****                                       | * ***                                  | Soil pH Buffer pH Cation Exc        |                         |                  |          | on Excl                       | nange       | % Bas                  | e Sa            | Saturation (Typical Range)    |                     |                     |                     |  |
| Carbonate(CCE)                      | 0-6"                             | 2.1 %                                                                       | *****          | ****                                                       |                                               |                                        | 0011                                |                         |                  | (        | Capacit                       | city % Ca   |                        |                 | Mg                            | % K                 | % Na                | % H                 |  |
| 6-<br>Sol. Salts                    | -24"                             | 1.72 mmho/cm                                                                | *****          | *****                                                      | * ******                                      | * ****                                 | 0-6" <b>8</b><br>6-24" <b>8</b>     | 0-6" <b>8.0</b> 35.2 me |                  |          |                               | q           | (65-75)<br><b>76.7</b> | (15<br><b>2</b> | -20)<br><b>0.3</b>            | (1-7)<br><b>2.0</b> | (0-5)<br><b>1.0</b> | (0-5)<br><b>0.0</b> |  |

Crop 1: Limited data on crop response to chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 110 AGVISE Band guideline will build P & K test levels to the medium range over several years. Crop 2: Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                                 | SO                                                                               | IL TE                                  | ST                                     | REPOR                   | RT                              |                     | N           |        |             |                           |           |                   |                    |                     |                     |                     |
|-------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------|----------------------------------------|-------------------------|---------------------------------|---------------------|-------------|--------|-------------|---------------------------|-----------|-------------------|--------------------|---------------------|---------------------|---------------------|
| Soil Analysis<br>(http://<br>Northwoo<br>Benson | by Agvise Laborator<br>www.agvise.com)<br>vd: (701) 587-6010<br>: (320) 843-4109 | ID<br>E ID<br>NAME<br>'Y<br>ON<br>CROP | WH 34-<br>Gervin'<br>5<br>34<br>Soybea | <b>5-19</b><br>s<br>QTR | RANGE 1<br>RWH A                | L9<br>Acres         | 0           | V      | v           |                           |           |                   |                    | E                   |                     |                     |
| SUBN<br>AG Quest                                | MITTED FOR:                                                                      |                                        | PEMB3<br>210 S                         | INA CO<br>RAILV         | SUBM<br>OOP-MI<br>WAY AV        | IITTE<br>Into<br>'E | ED BY:      | PE41   | 10          | REF                       | # 303     | 2450              | S                  | 80X #               | 426                 | <b>.</b>            |
| Minto,                                          | R0K1M0                                                                           | .43<br>), MB                           |                                        |                         | ROK 1                           | LMO                 |             | LAB    | # <b>NW</b> | 115                       | 848       |                   | -120               |                     |                     |                     |
| Date Sampled                                    |                                                                                  |                                        | D                                      | ate R                   | eceived                         | 09/2                | 9/202       | 0      |             | [                         | Date R    | eporte            | d <b>10/</b>       | 5/2020              |                     |                     |
| Nutrient I                                      | n The Soil                                                                       | Inte                                   | rpretati                               | on                      | 1s                              | t Cro               | op Choice   | e      | 2n          | d Cro                     | p Choice  |                   | 3                  | rd Cr               | op Cho              | ice                 |
|                                                 |                                                                                  | VLow Lo                                | ow Med                                 | High                    |                                 | Can                 | iola-bu     |        |             | Cano                      | ola-bu    |                   |                    | Ca                  | nola-bu             |                     |
| 0-6"<br>6-24"                                   | 19 lb/acre<br>18 lb/acre                                                         |                                        |                                        |                         |                                 | YIEL                | D GOAL      |        |             | YIELD                     | GOAL      |                   |                    | YIEL                | D GOAL              |                     |
|                                                 |                                                                                  | *****                                  | ****                                   |                         |                                 | 45                  | BU          |        |             | 45                        | BU        |                   |                    | 45                  | BU                  |                     |
| 0-24"                                           | 37 lb/acre                                                                       |                                        |                                        |                         | SUGC                            | GESTED              | D GUIDELIN  | NES    | SUGO        | GESTED                    | GUIDELINE | S                 | SUC                | GESTE               | D GUIDE             | LINES               |
| Nitrate                                         |                                                                                  |                                        |                                        |                         |                                 | B                   | Sand        |        |             | Ba                        | Ind       |                   |                    | E                   | Band                |                     |
