SITE ASSESSMENT

For Large Livestock Operation Proposals (300 Animal Units or more)

1.0 Purpose

The set up, or expansion, of a livestock operation that has 300 Animal Units or more is subject to Part 7 of *The Planning Act*. This includes consideration as a conditional use by the municipal council or planning district board. It also includes a review by the Technical Review Committee (TRC) appointed by the Minister of Local Government. The **Technical Review Committee Regulation** requires a site assessment to help the committee do its review and allow people who will be affected by the livestock operation to comment on the proposal.

2.0 Assistance

For assistance in completing the Site Assessment Form please refer to the following.

For links to resources, click on the **highlighted underlined items.**

For additional information on a particular item, please click on the (?) **"Learn More"** icon.

For definitions, click on the Glossary of Terms.

For help with mapping, contact your **Community and Regional Planning Regional Office**.

For additional help, contact the Technical Review Coordination Unit.

3.0 Description of Livestock Operation

Operation legal name, if other than the owner's name:

Prairie Organic Layer Farms Ltd.

Operation location (project site): Street Address: 20051 Road 30E

Rural Municipality (RM) of Hanover

Legal description: section, township, range or river lot(s)

NW 18-4-6E (W 1/2 and E 1/2 W 200F OF N 400F) and SW 18-4-6E (W 1/2)

Manitoba Premises Identification Number:

Municipal tax roll number(s): NW - 275900.000 and SW - 276200.000

Show the location of the operation (project site) on a location map. (See Location Map for example).

☑ Location Map attached

4.0 Nature of Project

☐ **New operation**

☑ **Expansion of existing operation**

State if any existing buildings will be replaced or demolished. If existing buildings will be reused or expanded, state how they will be reused or expanded.

Existing organic layer barn housing 32,000 birds (265.60 AUs) and corresponding existing Confined Livestock Area (CLA) will continue to be used. Proposal involves expanding the site by constructing 3 additional barns to house 96,000 Organic Layers (and further 2 corresponding CLAs), for a total ~~of 128,000 Organic Layers. See Site Plan, Schedule 3 for details.~~

5.0 Proposed Type and Size of Operation

State the proposed type and size of the operation. (See Animal Units Calculation Table.)

Type of operation (Column B from Animal Units Calculation Table)	**Existing number of animals** (Column C from Animal Units Calculation Table)	**Total Animal Units** (Column F from Animal Units Calculation Table)
Layers	32,000 (265.60 AUs)	1,062.4

☑ Animal Units Calculation Table attached

6.0 Animal Confinement Facilities

Outdoor Confined Livestock Area

To ensure that it can be built in a way that the environment is protected, a permit is required for construction and expansion of confined livestock areas for operations with 300 Animal Units or more. Permits are required by the Livestock Manure and Mortalities Management Regulation (MR 42/98), under *The Environment Act*.

Confined Livestock Area: ☑ outdoor seasonal ~~feeding~~ area ☐ feedlot ☐ not applicable
(Refers to both existing & proposed CLA as depicted in the site plan in Appendix 3. Outdoor area will be a scratch area only. All feeding takes places inside.)

Indoor Barn/Animal Housing

Indoor Animal Housing: ☑ barn ☐ other (describe) _____ ☐ not applicable

A permit under the Livestock Manure and Mortalities Management Regulation is not required for an indoor housing area or barn unless there is a manure storage facility within the building (an under barn storage capable of storing manure for 30 days or more).

Show all existing, proposed buildings and additions to existing buildings on the project site plan. See Project Site Plan example and the Project *Site Plan Guide* for help creating your site plan.

☑ Project Site Plan attached

7.0 Environmental Farm Planning

Environmental farm planning is a voluntary, confidential self-assessment process designed to help farm managers identify the environmental strengths and weaknesses of their operations.

Do you have an **Environmental Farm Plan** ☐ yes ☑ no

If so, is it current (completed within past 5 years) ☐ yes ☐ no

8.0 Water

Project Sites Unsuitable for Development

To protect water quality, the **Nutrient Management Regulation** (MR 62/2008), under *The Water Protection Act*, prohibits the set up or expansion of nutrient generating facilities in Nutrient Management Zone 4 (Agriculture Capability Class 6, 7 and unimproved organic soils) and Nutrient Buffer Zones. Nutrient generating facilities include barns, confined livestock areas and manure storage facilities.

Nutrient Buffer Zone as defined in section 3(3) of the regulation includes areas of land along water bodies such as rivers, lakes, streams and drains.

The proposed indoor housing area, barn, confined livestock area and/or manure storage facility:

will ☐
will not ☑

be located within Nutrient Management Zone 4 (Class 6, 7 and unimproved organic soils) or any Nutrient Buffer Zone.

Determine the agriculture capability class(es) of the project site, and its limitations. This information is available from Manitoba Agriculture, Food and Rural Initiatives (MAFRI) at 204-945-3869 in Winnipeg. Alternatively, operations with GIS mapping software can access information through **Manitoba Land Initiative** (MLI) website. In addition, information from MLI can also be viewed on Google Earth. Both the download for Google Earth and the registration for MLI are free. Click **here** for instructions under the MLI website.

Water Source ?

To be sustainable, a livestock operation must have access to a sufficient quantity and quality of water for livestock.

Water source for operation:

- ☐ pipeline (public)
- ☐ water co-operative
- ☐ proposed well
- ☑ existing well
- ☐ river
- ☐ lake
- ☐ dugout (dimensions : ____ x ___ x ____)

If using an existing well, provide a copy of the water well log and logs for other wells on the property. Logs can be obtained from Manitoba Conservation and Water Stewardship by calling (204) 945-7418 in Winnipeg; 1-800-214-6497 toll free.

Source Water Analysis Reports

Annual livestock source water monitoring analysis reports must be submitted to Manitoba Conservation and Water Stewardship for any operations of 300 Animal Units or more.

If an existing livestock operation of 300 Animal Units or more, have you submitted an annual source water monitoring report for the current calendar year? ☐ yes ☐ no N/A - existing operation under 300 AU

Will livestock have direct access to surface water (not including dugouts)? ☐ yes ☑ no

If **yes**, identify:
Name of the surface water feature: _____

List any steps that will be taken to prevent direct access of livestock to the water body.

_____

_____

Water Requirements

Protecting the interests of domestic users and the environment, in addition to existing licensees, is the intended purpose of the water rights licensing scheme.

In order to protect the sustainability of water sources, all operations using more than 25,000 litres (5,499 imperial gallons) per day must possess a Water Rights Licence required by the Water Rights Regulation (MR 126/87) under *The Water Rights Act*.

For more information on the Water Rights Licensing process, contact the Water Use Licensing Section at (204) 945-3983 in Winnipeg; 1-800-214-6497 toll free.

Water Use

To calculate the total water use, go to the Water Requirement Calculation Table.

Maximum daily use: 7,040 ☑ imperial gallons or ☐ litres
Maximum annual use: 12 ☐ acre-feet or ☑ cubic decameters
(2,569,600 IG/year)

☑ Water Requirement Calculation Table attached

Groundwater (Contamination Risk Protection)

Improper storage and handling of manure or mortalities increases the risk of contaminating groundwater. Beneficial management practices (BMP), mitigation measures and requirements for the permit process reduce this risk. Soil testing, manure management planning and proper engineering, along with construction and management of manure storage structures reduce the risk of contaminating groundwater.

Check off the mitigation measures used for the existing components of the operation that may pose a risk of contamination. Also check off any measures that may be used with the proposed components for this expansion, if applicable:

	Existing	Proposed
Manure is stored in a storage facility built by permit or registered by Manitoba Conservation and Water Stewardship	☐	☑
Storage includes leachate collection	☐	☐ n/a
Earthen storage has between 400 and 500 days storage	☐	☐ n/a
Steel/concrete tank has between 250 and 500 days storage	☐	☑
Manure storage facility meets required setbacks	☐	☑
Field storage (solid manure) locations are changed annually	☑	☐
Field storage meets required setbacks	☑	☐
All application fields are soil tested annually for nitrate-N and Olsen phosphorus	☐	☑
All manure is applied according to a manure management plan	☐	☑
Licensed commercial manure applicator is used to apply manure	☐	☐ (Livestock Operator)
Abandoned wells have been properly sealed	☐	☐ n/a

Other:

Building in Flood Areas

The **Livestock Manure and Mortalities Management Regulation** prohibits an operator from putting a manure storage facility within the boundaries of the 100-year flood plain elevation. **Manure storage facilities** that are constructed with protection for a flood-water level at least 0.6 meters higher than the 100-year flood water level are exempt.

The **Designated Flood Area Regulation** under *The Water Resources Administration Act* requires a Designated Flood Area Permit before a proposed structure (such as a barn) can be built within a Designated Flood Area.

The flood protection level for structures located within a Designated Flood Area is the site specific design flood level plus freeboard, as provided by the Hydraulic Forecasting Branch of Manitoba Infrastructure and Transportation. Contact the Hydrologic Forecasting Branch at (204) 945-2121 in Winnipeg; 1-800-214-6497 toll free.

The proposed site:

is ☐ is not ☑

located in a Designated Flood Area: **Red River Valley Designated Flood Area** or **Lower Red River Designated Flood Area**

Note: At the time a permit is issued, verification is needed to ensure any proposed structure(s) are located within the 100-year flood plain elevation; or at an elevation set by Manitoba Infrastructure and Transportation.

Watershed Management Planning
Integrated watershed management planning is a co-operative effort by local residents, stakeholders and governments to create a long term plan to manage water and land-based activities for watersheds.

What are the names of the watershed and sub-watershed where the livestock operation and the fields identified for manure application are located?

Name of watershed(s): Rat River; Seine River

Name of sub-watershed(s): Joubert Creek; Lower Seine and Tourond Creek

Name of Integrated Watershed Management Plan for the proposed project site, if applicable: Rat Marsh River Integrated Watershed Management Plan

For more on Integrated Watershed Management Planning, call Watershed Planning and Programs at (204) 945-7408 in Winnipeg; 1-800-214-6497 toll free.

9.0 Manure

The Livestock Manure and Mortalities Management Regulation sets requirements for the use, management and storage of livestock manure in agricultural operations, to ensure it is handled in an environmentally sound manner. For more information on this, call Manitoba Conservation and Water Stewardship at (204) 619-2230 in Winnipeg.

Improper storage, handling and/or land application of manure can contaminate water and/or cause unacceptable odours for neighbours. The following is used to assess the manure management system.

Manure Type
The type of manure generated and used by the operation influences storage, handling and land application options available.

What type(s) of manure will be generated?

☑ solid ☐ semi-solid ☐ liquid

Manure Volume or Weight
Manure production can be estimated using the Manure Production Calculator Table. The sizing of the manure storage is the responsibility of the operator and must be constructed in accordance with the Livestock Manure and Mortalities Management Regulation. Design and construction of a manure storage facility is dependent on the type of structure; earthen manure storage facilities must have between 400 and 500 days capacity, a steel or concrete storage tank must have between 250 and 500 days capacity. This ensures the facility has sufficient capacity eliminating the need for winter application.

What will be the total volume or weight of manure generated annually by the livestock operation? (See Manure Production Calculator Table.)

liquid volume:_____ solid weight: 209, 148 ft^3

☑ Manure Production Calculator Table attached

Manure Storage Type and Capacity

The type of storage system used will affect the capacity requirements for the manure storage facility or field storage area.

*Field storage used by existing operation to be replaced by proposed Manure Storage Facilities.

What type of **manure storage facility** will be used by the operation?

☐ under-barn concrete ☐ **earthen manure storage** ☑ concrete tank(s)
☐ steel tank(s) ☐ **field storage** ☐ **molehill**

Provide the dimensions of the existing and/or proposed manure storage facilities, if applicable. (See **Existing and Proposed Manure Storage Facility Dimensions Table**.)

☑ Existing and Proposed Manure Storage Facility Dimensions Table attached

Odour Control Measures (project site)

Barns and manure storage facilities can be significant sources of livestock odours. The use of manure storage covers and shelterbelts can reduce this, particularly for neighbours in the vicinity of the operation.

What odour control measures are you planning to use?

Manure storage cover: ☑ yes ☐ no

Type of cover: Wood frame building enclosing concrete storage.

Shelterbelt planting: ☐ yes ☑ no ☐ existing shelterbelt

Other measures (specify): _____

Manure Treatment

Under *The Environment Act,* the director must not issue a permit for the modification, expansion, or construction of a manure storage facility accommodating an increase in the number of animal units for pigs, unless the manure is treated using anaerobic digestion or another environmentally sound treatment that is similar to or better than anaerobic digestion, according to Manitoba Conservation and Water Stewardship.

Does your proposal include anaerobic digestion or another environmentally sound treatment for manure?

☑ yes ☐ no ☐ not applicable

If yes, please describe Air will be pushed along the manure belts to dry the manure.

Manure Application Method

The Livestock Manure and Mortalities Management Regulation requires the registration of annual manure management plans for new or expanding operations with 300 Animal Units or more.

Does the operation currently file an annual Manure Management Plan with Manitoba Conservation and Water Stewardship? (For operations with 300 Animal Units or more, only)

☐ yes ☑ no (Existing operation is less than 300 AUs)

Manure application methods and the season in which manure is applied affect odour, nutrient availability, crop response, land base requirements and the risk of water contamination.

Proposed application method:

☑ broadcast (For grass and alfalfa only) ☑ broadcast and incorporation within 48 hours (All other spread fields) ☐ injection

The Livestock Manure and Mortalities Management Regulation prohibits the application of manure from November 10 of one year to April 10 of the following year (winter application).

Time of year for application: ☐ spring ☐ summer ☑ fall

The Livestock Manure and Mortalities Management Regulation puts restrictions on fall application of manure in the Red River Valley Special Management Area.

The proposed spread fields:

are ☑
are not ☐
in the Red River Valley Special Management Area.

Land Available for Manure Application

The land available for manure application includes all suitable land (owned, leased or under agreement) that is available to the operation for manure application.

Under the Livestock Manure and Mortalities Management Regulation and the Nutrient Management Regulation, application of nutrients is not permitted on Agriculture Capability Class 6, 7 and unimproved organic soils (Nutrient Management Zone 4) and within Nutrient Buffer Zones.

Areas of a field that are Class 6, 7, unimproved organic soils (Nutrient Management Zone 4) or areas within the nutrient buffer zones are considered unsuitable for manure application. In addition, fields with 60 parts per million (ppm) Olsen phosphorus (P) in the top six inches (15 centimetres) of soil cannot be included in the land base calculation.

Nutrients cannot be applied within the Nutrient Buffer Zones as outlined in the Nutrient Management Regulation (62/2008) and illustrated in the **Setback Requirements From Water Features Table**.

Has the setback area for all water features been observed and excluded from land base calculations for this operation?

☑ yes ☐ no

Use the **Manure Application Field Characteristics Table** to determine the following:

Total suitable area available for manure application	4,138 acres

☑ Manure Application Field Characteristics Table attached

Copies of **soil test reports** that are no more than 12 months old must also be included with this submission.

☑ Soil test reports for the required area for manure application attached.

Land Required for Manure Application

Long term, land base requirements for manure application are calculated based on estimates of the quantity of nutrients (nitrogen and phosphorus) excreted by livestock and the removal of nutrients by the proposed crops.

Phosphorus

The quantity of phosphorus excreted by the livestock depends on the type, number and size of livestock, the quantity and availablility of phosphorus fed to the livestock and the amount retained by the livestock.

The removal of phosphorus by crops depends on the crops grown and the historical crop yield averages. (See the **Crop Rotation Table**).

The **Livestock Manure and Mortalities Management Regulation** requires that "sufficient land is available to the operator to implement an appropriate manure management plan" before Manitoba Conservation and Water Stewardship will issue a permit for a manure storage facility.

"*Certain Areas*" are defined by the **Livestock Manure and Mortalities Management Regulation** (M.R. 42/98) as areas where the amount of phosphorus in the manure produced annually by livestock in an area of not less than 93.24 km^2 is greater than two times the annual crop removal rate of P_2O_5 in that area. Currently the rural municipalities of Hanover and La Broquerie are considered to be "*certain areas*".

A livestock operation is considered to be located within a "*certain area*" if any part of the operation is located within the "*certain area*". This may include, but not limited to, barn(s), confined livestock area(s), field storage location(s), manure storage facility(ies), and/or spread filed(s).

In "*certain areas*" it is Manitoba Conservation and Water Stewardship policy to consider a manure storage facility permit if the operation shows it has access to sufficient suitable land to apply manure at a rate equivalent to one times the crop removal rate of phosphorus.

Is the livestock operation located in "*certain areas*"?

☑ yes ☐ no

In areas which are not considered to be "*certain areas*", Manitoba Conservation and Water Stewardship may issue a manure storage facility permit, if the operation shows it has access to sufficient suitable land to apply manure at a rate equivalent to two times the crop removal rate of phosphorus.

For more information on obtaining a manure storage facility permit, please contact Manitoba Conservation and Water Stewardship, Environmental Approvals branch at (204) 945-5081.

Use the **Land Base Calculator** to calculate the minimum area required for manure application.

Total minimum area required for manure application at two times crop removal, for operations outside of Hanover and La Broquerie	
Total minimum area required for manure application at one times crop removal, for operations within Hanover and La Broquerie AND For the long-term sustainability of operations outside of Hanover and La Broquerie	3,947 acres

For more information on completing land base calculations, call Manitoba Agriculture, Food and Rural Initiatives (MAFRI) at (204) 945-3869 in Winnipeg.

☑ Land Base Calculator attached

Land Base Requirement Summary

By comparing the land **available** for manure application with the land **required** for manure application, state whether sufficient suitable land for manure application:

☐ has not been identified

☐ has been identified for two times the crop removal rate of phosphorus (for operations outside of the RMs of Hanover or La Broquerie)

☑ has been identified for one times the crop removal rate of phosphorus (for operations within the RMs of Hanover and La Broquerie)

Long-Term Environmental Sustainability

The Government of Manitoba has included phosphorus as a nutrient by which applications of manure, synthetic fertilizer and municipal waste sludge to agricultural lands may be limited.

Over the short-term for fields with low phosphorus, regulations allow manure to be applied to meet the nitrogen requirements of the crop. This often results in over-application of phosphorus and a build-up of phosphorus in soils. When soil test phosphorus levels reach 60 ppm Olsen P, manure application rates must consider how much phosphorus will be removed in the harvested portion of the crop. At 60 to 119 ppm Olsen P, the amount of phosphorus that can be applied cannot exceed twice (two times) what the crop can remove in order to slow the build-up of soil phosphorus. Once soil test phosphorus levels reach 120 ppm Olsen P, applications of phosphorus are restricted to no more than what the crop can remove (one times) in order to stop further soil test phosphorus build-up. At 180 ppm Olsen P, no additional phosphorus may be applied.

It should be noted that soil-test phosphorus levels of 60 ppm Olsen P or greater are agronomically very high and at these levels most crops will not benefit from additional phosphorus beyond starter phosphorus. As phosphorus levels build up in soils, the concentration of phosphorus in runoff increases.

Therefore, to remain environmentally sustainable over a long-term planning horizon of 25 years or more, phosphorus applications from applied manure and other nutrient sources such as commercial fertilizers must be balanced with crop removal to avoid further build-up in soils. Consequently, sufficient land must be available in relatively close proximity to the operation to balance phosphorus applications with crop phosphorus removals (one times) so that manure treatment and export of phosphorus from the region is not required.

☑ I acknowledge that up to 3,947 acres acres/hectares (one times crop removal from table above) may be required for the long term environmental sustainability of the operation.

10.0 Mortalities (Dead Animal) Disposal

The Livestock Manure and Mortalities Management Regulation sets requirements for the use, management and storage of livestock mortalities in agricultural operations. It helps ensure livestock mortalities are handled in an environmentally sound manner. Winter application of composted mortalities is prohibited.

Type of disposal:
- ☑ rendering (Rothsay will be contracted for dead stock pickup service)
- ☐ composting
- ☐ incineration (in approved incinerator only)

Mass Mortalities

☑ A plan for mass mortalities is in place.

What steps will be taken in the case of mass mortalities?

As per Section 15(6) of the Livestock Manure and Mortalities Management Regulation:

1. Report the situation to an environment officer and answer any questions regarding the situation.
2. Dispose of the mortalities according to the environment director's or an environment officer's instructions.

11.0 Project Site Description: Land Use Planning Considerations

For assistance contact your Community and Regional Planning Regional Office.

Development Plan and Zoning Bylaw

The Planning District or Municipal Development Plan and Zoning By-law adopted under *The Planning Act*, set policy and regulations for the use and development of land. A proposed livestock operation must comply with the requirements of this bylaw. In the absence of a By-law, the Provincial Planning Regulation under *The Planning Act* applies.

Development Plan

Every Development Plan must contain a livestock operation policy (LOP) that identifies areas where new or expanded livestock operations may be allowed. It must also set general standards for the location and setback of livestock operations. Identifying the Development Plan's land use designation and policies (for the planning district or municipality that affect the site) will help confirm the project site's compliance. The Development Plan designations for the spread fields (if something other than agricultural) will indicate the potential loss of the fields in the future due to possible development.

Name of Planning District	RM of Hanover
Development Plan by-law number	2170
Land use designation of project site	General Agricultural Area
Livestock operation policies – quote supportive policy numbers	3.3.5, 3.3.6, 3.3.9 - 3.3.15
Other Development Plan policies – quote supportive policy numbers	3.3.1, 3.3.2 a)
Non-supportive Development Plan policies	

☑ The Development Plan livestock operation policies support the size and location of the proposed operation. (Subject to conditional use)

☑ The Development Plan designations support the long term use of the proposed spread fields.

Zoning By-law

Identifying the zoning for the project site, the proposed spread fields and the related zoning provisions, helps determine the project's compliance and the minimum separation distances needed between the operation and property boundaries and other natural features and land uses. The zoning bylaw contains specific regulations that govern location and setback of livestock operations.

What are the minimum project site requirements stated in the Zoning By-law?

	Project site dimensions	Minimum zoning bylaw site requirements
Minimum site area	165.23 acres	160 acres
Minimum site width	1,351 ft.	1,000 ft.
Minimum front yard	249 ft.	164 ft.
Minimum side and rear yard	739 ft / 350 ft.	164 ft. / 164 ft.

If any project (front, side or rear) yard site dimensions are less than the Zoning By-law minimum, a Variation Order from the Municipality will be required.

Separation Distances (Zoning Bylaw or Provincial Planning Regulation)

Using the proposed size of the operation (see **Animal Units Calculation Table**) and the type of animal housing and manure storage facility, complete the following table.

Indicate the distance from:

a. earthen manure storage facility or b. feedlot and
c. animal confinement facility or d. non-earthen manure storage facility…

…to the following land use features (if applicable)	**Indicate minimum separation distance required in the zoning bylaw or Provincial Planning Regulation (Check appropriate box(es)**		**If land use feature is less than the minimum separation distance**	
	☐ a. ☐ b.	☑ c. ☑ d.	Provide actual distance	Provide location or name of feature (e.g. Red River)
Residence/ dwelling		984 ft.	1,709 ft. (0.52 km)	NW 7-4-6E
Designated area (non-agricultural)		5,249 ft.	34,935 ft. (10.65 km)	Rural Residential Area NW 9-5-5E
Surface water		328 ft.	468 ft. 928 ft.	Proposed barn and Confined Livestock Area to Ditch (PR30E) Proposed Manure Storage to Ditch (PR 30E)
Surface watercourse		328 ft.	468 ft. 928 ft.	Proposed barn and Confined Livestock Area to Ditch (PR30E) Proposed Manure Storage to Ditch (PR 30E)
Crown land			None in immediate area	
Wildlife Management Area			None in immediate area 21,924 ft. (6.68 km)	Red River Wildlife Management Area
Livestock operation			2,509 ft. (0.76 km)	NW 7-4-6E
Other significant features/land uses			n/a	

If Crown Lands are located within one mile, provide coding. Information can be obtained from the Interdepartmental Operations Crown Lands Plans through the Manitoba Legislative Library or contact Manitoba Conservation and Water Stewardship at (204) 619-2230.

If undesignated Crown Lands will be used for manure spreading purposes, including the laying of pipe or clearing activity, and use will require a Crown Lands General Permit disposition for the use and access of the subject Crown Lands Parcel(s).

In cases where minimum separation distances are not stated in the Zoning By-law or Development Plan, the minimum separation distances in the Provincial Planning Regulation apply.

Note: If any separation distance is less than the zoning by-law minimum, a Variation Order will be required from the Municipality.

Setback Distances (Livestock Manure and Mortalities Management Regulation)
Using the following table to indicate the distance from:

Feature	Structure	Minimum setback distance required	Provide actual distance (m)	Provide location or name of feature (e.g. Red River)
Surface watercourse, sinkhole, spring, or well	Manure storage facility	100 m	283 m 240 m	Ditch (PR 30E) 2 Wells (each from nearest MSF)
	Field storage	100 m	200 m >250 m (to be replaced by proposed MSF)	Ditch (PR 30E) Nearest well
	Composing site	100 m	n/a	
	Confined livestock area	100 m	147 m 100 m	Ditch (PR 30E) Existing Well
Property Line	Manure storage facility	100 m	106 m	East Property Line
	Composing site	100 m	n/a	
	Confined livestock area	100 m	122 m	East Property Line

If any setback distances have not been met, please provide explanation below:

_____

_____

_____

Show: a) location of the project site, location and ownership of spread fields and b) land uses and significant features including dwellings (i) within a 1 mile radius of the project site and (ii) within and adjacent to each spread field on a Land Use & Spread Field Map. (See **Land Use & Spread Field Map Example**).

See Appendices 12 - 12.6

12.0 Truck Haul Routes and Access Points

One consideration with new or expanding livestock operations is the potential impact on existing public roads (municipal and provincial), access and the need for improvements or mitigation. Complete the following table.

Vehicle Type	Estimated Average Number of times per day accessing		Access from PTH/PR onto site will mainly require a Left or Right Hand Turn Please check one				Access onto PTH/PR from site will mainly require a Left or Right Hand Turn Please check one			
	Provincial Trunk Highway (PTH)	Provincial Road (PR)	Provincial Trunk Highway (PTH)		Provincial Road (PR)		Provincial Trunk Highway (PTH)		Provincial Road (PR)	
			LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT
Truck (half ton)	3 to 4	3 to 4		✓	✓		✓			✓
Tractor Trailer	1	1	✓			✓		✓	✓	
Other – Specify										

Identify what roads and access points will be used for the proposed operation? (See **Truck Haul Routes and Access Points Map** for an example).

For help with mapping, contact your **Community and Regional Planning Regional Office**.

☑ Truck Haul Routes and Access Points Map attached

13.0 Conservation Data Centre Report

A Conservation Data Centre Report must be requested and the response attached to this site assessment. The request may be submitted electronically at:
www.gov.mb.ca/conservation/cdc

Were rare species identified in the Conservation Data Centre Report?