| Olsen                                           | 8 ppm                                                                            | *****                                  | ****                                   |                         | LB/A                            | CRE                 | APPLICATION |        | LB/A        |                           | APPLICATI |                   | LB,                | ACRE                | APPLI               | CATION              |
| Phosphorus<br>Potassium                         | 147                                                                              |                                        |                                        |                         | IN<br>DeOr                      | 83                  | Customi     | zea    |             | 83                        | Band *    |                   | * P20              |                     | Custo               | mizea               |
|                                                 | 147 ppm                                                                          | *****                                  | **** *****                             | د<br>                   | K205                            | 13                  | Band        | *      | F205        | 13                        | Band *    |                   | P2O5               |                     | Bar                 | nd *                |
| 0-24''<br>Chloride                              | 404 lb/acre                                                                      | *****                                  | ****                                   | *****                   | K20                             | 15                  | Not         |        | 120         | 15                        | Not       |                   | K20                | 15                  | Not Av              | vailable            |
| 0-6"<br>6-24"                                   | 120 +lb/acre<br>360 +lb/acre                                                     | *******                                | **** ******                            | *****                   | CI                              |                     | Availab     | ble    | CI          |                           | Availabl  | e                 | CI                 |                     | not A               | , and bie           |
| Sulfur                                          |                                                                                  |                                        |                                        |                         | S                               | 10                  | Band        | l      | S           | 10                        | Band      |                   | S                  | 10                  | Ba                  | nd                  |
| Zinc                                            | 1.4 ppm                                                                          | ***** ***                              | **** *****                             | **                      | В                               | 0                   |             |        | В           | 0                         |           |                   | В                  | 0                   |                     |                     |
| Iron                                            | 0.34 ppm                                                                         | ***** *                                |                                        |                         | Zn                              | 2                   | Band        | I      | Zn          | 2                         | Band      |                   | Zn                 | 2                   | Ba                  | nd                  |
| Manganese                                       | 9.7 ppm                                                                          | *****                                  | ****                                   | *****                   | Fe                              | 0                   |             |        | Fe          | 0                         |           |                   | Fe                 | 0                   |                     |                     |
| Copper                                          | 0.47 ppm                                                                         | *****                                  | ***                                    |                         | Mn                              | 0                   |             |        | Mn          | 0                         |           |                   | Mn                 | 0                   |                     |                     |
| Magnesium                                       | 805 ppm                                                                          | *****                                  | ****                                   | *****                   | Cu                              | 0                   |             |        | Cu          | 0                         |           |                   | Cu                 | 0                   |                     |                     |
| Calcium                                         | 5252 ppm                                                                         | *****                                  | ****                                   | *****                   | Mg                              | 0                   |             |        | Mg          | 0                         |           |                   | Mg                 | 0                   |                     |                     |
| Sodium                                          | 402 ppm                                                                          | *****                                  | ****                                   | *****                   | Lime                            |                     |             |        | Lime        |                           |           |                   | Lime               |                     |                     |                     |
| Org.Matter                                      | 4.7 %                                                                            | *****                                  | ****                                   |                         |                                 |                     |             | Cati   | on Excl     | nange                     | % Bas     | e Sa              | turati             | on (Ty              | pical Ra            | nge)                |
| Carbonate(CCE)                                  | 2.3 %                                                                            | *****                                  | ***                                    |                         | Soil p                          | B B                 | Buffer pH   | (      | Capacit     | ty                        | % Ca      | %                 | Mg                 | % K                 | % Na                | % H                 |
| 0-6"<br>6-24"<br>Sol. Salts                     | 1.67 mmho/cm<br>2.29 mmho/cm                                                     | ************************************** | **** ******                            | ****                    | 0-6" <b>7</b><br>6-24" <b>8</b> | .9<br>.1            |             | 35.1 m |             | meq (65-75) (11<br>74.8 1 |           | (15<br><b>1</b> 9 | -20)<br><b>9.1</b> | (1-7)<br><b>1.1</b> | (0-5)<br><b>5.0</b> | (0-5)<br><b>0.0</b> |

General Comments: Soil texture is not estimated on high pH soils. Moderate sodium may cause soil dispersion, poor water movement, and reduced crop yield.