☐ Yes
☑ No

14.0 Supporting Documents

Check off the supporting documents included in this submission:

- ☑ Contact Information and Privacy and Publication Notice
- ☑ Location Map (shows proposed project within rural municipality)
- ☑ Animal Units Calculation Table
- ☑ Water Requirement Calculation Table
- ☑ Manure Production Calculator Table
- ☑ Existing and Proposed Manure Storage Facility Dimensions Tables (if applicable)
- ☑ Manure Application Field Characteristics Table
- ☑ Crop Rotation Table
- ☑ Recent manure application field soil sample results (Nitrate- N lb/ac at 0-6 and 6-24 inch depths, Phosphorus – ppm at 0-6 inch depth)
- ☑ Land Base Calculator
- ☑ Project Site Plan (proposed operation showing current and proposed structures)
- ☑ Land Use and Spread Field Map (location and ownership of operation, spread fields, location and distance to non-agricultural uses, development plan designation, zoning for project site and spread fields)
- ☑ Truck Haul Routes and Access Points Map (with routes and access points on municipal/provincial roads and/or provincial trunk highways)
- ☑ Response from the Conservation Data Centre
- ☑ Other, please specify:

  - Copy of RM of Hanover Conditional Use Application for Hearing
  - DGH Engineering Report on Costs of Hauling Solid Poultry Manure in Manitoba (Appendix 13)

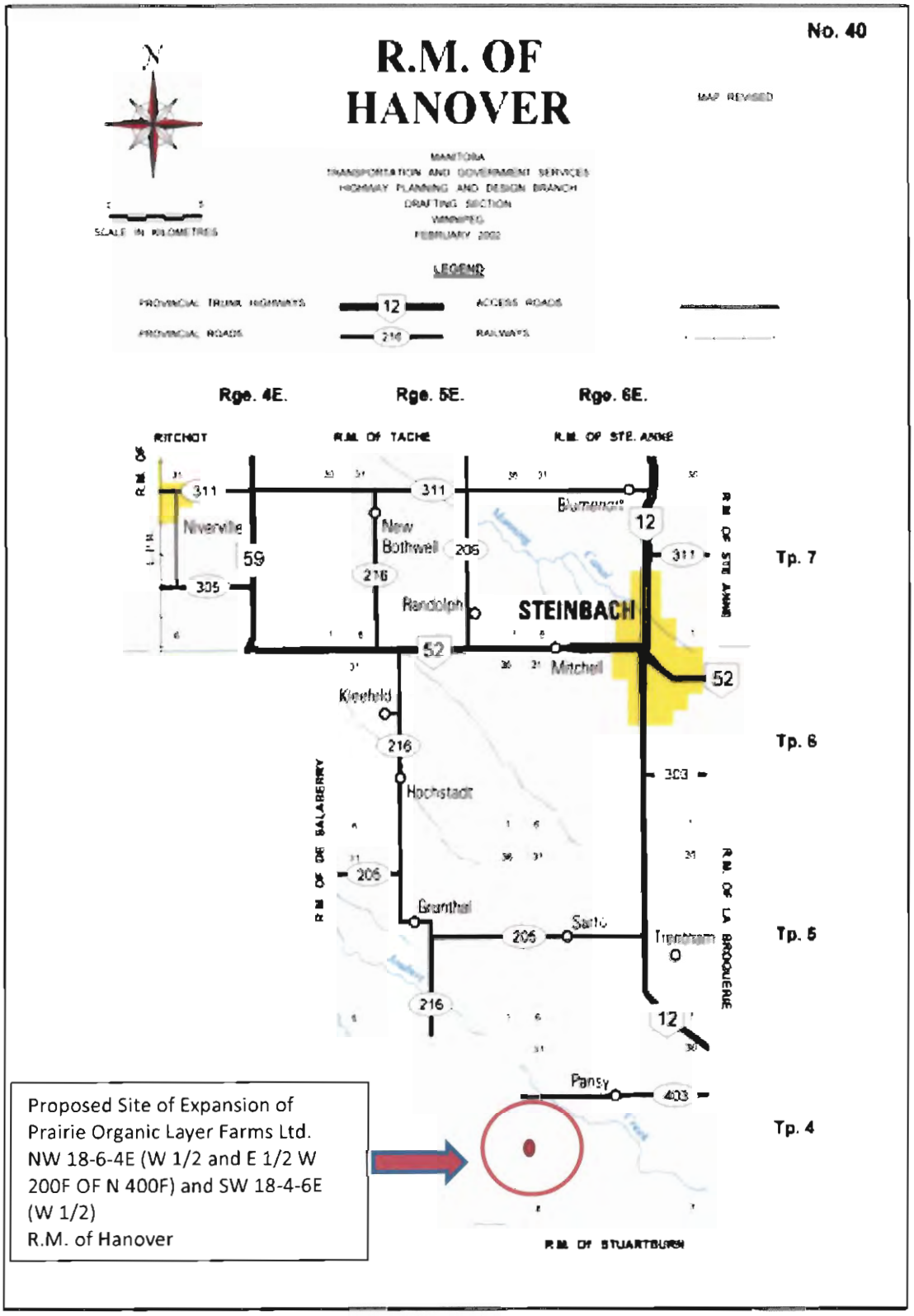
15.0 Declaration

I do hereby verify that the information contained in the Site Assessment and all required Supporting Documents is accurate and complete to my knowledge

Date: September 12, 2014

Signature: William Redekop

Appendix 1 - Site Location Map



APPENDIX 2

Animal Units Calculation Table

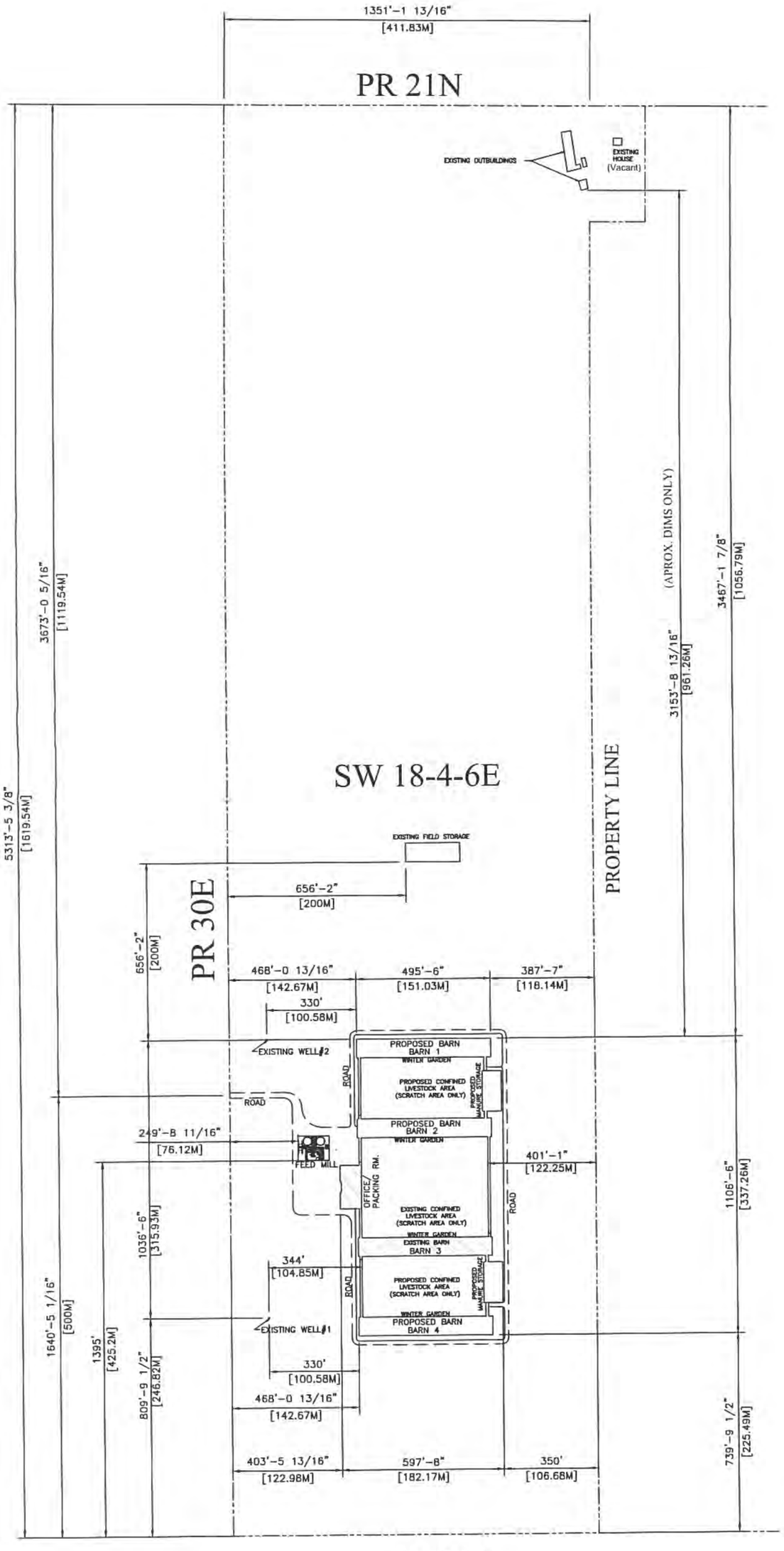
A	B	C	D	E	F	G
Animal Type	**Type of Operation**	**Existing Number of Animals**	**Proposed Additional Number of Animals**	**Animal Units per Head**	**Total Animal Units**	**Annual Confinement Period (Days)**
Dairy [1]	Mature cows (lactating and dry) including associated livestock			2	-	
	Mature cows (lactating and dry)			1.35	-	
	Heifers (0 to 3 months)			0.16	-	
	Heifers (4 to 13 months)			0.41	-	
	Heifers (> 13 months)			0.87	-	
	Bulls			1.35	-	
	Veal calves			0.13	-	
Beef	Beef cows including associated livestock			1.25	-	
	Backgrounder			0.5	-	
	Summer pasture / replacement heifers			0.625	-	
	Feeder cattle			0.769	-	
Pigs	Sows - farrow to finish (234-254 lbs)			1.25	-	
	Sows - farrow to weanling (up to 11 lbs)			0.25	-	
	Sows - farrow to nursery (51 lbs)			0.313	-	
	Boars (artificial insemination units)			0.2	-	
	Weanlings, Nursery (11-51 lbs)			0.033		
	Growers / Finishers (51-249 lbs)			0.143	-	
Chickens	Broilers			0.005	-	
	Roasters			0.01	-	
	Layers	32,000	96,000	0.0083	1,062.40	
	Pullets			0.0033	-	
	Broiler breeder pullets			0.0033	-	
	Broiler breeder hens			0.01	-	
Turkeys	Broilers			0.01	-	
	Heavy Toms			0.02	-	
	Heavy Hens			0.01	-	
Horses	Mares			1.333	-	
Sheep	Ewes			0.2	-	
	Feeder lambs			0.063	-	
Other Livestock	Type:				-	
	Type:				-	
				Total AUs	**1,062.40**	

Footnotes:

[1] There are 2 methods for calculating animal units for dairy (Farm Practices Guidelines for Dairy Producers in Manitoba, 1995). You can enter the total number of mature cows in the milking herd under the "Mature cows (lactating and dry) including associated livestock" category and the animal units will be calculated by multiplying this number by 2. This calculation assumes 85 lactating, 15 dry, 12 heifers (0 to 3 months), 36 heifers (4 to 13 months) and 50 heifers (> 13 months) for an operation with 100 mature cows. "Associated livestock" includes all of the heifer calves and replacement heifers. Alternatively, you can enter animal numbers in the individual categories (mature cows, heifers (0 to 3 months), heifers (4 to 13 months) and heifers (> 13 months)) and they will be summed at the bottom of the table. Bulls and veal calves are always calculated separately.

For all other livestock or operation types please inquire with your
Manitoba Agriculture, Food and Rural Initiatives GO office to determine the animal units per head.
www.gov.mb.ca/agriculture/contact/agoffices.html

APPENDIX 3



Penfor Construction
Box 20 Blumenort, Manitoba R0A 0C0
Phone: (204) 326-3781; Fax: (204) 346-1313
Toll Free: 1-(800) 461-9333

Project Name and Address
PRAIRIE ORGANIC LAYER FARMS
DAVE OTTEN
Proposed Layer Barns
Pansy, MB

Drawing Title:
SITE LAYOUT

Date	Drawn By	Sheet
AUG 21, 2014	JW	SITE 3
Scale: as noted 11x17 = full scale	Checked By:	

Appendix 4 - Water Well Logs for Existing Wells

The wells for this site were drilled on August 20, 2014. We are awaiting the Well Log report from the driller and will forward them as soon as they are available.

APPENDIX 5

Water Requirement Calculation Table

Livestock	Number	IG/day per animal in winter	IG/day per animal in summer	IG/day (Imperial gallons per day)
Beef/Dairy/Bison				
Feeder/heifer/steer (600 lb.)		5	9	-
Feeder (900 lb.)		7	12	-
Feeder (1250 lb.)		10	15	-
Cow/calf pair		12	15	-
Dry cow		10	12	-
Milking cow		25	30	-
Bison		8	10	-
Horses				
Horses		8	11	-
Hogs				
Sow (Farrow/wean)		6.5		-
Dry Sow/Boar		4		-
Feeder		3		-
Nursery (33 lb.)		2		-
Chickens				
Broilers		0.035		-
Roasters/Pullets		0.04		-
Layers	128,000	0.055		7,040
Breeders		0.07		-
Turkeys				
Turkey Growers		0.13		-
Turkey Heavies		0.16		-
Sheep/Goats				
Sheep/Goats		2		-
Ewes/Does		3		-
Lambs/Kids (90 lb.)		1.6		-
		TOTAL (IG/day)		**7,040**

For beef, dairy, bison and horse enterprises:
Use summer numbers if appropriate for the operation.
Otherwise base projections on winter values.
Always use the greater of the two values.

Enter this number on page 7 of Application Form.

Other consumption values:

Normal household consumption:
40-55 IG/day per person or
(180-250 l/day/person)

Hydrant flow:
10 imperial GPM (45 l/min)

Unit Conversions		
Total per day	**Total per year**	**Unit**
7,040	**2,569,600**	**IG**
32,004	**11,681,402**	litres
0.032	**12**	**cubic decametres (dam^3)**

Enter this number on page 7 of Application Form.

Conversion Factor: 1 IGPM = 4.546 l/m

APPENDIX 6 MANURE PRODUCTION CALCULATION TABLE

Animal Type (A)	Animal Sub-type (B)	Daily Manure Production				Production Period [2] (Days) (G)	Number of Animals [3] (Capacity) (H)	Total Manure Volume (ft^3) (FxGxH)	Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal)
		References (C)	Manure Type (D)	Default Manure Production (ft^3/animal/day) (E)	Operation Manure Production [1] (ft^3/animal/day) (F)				
Dairy (milking cows[4] and associated livestock)	Free Stall	Table 6, pg 59, FPGs for Dairy 1995	Semi-Solid [5]	3.5				-	0.0
			Solid	3.4				-	
			Liquid [5]	3.5				-	0.0
	Tie Stall		Semi-Solid [5]	3.6				-	0.0
			Solid	3.5				-	
			Liquid [5]	3.6				-	0.0
	Loose Housing		Solid	3.0				-	
	Milking Parlour Manure and Washwater		Liquid	0.5					
Beef	Beef cows including associated livestock	pg 117, FPGs for Hogs 1998	Solid	1.2				-	
	Backgrounder (200 day)		Solid	0.73				-	
	Summer pasture / replacement heifers		Solid	0.85				-	
	Feeder cattle		Solid	1.1				-	
Pigs	Sows - farrow to finish (234 - 254 lbs)	MAFRI website, FPGs for Pigs 2007	Liquid	2.3				-	0.0
	Sows - farrow to wean (up to 11 lbs)		Liquid	0.8				-	0.0
	Sows - farrow to nursery (51 lbs)		Liquid	1				-	0.0
	Weanlings, Nursery (11 - 51 lbs)		Liquid	0.1				-	0.0
	Grower / Finisher (51 - 249 lbs)		Liquid	0.25				-	0.0

Animal Type	Type of Operation		Yearly Manure Production		Production Period [3] (Days)	Number of Birds [3] (Capacity)	Total Manure Volume (ft^3) (F/365xGxH)	Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal)
			Default Manure Production (ft^3/year/bird space)	Operation Manure Production [1] (ft^3/year/bird space)				
Chickens	Broilers – floor [6]	Table 3, pg 85, FPGs for Poultry 2000	1.23				-	
	Broiler breeder hens [7]		2.3				-	
	Broiler breeder pullets [8]		0.99				-	
	Roasters – floor [6]		1.16				-	
	Layers – cage [8]		2.33				-	0.0
	Layers – floor [7]		1.68	1.68	355	128,000	209,148	
	Layers – solid pack [9]						-	
	Pullets – cage [8]		0.71				-	0.0
	Pullets – floor [6]		0.75				-	
	Pullets – solid pack [9]						-	
Turkeys	Broilers [6]	Table 3, pg 85, FPGs for Poultry 2000	2.83				-	
	Heavy toms [6]		5.58				-	
	Heavy hens [6]		3.32				-	

Sizing of a manure storage facility in accordance with all requirements of the *Livestock Manure and Mortalities Management Regulation* (M.R. 42/98) is the responsibility of the operator.

Instructions and footnotes:

[1] ENTER the manure production estimate for your operation. If no estimate is available, use the default value provided in colum E. References for default daily and yearly manure production are provided in column C.

[2] ENTER the number of days worth of manure that will be produced. For earthen manure storage facilities the minimum storage requirement is 400 days. For steel and concrete manure storage facilities the minimum storage requirement is 250 days.

[3] ENTER the total number of animals or birds that the operation can hold (e.g. barn or feedlot capacity).

[4] Milking cows includes all lactating and dry cows.

[5] Default manure production estimates for semi-solid and liquid dairy manure include manure and washwater from the milking parlour.

[6] 2 inches of wood shavings or 4 inches of straw placed on floor. Manure and litter removed from barn at 25% moisture content, with a density of 20 lb/ft^3

[7] One-third litter floor, two-thirds slatted floor. Manure and litter removed from barn at 40% moisture content, with a density of 25 lb/ft^3

[8] Manure removed from barn at 90% moisture content with a density of 59 lb/ft^3

[9] Poultry operations using litter (solid pack) must provide an estimate of yearly manure production

Existing and Proposed Manure Storage Facility Dimension Table

If applicable, indicate the dimensions of any existing manure storage facility (MSF) that will be used to store manure from the proposed project:

CELL	Existing Manure Storage Facility Dimensions						Storage Capacity (days)
	Width	Length	Depth	Height (Above Grade)	Slope (H:L)		
					Inside	Outside	
Primary	ft	ft	ft	ft			
Secondary	ft	ft	ft	ft			
Tertiary	ft	ft	ft	ft			
Circular Tank		Diameter	Height	Depth (Above Grade)			
		ft	ft	ft			

Permit/Registration # _____ _____

CELL	Existing Manure Storage Facility Dimensions						Storage Capacity (days)
	Width	Length	Depth	Height (Above Grade)	Slope (H:L)		
					Inside	Outside	
Primary	ft	ft	ft	ft			
Secondary	ft	ft	ft	ft			
Tertiary	ft	ft	ft	ft			
Circular Tank		Diameter	Height	Depth			
		ft	ft	ft			

Permit/Registration # _____ _____

If available, indicate the dimensions of any proposed manure storage facility (MSF) that will be used to store manure from the proposed project:

CELL	Proposed Manure Storage Facility Dimensions						Storage Capacity (days)
	Width	Length	Depth	Height (Above Grade)	Slope (H:L)		
					Inside	Outside	
Primary	70 ft	152 ft	6 ft	ft			250
Secondary	70 ft	152 ft	6 ft	ft			250
Tertiary	ft	ft	ft	ft			
Circular Tank		Diameter	Height	Depth			
		ft	ft	ft			

The construction, modification or expansion of any manure storage structure requires a permit from Manitoba Conservation as per the *Livestock Manure and Mortalities Management Regulation (M.R. 42/98)*.

Appendix 8

Manure Application Field Characteristics Table

The attached Spread Field Characteristics Table and corresponding spread agreements and soil tests that follow in Appendices 9-9.8, address the land requirement, as developed in consultation with MAFRD.

The proposed fields consist of both land owned by Prairie Organic Layer Farms, and land under agreement with seven farmers in the RMs of Hanover, De Salaberry and Franklin. Two of the plots secured with Robert Budey are on rented land, and are therefore also supported by agreements signed with the corresponding landowners.

A number of the proposed spread fields are on land adjacent to or in close proximity to the Prairie Organic Layer Farms operation. Some also extend beyond a distance of 10-miles, the furthest being SE 19-7-4E (belonging to Reg Friesen) at a distance of 22 miles. Phosphorus levels on these plots are low and all parties are very keen to have the nutrients for their land. Analysis conducted by DGH Engineering Ltd. demonstrates the economic viability of transporting solid poultry manure for distances of up to 40 miles (see Appendix 13 for corresponding report), therefore estimated hauling costs associated with using these fields are also economically rational.

Appendix 8
MANURE APPLICATION FIELD CHARACTERISTICS TABLE

	A	B	C	D	E	F	G	H	I	J	K
Field	Legal Description	Rural Municipality	O/ L/ A	Total Acreage	Setbacks, including features	Net Acreage for Manure Application	Agriculture Capability Class and Subclass	Soil Nitrate (lb/acre) 0-24 inches	Soil Phosphorus (ppm Olsen P) 0-6 inches	Development Plan Designation	Zoning
	18-4-6E (W 1/2 of W 1/2) (Prairie Organic Layer Farms Ltd.)	RM of Hanover	O	165	Barns, bush	80	3M / 5M / 3P / 2MP	5	12	General Agricultural Area RM of Hanover By-Law 2170	"A" Agriculture Zone RM of Hanover Zoning By-Law 2171
		Prairie Organic Owned				**80**					
	NE 19-4-6E (W 1/2) and NW 19-4-6E (E 1/2 of N 1/2) (Ritzco Farms)	RM of Hanover	A	105	Residence, yard	85	3M / 3MI / 5WI	23	49	General Agricultural Area RM of Hanover By-Law 2170	"A" Agriculture Zone RM of Hanover Zoning By-Law 2171
	NE 12-4-6E (W 1/2) (Ritzco Farms)	RM of Hanover	A	80	None	80	5 W	4	2	General Agricultural Area RM of Hanover By-Law 2170	"A" Agriculture Zone RM of Hanover Zoning By-Law 2171
	NW 19-4-6E (S 1/2) (Ritzco Farms)	RM of Hanover	A	81.1	None	81.1	3M / 5 WI	27	45	General Agricultural Area RM of Hanover By-Law 2170	"A" Agriculture Zone RM of Hanover Zoning By-Law 2171
	LOT 1, BLK 45715 (Ritzco Farms)	RM of Hanover	A	39.24	Order 3 Drain (Joubert Creek), 8m Bush	20	3M / 3MI / 5WI	8	8	General Agricultural Area RM of Hanover By-Law 2170	"A" Agriculture Zone RM of Hanover Zoning By-Law 2171
	SE 18-4-6E (Ritzco Farms)	RM of Hanover	A	150	Yard, Seasonal drain (no order assigned), Land within	140	3P / 2MP	4	5	General Agricultural Area RM of Hanover By-Law 2170	"A" Agriculture Zone RM of Hanover Zoning By-Law 2171
		Ritzco Farms sub-total				**406.1**					
	SW 26-03-05E (E side) (Robert Budey)	RM of Franklin	A	40	None	40	3M / 5W	17	8	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
	SE 26-03-05E (E 1/2 - S end) (Robert Budey)	RM of Franklin	A	50	None	50	3M / 5W	16	3	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11

✓	SE 26-03-05E (W 1/2 - S end) (Robert Budey)	RM of Franklin	A	50	None	50	3M / 5W	10	3	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
✓	NE 11-03-05E (W side) (Robert Budey)	RM of Franklin	A	100	None	100	2MP / 3M / 5W	14	7	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
✓	SW 14-03-05E (N 1/2 - N end) (Robert Budey)	RM of Franklin	A	40	None	40	2MP / 3M / 5W	12	4	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
✓	NE 14-03-05E (N 1/2) (Robert Budey)	RM of Franklin	A	40	None	40	2MP / 5W / 5M	11	3	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
		Robert Budey sub-total				**320**					
✓	SW 19-3-5E (S 1/2 -S end) (Glen Chubey)	RM of Franklin	A	55	None	55	2MP / 3MI / 3M / 5 W	13	25	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
✓	SW 25-3-4E (S 1/2 - NE end) (Glen Chubey)	RM of Franklin	A	25	None	25	3M / 3MI / 5WI	35	25	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
	SW 25-3-4E (S 1/2 - W end) (Glen Chubey)	RM of Franklin	A	70	None	70	2MP / 3M / 5W	37	21	Rural Policy Area 2 RM of Franklin By-Law No. 10-9	"R2" Rural 2 Zone RM of Franklin Zoning By-Law 14-11
		Glen Chubey sub-total				**150**					
✓	RL 45&46 - Rat River Parish (N of Coulee) (Al Robidoux)	RM of De Salaberry	A	55	Order 3 Drain, 8m	50.7	3N / 2W / 3W	28	3	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW 11-6-4E (S 1/2) (Al Robidoux)	RM of De Salaberry	A	80	Residence/yard	75	2W / 3W	42	5	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11

✓	SW 11-6-4E (N ½) (Al Robidoux)	RM of De Salaberry	A	80	Corner of a yard	78.8	2W / 3W	17	9	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	NE 11-6-4E (S 1/4) (Al Robidoux)	RM of De Salaberry	A	40	Order 1 Drain, Land within	39.7	2W / 3W	31	2	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	NW 15-5-4E (N 1/2) (Al Robidoux)	RM of De Salaberry	A	80	Yard	75	2W / 3W	18	8	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW 22-5-4E (S 1/2) (Al Robidoux)	RM of De Salaberry	A	80	None	80	2W / 3W	23	6	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SE 22-5-4E (S 1/2) (Al Robidoux)	RM of De Salaberry	A	80	None	80	2W /3W	38	5	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW 1-6-3E (Al Robidoux)	RM of De Salaberry	A	115	None	115	3W	75	23	Agriculture 2 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-2" Agriculture 2 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW & NW 1-6-3E (S 1/2) (Al Robidoux)	RM of De Salaberry	A	115	None	115	3W	21	16	Agriculture 2 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-2" Agriculture 2 Zone RM of De Salaberry Zoning By-Law 2290-11
		Al Robidoux sub-total				**709.2**					
✓	SE/SW/NE/NW 18-6-4E (Martin Reutter)	RM of De Salaberry	A	375	Order 1 Drain, Land within	374.5	2W / 3W	28	10	Agriculture 2 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-	"A-2" Agriculture 2 Zone RM of De Salaberry Zoning By-Law

										11)	2290-11
✓	NW 7-6-4E (Martin Reutter)	RM of De Salaberry	A	95	Order 2 Drain, Land within	94	2W / 3W	30	15	Agriculture 2 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-2" Agriculture 2 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	NE 7-6-4E (Martin Reutter)	RM of De Salaberry	A	115	None	115	2W / 3W	52	12	Agriculture 2 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-2" Agriculture 2 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW 7-6-4E (Martin Reutter)	RM of De Salaberry	A	135	Order 2 Drain, Land within	133.5	2W / 3W	35	13	Agriculture 2 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-2" Agriculture 2 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SE 7-6-4E (Martin Reutter)	RM of De Salaberry	A	195	Order 2 Drain, Land within	194.7	2W / 3W	51	14	Agriculture 2 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-2" Agriculture 2 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	RL 14, 15, 16 Rat River Parish (8-6-4E) (Martin Reutter)	RM of De Salaberry	A	40	Order 5 Drain (Rat River) however wooded area with >20 m buffer excluded from field, so no setback calculated.	40	2W / 3W	35	21	Limited Agriculture RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"LA" Limited Agriculture Zone RM of De Salaberry Zoning By-Law 2290-11
		Martin Reutter sub-total				**951.7**					
✓	SE 15-5-4E (E 1/2) (Rene Peloquin)	RM of De Salaberry	A	80	Yard	66	2W / 3W	34	12	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW 14-5-4E (N side) (Rene Peloquin)	RM of De Salaberry	A	100	Bush	73	2W / 3W	29	5	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11

✓	NW/NE 15-5-4E (S 1/2) (Rene Peloquin)	RM of De Salaberry	A	160	None	160	2W / 1 / 3W	31	5	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	NE 15-5-4E (N 1/2) (Rene Peloquin)	RM of De Salaberry	A	80	None	80	2W / 3W	50	3	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW 22-5-4E (N 1/2) (Rene Peloquin)	RM of De Salaberry	A	80	None	80	2W / 1 / 5W	15	9	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SE 22-5-4E (N 1/2) (Rene Peloquin)	RM of De Salaberry	A	80	None	80	2W / 3W	23	7	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SW 23-5-4E (N 1/2) (Rene Peloquin)	RM of De Salaberry	A	80	None	80	3W / 2W	39	12	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	NW 27-5-4E (Rene Peloquin)	RM of De Salaberry	A	100	Residence and Yard	92	2W / 3W	20	6	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	NE 28-5-4E (Rene Peloquin)	RM of De Salaberry	A	55	Order 5 Drain (Rat River), 24m	50.7	2W / 3W	28	3	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	RL 44 - Rat River Parish (N end) (Rene Peloquin)	RM of De Salaberry	A	80		66	2W / 3W / 3N	23	6	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11

		Rene Peloquin sub-total				**827.7**					
✓	RL 19 & 20, Parish of Rat River (Reg Friesen)	RM of De Salaberry	A	310	8m (both sides) - Order 3 Drain; Yard (no dwelling)	305	2W / 3W	43	10	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	SE 32-6-4E (Reg Friesen)	RM of De Salaberry	A	80	None	80	2W	83	35	Agriculture 1 RM of De Salaberry By-Law 2194-04 (amended by Bylaw 2289-11)	"A-1" Agriculture 1 Zone RM of De Salaberry Zoning By-Law 2290-11
✓	NE/NW 8-7-4E (south end) (Reg Friesen)	RM of Hanover	A	160	Land within - Order 1 Drain; Dwelling	155	2W	24	13	General Agricultural Area RM of Hanover By-Law 2170	"A" Agriculture Zone RM of Hanover Zoning By-Law 2171
✓	SE 19-7-4E (Reg Friesen)	RM of Hanover	A	160	Dwelling (unoccupied) & Airfield	153	2W	29	14	Rural Area RM of Hanover By-Law 2170	"R" Rural Zone RM of Hanover Zoning By-Law 2171
		Reg Friesen sub-total				**693**					
					Total Net Acreage for Manure Application:	**4,138 acres**					

A. Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
B. Identify the Rural Municipality in which the parcel is located.
C. Indicate how the land has been secured for manure application: O – Own / L – Lease / A – Agreement
D. Enter the total acreage for the parcel.
E. Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (e.g. 8m, Order 3 drain).
F. Enter the net long-term acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.
G. Enter the agriculture capability class and subclass ratings for the acreage available for manure application.
H. Provide soil test results for nitrate-N in lb/ac at the 0-24 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing laboratory.
I. Provide soil test results for phosphorus ppm Olsen P at 0-6 inch depth. Soil test results must be no more than 12 months old and must be completed by an accredited soil-testing laboratory.
J. Please indicate the Development Plan and its by-law number in addition to the map designation for each field
K. Please indicate the Zoning By-law and its by-law number in addition to the zoning for each field

Appendix 9

Manure Spread Fields, Spreading Agreements, and Soil Tests

- 9.1 – Prairie Organic Layer Farms – Owned Spread Field – Soil Test
- 9.2 – Ritzco Farms Spread Field Agreements and Soil Tests
- 9.3 – Robert Budey Spread Field Agreements and Soil Tests
- 9.4 – Glen Chubey Spread Field Agreements and Soil Tests
- 9.5 – Al Robidoux Spread Field Agreements and Soil Tests
- 9.6 – Martin Reutter Spread Field Agreements and Soil Tests
- 9.7 – Rene Peloquin Spread Field Agreements and Soil Tests
- 9.8 – Reg Friesen Spread Field Agreements and Soil Tests

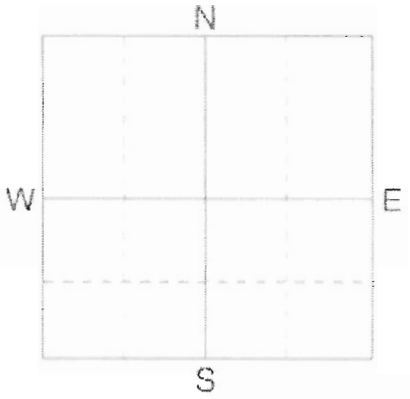
APPENDIX 9.1

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **18-4-6E**
SAMPLE ID **14041441**
FIELD NAME
COUNTY
TWP **4-6E** RANGE
SECTION QTR **18** ACRES **165**
PREV. CROP



SUBMITTED FOR:
~~KEVIN DUDDRIDGE~~
PRAIRIE ORGANIC
LAYER FARMS LTD.

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041441** BOX # **0**
LAB # **NW22694**

Date Sampled **05/09/2014** Date Received **05/13/2014** Date Reported **5/15/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6" / 6-24" Nitrate	2 lb/ac / 3 lb/ac				
0-24" Nitrate	5 lb/ac				
Olsen Phosphorus	12 ppm	**********	**********	**********	
Potassium	50 ppm	*******			
Chloride					
0-6" / 6-24" Sulfur	12 lb/ac / 24 lb/ac	**********	**********	**********	
Boron	0.3 ppm	****			
Zinc	1.65 ppm	**********	**********	**********	**********
Iron	33.0 ppm	**********	**********	**********	**********
Manganese	1.5 ppm	**********	**********	**********	
Copper	0.3 ppm	**********			
Magnesium	181 ppm	**********	**********	**********	
Calcium	1208 ppm	**********	**********	**********	
Sodium	17 ppm	**			
Org.Matter	1.3 %	**********			
Carbonate(CCE)					
0-6" / 6-24" Sol. Salts	0.08 mmho/cm / 0.09 mmho/cm	**			

General Comments: Sand (CEC range = 0 to 10) (Coarse)

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.6** 6-24" **8.3**		**7.8 meq**	(65-75) **77.9**	(15-20) **19.5**	(1-7) **1.7**	(0-5) **1.0**	(0-5)

APPENDIX 9.2

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And Ritzco Farms Inc. _____ Hereafter referred to as:
(Please Print) (Signature) ☑ "Landowner" or ☐ "Land Renter"

Date: _____

The duration of this agreement is of _____ years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
	NE 19-4-6E (W 1/2) and NW 19-4-6E (E 1/2 of N 1/2)	☑		105	95	Grass	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☐ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☑ Broadcast ☐ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Ritzco Farms Inc. _____ Hereafter referred to as:
(Please Print) (Signature)
☑ "Landowner" or ☐ "Land Renter"

Date: _____

The duration of this agreement is of _____ years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
	NE 12-4-6E (W 1/2)	✓		80	80	Grass	Fall
	NW 19-4-6E (S 1/2)	✓		81.1	81.1	Grass	Fall
	LOT 1, BLK 45715 (NW-30-04-06E)	✓		39 24	20	Grass	Fall
	SE 18-4-6E	✓		150	140	Grass	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☐ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below)

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☑ Broadcast ☐ Broadcast and incorporate within 48 hours
☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

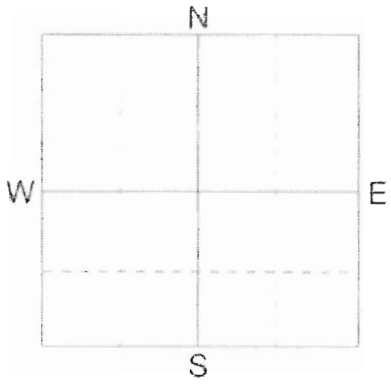
☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID
SAMPLE ID
FIELD NAME
COUNTY
TWP **4-6E** RANGE
SECTION **19** QTR **NE** ACRES **105**
PREV. CROP



SUBMITTED FOR:
RITZCO FARMS

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041448** BOX # **0**
LAB # **NW35695**

Date Sampled **07/25/2014** Date Received **07/29/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate 0-6"	11 lb/ac	
Nitrate 6-24"	12 lb/ac	
Nitrate 0-24"	23 lb/ac	
Phosphorus (Olsen)	49 ppm	
Potassium	55 ppm	
Chloride		
Sulfur 0-6"	20 lb/ac	
Sulfur 6-24"	42 lb/ac	
Boron	0.8 ppm	
Zinc	6.58 ppm	
Iron	52.6 ppm	
Manganese	2.5 ppm	
Copper	2.01 ppm	
Magnesium	720 ppm	
Calcium	4926 ppm	
Sodium	47 ppm	
Org.Matter	3.4 %	
Carbonate(CCE)		
Sol. Salts 0-6"	0.25 mmho/cm	
Sol. Salts 6-24"	0.15 mmho/cm	

1st Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.1** 6-24" **8.4**		**31.0 meq**	(65-75) **79.5**	(15-20) **19.4**	(1-7) **0.5**	(0-5) **0.7**	(0-5)

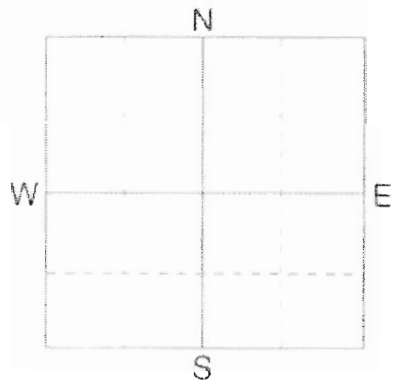
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **NE 12-4-6e**
SAMPLE ID **14041445**
FIELD NAME
COUNTY
TWP **4** RANGE **6e**
SECTION **NE** QTR **12** ACRES **80**
PREV. CROP



SUBMITTED FOR:
KEVIN DUDDRIDGE

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041445** BOX # **0**
LAB # **NW22690**

Date Sampled **05/09/2014** Date Received **05/13/2014** Date Reported **7/15/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate	0-6" 1 lb/ac 6-24" 3 lb/ac 0-24" 4 lb/ac				
Phosphorus	Olsen 2 ppm				
Potassium	58 ppm				
Chloride					
Sulfur	0-6" 10 lb/ac 6-24" 18 lb/ac				
Boron	0.4 ppm				
Zinc	0.40 ppm				
Iron	51.5 ppm				
Manganese	4.7 ppm				
Copper	0.52 ppm				
Magnesium	556 ppm				
Calcium	3799 ppm				
Sodium	20 ppm				
Org.Matter	3.1 %				
Carbonate(CCE)					
Sol. Salts	0-6" 0.18 mmho/cm 6-24" 0.14 mmho/cm				

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.0** 6-24" **8.3**		**23.9 meq**	(65-75) **79.6**	(15-20) **19.4**	(1-7) **0.6**	(0-5) **0.4**	(0-5)

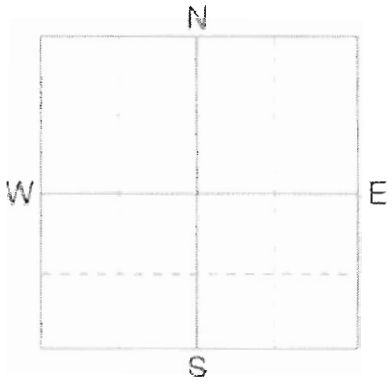
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID
SAMPLE ID
FIELD NAME
COUNTY
TWP **4-6E** RANGE
SECTION **19** QTR **NW** ACRES **80**
PREV. CROP



SUBMITTED FOR:
RITZCO FARMS

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041447** BOX # **0**
LAB # **NW35696**

Date Sampled **07/25/2014** Date Received **07/29/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate	0-6" 9 lb/ac 6-24" 18 lb/ac 0-24" 27 lb/ac	
Phosphorus	Olsen 45 ppm	
Potassium	62 ppm	
Chloride		
Sulfur	0-6" 28 lb/ac 6-24" 48 lb/ac	
Boron	0.9 ppm	
Zinc	8.04 ppm	
Iron	55.0 ppm	
Manganese	3.0 ppm	
Copper	2.29 ppm	
Magnesium	722 ppm	
Calcium	5085 ppm	
Sodium	38 ppm	
Org.Matter	4.5 %	
Carbonate(CCE)		
Sol. Salts	0-6" 0.3 mmho/cm 6-24" 0.18 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
	LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.4		31.8 meq	(65-75) 80.0	(15-20) 18.9	(1-7) 0.5	(0-5) 0.5	(0-5)

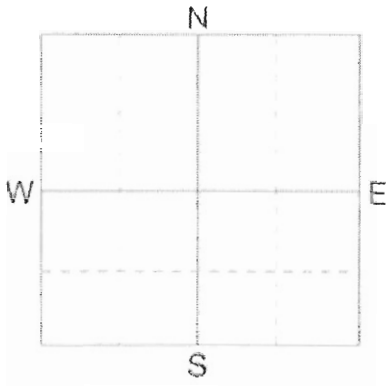
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **LOT 1 BLK 45715**
SAMPLE ID **14041439**
FIELD NAME
COUNTY
TWP **BIK 45715** RANGE
SECTION QTR **LOT 1** ACRES **40**
PREV. CROP



SUBMITTED FOR:
KEVIN DUDDRIDGE

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041439** BOX # **0**
LAB # **NW22696**

Date Sampled **05/09/2014** Date Received **05/13/2014** Date Reported **5/15/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate	0-6" 2 lb/ac 6-24" 6 lb/ac 0-24" 8 lb/ac	**			
Phosphorus	Olsen 8 ppm	**********			
Potassium	57 ppm	********			
Chloride					
Sulfur	0-6" 8 lb/ac 6-24" 24 lb/ac	****** **********			
Boron	0.2 ppm	**			
Zinc	0.23 ppm	*****			
Iron	22.3 ppm	**********	**********	**********	**********
Manganese	1.0 ppm	**********	******		
Copper	0.35 ppm	*******			
Magnesium	244 ppm	**********	**********	**********	
Calcium	4042 ppm	**********	**********	**********	**********
Sodium	17 ppm	**			
Org.Matter	.2 %				
Carbonate(CCE)					
Sol. Salts	0-6" 0.13 mmho/cm 6-24" 0.08 mmho/cm	***			

1st Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.1 6-24" 7.7		22.5 meq	(65-75) 90.0	(15-20) 9.1	(1-7) 0.7	(0-5) 0.3	(0-5)

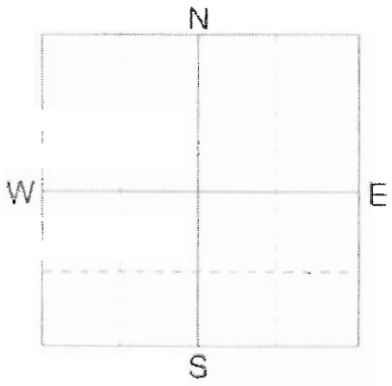
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **DES SE 18-4-6E**
SAMPLE ID **14041444**
FIELD NAME
COUNTY
TWP **4-6E** RANGE
SECTION **18** QTR **SE** ACRES **140**
PREV. CROP



SUBMITTED FOR:
KEVIN DUDDRIDGE

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041444** BOX # **0**
LAB # **NW22691**

Date Sampled **05/09/2014** Date Received **05/13/2014** Date Reported **5/15/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate 0-6"	1 lb/ac				
Nitrate 6-24"	3 lb/ac				
Nitrate 0-24"	4 lb/ac				
Phosphorus Olsen	5 ppm				
Potassium	83 ppm				
Chloride					
Sulfur 0-6"	10 lb/ac				
Sulfur 6-24"	36 lb/ac				
Boron	0.3 ppm				
Zinc	0.45 ppm				
Iron	34.0 ppm				
Manganese	2.9 ppm				
Copper	0.24 ppm				
Magnesium	237 ppm				
Calcium	1463 ppm				
Sodium	16 ppm				
Org.Matter	1.8 %				
Carbonate(CCE)					
Sol. Salts 0-6"	0.12 mmho/cm				
Sol. Salts 6-24"	0.13 mmho/cm				

1st Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.4 6-24" 8.1		9.6 meq	(65-75) 76.4	(15-20) 20.6	(1-7) 2.2	(0-5) 0.7	(0-5)

General Comments: Sand (CEC range = 0 to 10) (Coarse)

Robert Budey - Spread Agreement #1

APPENDIX 9.3

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd (Please Print) _____ (Signature) Hereafter referred to as "Livestock Operator"

And: Robert Budey (Please Print) _____ (Signature) Hereafter referred to as: ☆ "Landowner" or ☐ "Land Renter"

Date: Aug 11 / 2014

The duration of this agreement is of 10 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
	SW 26-03-05E (east side)	✓		40	40	Alfalfa	Fall
	SE 26-03-05E (E 1/2 - south end)	✓		50	50	Alfalfa	Fall
	SE 26-03 05E (W 1/2 - south end)	✓		50	50	Alfalfa	Fall
	NE 14-03-05E (N 1/2 - 30 ac W side, 10 ac E side)	✓		40	40	Timothy	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☐ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☑ Broadcast ☐ Broadcast and incorporate within 48 hours

☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter.

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

Robert Budey
Spread Agreement #2 - See supporting agreement #3 & #4 with land owners

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. (Please Print) _____ (Signature) Hereafter referred to as "Livestock Operator"

And: Robert Budey (Please Print) _____ (Signature) Hereafter referred to as: ☐ "Landowner" or ☒ "Land Renter"

Date: Aug 11 2019

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
	NE 11-03-05E (W side)		✓	100	100	Timothy	Fall
	SW 14-03-05E (N 1/2 - N end)		✓	40	40	Timothy	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files.

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per 1000 gal or ☐ tonne conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☐ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application: Spring ☐ Summer ☑ Fall

Application Method: ☑ Broadcast; ☐ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ✓

Custom Applicator ☐ Name of applicator. _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter.

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter.

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter if applicable.

Spread Agreement #3 - in support of agreement #2 made with Robert Budey

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Lillian Pohrebniuk _____ Hereafter referred to as:
(Please Print) (Signature) ☒ "Landowner" or ☐ "Land Renter"

Date: Aug. 11/14 I acknowledge support of the spread agreement signed between Prairie Organic Layer Farms Ltd. and Robert Budey who has an agreement to rent this land from me.

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
	NE 11-03-05E (W side)	✓		100	100	Timothy	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☐ will keep this document and any other related records in h s files.

☐ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to our these manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator.

☐ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☐ Fall

Application Method ☐ Broadcast ☐ Broadcast and incorporate within 48 hours
☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ✓

Custom Applicator ☐ Name of applicator. _____

Anticipated Manure Application Starting Date. _____

The Livestock Operator: (Check where applicable/proposed)

☐ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

✓ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☐ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter.

☐ will calculate the manure application rate for each field on the basis of (check only one):

- ☐ the soil test recommendations for plant n trogen requirements, or
- ☐ the soil test recommendations for plant phosphorus requirements, or
- ☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of cal bration for the manure spreading equipment;

✓ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of applicat on in volume and crop nutrient (N, P, K).

☐ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

✓ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

Spread Agreement #4 - in support of Agreement #2 with Robert Budey

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Mark Budey _____ Hereafter referred to as:
(Please Print) (Signature) ☑ "Landowner" or ☐ "Land Renter"

Date: Aug. 19/14

I acknowledge support of the spread agreement signed between Prairie Organic Layer Farms Ltd and Robert Budey who has an agreement to rent this land from me

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
	SW 14-03-05E (N 1/2 - N end)		☑	40	40	Timothy	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files.

☐ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator.

☐ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below)

Responsibilities of the Livestock Operator

Field Application Details

Time of Application: ☐ Spring ☐ Summer ☑ Fall

Application Method: ☑ Broadcast ☐ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter.

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter.

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter.

☑ will calculate the manure application rate for each field on the basis of (check only one):

- ☐ the soil test recommendations for plant nitrogen requirements, or
- ☑ the soil test recommendations for plant phosphorus requirements, or
- ☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

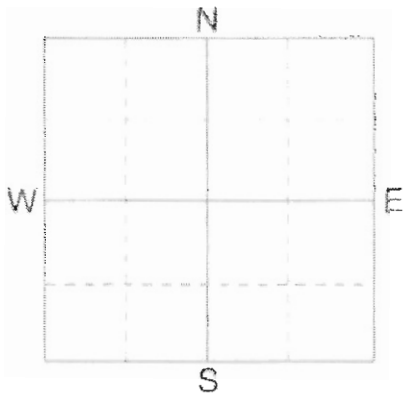
☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-5E** RANGE
SECTION **26** QTR **SW** ACRES **40**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
ROBERT BUDEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041451** BOX # **0**
LAB # **NW35323**

Date Sampled **07/23/2014** Date Received **07/28/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate	0-6" 11 lb/ac 6-24" 6 lb/ac 0-24" 17 lb/ac	***			
Phosphorus	Olsen 8 ppm	**********			
Potassium	55 ppm	********			
Chloride					
Sulfur	0-6" 52 lb/ac 6-24" 90 lb/ac	**********	**********	**********	**********
Boron	0.7 ppm	**********			
Zinc	0.84 ppm	**********	**********	***	
Iron	19.8 ppm	**********	**********	**********	**********
Manganese	3.2 ppm	**********	**********	********	**
Copper	0.34 ppm	*******	*		
Magnesium	524 ppm	**********	**********	**********	**********
Calcium	5027 ppm	**********	**********	**********	**********
Sodium	32 ppm	*****			
Org.Matter	3.1 %	**********			
Carbonate(CCE)					
Sol. Salts	0-6" 0.35 mmho/cm 6-24" 0.13 mmho/cm	********	***		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.1 6-24" 8.4		29.8 meq	(65-75) 84.4	(15-20) 14.7	(1-7) 0.5	(0-5) 0.5	(0-5)

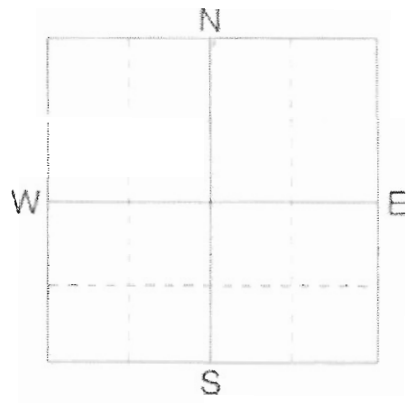
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **E1/2**
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-5E** RANGE
SECTION **26** QTR **SE** ACRES **50**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
ROBERT BUDEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041453** BOX # **0**
LAB # **NW35325**

Date Sampled **07/23/2014** Date Received **07/28/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate	0-6" 11 lb/ac 6-20" 5 lb/ac 0-20" 16 lb/ac	***
Phosphorus	Olsen 3 ppm	******
Potassium	73 ppm	**********
Chloride		
Sulfur	0-6" 18 lb/ac 6-20" 37 lb/ac	********** **********
Boron	1.0 ppm	**********
Zinc	0.38 ppm	*******
Iron	22.0 ppm	********** **********
Manganese	1.9 ppm	**********
Copper	0.52 ppm	**********
Magnesium	742 ppm	********** **********
Calcium	5139 ppm	********** **********
Sodium	32 ppm	*****
Org.Matter	3.4 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.29 mmho/cm 6-20" 0.25 mmho/cm	******* ******

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.2 6-24" 8.6		32.2 meq	(65-75) 79.8	(15-20) 19.2	(1-7) 0.6	(0-5) 0.4	(0-5)

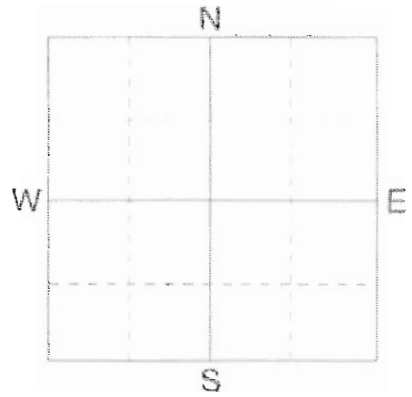
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **W1/2**
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-5E** RANGE
SECTION **26** QTR **SE** ACRES **50**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
ROBERT BUDEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # **14041452** BOX # **0**
LAB # **NW35324**

Date Sampled **07/23/2014** Date Received **07/28/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6"	7 lb/ac				
6-24"	3 lb/ac	**			
0-24"	10 lb/ac				
Nitrate					
Olsen	3 ppm	******			
Phosphorus					
Potassium	58 ppm	**********			
Chloride					
0-6"	16 lb/ac	**********			
6-24"	72 lb/ac	**********	**********	**********	**********
Sulfur					
Boron	0.9 ppm	**********	**********	**	
Zinc	0.74 ppm	**********	**********	**	
Iron	19.6 ppm	**********	**********	**********	**********
Manganese	2.8 ppm	**********	**********	**********	**
Copper	0.41 ppm	**********	**********		
Magnesium	679 ppm	**********	**********	**********	**********
Calcium	5338 ppm	**********	**********	**********	**********
Sodium	34 ppm	*****			
Org.Matter	3.2 %	**********	**********		
Carbonate(CCE)					
0-6"	0.29 mmho/cm	*******			
6-24"	0.17 mmho/cm	****			
Sol. Salts					

General Comments: Texture is not estimated on high pH soils.