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 41 K20 = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 41 K20 = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. \*CAUTION: Seed-placed fertilizer can cause injury.\* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 41 K20 = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

|                                        |                                                                                             | $\gamma$                                               | SC                                       | IL TE                                  | EST F               | REPOF                    | RT          | N        |                  |                       |            |            |                  |               |          |        |  |  |  |
|----------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------|----------------------------------------|---------------------|--------------------------|-------------|----------|------------------|-----------------------|------------|------------|------------------|---------------|----------|--------|--|--|--|
| Soil Analys<br>(http<br>Northv<br>Bens | sis by Agvise Laborato<br>://www.agvise.com)<br>vood: (701) 587-6010<br>con: (320) 843-4109 | FIELD<br>SAMP<br>FIELD<br>COUN<br>TWP<br>SECT<br>PREV. | ID<br>LE ID<br>NAME<br>TY<br>ION<br>CROP | EH 26-<br>South F<br>4<br>26<br>Wheat- | 4-19<br>Farm<br>QTR | RANGE 1<br>EH 4<br>9     | 19<br>Acres | V        | V                |                       |            |            | ·                | E             |          |        |  |  |  |
| SU                                     | JBMITTED FOR:                                                                               |                                                        | $\gamma$                                 |                                        | SUBM                | 1ITTE                    | D BY:       | PE41     | .10              |                       |            |            |                  |               |          |        |  |  |  |
| Rourke Farms                           |                                                                                             |                                                        | PEMB                                     |                                        |                     | INTO                     |             |          |                  | 3                     |            |            |                  |               |          |        |  |  |  |
| BUX 144                                |                                                                                             |                                                        | BOX                                      | 143                                    | WATAV               | Ē                        |             |          |                  | REF # 2980550 BOX # 2 |            |            |                  |               |          | ;      |  |  |  |
| Minto,                                 | ROK 1M                                                                                      | 10                                                     | MINT                                     | о, мв                                  |                     | ROK 1MO                  |             |          |                  |                       |            |            |                  |               |          |        |  |  |  |
| Date Sampled                           |                                                                                             |                                                        |                                          | C                                      | Date Re             | eceived                  | 09/0        | 8/202    | 0                |                       | [          | Date R     | eporte           | d <b>9/1(</b> | 0/2020   |        |  |  |  |
| Nutrien                                | t In The Soil                                                                               | Inte                                                   | erpretat                                 | ion                                    | 1s                  | t Cro                    | p Choic     | e        | 2n               | d Cro                 | p Choice   |            | 3                | rd Cro        | op Cho   | ice    |  |  |  |
|                                        |                                                                                             | VLow L                                                 | _ow Med                                  | High                                   |                     | Ba                       | rley        |          |                  | Oa                    | ats        |            |                  | Soy           | /beans   | beans  |  |  |  |
| 0                                      | -6" 11 lb/acre                                                                              |                                                        |                                          |                                        |                     | YIELD GOAL               |             |          |                  | YIELD                 | GOAL       |            |                  | YIEL          | D GOAL   | GOAL   |  |  |  |
|                                        |                                                                                             | *****                                                  | **                                       |                                        |                     | 80                       | BU          |          |                  | 100                   | BU         |            |                  | 40            | BU       |        |  |  |  |
| 0-2                                    | 24'' 23 lb/acre                                                                             |                                                        |                                          |                                        | SUGO                | SUGGESTED GUIDELINES SUG |             |          |                  |                       | GUIDELINE  | S          | SUC              | GGESTE        | D GUIDE  | LINES  |  |  |  |
| Nitrate                                |                                                                                             |                                                        |                                          |                                        | Band                |                          |             |          |                  | Ba                    | ind        |            |                  | E             | Band     |        |  |  |  |
|                                        |                                                                                             |                                                        |                                          |                                        | LB/A                | CRE                      | APPLICA     | TION     | LB/A             | CRE                   | APPLICAT   | ION        | LB,              | ACRE          | APPLI    | CATION |  |  |  |
| OI:                                    | sen 9 ppm                                                                                   | *****                                                  | ****                                     |                                        | N                   | 71                       | Customi     | ized     | N                | 53                    | Customiz   | stomized N |                  | ***           |          |        |  |  |  |