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

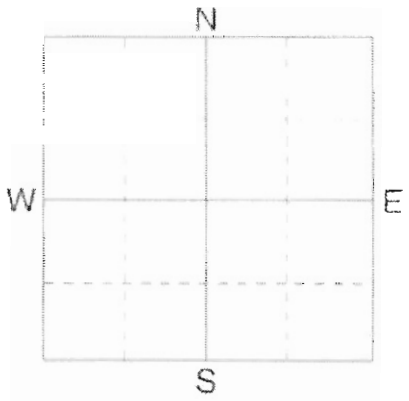
Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.3**		**32.6 meq**	(65-75) **81.8**	(15-20) **17.3**	(1-7) **0.5**	(0-5) **0.5**	(0-5)
6-24" **8.6**							

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-5E** RANGE
SECTION **11** QTR **NE** ACRES **100**
PREV. CROP **Timothy**



SUBMITTED FOR:
ROBERT BUDEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041455** BOX # **0**
LAB # **NW35326**

Date Sampled **07/23/2014** Date Received **07/28/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate	0-6" 11 lb/ac 6-24" 3 lb/ac 0-24" 14 lb/ac	***			
Phosphorus	Olsen 7 ppm	**********			
Potassium	41 ppm	******			
Chloride					
Sulfur	0-6" 38 lb/ac 6-24" 192 lb/ac	**********	**********	**********	**********
Boron	0.7 ppm	**********			
Zinc	0.44 ppm	**********			
Iron	55.2 ppm	**********	**********	**********	**********
Manganese	1.8 ppm	**********	**********	**********	
Copper	0.22 ppm	**********			
Magnesium	530 ppm	**********	**********	**********	**********
Calcium	4176 ppm	**********	**********	**********	**********
Sodium	21 ppm	**********			
Org.Matter	4.2 %	**********	**********	**********	
Carbonate(CCE)					
Sol. Salts	0-6" 0.23 mmho/cm 6-24" 0.21 mmho/cm	**********	**********		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.0** 6-24" **8.2**		**25.5 meq**	(65-75) **81.9**	(15-20) **17.3**	(1-7) **0.4**	(0-5) **0.4**	(0-5)

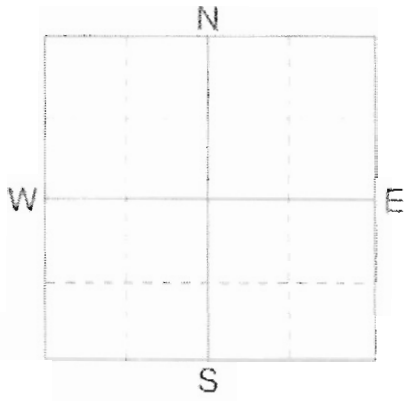
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **N1/2**
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-5E** RANGE
SECTION **14** QTR **SW** ACRES **40**
PREV. CROP **Timothy**



SUBMITTED FOR:
ROBERT BUDEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041456** BOX # **0**
LAB # **NW35327**

Date Sampled **07/23/2014** Date Received **07/28/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
0-6" / 6-24" Nitrate	9 lb/ac / 3 lb/ac	**
0-24" Nitrate	12 lb/ac	
Olsen Phosphorus	4 ppm	******
Potassium	51 ppm	********
Chloride		
0-6" / 6-24" Sulfur	14 lb/ac / 24 lb/ac	********** / **********
Boron	0.9 ppm	**********
Zinc	0.82 ppm	**********
Iron	42.8 ppm	**********
Manganese	4.6 ppm	**********
Copper	0.51 ppm	**********
Magnesium	498 ppm	**********
Calcium	5338 ppm	**********
Sodium	28 ppm	****
Org.Matter	3.9 %	**********
Carbonate(CCE)		
0-6" / 6-24" Sol. Salts	0.24 mmho/cm / 0.18 mmho/cm	****** / ****

General Comments: Texture is not estimated on high pH soils.

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
	LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

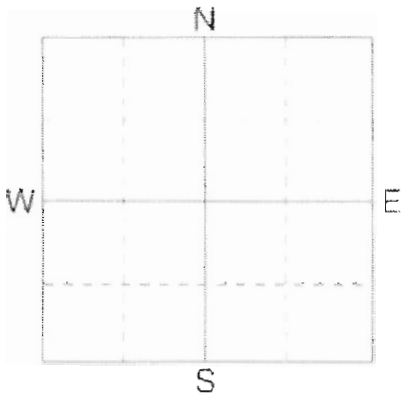
Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.2** 6-24" **8.4**		**31.1 meq**	(65-75) **85.8**	(15-20) **13.3**	(1-7) **0.4**	(0-5) **0.4**	(0-5)

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **N1/2**
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-5E** RANGE
SECTION **14** QTR **NE** ACRES **40**
PREV. CROP **Timothy**



SUBMITTED FOR:
ROBERT BUDEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041454** BOX # **0**
LAB # **NW35328**

Date Sampled **07/23/2014** Date Received **07/28/2014** Date Reported **7/30/2014**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
0-6"	9 lb/ac				
6-18"	2 lb/ac	**			
0-18"	11 lb/ac				
Nitrate					
Olsen	3 ppm	******			
Phosphorus					
Potassium	47 ppm	*******			
Chloride					
0-6"	20 lb/ac	**********			
6-18"	44 lb/ac	**********	**********	**********	**********
Sulfur					
Boron	0.6 ppm	********			
Zinc	0.97 ppm	**********	**********	**********	
Iron	34.6 ppm	**********	**********	**********	**********
Manganese	2.9 ppm	**********	**********	**********	
Copper	0.28 ppm	******			
Magnesium	315 ppm	**********	**********	**********	**********
Calcium	2638 ppm	**********	**********	**********	**********
Sodium	15 ppm	**			
Org.Matter	3.4 %	**********	**********	*	
Carbonate(CCE)					
0-6"	0.16 mmho/cm	****			
6-18"	0.17 mmho/cm	****			
Sol. Salts					

General Comments: Texture is not estimated on high pH soils.

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.8** 6-24" **8.2**		**16.0 meq**	(65-75) **82.4**	(15-20) **16.4**	(1-7) **0.8**	(0-5) **0.4**	(0-5)

APPENDIX 9.4

Spread Agreement #5

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. (Please Print) _____ (Signature) Hereafter referred to as "Livestock Operator"

And: Glen Chubey (Please Print) _____ (Signature) Hereafter referred to as: ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 14 2014

The duration of this agreement is of 10 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
	SW 18-3-5E (S 1/2 - S end)	✓		55	55	Alfalfa	Fall
	SE 25-3-4E (S 1/2 - NE end)	✓		25	25	Grass	Fall
	SW 25-3-4E (S 1/2 - W end)	✓		70	70	Grass	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☐ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application: ☐ Spring ☐ Summer ☑ Fall

Application Method: ☑ Broadcast ☐ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

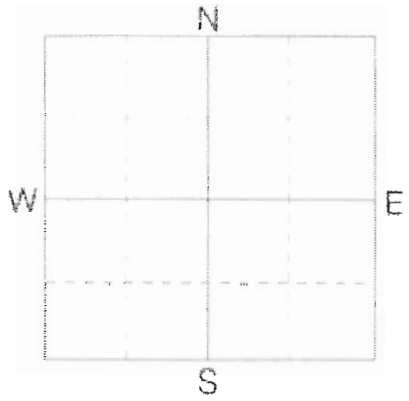
☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-5E** RANGE
SECTION **19** QTR **SW** ACRES **55**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
GLEN CHUBEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # **14041457** BOX # **0**
LAB # **NW35969**

Date Sampled **07/28/2014** Date Received **07/31/2014** Date Reported **8/1/2014**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate	0-6" 10 lb/ac 6-24" 3 lb/ac 0-24" 13 lb/ac	***
Phosphorus	Olsen 25 ppm	**********
Potassium	61 ppm	**********
Chloride		
Sulfur	0-6" 14 lb/ac 6-24" 42 lb/ac	**********
Boron	0.7 ppm	**********
Zinc	8.16 ppm	**********
Iron	20.9 ppm	**********
Manganese	1.6 ppm	**********
Copper	1.21 ppm	**********
Magnesium	331 ppm	**********
Calcium	2916 ppm	**********
Sodium	23 ppm	***
Org.Matter	1.7 %	******
Carbonate(CCE)		
Sol. Salts	0-6" 0.16 mmho/cm 6-24" 0.1 mmho/cm	****

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

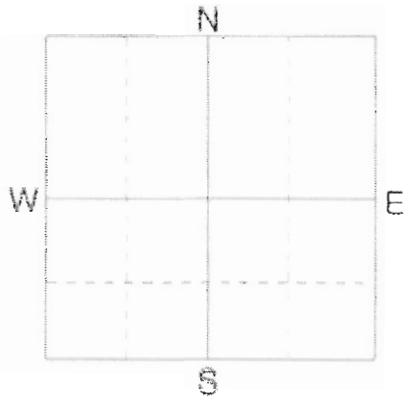
Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.1** 6-24" **8.5**		**17.6 meq**	(65-75) **82.9**	(15-20) **15.7**	(1-7) **0.9**	(0-5) **0.6**	(0-5)

General Comments: Texture is not estimated on high pH soils.

SOIL TEST REPORT

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

FIELD ID
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-4E** RANGE
SECTION **25** QTR **SE** ACRES **25**
PREV. CROP **Grass/Pasture**



SUBMITTED FOR:
GLEN CHUBEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041458** BOX # **0**
LAB # **NW35967**

Date Sampled **07/28/2014** Date Received **07/31/2014** Date Reported **8/1/2014**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate	0-6" 11 lb/ac 6-24" 24 lb/ac 0-24" 35 lb/ac	
Phosphorus	Olsen 25 ppm	
Potassium	64 ppm	
Chloride		
Sulfur	0-6" 14 lb/ac 6-24" 42 lb/ac	
Boron	0.8 ppm	
Zinc	10.21 ppm	
Iron	35.2 ppm	
Manganese	3.3 ppm	
Copper	1.52 ppm	
Magnesium	561 ppm	
Calcium	4866 ppm	
Sodium	31 ppm	
Org.Matter	2.5 %	
Carbonate(CCE)		
Sol. Salts	0-6" 0.21 mmho/cm 6-24" 0.16 mmho/cm	

1st Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
YIELD GOAL		
0		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.1** 6-24" **8.3**		**29.3 meq**	(65-75) **83.0**	(15-20) **16.0**	(1-7) **0.6**	(0-5) **0.5**	(0-5)

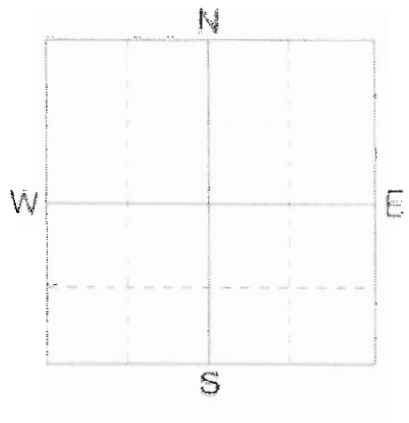
General Comments: Texture is not estimated on high pH soils.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID
SAMPLE ID
FIELD NAME
COUNTY
TWP **3-4E** RANGE
SECTION **25** QTR **SW** ACRES **70**
PREV. CROP **Grass/Pasture**



SUBMITTED FOR:
GLEN CHUBEY

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041459** BOX # **0**
LAB # **NW35968**

Date Sampled **07/28/2014** Date Received **07/31/2014** Date Reported **8/1/2014**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate 0-6"	19 lb/ac	
Nitrate 6-24"	18 lb/ac	
Nitrate 0-24"	37 lb/ac	
Phosphorus (Olsen)	21 ppm	
Potassium	82 ppm	
Chloride		
Sulfur 0-6"	16 lb/ac	
Sulfur 6-24"	42 lb/ac	
Boron	0.6 ppm	
Zinc	6.82 ppm	
Iron	27.6 ppm	
Manganese	2.6 ppm	
Copper	1.01 ppm	
Magnesium	390 ppm	
Calcium	3522 ppm	
Sodium	30 ppm	
Org.Matter	2.2 %	
Carbonate(CCE)		
Sol. Salts 0-6"	0.28 mmho/cm	
Sol. Salts 6-24"	0.14 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
0			0			0		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
	LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
N			N			N		
P_2O_5			P_2O_5			P_2O_5		
K_2O			K_2O			K_2O		
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.9** 6-24" **8.3**		**21.2 meq**	(65-75) **83.1**	(15-20) **15.3**	(1-7) **1.0**	(0-5) **0.6**	(0-5)

General Comments: Texture is not estimated on high pH soils.

APPENDIX 9.5

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Al Robidoux _____ Hereafter referred to as:
(Please Print) (Signature) ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
2	RL 45&46 - Rat River Parish (N of Coulee)	✓		55	50.7	Canola	Fall
3	SW 11-6-4E (S 1/2)	✓		80	75	Soybeans	Fall
4	SW 11-6-4E	✓		80	78.8	Canola	Fall
5	NE 11-6-4E (S 1/4)	✓		40	39.7	Canola	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. (Please Print) _____ (Signature) Hereafter referred to as "Livestock Operator"

And: Al Robidoux (Please Print) _____ (Signature) Hereafter referred to as: ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
14a	NW 15-5-4E (N 1/2)	☑		80	75	Soybeans	Fall
15	SW 22-5-4E (S 1/2)	☑		80	80	Soybeans	Fall
17	SE 22-5-4E (S 1/2)	☑		80	80	Soybeans	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ (Please Print) _____ (Signature) Hereafter referred to as "Livestock Operator"

And: Al Robidoux _____ (Please Print) _____ (Signature) Hereafter referred to as: ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
6	SW 1-6-3E	☑		115	115	Grain Corn	Fall
7	SW & NW 1-6-3E (S 1/2)	☑		115	115	Grain Corn	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

Cargill

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

SOIL TEST REPORT

FIELD ID 01
SAMPLE ID
FIELD NAMES of Coulee
COUNTY
TWP RANGE
SECTION QTR RL 45-46 ACRES
PREV. CROP Wheat-Spring

80ac

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 684705 BOX # 0
LAB # NW75996

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil			Interpretation	1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
				Canola-bu			Soybeans			Oats		
	0-6"	12 lb/ac		YIELD GOAL			YIELD GOAL			YIELD GOAL		
	6-24"	21 lb/ac		50 BU			50 BU			120 BU		
			******	SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
	0-24"	33 lb/ac		Band/Maint.			Band/Maint.			Band/Maint.		
Nitrate				LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
	Olsen	2 ppm	***	N	142		N	***		N	87	
Phosphorus												
Potassium		165 ppm	**********	P_2O_5	58	Band *	P_2O_5	52	Band *	P_2O_5	42	Band *
	0-24"	292 lb/ac	**********	K_2O	23	Band *	K_2O	75	Band *	K_2O	23	Band *
Chloride												
	0-6"	42 lb/ac	**********	Cl		Not Available	Cl	0		Cl	0	
	6-24"	360 +lb/ac	**********									
Sulfur				S	15	Band	S	0		S	0	
Boron		2.8 ppm	**********	B	0		B	0		B	0	
Zinc		0.65 ppm	**********	Zn	3	Band (Trial)	Zn	3	Band (Trial)	Zn	3	Band (Trial)
Iron		15.6 ppm	**********	Fe	0		Fe	0		Fe	0	
Manganese		1.8 ppm	**********	Mn	0		Mn	0		Mn	0	
Copper		1.03 ppm	**********	Cu	0		Cu	0		Cu	0	
Magnesium		1836 ppm	**********	Mg	0		Mg	0		Mg	0	
Calcium		5805 ppm	**********	Lime			Lime			Lime		
Sodium		121 ppm	**********									
Org.Matter		5.4 %	**********									
Carbonate(CCE)		8.6 %	**********									
	0-6"	0.39 mmho/cm	**********									
	6-24"	0.59 mmho/cm	**********									
Sol. Salts												

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range) % Ca	% Mg	% K	% Na	% H
0-6" 8.4		45.3 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
6-24" 8.6			64.1	33.8	0.9	1.2	

General Comments: Texture is not estimated on high pH soils.

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. The risk of the development of iron chlorosis on soybeans on this field is high based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

SOIL TEST REPORT

Cargill

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

FIELD ID 03
SAMPLE ID
FIELD NAME
COUNTY
TWP 6 RANGE 4E
SECTION 11 QTR S1/2 of SW ACRES 75
PREV. CROP Wheat-Spring

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 684706 BOX # 0
LAB # NW76015

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil		Interpretation
	0-6" 18 lb/ac	
	6-24" 24 lb/ac	
		********
	0-24" 42 lb/ac	
Nitrate		
	Olsen 5 ppm	********
Phosphorus		
Potassium	254 ppm	**********
	0-24" 1912 lb/ac	**********
Chloride		
	0-6" 86 lb/ac	**********
	6-24" 360 +lb/ac	**********
Sulfur		
Boron	3.1 ppm	**********
Zinc	0.66 ppm	**********
Iron	22.6 ppm	**********
Manganese	1.5 ppm	**********
Copper	1.43 ppm	**********
Magnesium	2175 ppm	**********
Calcium	5320 ppm	**********
Sodium	407 ppm	**********
Org.Matter	5.6 %	**********
Carbonate(CCE)	3.1 %	**********
	0-6" 0.71 mmho/cm	**********
	6-24" 2.07 mmho/cm	**********
Sol. Salts		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Soybeans			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
50 BU			50 BU			120 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	133		N	***		N	78	
P_2O_5	50	Band *	P_2O_5	46	Band *	P_2O_5	36	Band *
K_2O	0		K_2O	0		K_2O	10	Band (Starter)*
Cl		Not Available	Cl	0		Cl	0	
S	10	Band	S	0		S	0	
B	0		B	0		B	0	
Zn	3	Band (Trial)	Zn	3	Band (Trial)	Zn	3	Band (Trial)
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.2		47.1 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
6-24" 8.5			56.4	38.4	1.4	3.8	

General Comments: Texture is not estimated on high pH soils.

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. The risk of the development of iron chlorosis on soybeans on this field is high based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

SOIL TEST REPORT

Cargill

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

FIELD ID 04
SAMPLE ID
FIELD NAME
COUNTY
TWP 6 RANGE 4E
SECTION 11 QTR N1/2 of SW ACRES 80
PREV. CROP Soybeans

N
W E
S

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 717857 BOX # 0
LAB # NW92851

Date Sampled | Date Received 10/07/2013 | Date Reported 10/11/2013

Nutrient In The Soil			Interpretation
Nitrate	0-6"	8 lb/ac	
	6-24"	9 lb/ac	
			***
	0-24"	17 lb/ac	
Phosphorus	Olsen	9 ppm	**********
Potassium		316 ppm	**********
Chloride	0-24"	496 lb/ac	**********
	0-6"	120 +lb/ac	**********
	6-24"	360 +lb/ac	**********
Sulfur		2.5 ppm	**********
Boron		0.56 ppm	**********
Zinc		17.1 ppm	**********
Iron		1.8 ppm	**********
Manganese		1.57 ppm	**********
Copper		1837 ppm	**********
Magnesium		6089 ppm	**********
Calcium		149 ppm	**********
Sodium		5.5 %	**********
Org.Matter		4.4 %	**********
Carbonate(CCE)	0-6"	0.74 mmho/cm	**********
	6-24"	1.4 mmho/cm	**********
Sol. Salts			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Wheat-Spring			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
50 BU			60 BU			120 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	143		N	130		N	88	
P_2O_5	45	Band *	P_2O_5	38	Band *	P_2O_5	30	Band *
K_2O	0		K_2O	10	Band (Starter)*	K_2O	10	Band (Starter)*
Cl		Not Available	Cl	0		Cl	0	
S	10	Band	S	0		S	0	
B	0		B	0		B	0	
Zn	3	Band (Trail)	Zn	3	Band (Trial)	Zn	3	Band (Trial)
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.2		47.2 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
6-24" 8.5			64.5	32.4	1.7	1.4	

General Comments: Texture is not estimated on high pH soils.

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 38 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

SOIL TEST REPORT

Cargill

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

FIELD ID 05
SAMPLE ID
FIELD NAME
COUNTY
TWP 6 RANGE 4E
SECTION 11 QTR S1/4 of NE ACRES 40
PREV. CROP Wheat-Spring

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 684707 BOX # 0
LAB # NW75960

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil			Interpretation
	0-6"	16 lb/ac	
	6-24"	15 lb/ac	
		******	
	0-24"	31 lb/ac	
Nitrate			
	Olsen	2 ppm	***
Phosphorus			
Potassium		246 ppm	**********
	0-24"	672 lb/ac	**********
Chloride			
	0-6"	120 +lb/ac	**********
	6-24"	360 +lb/ac	**********
Sulfur			
Boron		2.9 ppm	**********
Zinc		0.51 ppm	**********
Iron		21.8 ppm	**********
Manganese		1.5 ppm	**********
Copper		1.81 ppm	**********
Magnesium		2415 ppm	**********
Calcium		5672 ppm	**********
Sodium		416 ppm	**********
Org.Matter		4.8 %	**********
Carbonate(CCE)		6.3 %	**********
	0-6"	0.89 mmho/cm	**********
	6-24"	1.95 mmho/cm	**********
Sol. Salts			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Soybeans			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
50 BU			50 BU			120 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	144		N	***		N	89	
P_2O_5	58	Band *	P_2O_5	52	Band *	P_2O_5	42	Band *
K_2O	23	Band *	K_2O	75	Band *	K_2O	23	Band *
Cl		Not Available	Cl	0		Cl	0	
S	10	Band	S	0		S	0	
B	0		B	0		B	0	
Zn	3	Band (Trail)	Zn	3	Band (Trail)	Zn	3	Band (Trial)
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.3		50.9 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
6-24" 8.5			55.7	39.5	1.2	3.6	

General Comments: Texture is not estimated on high pH soils.

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. The risk of the development of iron chlorosis on soybeans on this field is very high based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Manure 40 28-0-0
33 5-15

SOIL TEST REPORT

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

FIELD ID 14a
SAMPLE ID
FIELD NAME
COUNTY
TWP 5 RANGE 4E
SECTION 15 QTR N75 of NW/ NE16 ACRES 75
PREV. CROP Wheat-Spring

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 684709 BOX # 0
LAB # NW76020

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil			Interpretation
Nitrate	0-6"	12 lb/ac	
	6-24"	6 lb/ac	
			****
	0-24"	18 lb/ac	
Phosphorus	Olsen	8 ppm	**********
Potassium		465 ppm	**********
Chloride	0-24"	1488 lb/ac	**********
Sulfur	0-6"	26 lb/ac	**********
	6-24"	360 +lb/ac	**********
Boron		1.6 ppm	**********
Zinc		1.24 ppm	**********
Iron		44.9 ppm	**********
Manganese		1.9 ppm	**********
Copper		1.77 ppm	**********
Magnesium		2312 ppm	**********
Calcium		6219 ppm	**********
Sodium		177 ppm	**********
Org.Matter		6.7 %	**********
Carbonate(CCE)		1.2 %	**********
Soil. Salts	0-6"	0.72 mmho/cm	**********
	6-24"	1.59 mmho/cm	**********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Soybeans			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
50 BU			50 BU			120 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	157		N	***		N	102	
P_2O_5	45	Band *	P_2O_5	44	Band *	P_2O_5	31	Band *
K_2O	0		K_2O	0		K_2O	10	Band (Starter)*
Cl		Not Available	Cl	0		Cl	0	
S	15	Band	S	5	Band (Trial)	S	0	
B	0		B	0		B	0	
Zn	0		Zn	0		Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.6		52.3 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
6-24" 8.2			59.4	36.8	2.3	1.5	

General Comments: Clays/Clay Loams (CEC range = 30+) (Fine)

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. The risk of the development of iron chlorosis on soybeans on this field is moderate based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/ Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Cargill

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

SOIL TEST REPORT

FIELD ID #15
SAMPLE ID
FIELD NAME N of Dump Rd
COUNTY
TWP 5 RANGE 4E
SECTION 22 QTR S80 of SW ACRES 80
PREV. CROP Canola-bu

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 684713 BOX # 0
LAB # NW76011

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil			Interpretation
	0-6"	14 lb/ac	
	6-24"	9 lb/ac	
Nitrate			*****
	0-24"	23 lb/ac	
Phosphorus	Olsen	6 ppm	**********
Potassium		449 ppm	**********
Chloride	0-24"	600 lb/ac	**********
	0-6"	38 lb/ac	**********
	6-24"	360 +lb/ac	**********
Sulfur		1.5 ppm	**********
Boron		0.90 ppm	**********
Zinc		41.0 ppm	**********
Iron		2.1 ppm	**********
Manganese		1.79 ppm	**********
Copper		1910 ppm	**********
Magnesium		6598 ppm	**********
Calcium		143 ppm	**********
Sodium		7.1 %	**********
Org.Matter		2.6 %	**********
Carbonate(CCE)			
Sol. Salts	0-6"	0.67 mmho/cm	**********
	6-24"	0.94 mmho/cm	**********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Wheat-Spring			Soybeans			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
60 BU			50 BU			120 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	139		N	***		N	97	
P_2O_5	39	Band *	P_2O_5	44	Band *	P_2O_5	34	Band *
K_2O	10	Band (Starter)*	K_2O	0		K_2O	10	Band (Starter)*
Cl	0		Cl	0		Cl	0	
S	0		S	0		S	0	
B	0		B	0		B	0	
Zn	2	Band (Trial)	Zn	2	Band (Trial)	Zn	2	Band (Trial)
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.7		50.7 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
6-24" 8.3			65.1	31.4	2.3	1.2	

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 39 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. The risk of the development of iron chlorosis on soybeans on this field is high based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

SOIL TEST REPORT

Cargill

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

FIELD ID 17
SAMPLE ID
FIELD NAMEN of Dump Rd
COUNTY
TWP 5 RANGE 4E
SECTION 22 QTR S80 of SE ACRES 80
PREV. CROP Wheat-Spring

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

RFF # 684711 BOX # 0
LAB # NW75997

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil			Interpretation
	0-6"	20 lb/ac	
	6-24"	18 lb/ac	
Nitrate			*******
	0-24"	38 lb/ac	
Phosphorus	Olsen	5 ppm	********
Potassium		338 ppm	**********
Chloride	0-24"	5288 lb/ac	**********
	0-6"	120 +lb/ac	**********
	6-24"	360 +lb/ac	**********
Sulfur			
Boron		3.0 ppm	**********
Zinc		0.77 ppm	**********
Iron		35.7 ppm	**********
Manganese		1.6 ppm	**********
Copper		1.86 ppm	**********
Magnesium		2539 ppm	**********
Calcium		6769 ppm	**********
Sodium		1146 ppm	**********
Org.Matter		7.3 %	**********
Carbonate(CCE)		2.5 %	**********
Sol. Salts	0-6"	1.83 mmho/cm	**********
	6-24"	3.92 mmho/cm	**********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Soybeans			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
50 BU			50 BU			120 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	137		N	***		N	82	
P_2O_5	50	Band *	P_2O_5	46	Band *	P_2O_5	36	Band *
K_2O	0		K_2O	0		K_2O	10	Band (Starter)*
Cl		Not Available	Cl	0		Cl	0	
S	10	Band	S	0		S	0	
B	0		B	0		B	0	
Zn	2	Band (Trial)	Zn	2	Band (Trial)	Zn	2	Band (Trial)
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.7		60.9 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
6-24" 8.0			55.6	34.8	1.4	8.2	

General Comments: Texture is not estimated on high pH soils.

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. The risk of the development of iron chlorosis on soybeans on this field is very high based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Cargill

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

SOIL TEST REPORT

FIELD ID 06
SAMPLE ID
FIELD NAME
COUNTY
TWP 6 RANGE 3E
SECTION 1 QTR SW ACRES 115
PREV. CROP Canola-bu

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 684714 BOX # 0
LAB # NW75021

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil		Interpretation (Low / Med / High)
Nitrate 0-6"	30 lb/ac	
6-24"	45 lb/ac	
0-24"	75 lb/ac	
Phosphorus Olsen	23 ppm	
Potassium	708 ppm	
Chloride 0-24"	276 lb/ac	
Sulfur 0-6"	28 lb/ac	
6-24"	60 lb/ac	
Boron	1.2 ppm	
Zinc	2.04 ppm	
Iron	30.3 ppm	
Manganese	1.2 ppm	
Copper	2.18 ppm	
Magnesium	2602 ppm	
Calcium	7111 ppm	
Sodium	127 ppm	
Org.Matter	5.3 %	
Carbonate(CCE)	4.3 %	
Sol. Salts 0-6"	0.88 mmho/cm	
6-24"	0.64 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Wheat-Spring			Soybeans			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
60	BU		50	BU		120	BU	
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	67		N	***		N	45	
P_2O_5	38	Band *	P_2O_5	44	Band *	P_2O_5	30	Band *
K_2O	10	Band (Starter)*	K_2O	0		K_2O	10	Band (Starter)*
Cl	0		Cl	0		Cl	0	
S	5	Band (Trial)	S	5	Band (Trial)	S	5	Band (Trial)
B	0		B	0		B	0	
Zn	0		Zn	0		Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.8		58.6 meq	(65-75)	(15-20)	(1-5)	(0-5)	(0-5)
6-24" 8.3			59.7	36.4	3.0	0.9	

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 38 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. The risk of the development of iron chlorosis on soybeans on this field is high based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Cargill

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

SOIL TEST REPORT

FIELD ID 07
SAMPLE ID
FIELD NAME
COUNTY
TWP 6 RANGE 3E
SECTION 1 QTR S1/2 of NW ACRES 115
PREV. CROP Canola-bu

SUBMITTED FOR:
AL ROBIDOUX

SUBMITTED BY: CA0418
CARGILL-MORRIS
2 MILE ROAD
BOX 460
MORRIS, MB R0G 1K0

REF # 584715 BOX # 0
LAB # NW76007

Date Sampled | Date Received 09/27/2013 | Date Reported 10/11/2013

Nutrient In The Soil		Interpretation (Low / Med / High)
0-6"	12 lb/ac	
6-24"	9 lb/ac	
0-24"	21 lb/ac	
Nitrate		
Olsen	16 ppm	
Phosphorus		
Potassium	573 ppm	
0-24"	76 lb/ac	
Chloride		
0-6"	36 lb/ac	
6-24"	72 lb/ac	
Sulfur		
Boron	1.1 ppm	
Zinc	1.75 ppm	
Iron	49.0 ppm	
Manganese	1.7 ppm	
Copper	2.47 ppm	
Magnesium	2484 ppm	
Calcium	5834 ppm	
Sodium	100 ppm	
Org.Matter	5.8 %	
Carbonate(CCE)	1.7 %	
0-6"	0.7 mmho/cm	
6-24"	0.55 mmho/cm	
Sol. Salts		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Wheat-Spring			Soybeans			Oats		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
60 BU			50 BU			120 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band/Maint.			Band/Maint.			Band/Maint.		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	141		N	***		N	99	
P_2O_5	38	Band *	P_2O_5	44	Band *	P_2O_5	30	Band *
K_2O	10	Band (Starter)*	K_2O	0		K_2O	10	Band (Starter)*
Cl	0		Cl	0		Cl	0	
S	0		S	0		S	0	
B	0		B	0		B	0	
Zn	0		Zn	0		Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.6		51.6 meq	(65-75)	(10-20)	(1-7)	(0-5)	(0-5)
6-24" 8.3			36.3	40.0	2.8	0.8	

General Comments: Clays/Clay Loams (CEC range = 30+) (Fine)

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 38 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. The risk of the development of iron chlorosis on soybeans on this field is moderate based on the salt and carbonate levels. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 30 K2O = 23 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

APPENDIX 9.6

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Martin Reutter _____ Hereafter referred to as:
(Please Print) (Signature) ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
11 & 12	SE/SW/NE/NW 18-6-4E	✓		375	374.5	Canola	Fall
13	NW 7-6-4E	✓		95	94	Grain Corn	Fall
14	NE 7-6-4E	✓		115	115	Grain Corn	Fall
15	SW 7-6-4E	✓		135	133.5	Grain Corn	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Martin Reutter _____ Hereafter referred to as:
(Please Print) (Signature) ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
16	SE 7-6-4E	☑		195	194.7	Canola	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☐ Broadcast ☑ Broadcast and incorporate within 48 hours
☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Martin Reutter _____ Hereafter referred to as:
(Please Print) (Signature) ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
17	RL 14, 15, 16 (8-6-4E)	☑		40	40	Grain Corn	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

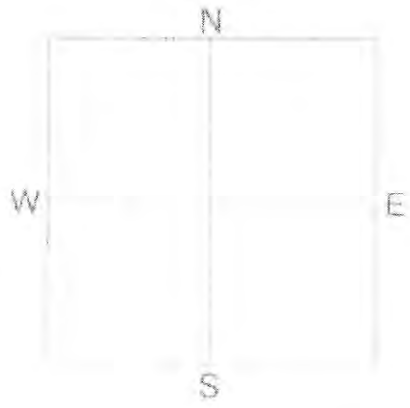
☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID #11&12
SAMPLE ID
FIELD NAME
COUNTY
TWP 6-4E RANGE
SECTION 18 QTR SE/SW/NE/NW ACRES 375
PREV. CROP Wheat-Spring



SUBMITTED FOR:
MARTIN REUTTER

BOX 156
GRUNTHAL, MB R0A 0R0

SUBMITTED BY: PR2421
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # 12481316 BOX # 0
LAB # NW47143

Date Sampled 08/29/2013 Date Received 09/03/2013 Date Reported 3/14/2014

Nitrate	0-6" 10 lb/ac 6-24" 18 lb/ac 0-24" 28 lb/ac	******
Phosphorus	Olsen 10 ppm	**********
Potassium	301 ppm	**********
Chloride		
Sulfur	0-6" 12 lb/ac 6-24" 102 lb/ac	**********
Boron	1.6 ppm	**********
Zinc	0.86 ppm	**********
Iron	25.7 ppm	**********
Manganese	1.5 ppm	**********
Copper	1.47 ppm	**********
Magnesium	1601 ppm	**********
Calcium	6785 ppm	**********
Sodium	57 ppm	**********
Org.Matter	6.0 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.49 mmho/cm 6-24" 0.64 mmho/cm	**********

1st Crop Choice: Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	182	
P_2O_5	45	Band *
K_2O	0	
Cl		
S	17	Band
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice: Corn-Grain		
YIELD GOAL		
150 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	152	
P_2O_5	45	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	2	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice: Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	161	
P_2O_5	36	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.1 6-24" 8.5		48.3 meq	(65-75) 70.3	(15-20) 27.6	(1-7) 1.6	(0-5) 0.5	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 41 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

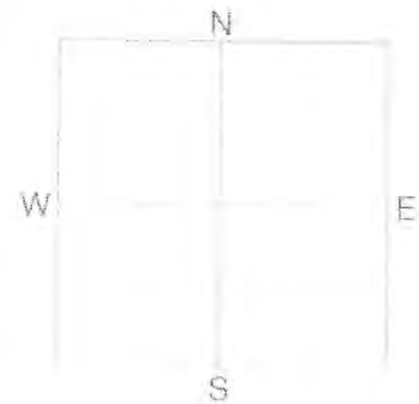
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

SOIL TEST REPORT

AGVISE LABORATORIES

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

FIELD ID **13**
SAMPLE ID **14041306**
FIELD NAME
COUNTY
TWP **6-4E** RANGE
SECTION **7** QTR **NW** ACRES **95**
PREV. CROP **Canola-bu**



SUBMITTED FOR:
REUTTER FARMS
PO BOX 156
GRUNTHAL, MB **ROAORO**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041306** BOX # **0**
LAB # **NW63794**

Date Sampled **09/18/2013** Date Received **09/19/2013** Date Reported **3/14/2014**

Nutrients In The Soil			Interpretation
Nitrate	0-6" 6-24" 0-24"	21 lb/ac 9 lb/ac 30 lb/ac	******
Phosphorus	Olsen	15 ppm	************************
Potassium		459 ppm	************************
Chloride			
Sulfur	0-6" 6-24"	48 lb/ac 96 lb/ac	************************ ************************
Boron		1.3 ppm	********************
Zinc		1.06 ppm	******************
Iron		31.8 ppm	************************
Manganese		1.6 ppm	*****************
Copper		2.0 ppm	********************
Magnesium		1945 ppm	************************
Calcium		6822 ppm	************************
Sodium		105 ppm	****************
Org.Matter		5.8 %	***********************
Carbonate(CCE)			
Sol. Salts	0-6" 6-24"	0.59 mmho/cm 0.6 mmho/cm	************** **************

	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
	Corn-Grain		Canola-bu		Wheat-Spring	
	YIELD GOAL		YIELD GOAL		YIELD GOAL	
	150 BU		70 BU		70 BU	
	SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES	
	Band		Band		Band	
	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
N	150		215		159	
P_2O_5	26	Band *	35	Band *	25	Band *
K_2O	10	Band (2x2) *	0		10	Band (Starter)*
Cl						
S	0		10	Band	0	
B	0		0		0	
Zn	0		0		0	
Fe	0		0		0	
Mn	0		0		0	
Cu	0		0		0	
Mg	0		0		0	
Lime						

Soil pH	Buffer pH	Cation Exchange Capacity	% Ca	% Mg	% K	% Na	% H
			% Base Saturation (Typical Range)				
0-6" 7.9 6-24" 8.4		52.0 meq	(65-75) 65.7	(15-20) 31.2	(1-7) 2.3	(0-5) 0.9	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 41 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 63 K2O = 32 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

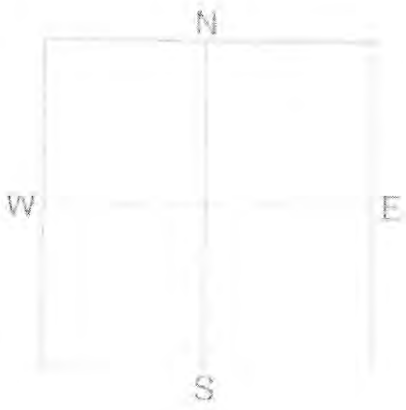
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **14**
SAMPLE ID **14041362**
FIELD NAME
COUNTY
TWP **6** RANGE
SECTION **7** QTR **NE** ACRES **115**
PREV. CROP **Corn-Grain**



SUBMITTED FOR:
REUTTER FARMS

BOX 156
GRUNTHAL, MB **R0A 0R0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041362** BOX # **0**
LAB # **NW131440**

Date Sampled **10/24/2013** Date Received **10/28/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation
Nitrate	0-6" 13 lb/ac 6-24" 39 lb/ac 0-24" 52 lb/ac	**********
Phosphorus	Olsen 12 ppm	**********
Potassium	406 ppm	**********
Chloride		
Sulfur	0-6" 24 lb/ac 6-24" 72 lb/ac	**********
Boron	1.4 ppm	**********
Zinc	1.72 ppm	**********
Iron	27.1 ppm	**********
Manganese	1.9 ppm	**********
Copper	1.88 ppm	**********
Magnesium	1666 ppm	**********
Calcium	6197 ppm	**********
Sodium	79 ppm	**********
Org.Matter	5.6 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.57 mmho/cm 6-24" 0.61 mmho/cm	**********

1st Crop Choice		
Corn-Grain		
YIELD GOAL		
150 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	128	
P_2O_5	37	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	158	
P_2O_5	39	Band *
K_2O	0	
Cl		
S	15	Band
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	137	
P_2O_5	32	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.9 6-24" 8.4		46.3 meq	(65-75) 67.0	(15-20) 30.0	(1-7) 2.3	(0-5) 0.7	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 41 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

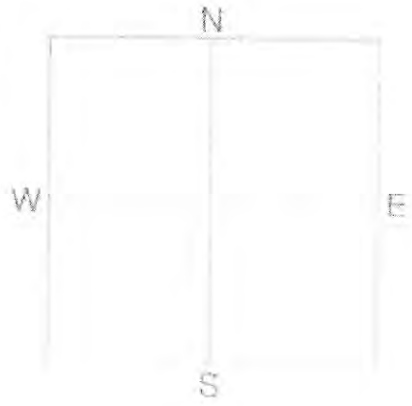
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **15**
SAMPLE ID
FIELD NAME
COUNTY
TWP **6-4E** RANGE
SECTION **7** QTR **SW** ACRES **135**
PREV. CROP **Corn-Grain**



SUBMITTED FOR:
REUTTER FARMS

PO BOX 156
GRUNTHAL, MB **R0A 0R0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041354** BOX # **0**
LAB # **NW122927**

Date Sampled **10/21/2013** Date Received **10/23/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation
Nitrate	0-6" 23 lb/ac 6-24" 12 lb/ac 0-24" 35 lb/ac	*******
Phosphorus	Olsen 13 ppm	**********
Potassium	491 ppm	**********
Chloride		
Sulfur	0-6" 12 lb/ac 6-24" 18 lb/ac	**********
Boron	1.2 ppm	**********
Zinc	1.94 ppm	**********
Iron	61.5 ppm	**********
Manganese	2.9 ppm	**********
Copper	2.52 ppm	**********
Magnesium	1952 ppm	**********
Calcium	5061 ppm	**********
Sodium	77 ppm	**********
Org.Matter	6.2 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.6 mmho/cm 6-24" 0.54 mmho/cm	**********

1st Crop Choice: Corn-Grain		
YIELD GOAL		
150 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	145	
P_2O_5	33	Band *
K_2O	10	Band (2x2) *
Cl		
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice: Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	175	
P_2O_5	36	Band *
K_2O	0	
Cl		
S	17	Band
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice: Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	154	
P_2O_5	29	Band *
K_2O	10	Band (Starter)*
Cl		
S	7	Band (Trial)
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.3 6-24" 8.2		43.2 meq	(65-75) 58.6	(15-20) 37.7	(1-7) 2.9	(0-5) 0.8	(0-5)

General Comments: Clays/Clay Loams (CEC range = 30+) (Fine)

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 41 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

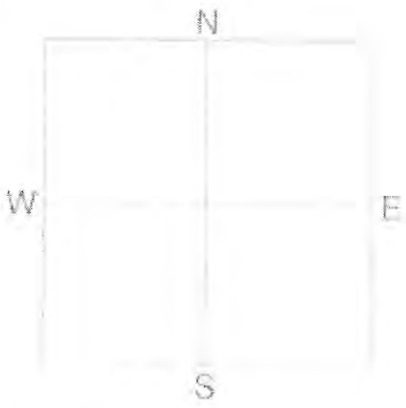
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **#16**
SAMPLE ID
FIELD NAME
COUNTY
TWP **6-4E** RANGE
SECTION **7** QTR **SE** ACRES **195**
PREV. CROP **Wheat-Winter**



SUBMITTED FOR:
MARTIN REUTTER

BOX 156
GRUNTHAL, MB **R0A 0R0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **12481314** BOX # **0**
LAB # **NW47141**

Date Sampled **08/29/2013** Date Received **09/03/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation
Nitrate	0-6" 18 lb/ac 6-24" 33 lb/ac 0-24" 51 lb/ac	**********
Phosphorus	Olsen 14 ppm	**********
Potassium	482 ppm	**********
Chloride		
Sulfur	0-6" 18 lb/ac 6-24" 192 lb/ac	**********
Boron	1.5 ppm	**********
Zinc	1.73 ppm	**********
Iron	27.6 ppm	**********
Manganese	1.6 ppm	**********
Copper	1.9 ppm	**********
Magnesium	1740 ppm	**********
Calcium	6654 ppm	**********
Sodium	77 ppm	**********
Org.Matter	5.6 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.48 mmho/cm 6-24" 0.81 mmho/cm	**********

1st Crop Choice		
Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	159	
P_2O_5	33	Band *
K_2O	0	
Cl		
S	15	Band
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Corn-Grain		
YIELD GOAL		
150 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	129	
P_2O_5	29	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	138	
P_2O_5	27	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.4		49.3 meq	(65-75) 67.4	(15-20) 29.4	(1-7) 2.5	(0-5) 0.7	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 41 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

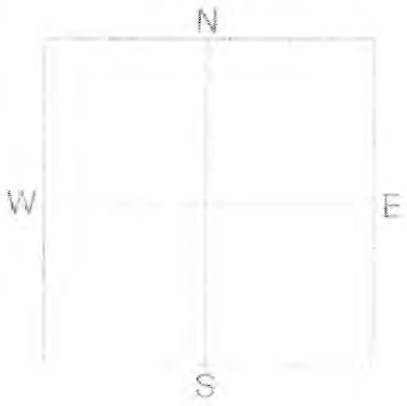
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **17**
SAMPLE ID **14041305**
FIELD NAME
COUNTY
TWP **6-4E** RANGE
SECTION **8** QTR **R L** ACRES **40**
PREV. CROP **Canola-bu**



SUBMITTED FOR:
REUTTER FARMS
PO BOX 156
GRUNTHAL, MB **ROAORO**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041305** BOX # **0**
LAB # **NW63800**

Date Sampled **09/18/2013** Date Received **09/19/2013** Date Reported **3/14/2014**

Nitrate	0-6" 20 lb/ac 6-24" 15 lb/ac 0-24" 35 lb/ac
Phosphorus	Olsen 21 ppm
Potassium	285 ppm
Chloride	
Sulfur	0-6" 46 lb/ac 6-24" 48 lb/ac
Boron	1.0 ppm
Zinc	1.08 ppm
Iron	53.3 ppm
Manganese	1.4 ppm
Copper	1.73 ppm
Magnesium	1411 ppm
Calcium	4999 ppm
Sodium	46 ppm
Org.Matter	5.5 %
Carbonate(CCE)	
Sol. Salts	0-6" 0.55 mmho/cm 6-24" 0.5 mmho/cm

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Canola-bu			Wheat-Spring		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			70 BU			70 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	145		N	210		N	154	
P_2O_5	15	Band (2x2) *	P_2O_5	14	Band *	P_2O_5	15	Band (Starter)*
K_2O	10	Band (2x2) *	K_2O	0		K_2O	10	Band (Starter)*
Cl			Cl			Cl		
S	0		S	10	Band	S	0	
B	0		B	0		B	0	
Zn	0		Zn	0		Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.7 6-24" 7.8		37.7 meq	(65-75) 66.3	(15-20) 31.2	(1-7) 1.9	(0-5) 0.5	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 41 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 63 K2O = 32 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

APPENDIX 9.7

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. (Please Print) _____ (Signature) Hereafter referred to as "Livestock Operator"

And: Rene Peloquin (Please Print) _____ (Signature) Hereafter referred to as: ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
1	SE 15-5-4E (E 1/2)	✓		80	66	Grain Corn	Fall
2	SW 14-5-4E (N portion)	✓		100	73	Grain Corn	Fall
3	NW/NE 15-5-4E (S 1/2)	✓		160	160	Grain Corn	Fall
4	NE 15-5-4E (N 1/2)	✓		80	80	Grain Corn	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

✓ will keep this document and any other related records in his files;

✓ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

✓ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application: ☐ Spring ☐ Summer ✓ Fall

Application Method: ☐ Broadcast ✓ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ✓

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

✓ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

✓ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

✓ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

✓ will calculate the manure application rate for each field on the basis of (check only one):

☐ the soil test recommendations for plant nitrogen requirements, or

✓ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

✓ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

✓ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

✓ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. (Please Print) _____ (Signature) Hereafter referred to as "Livestock Operator"

And: Rene Peloquin (Please Print) _____ (Signature) Hereafter referred to as: ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
5	SW 22-5-4E (N 1/2)	✓		80	80	Grain Corn	Fall
6	SE 22-5-4E (N 1/2)	✓		80	80	Spring Wheat	Fall
7	SW 23-5-4E (N 1/2)	✓		80	80	Canola	Fall
8	NW 27-5-4E (& N portion SW)	✓		100	92	Spring Wheat	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application ☐ Spring ☐ Summer ☑ Fall

Application Method ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

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☐ the soil test recommendations for plant nitrogen requirements, or

☑ the soil test recommendations for plant phosphorus requirements, or

☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

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☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

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LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd. _____ Hereafter referred to as "Livestock Operator"
(Please Print) (Signature)

And: Rene Peloquin _____ Hereafter referred to as:
(Please Print) (Signature) ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One)		Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
		Owned	Rented				
10	NE 28-5-4E	☑		55	50.7	Canola	Fall
13	RL 44 - Rat River Parish	☑		80	66	Canola	Fall
	(N end)						

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application: ☐ Spring ☐ Summer ☑ Fall

Application Method: ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

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☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

- ☐ the soil test recommendations for plant nitrogen requirements, or
- ☑ the soil test recommendations for plant phosphorus requirements, or
- ☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

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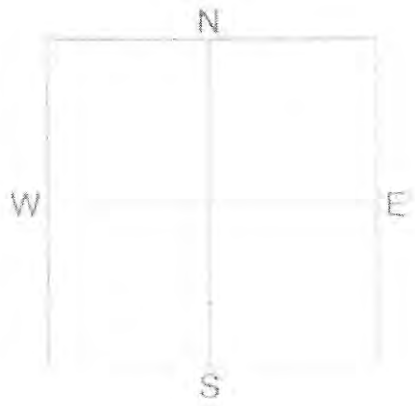
AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID 1
SAMPLE ID
FIELD NAME
COUNTY
TWP 5-4E RANGE
SECTION 15 QTR SE ACRES 73
PREV. CROP Soybeans



SUBMITTED FOR:
RENE PELOQUIN
BOX 396
ST. PIERRE, MB ROA 1V0

SUBMITTED BY: PR2421
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # 14041318 BOX # 0
LAB # NW84977

Date Sampled 09/30/2013 Date Received 10/02/2013 Date Reported 3/14/2014

Nutrient In The Soil		Interpretations
Nitrate	0-6" 13 lb/ac 6-24" 21 lb/ac 0-24" 34 lb/ac	*******
Phosphorus	Olsen 12 ppm	**********
Potassium	316 ppm	**********
Chloride		
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac	********** **********
Boron	1.9 ppm	**********
Zinc	0.69 ppm	*******
Iron	24.4 ppm	**********
Manganese	1.6 ppm	**********
Copper	1.5 ppm	**********
Magnesium	2049 ppm	**********
Calcium	6294 ppm	**********
Sodium	316 ppm	**********
Org.Matter	5.9 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 1.0 mmho/cm 6-24" 2.35 mmho/cm	********** **********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Canola-bu			Wheat-Spring		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
130 BU			40 BU			70 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	92		N	91		N	140	
P_2O_5	32	Band *	P_2O_5	26	Band *	P_2O_5	32	Band *
K_2O	10	Band (2x2) *	K_2O	0		K_2O	10	Band (Starter)*
Cl			Cl			Cl		
S	0		S	10	Band	S	0	
B	0		B	0		B	0	
Zn	0		Zn	2	Band (Trial)	Zn	2	Band (Trial)
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.2		50.7 meq	(65-75) 62.0	(15-20) 33.7	(1-7) 1.6	(0-5) 2.7	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

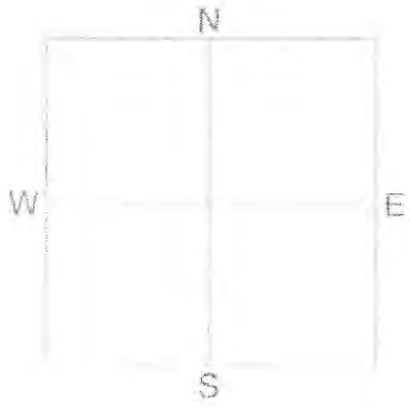
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **2**
SAMPLE ID
FIELD NAME
COUNTY
TWP **5-4E** RANGE
SECTION **14** QTR **SW** ACRES **73**
PREV. CROP **Soybeans**



SUBMITTED FOR:
RENE PELOQUIN

BOX 396
ST. PIERRE, MB **ROA 1V0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041319** BOX # **0**
LAB # **NW84979**

Date Sampled **09/30/2013** Date Received **10/02/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation (Very Low / Low / Med / High)	1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
			Corn-Grain			Canola-bu			Wheat-Spring		
			YIELD GOAL			YIELD GOAL			YIELD GOAL		
			130 BU			40 BU			70 BU		
			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
			Band			Band			Band		
			LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
Nitrate	0-6" 14 lb/ac 6-24" 15 lb/ac 0-24" 29 lb/ac	******	N	97		N	96		N	145	
Phosphorus	Olsen 5 ppm	********	P_2O_5	56	Band *	P_2O_5	40	Band *	P_2O_5	48	Band *
Potassium	282 ppm	**********	K_2O	10	Band (2x2) *	K_2O	0		K_2O	10	Band (Starter)*
Chloride			Cl			Cl			Cl		
Sulfur	0-6" 70 lb/ac 6-24" 360 +lb/ac	**********	S	0		S	10	Band	S	0	
Boron	2.3 ppm	**********	B	0		B	0		B	0	
Zinc	0.62 ppm	**********	Zn	2	Band	Zn	3	Band (Trial)	Zn	3	Band (Trial)
Iron	21.3 ppm	**********	Fe	0		Fe	0		Fe	0	
Manganese	1.5 ppm	**********	Mn	0		Mn	0		Mn	0	
Copper	1.18 ppm	**********	Cu	0		Cu	0		Cu	0	
Magnesium	2334 ppm	**********	Mg	0		Mg	0		Mg	0	
Calcium	6457 ppm	**********	Lime			Lime			Lime		
Sodium	167 ppm	**********									
Org.Matter	5.9 %	**********									
Carbonate(CCE)											
Sol. Salts	0-6" 0.66 mmho/cm 6-24" 1.57 mmho/cm	**********									

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.1 6-24" 8.4		53.2 meq	(65-75) 60.7	(15-20) 36.6	(1-7) 1.4	(0-5) 1.4	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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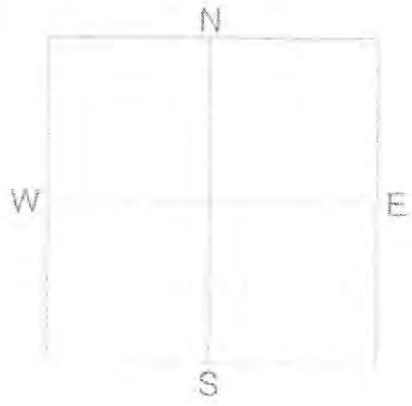
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **3**
SAMPLE ID
FIELD NAME
COUNTY
TWP **5-4E** RANGE
SECTION **15** QTR **N** ACRES **160**
PREV. CROP **Canola-bu**



SUBMITTED FOR:
RENE PELOQUIN
BOX 396
ST. PIERRE, MB R0A 1W0

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # **12481262** BOX # **0**
LAB # **NW52229**

Date Sampled **09/06/2013** Date Received **09/09/2013** Date Reported **3/14/2014**

Nutrients In The Soil		Interpretations
Nitrate	0-6" 19 lb/ac 6-24" 12 lb/ac 0-24" 31 lb/ac	******
Phosphorus	Olsen 5 ppm	********
Potassium	296 ppm	**********
Chloride		
Sulfur	0-6" 64 lb/ac 6-24" 360 +lb/ac	**********
Boron	1.4 ppm	**********
Zinc	0.67 ppm	**********
Iron	28.1 ppm	**********
Manganese	1.5 ppm	**********
Copper	1.62 ppm	**********
Magnesium	2003 ppm	**********
Calcium	6329 ppm	**********
Sodium	195 ppm	**********
Org.Matter	6.9 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.74 mmho/cm 6-24" 1.64 mmho/cm	**********

1st Crop Choice		
Corn-Grain		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	125	
P_2O_5	56	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	158	
P_2O_5	48	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	2	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Canola-bu		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	109	
P_2O_5	40	Band *
K_2O	0	
Cl		
S	10	Band
B	0	
Zn	2	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.9 6-24" 8.3		49.9 meq	(65-75) 63.4	(15-20) 33.4	(1-7) 1.5	(0-5) 1.7	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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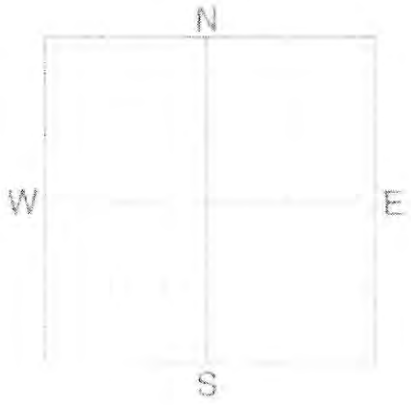
SOIL TEST REPORT