| Potassium                              | 207 ppm                                                                                     | *****                                                  | ****                                     | * *****                                | P2O5                | 31                       | Band        | * P20    |                  | 24                    | Band *     |            | P2O5             | 30            | Bar      | id *   |  |  |  |
| 0-2                                    | 24'' 36 lb/acre                                                                             | *****                                                  | ****                                     |                                        | K <sub>2</sub> O    | 10                       | Ban         | d<br>r)* | K <sub>2</sub> O | 10                    | Band       | *          | K <sub>2</sub> O | 0             |          |        |  |  |  |
| Chloride                               | -6" 114 lb/acre                                                                             | *****                                                  | ****                                     | * *****                                |                     |                          | (Starte     | .,       |                  | 4                     | (Starter)  | ,          |                  | 0             |          |        |  |  |  |
| 6-                                     | 24" 360 +lb/acre                                                                            | *****                                                  | ****                                     | * *****                                |                     | 4                        |             |          |                  | 4                     |            |            |                  | 0             | _        |        |  |  |  |
| Boron                                  | 1.0 ppm                                                                                     | *****                                                  | ****                                     |                                        | S                   | 0                        |             |          | S                | 0                     |            |            | S                | 0             |          |        |  |  |  |
| Zinc                                   | 5.30 ppm                                                                                    | *****                                                  | ****                                     | * *****                                | B                   | 0                        |             |          | B                | 0                     |            |            | В                | 0             |          |        |  |  |  |
| Iron                                   | 15.0 ppm                                                                                    | *****                                                  | ****                                     | * *****                                | Zn                  | 0                        |             |          | Zn               | 0                     |            |            | Zn               | 0             |          |        |  |  |  |
| Manganese                              | 2.1 ppm                                                                                     | *****                                                  | ****                                     | *                                      | Fe                  | 0                        |             |          | Fe               | 0                     |            |            | Fe               | 0             |          |        |  |  |  |
| Copper                                 | 0.49 ppm                                                                                    | *****                                                  | ****                                     |                                        | Mn                  | 0                        |             |          | Mn               | 0                     |            |            | Mn               | 0             |          |        |  |  |  |
| Magnesium                              | 775 ppm                                                                                     | *****                                                  | ****                                     | * *****                                | Cu                  | 2                        | Band        | 1        | Cu               | 1                     | Band (Tria | al)        | Cu               | 0             |          |        |  |  |  |
| Calcium                                | 5010 ppm                                                                                    | *****                                                  | ****                                     | * *****                                | Mg                  | 0                        |             |          | Mg               | 0                     |            |            | Mg               | 0             |          |        |  |  |  |
| Sodium                                 | 31 ppm                                                                                      | ****                                                   |                                          |                                        | Lime                |                          |             |          | Lime             |                       |            |            | Lime             |               |          |        |  |  |  |
| Org.Matter                             | 4.6 %                                                                                       | *****                                                  | ****                                     | *                                      |                     |                          | 1           | Cat      | ion Evel         | 12000                 | % Bas      | ie Sa      | turati           | on (Ty        | pical Ra | nae)   |  |  |  |
| Carbonate(CCE)                         | 1.0 %                                                                                       | *****                                                  |                                          |                                        | Soil p              | DH B                     | uffer pH    | Catl     | Capacit          | ange<br>ty            | % Ca       | %          | Mg               | % K           | % Na     | % H    |  |  |  |
| 0                                      | -6" 0.48 mmho/cm                                                                            | *****                                                  | ****                                     |                                        | 0-6" 7              | ·.9                      |             | 32.2 m   |                  | q                     | (65-75) (1 |            | -20)             | (1-7)         | (0-5)    | (0-5)  |  |  |  |

1.49 mmho/cm

\*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*

6-24"

Sol. Salts

Crop 1: Nitrogen guideline customized by the submitter. 8 lb potassium chloride (0-0-60-50Cl) = 4 lb chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 40 AGVISE Band guideline will build P & K test levels to the medium range over several years.

77.9

20.1

1.6

0.4

0.0

6-24" **8.1** 

Crop 2: Nitrogen guideline customized by the submitter. 8 lb potassium chloride (0-0-60-50Cl) = 4 lb chloride. \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 25 K2O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: \*CAUTION: Seed-placed fertilizer can cause injury.\* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is low, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.