FIELD ID 4
SAMPLE ID
FIELD NAME
COUNTY
TWP 5-4E RANGE
SECTION 15 QTR NE ACRES 80
PREV. CROP Canola-bu



SUBMITTED FOR:
RENE PELOQUIN

BOX 396
ST. PIERRE, MB R0A 1W0

SUBMITTED BY: PR2421
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # 12481253 BOX # 0
LAB # NW52231

Date Sampled 09/04/2013 Date Received 09/09/2013 Date Reported 3/14/2014

Nutrients In The Soil		Interpretations				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		Low	Low	Med	High	Corn-Grain			Wheat-Spring			Canola-bu		
0-6"	32 lb/ac					YIELD GOAL			YIELD GOAL			YIELD GOAL		
6-24"	18 lb/ac					130 BU			70 BU			40 BU		
0-24"	50 lb/ac					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Nitrate						Band			Band			Band		
						LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
Olsen	3 ppm					N	106		N	139		N	90	
Phosphorus						P_2O_5	63	Band *	P_2O_5	53	Band *	P_2O_5	44	Band *
Potassium	266 ppm					K_2O	10	Band (2x2) *	K_2O	10	Band (Starter)*	K_2O	0	
Chloride						Cl			Cl			Cl		
0-6"	120 +lb/ac					S	0		S	0		S	10	Band
6-24"	360 +lb/ac					B	0		B	0		B	0	
Sulfur						Zn	2	Band	Zn	2	Band (Trial)	Zn	2	Band (Trial)
Boron	2.4 ppm					Fe	0		Fe	0		Fe	0	
Zinc	0.54 ppm					Mn	2	Band	Mn	2	Band	Mn	2	Band
Iron	16.9 ppm					Cu	0		Cu	0		Cu	0	
Manganese	0.9 ppm					Mg	0		Mg	0		Mg	0	
Copper	1.44 ppm					Lime			Lime			Lime		
Magnesium	2032 ppm													
Calcium	13612 ppm													
Sodium	645 ppm													
Org.Matter	6.7 %													
Carbonate(CCE)														
0-6"	3.15 mmho/cm													
6-24"	4.27 mmho/cm													
Sol. Salts														

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.8 6-24" 8.1		88.5 meq	(65-75) 76.9	(15-20) 19.1	(1-7) 0.8	(0-5) 3.2	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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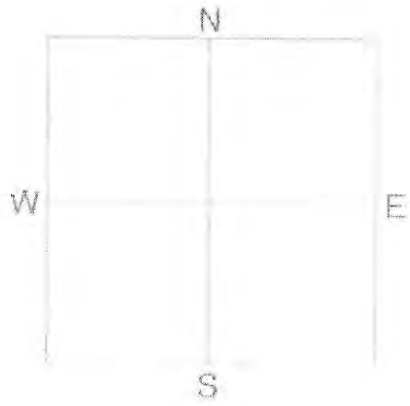
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **5**
SAMPLE ID
FIELD NAME
COUNTY
TWP **5-4E** RANGE
SECTION **22** QTR **SW** ACRES **80**
PREV. CROP **Canola-bu**



SUBMITTED FOR:
RENE PELOQUIN
BOX 396
ST PIERRE, MB R0A 1V0

SUBMITTED BY: PR2421
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # **12481252** BOX # **0**
LAB # **NW50890**

Date Sampled **09/04/2013** Date Received **09/08/2013** Date Reported **3/14/2014**

Nutrient in The Soil		Interpretation	1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
			Corn-Grain			Wheat-Spring			Canola-bu		
			YIELD GOAL			YIELD GOAL			YIELD GOAL		
			130 BU			70 BU			40 BU		
			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
			Band			Band			Band		
			LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
Nitrate	0-6" 9 lb/ac 6-24" 6 lb/ac 0-24" 15 lb/ac	***	N	141		N	174		N	125	
Phosphorus	Olsen 9 ppm	**********	P_2O_5	42	Band *	P_2O_5	39	Band *	P_2O_5	32	Band *
Potassium	290 ppm	**********	K_2O	10	Band (2x2) *	K_2O	10	Band (Starter)*	K_2O	0	
Chloride			Cl			Cl			Cl		
Sulfur	0-6" 30 lb/ac 6-24" 120 lb/ac	**********	S	0		S	0		S	15	Band
Boron	1.3 ppm	**********	B	0		B	0		B	0	
Zinc	1.09 ppm	**********	Zn	0		Zn	0		Zn	0	
Iron	21.5 ppm	**********	Fe	0		Fe	0		Fe	0	
Manganese	1.7 ppm	**********	Mn	0		Mn	0		Mn	0	
Copper	1.47 ppm	**********	Cu	0		Cu	0		Cu	0	
Magnesium	1585 ppm	**********	Mg	0		Mg	0		Mg	0	
Calcium	6860 ppm	**********	Lime			Lime			Lime		
Sodium	72 ppm	**********									
Org.Matter	6.2 %	**********									
Carbonate(CCE)											
Sol. Salts	0-6" 0.56 mmho/cm 6-24" 0.57 mmho/cm	**********									

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.5		48.6 meq	(65-75) 70.6	(15-20) 27.2	(1-7) 1.5	(0-5) 0.6	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

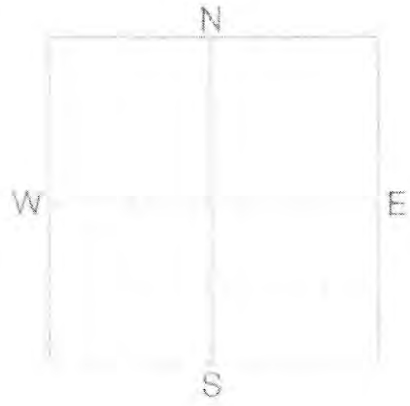
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **6**
SAMPLE ID
FIELD NAME
COUNTY
TWP **5-4E** RANGE
SECTION **22** QTR **SE** ACRES **80**
PREV. CROP **Soybeans**



SUBMITTED FOR:
RENE PELOQUIN

BOX 396
ST. PIERRE, MB ROA IVO

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # **14041320** BOX # **0**
LAB # **NW90311**

Date Sampled **10/02/2013** Date Received **10/04/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation
Nitrate	0-6" 11 lb/ac 6-24" 12 lb/ac 0-24" 23 lb/ac	*****
Phosphorus (Olsen)	7 ppm	*****
Potassium	431 ppm	*****
Chloride		
Sulfur	0-6" 48 lb/ac 6-24" 360 +lb/ac	*****
Boron	2.3 ppm	*****
Zinc	0.76 ppm	*****
Iron	33.9 ppm	*****
Manganese	1.6 ppm	*****
Copper	1.44 ppm	*****
Magnesium	2445 ppm	*****
Calcium	6675 ppm	*****
Sodium	357 ppm	*****
Org.Matter	7.1 %	*****
Carbonate(CCE)		
Soil Salts	0-6" 0.68 mmho/cm 6-24" 3.34 mmho/cm	*****

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Wheat-Spring			Canola-bu			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
70 BU			40 BU			130 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	151		N	102		N	103	
P_2O_5	43	Band *	P_2O_5	36	Band *	P_2O_5	49	Band *
K_2O	10	Band (Starter)*	K_2O	0		K_2O	10	Band (2x2) *
Cl			Cl			Cl		
S	0		S	10	Band	S	0	
B	0		B	0		B	0	
Zn	2	Band (Trial)	Zn	2	Band (Trial)	Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.1		56.4 meq	(65-75) 59.2	(15-20) 36.1	(1-7) 2.0	(0-5) 2.8	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

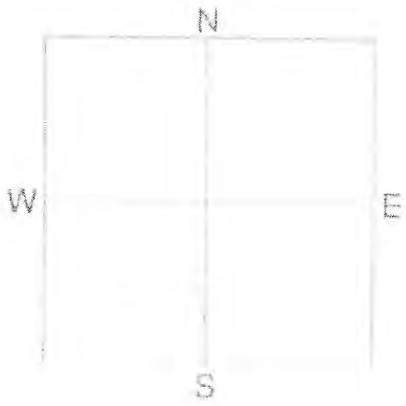
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **# 7**
SAMPLE ID
FIELD NAME
COUNTY
TWP **5-4E** RANGE
SECTION **23** QTR **SW** ACRES **80**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
RENE PELOQUIN

BOX 396
ST. PIERRE, MB **R0A 1V0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **12481311** BOX # **0**
LAB # **NW44766**

Date Sampled **08/27/2013** Date Received **08/29/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation	1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
			Canola-bu			Corn-Grain			Wheat-Spring		
			YIELD GOAL			YIELD GOAL			YIELD GOAL		
			40 BU			130 BU			70 BU		
			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
			Band			Band					
			LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
Nitrate	0-6" 21 lb/ac 6-24" 18 lb/ac 0-24" 39 lb/ac	********	N	101		N	117		N		
Phosphorus	Olsen 12 ppm	**********	P_2O_5	26	Band *	P_2O_5	32	Band *	P_2O_5		
Potassium	321 ppm	**********	K_2O	0		K_2O	10	Band (2x2) *	K_2O		
Chloride			Cl			Cl			Cl		
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac	**********	S	10	Band	S	0		S		
Boron	2.7 ppm	**********	B	0		B	0		B		
Zinc	0.79 ppm	**********	Zn	3	Band (Trial)	Zn	2	Band	Zn		
Iron	25.8 ppm	**********	Fe	0		Fe	0		Fe		
Manganese	1.2 ppm	**********	Mn	0		Mn	0		Mn		
Copper	1.48 ppm	**********	Cu	0		Cu	0		Cu		
Magnesium	2041 ppm	**********	Mg	0		Mg	0		Mg		
Calcium	6516 ppm	**********	Lime			Lime			Lime		
Sodium	359 ppm	**********									
Org.Matter	5.4 %	**********									
Carbonate(CCE)											
Sol. Salts	0-6" 1.0 mmho/cm 6-24" 3.45 mmho/cm	**********									

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.2** 6-24" **8.2**		52.0 meq	(65-75) **62.7**	(15-20) **32.7**	(1-7) **1.6**	(0-5) **3.0**	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

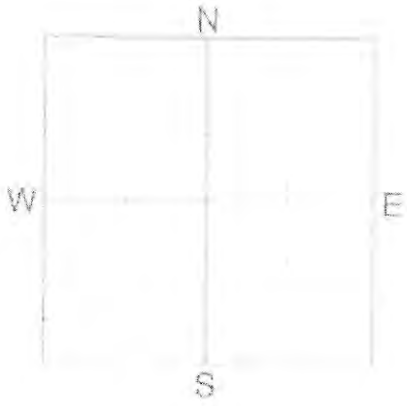
Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **8**
SAMPLE ID
FIELD NAME
COUNTY
TWP **5-4E** RANGE
SECTION **27** QTR **NW** ACRES **95**
PREV. CROP **Soybeans**



SUBMITTED FOR:
RENE PELOQUIN

BOX 396
ST. PIERRE, MB **R0A 1V0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041325** BOX # **0**
LAB # **NW90319**

Date Sampled **10/02/2013** Date Received **10/04/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation	1st Crop Choice	2nd Crop Choice	3rd Crop Choice
			Wheat-Spring	Canola-bu	Corn-Grain
			YIELD GOAL	YIELD GOAL	YIELD GOAL
			70 BU	40 BU	130 BU
			SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES
			Band	Band	Band
			LB/ACRE APPLICATION	LB/ACRE APPLICATION	LB/ACRE APPLICATION
Nitrate	0-6" 11 lb/ac 6-24" 9 lb/ac 0-24" 20 lb/ac	****	N 154	N 105	N 106
Phosphorus	Olsen 6 ppm	**********	P_2O_5 46 Band *	P_2O_5 38 Band *	P_2O_5 53 Band *
Potassium	309 ppm	**********	K_2O 10 Band (Starter)*	K_2O 0	K_2O 10 Band (2x2) *
Chloride			Cl	Cl	Cl
Sulfur	0-6" 32 lb/ac 6-24" 312 lb/ac	**********	S 0	S 10 Band	S 0
Boron	1.3 ppm	**********	B 0	B 0	B 0
Zinc	0.67 ppm	**********	Zn 3 Band (Trial)	Zn 3 Band (Trial)	Zn 2 Band
Iron	27.9 ppm	**********	Fe 0	Fe 0	Fe 0
Manganese	1.4 ppm	**********	Mn 0	Mn 0	Mn 0
Copper	1.65 ppm	**********	Cu 0	Cu 0	Cu 0
Magnesium	1699 ppm	**********	Mg 0	Mg 0	Mg 0
Calcium	5631 ppm	**********	Lime	Lime	Lime
Sodium	85 ppm	**********			
Org.Matter	5.0 %	**********			
Carbonate(CCE)					
Sol. Salts	0-6" 0.49 mmho/cm 6-24" 0.73 mmho/cm	**********			

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.1 6-24" 8.6		43.5 meq	(65-75) 64.8	(15-20) 32.6	(1-7) 1.8	(0-5) 0.9	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

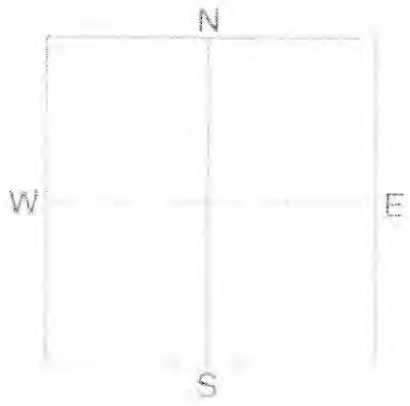
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **10**
SAMPLE ID
FIELD NAME
COUNTY
TWP **5-4E** RANGE
SECTION **28** QTR **NE** ACRES **55**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
RENE PELOQUIN
BOX 396
ST PIERRE, MB **R0A 1V0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **12481251** BOX # **0**
LAB # **NW50893**

Date Sampled **09/04/2013** Date Received **09/08/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation	1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
			Canola-bu			Corn-Grain			Wheat-Spring		
			YIELD GOAL			YIELD GOAL			YIELD GOAL		
			40 BU			130 BU			70 BU		
			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
			Band			Band			Band		
			LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
0-6" 13 lb/ac 6-24" 15 lb/ac 0-24" 28 lb/ac	Nitrate	******	N	112		N	128		N	161	
Olsen	Phosphorus 3 ppm	******	P_2O_5	44	Band *	P_2O_5	63	Band *	P_2O_5	53	Band *
	Potassium 387 ppm	**********	K_2O	0		K_2O	10	Band (2x2) *	K_2O	10	Band (Starter)*
	Chloride		Cl			Cl			Cl		
0-6" 26 lb/ac 6-24" 66 lb/ac	Sulfur	**********	S	15	Band	S	0		S	0	
	Boron 1.3 ppm	**********	B	0		B	0		B	0	
	Zinc 0.40 ppm	********	Zn	2	Band (Trial)	Zn	2	Band	Zn	2	Band (Trial)
	Iron 25.7 ppm	**********	Fe	0		Fe	0		Fe	0	
	Manganese 1.5 ppm	**********	Mn	0		Mn	0		Mn	0	
	Copper 1.78 ppm	**********	Cu	0		Cu	0		Cu	0	
	Magnesium 1969 ppm	**********	Mg	0		Mg	0		Mg	0	
	Calcium 7294 ppm	**********	Lime			Lime			Lime		
	Sodium 69 ppm	**********									
	Org.Matter 5.0 %	**********									
	Carbonate(CCE)										
0-6" 0.65 mmho/cm 6-24" 0.63 mmho/cm	Sol. Salts	**********									

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.4		54.2 meq	(65-75) 67.3	(15-20) 30.3	(1-7) 1.8	(0-5) 0.6	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

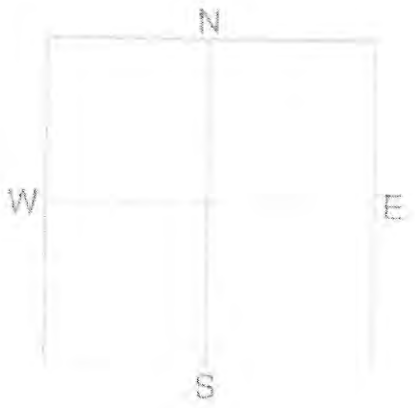
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **# 13**
SAMPLE ID
FIELD NAME
COUNTY
TWP **6-4E** RANGE
SECTION **3** QTR **RL 44** ACRES **80**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
RENE PELOQUIN

BOX 396
ST. PIERRE, MB **R0A 1V0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **12481309** BOX # **0**
LAB # **NW44763**

Date Sampled **08/27/2013** Date Received **08/29/2013** Date Reported **3/14/2014**

Nutrient In The Soil		Interpretation
Nitrate	0-6" 14 lb/ac 6-24" 9 lb/ac 0-24" 23 lb/ac	*****
Phosphorus	Olsen 6 ppm	**********
Potassium	270 ppm	**********
Chloride		
Sulfur	0-6" 96 lb/ac 6-24" 360 +lb/ac	**********
Boron	2.2 ppm	**********
Zinc	0.61 ppm	**********
Iron	19.0 ppm	**********
Manganese	1.6 ppm	**********
Copper	1.22 ppm	**********
Magnesium	1554 ppm	**********
Calcium	5770 ppm	**********
Sodium	99 ppm	**********
Org.Matter	4.0 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.57 mmho/cm 6-24" 1.45 mmho/cm	**********

1st Crop Choice		
Canola-bu		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	117	
P_2O_5	38	Band *
K_2O	0	
Cl		
S	10	Band
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Corn-Grain		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	133	
P_2O_5	53	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	2	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
LB/ACRE		APPLICATION
N		
P_2O_5		
K_2O		
Cl		
S		
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.3 6-24" 8.2		42.9 meq	(65-75) 67.2	(15-20) 30.2	(1-7) 1.6	(0-5) 1.0	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

APPENDIX 9.8

LIVESTOCK MANURE SPREADING AGREEMENT

Between: Prairie Organic Layer Farms Ltd (Please Print) (Signature) Hereafter referred to as "Livestock Operator"

And: Reg Friesen (Please Print) (Signature) Hereafter referred to as: ☑ "Landowner" or ☐ "Land Renter"

Date: Aug 13/14

The duration of this agreement is of 5 years, beginning at the above date.

Responsibilities of the Landowner or the Land Renter

Land Parcels selected as potential fields to receive manure

Field	Legal Location	(Check One) Owned	(Check One) Rented	Nominal Size (acres)	Area available for spreading (acres, exclusive of setbacks)	Cropping Intentions	Preferred Application Time
7 & 8 9 & 10	RL 19 & 20 Rat River Parish	✓		310	305	Canola	Fall
4	SE 32-6-4E	✓		80	80	Grain Corn	Fall
3	NE & NW 8-7-4E	✓		160	155	Spring Wheat	Fall
1	SE 19-7-4E	✓		160	153	Spring Wheat	Fall

The Landowner or Land Renter: (Check where applicable/proposed)

☑ will keep this document and any other related records in his files;

☑ will notify the Livestock Operator of the dates those fields will be available for spreading

☐ agrees to purchase manure nutrient at a rate of $ _____ per ☐ 1000 gal or ☐ tonne, conditional to manure being applied with the method and time as specified below by the Livestock Operator;

☑ will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method (below).

Responsibilities of the Livestock Operator

Field Application Details

Time of Application: ☐ Spring ☐ Summer ☑ Fall

Application Method: ☐ Broadcast ☑ Broadcast and incorporate within 48 hours ☐ Injection ☐ Irrigation/Sprinkler

Applicator

Livestock Operator ☑

Custom Applicator ☐ Name of applicator: _____

Anticipated Manure Application Starting Date: _____

The Livestock Operator: (Check where applicable/proposed)

☑ will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;

☑ will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter;

☑ will carry out a manure analysis test and the results will be made available to both the Landowner and the Land Renter;

☑ will calculate the manure application rate for each field on the basis of (check only one):

- ☐ the soil test recommendations for plant nitrogen requirements, or
- ☑ the soil test recommendations for plant phosphorus requirements, or
- ☐ general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm Practices Guidelines for Beef/Dairy/Hog/Poultry Producers in Manitoba series

☐ will provide a proof of calibration for the manure spreading equipment;

☑ will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N, P, K);

☑ will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting setbacks to observe;

☑ will provide a copy of overall manure management plan to the Landowner and the Land Renter, if applicable.

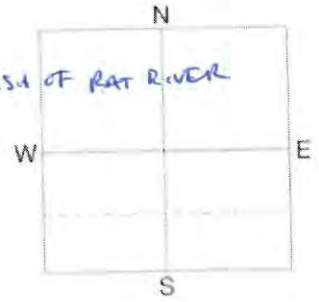
AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **7 & 8**
SAMPLE ID
FIELD NAME
COUNTY
TWP **6-4E** RANGE
SECTION **10** QTR **SW** ACRES **158**
PREV. CROP **Soybeans**

RL 19 & 20, PARISH OF RAT RIVER - PART 1



SUBMITTED FOR:
RPL FARMS

BOX 184
NIVERVILLE, MB **R0A 1E0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041331** BOX # **0**
LAB # **NW104960**

Date Sampled **10/09/2013** Date Received **10/11/2013** Date Reported **10/15/2013**

Nutrient In The Soil		Interpretation (Very Low / Low / Med. / High)
Nitrate	0-6" 13 lb/ac 6-24" 30 lb/ac 0-24" 43 lb/ac	
Phosphorus	Olsen 10 ppm	
Potassium	346 ppm	
Chloride		
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac	
Boron	2.3 ppm	
Zinc	0.70 ppm	
Iron	17.8 ppm	
Manganese	1.8 ppm	
Copper	1.57 ppm	
Magnesium	2003 ppm	
Calcium	6742 ppm	
Sodium	157 ppm	
Org Matter	5.3 %	
Carbonate(CCE)		
Soil Salts	0-6" 1.1 mmho/cm 6-24" 1.3 mmho/cm	

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
75 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	145	
P_2O_5	39	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	2	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
45 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	100	
P_2O_5	34	Band *
K_2O	0	
Cl		
S	10	Band
B	0	
Zn	2	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Corn-Grain		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	83	
P_2O_5	39	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	0	
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.3		52.0 meq	(65-75) 64.9	(15-20) 32.1	(1-7) 1.7	(0-5) 1.3	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 47 K2O = 28 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 41 K2O = 20 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

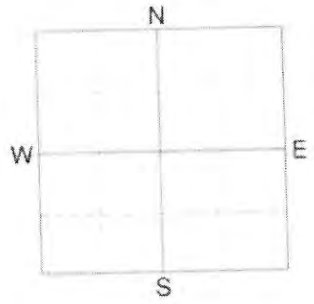
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID 9 — RL 19 & 20
SAMPLE ID
FIELD NAME — PARISH OF RAT RIVER
COUNTY
TWP 6-4E — RANGE - PART 2
SECTION — QTR — ACRES 71
PREV. CROP Soybeans



SUBMITTED FOR:
RPL FARMS

BOX 184
NIVERVILLE, MB R0A 1E0

SUBMITTED BY: PR2421
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # 14041332 BOX # 0
LAB # NW104964

Date Sampled 10/09/2013 — Date Received 10/11/2013 — Date Reported 10/15/2013

Nutrient In The Soil		Interpretation (Very Low / Low / Med / High)
Nitrate 0-6"	10 lb/ac	
Nitrate 6-24"	30 lb/ac	
Nitrate 0-24"	40 lb/ac	
Phosphorus (Olsen)	8 ppm	
Potassium	312 ppm	
Chloride		
Sulfur 0-6"	26 lb/ac	
Sulfur 6-24"	360 +lb/ac	
Boron	2.0 ppm	
Zinc	0.41 ppm	
Iron	17.8 ppm	
Manganese	2.2 ppm	
Copper	1.79 ppm	
Magnesium	2059 ppm	
Calcium	6207 ppm	
Sodium	130 ppm	
Org Matter	4.4 %	
Carbonate(CCE)		
Soil Salts 0-6"	0.48 mmho/cm	
Soil Salts 6-24"	1.14 mmho/cm	

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
75 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	148	
P_2O_5	44	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
45 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	103	
P_2O_5	38	Band *
K_2O	0	
Cl		
S	15	Band
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Corn-Grain		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	86	
P_2O_5	46	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	3	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.4 6-24" 8.5		49.6 meq	(65-75) 62.6	(15-20) 34.6	(1-7) 1.6	(0-5) 1.1	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 47 K2O = 28 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 41 K2O = 20 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

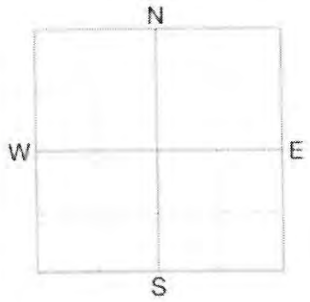
AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID 10
SAMPLE ID
FIELD NAME
COUNTY
TWP 6-4E RANGE
SECTION 5 QTR RL ACRES 77
PREV. CROP Soybeans

RL 19 & 20
PARISH OF
RAT RIVER
- PATE 3



SUBMITTED FOR:
RPL FARMS
BOX 184
NIVERVILLE, MB R0A 1E0

SUBMITTED BY: PR2421
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # 14041333 BOX # 0
LAB # NW104972

Date Sampled 10/09/2013 Date Received 10/11/2013 Date Reported 10/15/2013

Nutrient In The Soil		Interpretation (Very Low / Low / Med / High)
Nitrate 0-6"	11 lb/ac	
Nitrate 6-24"	27 lb/ac	
Nitrate 0-24"	38 lb/ac	
Phosphorus Olsen	6 ppm	
Potassium	397 ppm	
Chloride		
Sulfur 0-6"	62 lb/ac	
Sulfur 6-24"	312 lb/ac	
Boron	1.6 ppm	
Zinc	0.53 ppm	
Iron	18.8 ppm	
Manganese	2.1 ppm	
Copper	1.62 ppm	
Magnesium	1709 ppm	
Calcium	7141 ppm	
Sodium	62 ppm	
Org Matter	5.8 %	
Carbonate(LCE)		
Sol. Salts 0-6"	0.62 mmho/cm	
Sol. Salts 6-24"	0.73 mmho/cm	

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
75 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	150	
P_2O_5	49	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	2	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
45 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	105	
P_2O_5	43	Band *
K_2O	0	
Cl		
S	10	Band
B	0	
Zn	2	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Corn-Grain		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	88	
P_2O_5	53	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	2	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.0 6-24" 8.4		51.2 meq	(65-75) 69.7	(15-20) 27.8	(1-7) 2.0	(0-5) 0.5	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 47 K2O = 28 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 41 K2O = 20 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

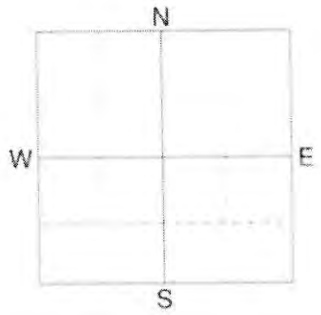
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **4**
SAMPLE ID
FIELD NAME
COUNTY
TWP **6-4E** RANGE
SECTION **32** QTR **Se** ACRES **79**
PREV. CROP **Soybeans**



SUBMITTED FOR:
RPL FARMS

PO BOX 184
NIVERVILLE, MB **R0A 1E0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041326** BOX # **0**
LAB # **NW94035**

Date Sampled **10/03/2013** Date Received **10/07/2013** Date Reported **3/10/2014**

Nutrient In The Soil		Interpretation (Very Low / Low / Med / High)
Nitrate	0-6" 17 lb/ac 6-24" 66 lb/ac 0-24" 83 lb/ac	
Phosphorus	Olsen 35 ppm	
Potassium	400 ppm	
Chloride		
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac	
Boron	3.0 ppm	
Zinc	2.25 ppm	
Iron	12.3 ppm	
Manganese	2.0 ppm	
Copper	1.89 ppm	
Magnesium	2168 ppm	
Calcium	4857 ppm	
Sodium	259 ppm	
Org Matter	5.1 %	
Carbonate(CCE)		
Soil Salts	0-6" 1.03 mmho/cm 6-24" 1.45 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Wheat-Spring			Corn-Grain			Canola bu		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
75 BU			130 BU			45 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	105		N	43		N	60	
P_2O_5	15	Band (Starter)*	P_2O_5	15	Band (2x2) *	P_2O_5	10	Band (Starter)*
K_2O	10	Band (Starter)*	K_2O	10	Band (2x2) *	K_2O	0	
Cl			Cl			Cl		
S	0		S	0		S	10	Band
B	0		B	0		B	0	
Zn	0		Zn	0		Zn	0	
Fe	0		Fe	0		Fe	0	
Mn	0		Mn	0		Mn	0	
Cu	0		Cu	0		Cu	0	
Mg	0		Mg	0		Mg	0	
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.4 6-24" 8.6		44.5 meq	(65-75) 54.6	(15-20) 40.6	(1-7) 2.3	(0-5) 2.5	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 47 K2O = 28 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

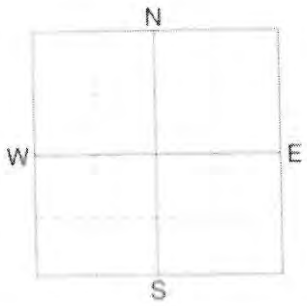
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 41 K2O = 20 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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

SOIL TEST REPORT

FIELD ID **3**
SAMPLE ID
FIELD NAME
COUNTY
TWP **7-4E** RANGE
SECTION **8** QTR **NE&W** ACRES **156**
PREV. CROP **Soybeans**



SUBMITTED FOR:
RPL FARMS

PO BOX 184
NIVERVILLE, MB **R0A 1E0**

SUBMITTED BY: **PR2421**
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB **R0A 1E0**

REF # **14041328** BOX # **0**
LAB # **NW94026**

Date Sampled **10/03/2013** Date Received **10/07/2013** Date Reported **10/8/2013**

Nutrient In The Soil		Interpretation (Very Low / Low / Med / High)
Nitrate	0-6" 9 lb/ac 6-24" 15 lb/ac 0-24" 24 lb/ac	*****
Phosphorus	Olsen 13 ppm	**********
Potassium	257 ppm	**********
Chloride		
Sulfur	0-6" 22 lb/ac 6-24" 360 +lb/ac	**********
Boron	2.2 ppm	**********
Zinc	0.69 ppm	**********
Iron	17.6 ppm	**********
Manganese	2.3 ppm	**********
Copper	1.54 ppm	**********
Magnesium	1586 ppm	**********
Calcium	5685 ppm	**********
Sodium	81 ppm	**********
Org.Matter	4.9 %	**********
Carbonate(CCE)		
Soil Salts	0-6" 0.4 mmho/cm 6-24" 0.77 mmho/cm	**********

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
75 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	164	
P_2O_5	32	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Corn-Grain		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	102	
P_2O_5	29	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	2	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Canola-bu		
YIELD GOAL		
45 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	119	
P_2O_5	27	Band *
K_2O	0	
Cl		
S	15	Band
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.3 6-24" 8.6		42.7 meq	(65-75) 66.6	(15-20) 31.0	(1-7) 1.5	(0-5) 0.8	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 47 K2O = 28 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 41 K2O = 20 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

AGVISE LABORATORIES

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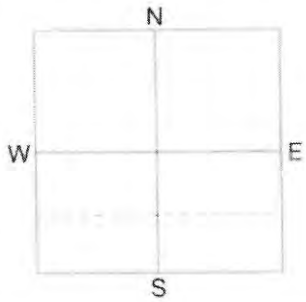
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID 1
SAMPLE ID
FIELD NAME
COUNTY
TWP 7-4E RANGE
SECTION 19 QTR SE ACRES 153
PREV. CROP Soybeans



SUBMITTED FOR:
RPL FARMS
BOX 184
NIVERVILLE, MB R0A 1E0

SUBMITTED BY: PR2421
PRAIRIE SKY AVIATION
2 MI SOUTH ON 59
BOX 309
NIVERVILLE, MB R0A 1E0

REF # 14041322 BOX # 0
LAB # NW87851

Date Sampled 10/02/2013 Date Received 10/03/2013 Date Reported 10/7/2013

Nutrient In The Soil		Interpretation (Very Low / Low / Med / High)
Nitrate 0-6"	11 lb/ac	
Nitrate 6-24"	18 lb/ac	
Nitrate 0-24"	29 lb/ac	
Phosphorus Olsen	14 ppm	
Potassium	280 ppm	
Chloride		
Sulfur 0-6"	20 lb/ac	
Sulfur 6-24"	336 lb/ac	
Boron	1.8 ppm	
Zinc	0.70 ppm	
Iron	13.6 ppm	
Manganese	1.7 ppm	
Copper	1.46 ppm	
Magnesium	1680 ppm	
Calcium	5619 ppm	
Sodium	73 ppm	
Org.Matter	4.8 %	
Carbonate(CCE)		
Sol. Salts 0-6"	0.46 mmho/cm	
Sol. Salts 6-24"	0.83 mmho/cm	

1st Crop Choice		
Wheat Spring		
YIELD GOAL		
75 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	159	
P_2O_5	29	Band *
K_2O	10	Band (Starter)*
Cl		
S	0	
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
45 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	114	
P_2O_5	25	Band *
K_2O	0	
Cl		
S	15	Band
B	0	
Zn	3	Band (Trial)
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

3rd Crop Choice		
Corn-Grain		
YIELD GOAL		
130 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	97	
P_2O_5	25	Band *
K_2O	10	Band (2x2) *
Cl		
S	0	
B	0	
Zn	2	Band
Fe	0	
Mn	0	
Cu	0	
Mg	0	
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 8.3 6-24" 8.7		43.1 meq	(65-75) 65.1	(15-20) 32.5	(1-7) 1.7	(0-5) 0.7	(0-5)

General Comments: Texture is not estimated on high pH soils.

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 47 K2O = 28 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 41 K2O = 20 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 52 K2O = 35 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Appendix 10

CROP ROTATION TABLE

The land requirement reflected below, including the crop yields, was developed in consultation with MAFRD.

A	B	C	D	E
Expected Crops in the Rotation	**Acreage**	**Historical Yield**	**Units**	**Source of Yield Information**
Alfalfa	**195**	**1.866**	**tons/acre**	**MASC data – 10 year yield (2004-2013)**
Canola	**1,240**	**32.3**	**bu/acre**	**MASC data – 10 year yield (2004-2013)**
Corn Grain	**1,152**	**87.1**	**bu/acre**	**MASC data – 10 year yield (2004-2013)**
Grass Hay	**761**	**1.83**	**tons/acre**	**MASC data – 10 year yield (2004-2013)**
Soybeans	**310**	**30.1**	**bu/acre**	**MASC data – 10 year yield (2004-2013)**
Spring Wheat	**480**	**46.4**	**bu/acre**	**MASC data – 10 year yield (2004-2013)**
Total Net Acreage for Manure Application	**4,138**			

A. List all of the crop(s) to be grown in the rotation on the acreage that will receive manure.
B. Indicate the average acreage for each crop over the rotation. For example, if there are 720 suitable acres available for manure and approximately 40 these acres will be used to grow canola, enter 288. The total of column B should add up to Total Net Acreage for Manure Application provided in the Manure Application Field Characteristic Table.
C. Enter the historical yield average for each crop. Long-term yield averages can be determined using MASC data (http://www.masc.mb.ca/masc.nsf/index.html?OpenPage) or on-farm yield records. If on-farm yield records are used, please provide copies.
D. Enter the units for the yields provided (e.g. bu/acre, tons/acre).
E. Enter the source of the historical yield average provided.

Appendix 11 - POL Land Base Calculator - 1e - Poultry

Species / Commodity	Type of Operation	Storage Type	Volatilization	Bird Places	Weight In (lb)
Chickens	Broilers	Field Storage	40%	0	0.05
Chickens	Broiler Breeder Pullets	Field Storage	40%	0	0.05
Chickens	Broiler Breeder Hens	Field Storage	40%	0	4.40
Eggs	Layer Pullets	Liquid Covered	10%	0	0.05
Eggs	Layer Hens	Mechanically Dried	40%	128000	3.03
Eggs	Breeder Pullets	Liquid Covered	10%	0	0.05
Eggs	Breeder Hens	Liquid Covered	10%	0	3.03
Turkey	Broiler Hens (0-9 wks)	Field Storage	40%	0	0.06
Turkey	Hens (0-11 wks)	Field Storage	40%	0	0.06
Turkey	Heavy Hens (0-14 wks)	Field Storage	40%	0	0.06
Turkey	Light Toms (0-12 wks)	Field Storage	40%	0	0.06
Turkey	Toms (0-13 wks)	Field Storage	40%	0	0.06
Turkey	Heavy Toms (0-15 wks)	Field Storage	40%	0	0.06
Turkey	Breeding Hen Growers (0-30 wks)	Field Storage	40%	0	0.06
Turkey	Breeding Hens (30-60 wks)	Field Storage	40%	0	26.95
Turkey	Breeding Tom Grower (0-18 wks)	Field Storage	40%	0	0.06
Turkey	Breeding Tom Grower (0-30 wks)	Field Storage	40%	0	0.06
Turkey	Breeding Tom (30-60 wks)	Field Storage	40%	0	50.89

Weight Out (lb)	Average Weight (lb)	Days on Feed	Cycles per Year	N Excreted Adjusted for N Loss lb/flock/yr	P2O5 Excreted lb/flock/yr
4.36	2.20	33	7.4	0	0
4.40	2.23	140	2	0	0
8.67	6.53	273	1	0	0
3.04	1.54	133	2	0	0
3.74	3.38	355	1	104741	119929
3.04	1.54	133	2	0	0
3.74	3.38	351	1	0	0
12.39	6.22	63	4	0	0
16.46	8.26	77	3.5	0	0
21.19	10.62	98	3	0	0
21.19	10.62	84	3	0	0
26.84	13.45	91	3	0	0
30.29	15.18	105	2.5	0	0
26.95	13.51	210	1	0	0
24.95	25.95	210	1	0	0
33.92	16.99	126	2	0	0
50.89	25.47	210	1	0	0
61.86	56.38	210	1	0	0

Appendix 11.1 - POL Land Base Calculator - 2 - Crop Rotation

Crop	Removal P2O5	Removal N	Uptake N	Units	Yield	Units	Acreage	Removal P2O5 (lb)	Removal N (lb)	Uptake N (lb)
Alfalfa	13.8	58	58	lb/ton	1.866	ton/ac	195	5021	21104	21104
Barley Grain	0.42	0.97	1.39	lb/bu		bu/ac		-	-	-
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-	-	-
Canola	1.04	1.93	3.19	lb/bu	32.3	bu/ac	1240	41654	77300	127766
Corn Grain	0.44	0.97	1.53	lb/bu	87.1	bu/ac	1152	44149	97329	153519
Corn Silage	12.7	31.2	31.2	lb/ton		tons/ac		-	-	-
Dry Edible Beans	1.39	4.17		lb/cwt		cwt/ac		-	-	-
Fababeans	1.79	5.02	8.4	lb/cwt		cwt/ac		-	-	-
Flax	0.65	2.13	2.88	lb/bu		bu/ac		-	-	-
Grass Hay	10	34.2	34.2	lb/ton	1.83	tons/ac	761	13926	47628	47628
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac		-	-	-
Oats	0.26	0.62	1.07	lb/bu		bu/ac		-	-	-
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac		-	-	-
Peas	0.69	2.34	3.06	lb/bu		bu/ac		-	-	-
Potatoes	0.09	0.32	0.57	lb/cwt		cwt/ac		-	-	-
Rye	0.45	1.06	1.67	lb/bu		bu/ac		-	-	-
Soybeans	0.84	3.87	5.2	lb/bu	30.1	bu/ac	310	7838	36111	48521
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	46.4	bu/ac	480	13140	33408	46994
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
						Sub Total	4138	125730	312881	445532
						Estimated Average Removal/Uptake (lb/ac)		30.4	75.6	107.7
						Additional Acres				
						Crop Planned on Additional Acres				
						Total Suitable Acres Available for Manure	4138			

Note: Additional acres include acres that are suitable and available for manure application but are seeded to crops that are not included in the table. Include the crop to be grown in the row below.

Last revised August 20, 2014

Appendix 11.2 - POL Land Base Calculator - 3 - Farm Excretion

Species	Animal Category/Operation type	N (lb/year)	P2O5 (lb/year)
Pigs	Gestating Sow	0	0
	Nursing Sow	0	0
	Gilts	0	0
	Boars	0	0
	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	0	0
	Weanlings	0	0
	Growers/finishers	0	0
Beef	Cows	0	0
	Bred Heifers	0	0
	Calves	0	0
	Bulls	0	0
	Cows, plus associated livestock	0	0
	Feedlot Cattle - grain based diet	0	0
	Pasture Cattle	0	0
	Backgrounders	0	0
Dairy	Lactating cow	0	0
	Dry cow	0	0
	Calf, 0-3 months	0	0
	Calf, 4-13 months	0	0
	Replacements, >13 months	0	0
	Mature Cows, plus assoc livestock	0	0
Sheep	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
Chickens	Broilers	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
Layers	Layer Pullets	0	0
	Layer Hens	104741	119929
	Breeder Pullets	0	0
	Breeder Hens	0	0
Turkeys	Broiler Hens (0-9 wks)	0	0
	Hens (0-11 wks)	0	0
	Heavy Hens (0-14 wks)	0	0
	Light Toms (0-12 wks)	0	0
	Toms (0-13 wks)	0	0
	Heavy Toms (0-15 wks)	0	0
	Breeding Hen Growers (0-30 wks)	0	0
	Breeding Hens (30-60 wks)	0	0
	Breeding Tom Grower (0-18 wks)	0	0
	Breeding Tom Grower (0-30 wks)	0	0
	Breeding Tom (30-60 wks)	0	0
	Total	**104741**	**119929**

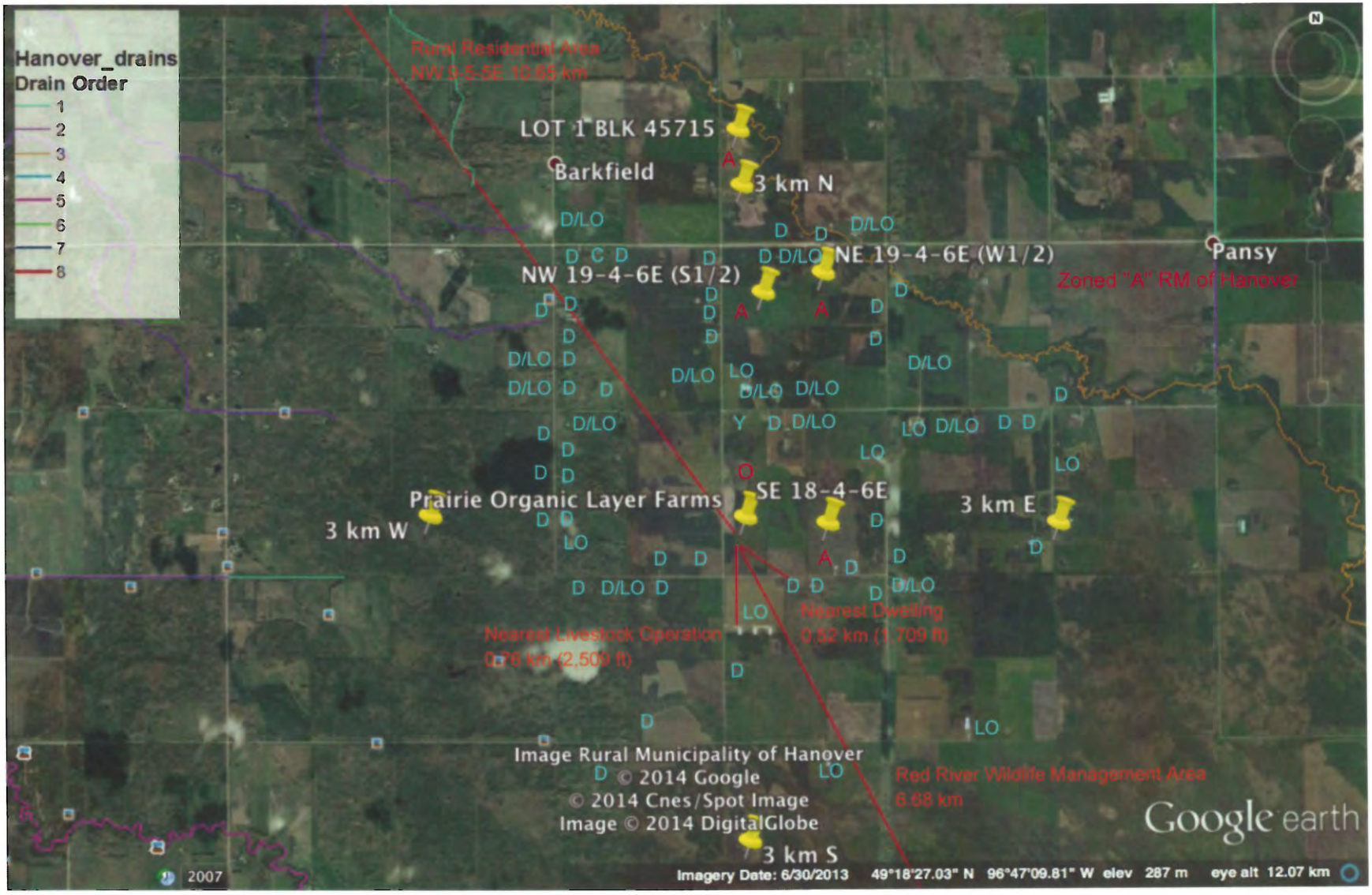
Note: Be sure all livestock species on your farm are represented in this table. Not just the proposed expansion.

Appendix 11.3 - POL Land Base Calculator - 4 - Land Base Summary

Nutrients Excreted	**lbs**
Nitrogen	104741
P2O5	119929
Crop Nutrient Use	**lb/ac**
Nitrogen Uptake	107.7
P2O5 Removal	30.4
Land Base Requirements	**acres**
Acres Available	4138
Acres for Nitrogen Uptake	**973**
Acres for 2 x P2O5 Removal	**1974**
Acres for 1 x P2O5 Removal	**3947**

Appendix 12

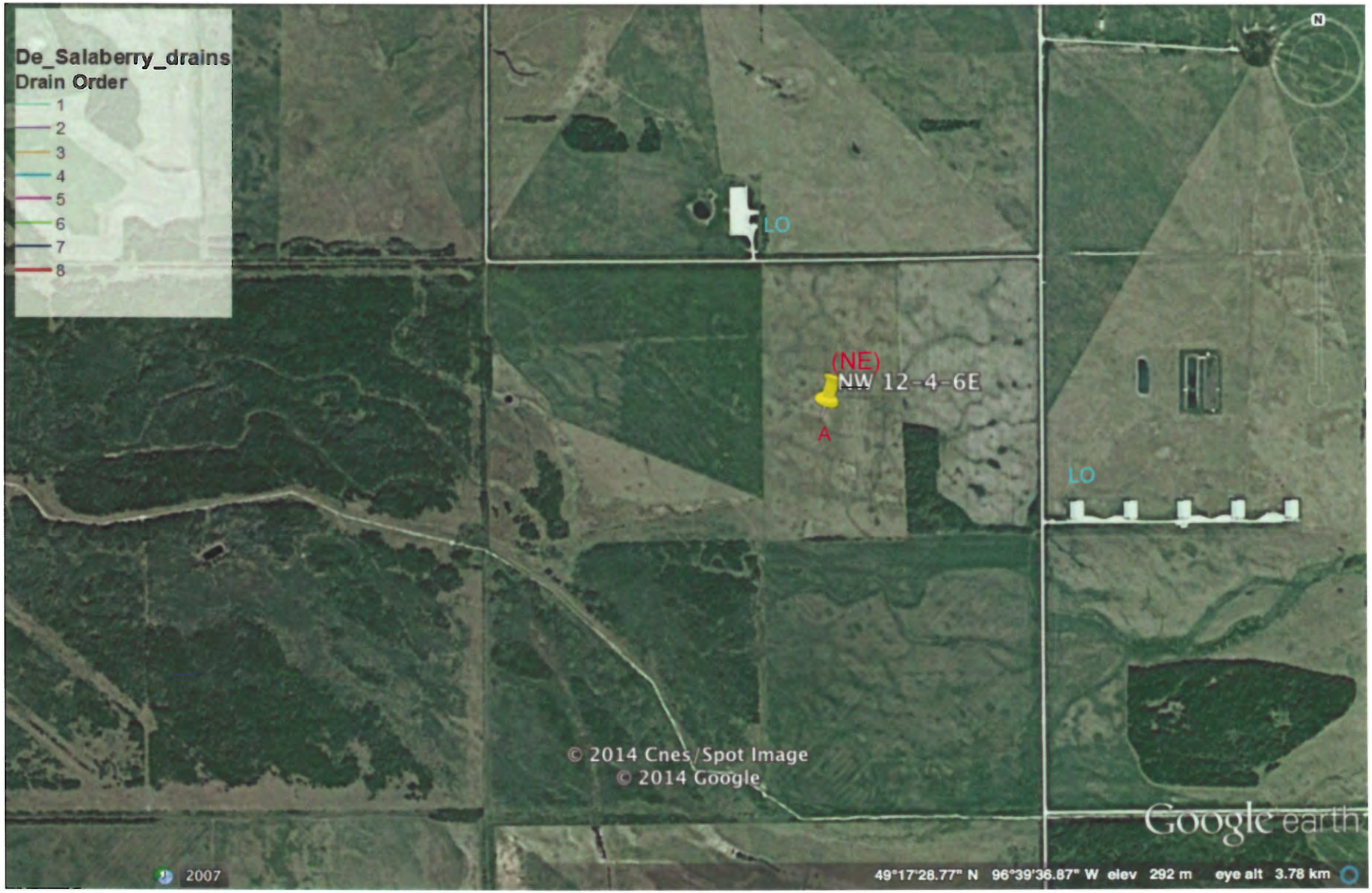
Land Use Map: Prairie Organic Layer Farms Ltd. - NW 18-4-6E (W1/2) and SW 18-4-6E (W1/2), RM of Hanover
Spread Fields - 4-6E (Prairie Organic Layer Farms and Ritzco Farms)



LEGEND: A = Spread Fields (Agreement) O = Spread Fields (Owned) D = Dwelling C = Church Y = Yard (no dwelling LO = Livestock Operation

Appendix 12.1 - Land Use Map

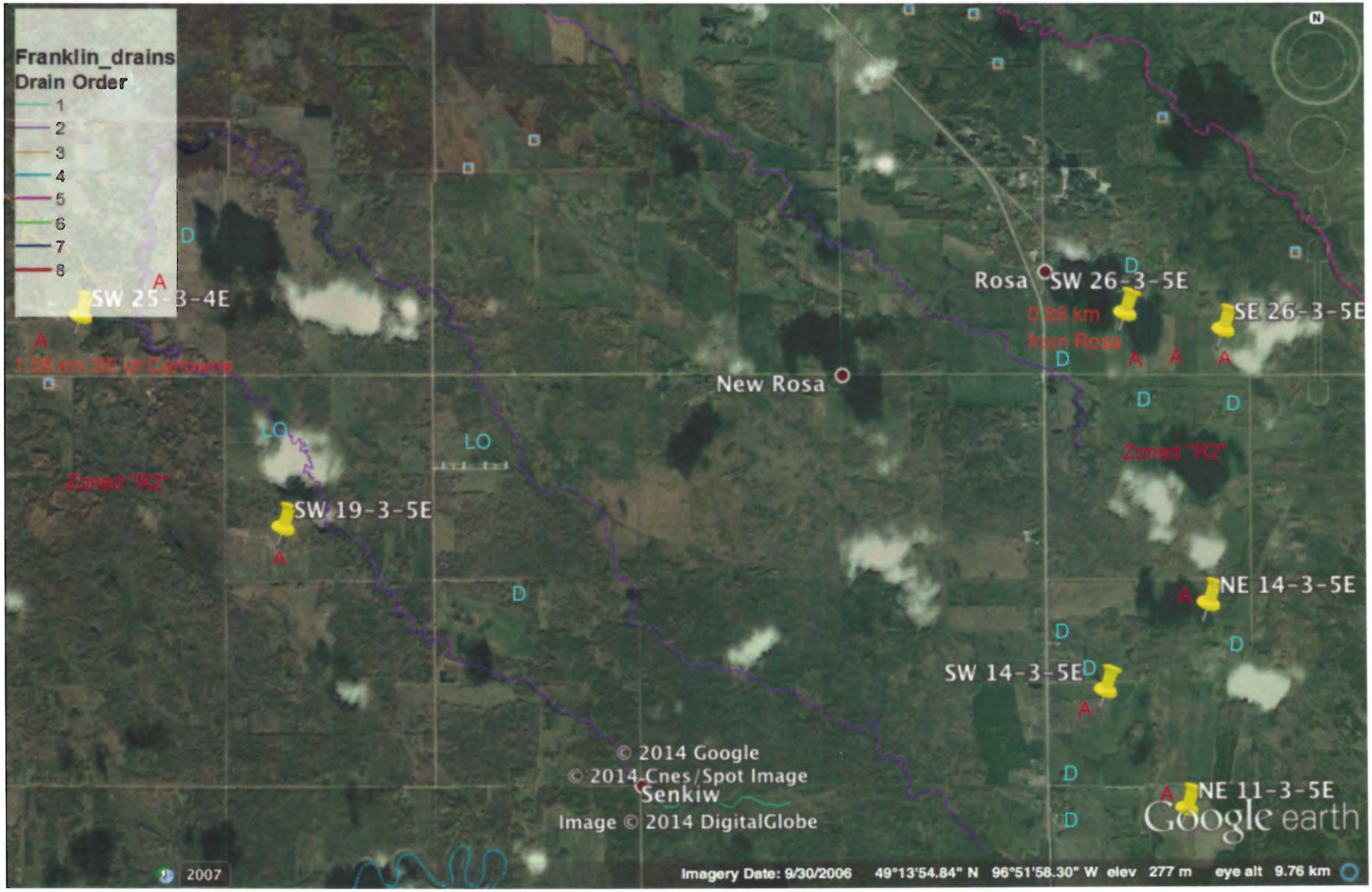
Prairie Organic Layer Farms Ltd. Spread Field - NW 12-4-6E (Ritzco Farms)



LEGEND: A = Spread Field (Agreement) D = Dwelling Y = Yard (no dwelling) LO = Livestock Opertaion

Appendix 12.2 - Land Use Map

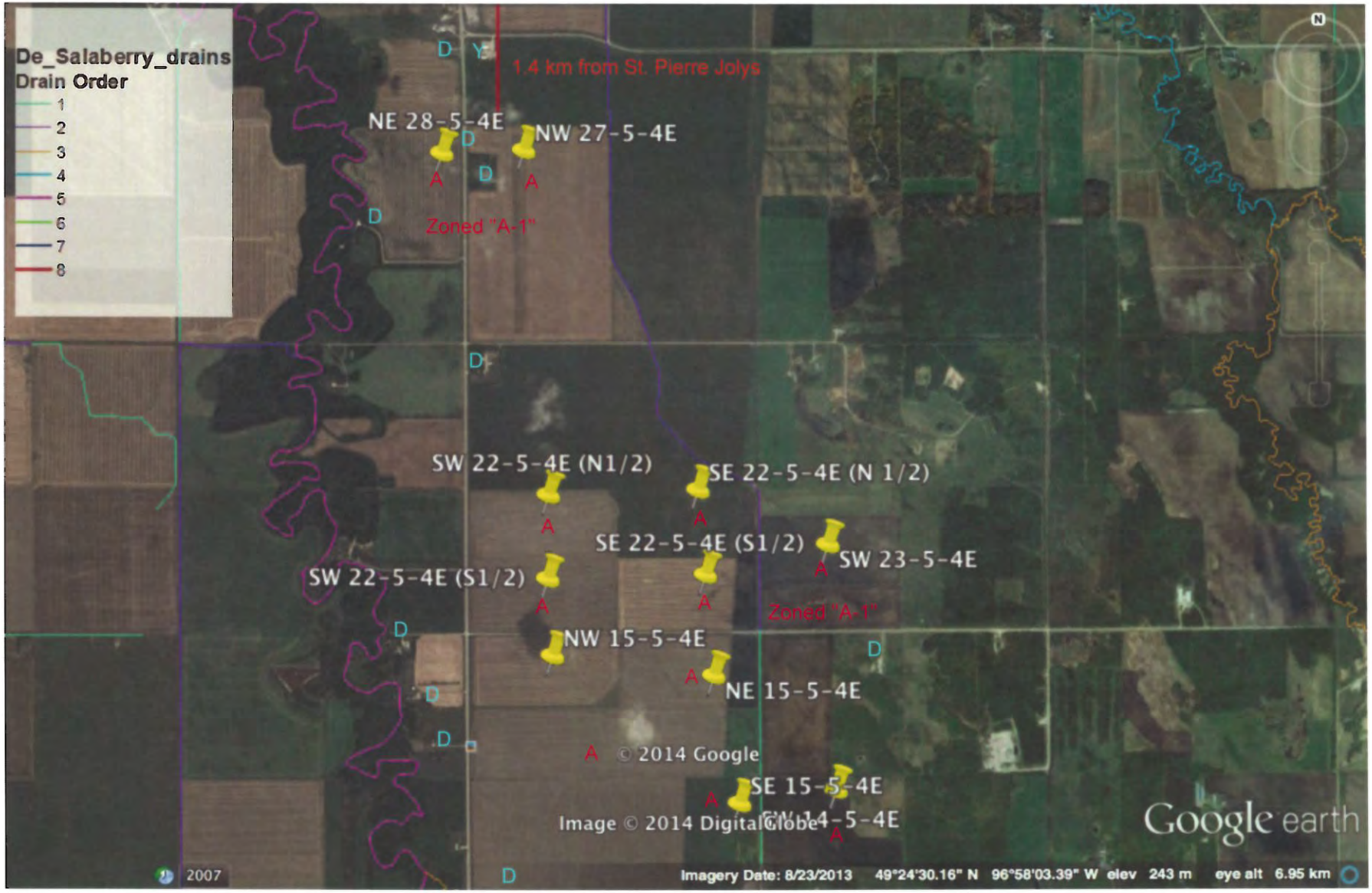
Prairie Organic Layer Farms Ltd. Spread Fields - 3-4E and 3-5E (Robert Budey and Glen Chubey)



LEGEND: A = Spread Fields (Agreement) D = Dwelling Y = Yard (no dwelling) LO = Livestock Operation

Appendix 12.3 - Land Use Map

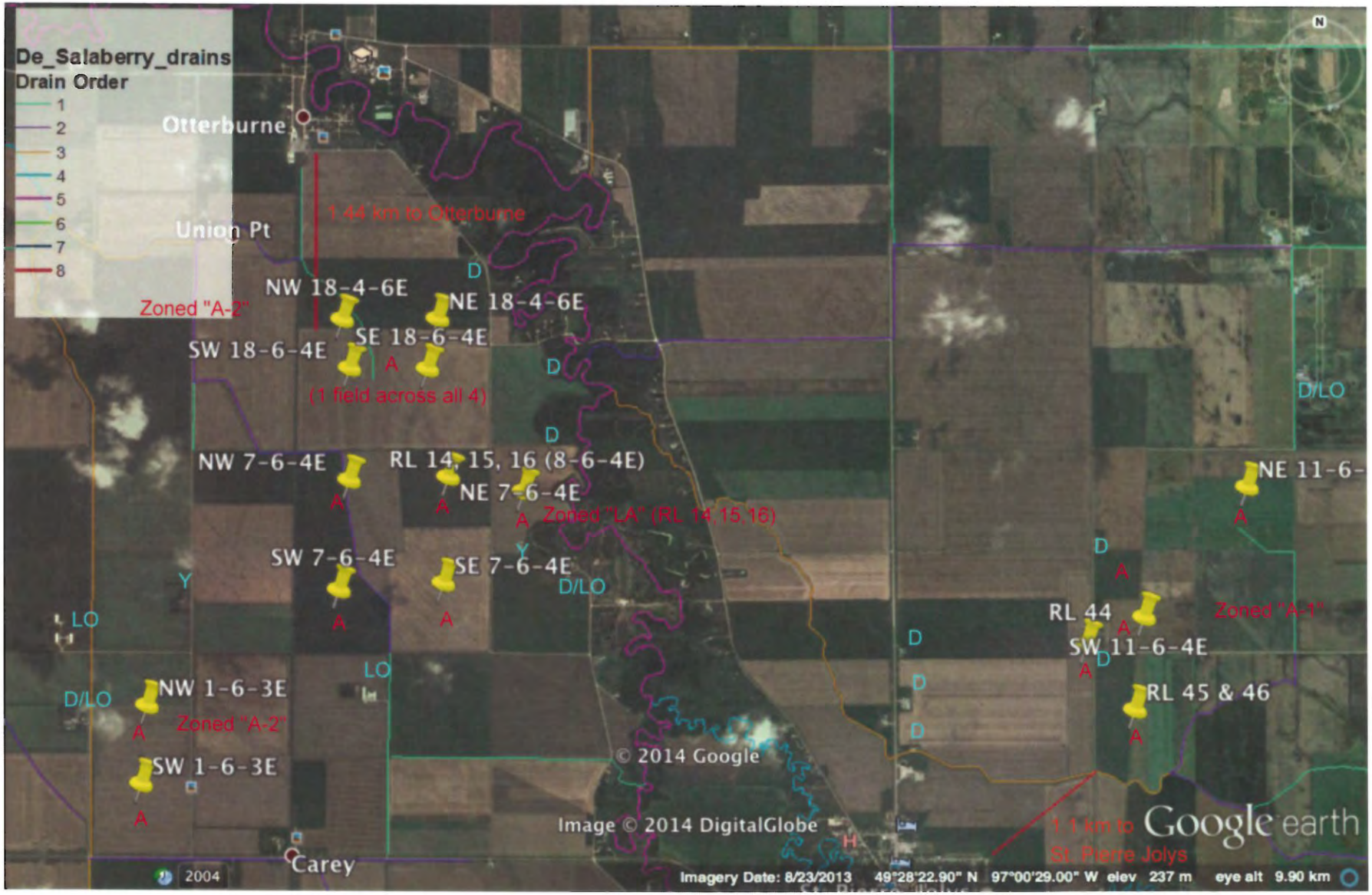
Prairie Organic Layer Farms Ltd. Spread Field Map - 5-4E (Al Robidoux and Rene Peloquin)



LEGEND: A = Spread Fields (Agreement) D = Dwelling Y = Yard (no dwelling) LO = Livestock Operation

Appendix 12.4 - Land Use Map

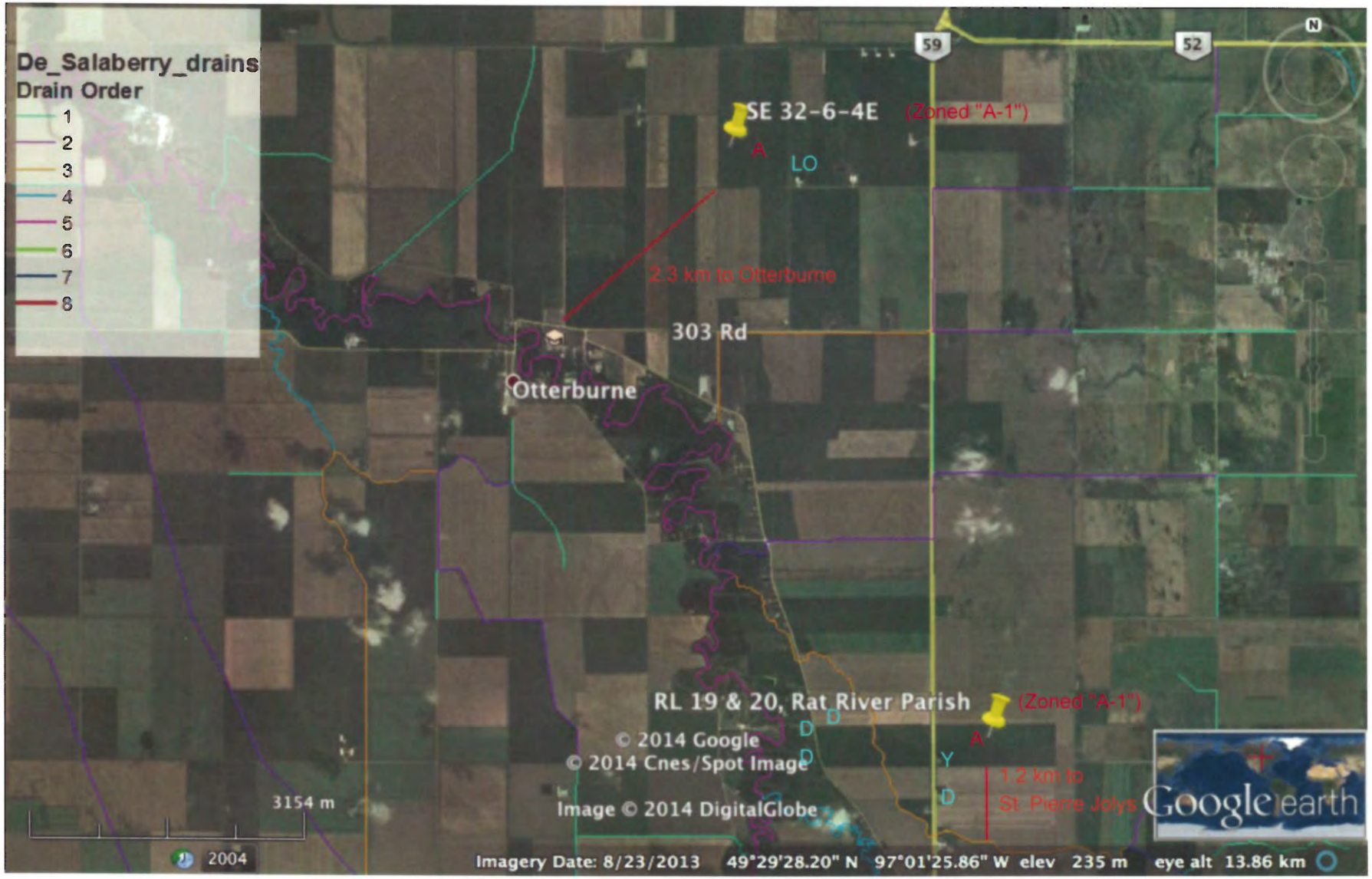
Prairie Organic Layer Farms Ltd. Spread Field Maps - 6-3E and 6-4E - Al Robidoux, Martin Reutter and Rene Peloquin (RL 44)



LEGEND: A = Spread Fields (Agreement) D= Dwelling Y = Yard (no dwelling) LO = Livestock Operation

Appendix 12.5 - Land Use Map
Prairie Organic Layer Farms Ltd.

SPREAD FIELDS MAP - SE 32-6-4E and RL 19 & 20, Rat River Parish (Reg Friesen)



LEGEND: A = Spread Fields (Agreement) D = Dwelling Y = Yard (no dwelling) LO = Livestock Operation

Appendix 12.6
Prairie Organic Layer Farms Ltd.

SPREAD FIELDS MAP - SE 19-7-4E and NE/NW 8-7-4E (Reg Friesen)

LEGEND: A = Spread Fields (Agreement) D = Dwelling Y = Yard (no dwelling) LO = Livestock Operation

APPENDIX 13

An Analysis of the Costs to Transport Solid Poultry Manure in Manitoba

Prairie Organic Layer Farms

Pansy, MB

Prepared for:

Penfor Construction Ltd.

PROVINCE OF MANITOBA
C. LIU
Member
22932
2014-08-
REGISTERED PROFESSIONAL ENGINEER

Prepared by:

DGH Engineering Ltd.
12 Aviation Boulevard
St. Andrews, Manitoba R1A 3N5

Contact: Charles Liu, P.Eng.

August 25, 2014

APEGM
Certificate of Authorization
DGH Engineering Ltd.
No. 540 Date: Aug. 25/14

DGH ENGINEERING LTD.

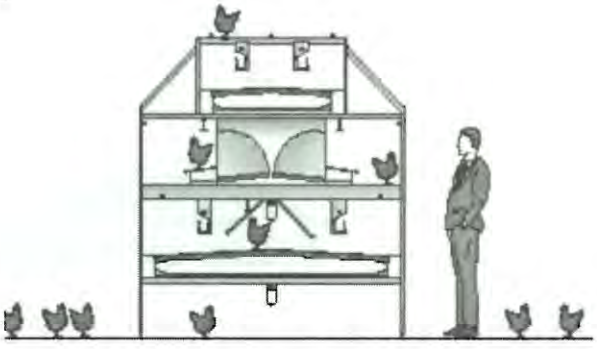
1. Introduction

DGH Engineering Ltd. was retained by Penfor Construction Ltd. to conduct an economic evaluation of transporting solid manure generated from the proposed Prairie Organic Layer Farms to manure spreading lands potentially available within 40 miles of the farm site. Manitoba Conservation has a policy in place concerning the transportation of manure that is based on the assumption that transportation costs are economically viable at distances of up to 10 miles. Beyond this distance Manitoba Conservation believes that manure hauling is not likely sustainable. This policy may be a reasonable policy for liquid manure but should not be directly transferred to dry, solid forms of manure. The nutrient value per tonne of dry solid manure can support longer haul distances at the same level of economic feasibility as the following discussion will show.

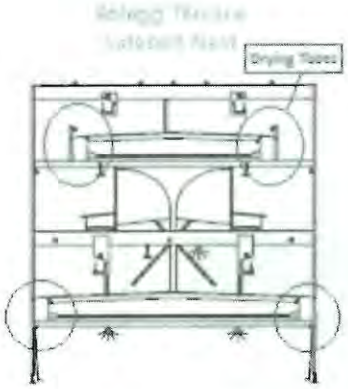
Information on manure characteristics, transportation methods and costs were collected and reviewed. Monetary values of manure nutrients were calculated. Comparisons of the cost of transportation of liquid manure and solid manure were conducted.

2. Expected manure characteristics from proposed Prairie Organic Layer Farms

The owner of Prairie Organic Farms also owns and operates a layer farm, Swan Creek Layer Farms (SCLF), in Ontario. The proposed Prairie Organic Layer Farms (POL) is to be operated in the same way as the existing Swan Creek Layer Farms. The manure handling method in POL is also to be the same as the existing system in SCLF. A Bolegg Terrace Aviary (BTA) system is to be installed in the proposed new barns. BTA is equipped with drying tubes to reduce the moisture of manure (Sketch 1a and 1b).



Sketch 1a. BTA system Floor Housing



Sketch 1b. BTA system Drying Tubes

A manure sample generated from the BTA at SCLF was collected in April 2014. The test report from SGS Agri-Food Laboratories is attached and the results shown in Table 1.

3. Comparison of Nutrient Value of Manure of Major Livestock Animals

To compare BTA manure with typical poultry manure, Manitoba Guidelines for Poultry Producers was reviewed. MAFRI was contacted for clarification of the poultry manure data in the Guidelines. MAFRI has noted questionable data in the Guidelines and MAFRI is planning to revise the Guidelines. Based on this, the Manure Guidelines were not referenced in this evaluation and alternate sources were used.

An American laboratory experienced in manure analysis, Agri Analysis, conducted a broad study of the nutrient value of manure as fertilizer. They tested 129, 55 and 22 manure samples from farms housing cattle, poultry and hogs, respectively. The published results showed that poultry manure is far richer in nutrients than hog and cattle manure for the three main nutrients: N, P and K. This richness is primarily due to the low moisture content in poultry manure.

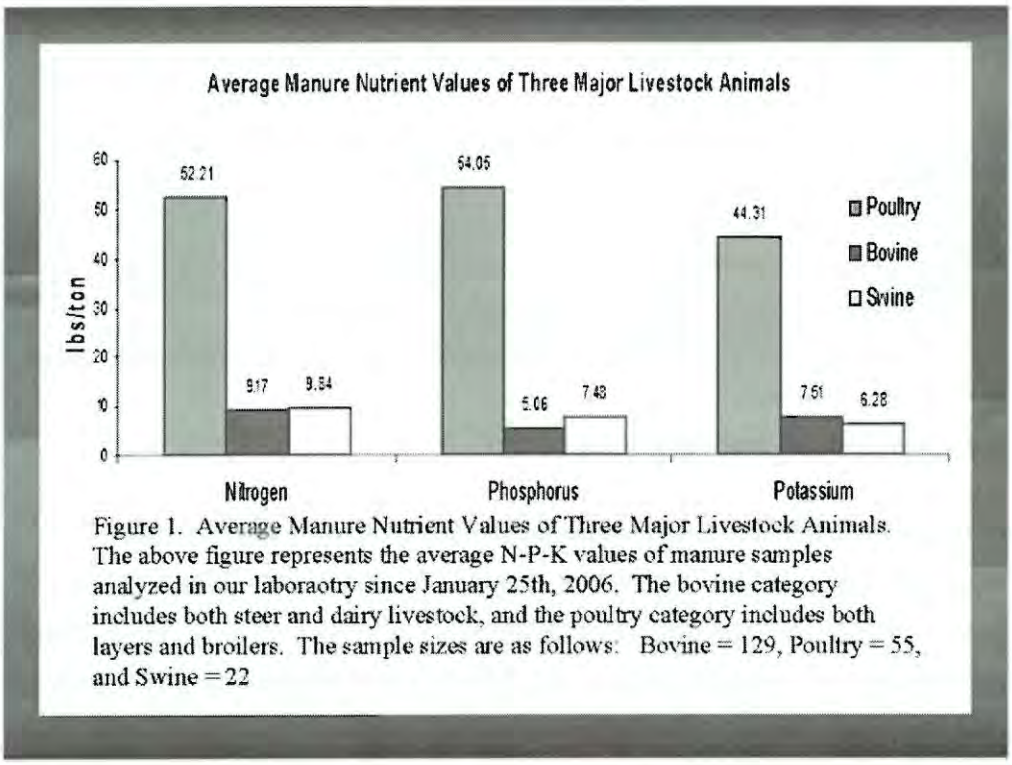


Figure 1. Average Manure Nutrient Values of Three Major Livestock Animals. The above figure represents the average N-P-K values of manure samples analyzed in our laboraotry since January 25th, 2006. The bovine category includes both steer and dairy livestock, and the poultry category includes both layers and broilers. The sample sizes are as follows: Bovine = 129, Poultry = 55, and Swine = 22

Figure 1. Nutrient Value of Manure (Source: www.agrianalysis.com)

The phosphorus and potassium represented in the Figure are in the form of P_2O_5 and K_2O, respectively.

It is apparent that due to the much higher nutrient value per tonne of poultry manure it is more feasible to transport poultry nutrients from one region to another than manure from other livestock species. For convenience, the units in Figure 1 were converted to metric units and are shown in Table 1.

Table 1. Manure Nutrient in Metric Units

	N (kg/tonne)	P_2O_5 (kg/tonne)	K_2O (kg/tonne)	Samples tested
Bovine Manure*	4.58	2.53	3.75	129
Swine Manure*	4.92	3.74	3.14	22
Poultry Manure*	26.10	27.02	22.15	55
BTA Layer Manure$^{\Psi}$	29.60	16.72	11.45	1

*converted from original imperial unit data.
$^{\Psi}$ Source: SGS Agri-Food Laboratories report, 2014-04-07

Based on 2013 fertilizer prices, the monetary values of typical manure nutrients and BTA manure nutrients are listed in Table 2. The dollar value of BTA manure compares well with typical poultry manure and is approximately 5 to 6 times of that of liquid swine manure and liquid bovine manure.

Table 2. Nutrient Monetary Value of Manure

Fertilizer	N	P_2O_5	N+P value
Market Price ($/kg)†	1.17	1.15	-----
Bovine Manure ($/tonne)*	5.36	2.91	8.27
Swine manure ($/tonne)*	5.76	4.30	10.06
Poultry Manure ($/tonne)*	30.54	31.07	61.61
BTA Layer Manure ($/tonne)$^{\Psi}$	34.59	19.17	53.76

† Understanding and Applying Real World Experiences Associated with Separated Hog Solids Management to Manitoba, Appendix K, P67
http://www.manure.mb.ca/projects/pdfs/Final%20Report%20(website)%202012-06%20Agra-Gold%20Consulting%20Separated%20hog%20solids%20management.pdf
* based the data in Table 1.
$^{\Psi}$ based on SGS Agri-Food Laboratories report, 2014-04-07

4. Transportation of solid manure and liquid manure

There is a significant difference between liquid manure transportation and solid manure transportation. To transport liquid manure, a tanker is needed. To transport solid manure a dump truck is suitable for small quantities and short distances or a large box, walking floor trailer can be used for large amounts and long distances. This difference in equipment contributes to the difference in transportation costs.

Local contractors were consulted for the prices of solid and liquid manure transportation. For liquid manure transportation up to 10 miles with a 8000 gallon tanker, the charge rate is $120.00 per round trip. For solid manure transportation to 40 miles with a 25-ton trailer, the charge rate is $300 per round trip. It is acknowledged that the typical haul distance proposed by POL is 25 miles. This evaluation was conducted for a dry manure haul distance of up to 40 miles to offer a conservative assessment and potentially to afford future flexibility for this type of operation.

For large scale livestock operations, to transport manure by their own vehicles may be more economical. This is especially true for solid manure transportation. Some poultry producers we consulted use 140 to 150 cubic yard (107 m^3 to 115m^3) walking floor trailers for manure transportation. These trailers are widely available and are used to transport bulk solids such as wood shavings and chopped forages. Since manure transportation can share the trailer with other tasks, the ownership depreciation cost can be reduced, and consequently the unit cost of manure transportation can be significantly reduced.

The density of liquid manure is approximately 4.546 tonne/1000 gallons. The transportation cost of a 8000 gallon load of liquid swine manure for 10 miles is $6.60 per tonne.

The cost to transport a 25 ton load of BTA layer manure 40 miles is $13.23 per tonne.

Table 3. Comparison of Nutrient Retrieval Costs of 10-Mile Liquid Manure and 40-Mile Solid Manure Transportation

	I	II
	N+P Value ($/tonne)	Nutrient Retrieval Cost $\left[\frac{\$ \text{ Nutrient Value}}{\$ \text{ Manure Hauling Cost}}\right]$
Liquid Swine Manure* 10 miles	10.06	1.54
BTA Layer Manure* 40 miles	53.76	4.00

*copied from Table 2.

5. **Discussions and Conclusions**

Column I in Table 3 indicates that the nutrient value (nitrogen and phosphorus) of the solid poultry BTA manure from the POL operation can be expected to be five times that of liquid hog manure. This fact alone indicates that it is economically feasible to transport solid poultry manure much further than liquid hog manure.

In Column II of Table 3, the cost to transport manure is presented as a ratio relative to the cost of chemical fertilizer nutrients. When liquid hog manure is transported 10 miles at a cost of $6.60 per tonne, the value of the nitrogen (N) and phosphorus (P) is approximately 1.5 times the cost to haul the manure. In other words, every $ spent to haul the manure provides $1.50 of chemical fertilizer nutrients.

When the BTA layer manure from Prairie Organic Layer is transported 40 miles, the value of the N and P is approximately four times the cost of the equivalent amount of chemical fertilizer (i.e. $1 for manure hauling delivers $4 chemical fertilizer nutrients). In fact, transportation of dry BTA poultry manure in excess of 100 miles can probably offer the same nutrient retrieval cost as transportation liquid pig manure 10 miles.

The results of this study clearly demonstrate that the manure from the proposed Prairie Organic Layer operation can be sustainably transported a distance significantly further than the 10 mile limit that is presently the policy of Manitoba Conservation. The proposed haul distances of up to 40 miles for dry the dry BTA poultry manure is even more affordable than hauling liquid swine manure 10 miles. Even at these hauling costs, farmers have ample incentive to use manure since they are receiving nutrients at a much lower cost than the cost of the commercial fertilizer replaced and also provides valuable organic matter as fringe benefit.

SGS AGRIFOOD LABORATORIES

1503 Imperial Road North Guelph, ON N1H 6T9 T: 519 837-1600 1-800-265-7175 F: 519 837-1242 ca.agri.guelph.lab@sgs.com

Report # 486353

Manure Analytical Report

Email

Swan Creek Layer Farms - Jim Swanston -
Scratch & Belts Manure
7565 Fourth Line
RR 2
Elora, ON N0B 1S0

Fax: 519-993-6460

Email: jimswanston1@gmail.com

Cash Received for Tests: 42.50
HST Received (#R124245911): 5.53

Date Received: Apr-03-2014

Date Reported: Apr-07-2014

Lab ID: 12847802 Sample ID: 1 - Manure From Scratch & Type: manure-chicken (layers)

Laboratory Results

Dry Matter %	57.38
pH	6.70
Nitrogen (%)	2.96
Ammonia - N (ppm)	1257.83
Phosphorus (%)	0.73
Potassium (%)	0.95

Reduction in Fertlizer Application

	(kg/tonne)	(lb/ton)
Nitrogen - Incorporated 1 Day	9.43	18.92
Nitrogen - Incorporated 3 Days	9.31	18.67
Nitrogen - Incorporated 5 Days	9.18	18.42
Nitrogen - Not Incorporated	8.92	17.89
Nitrogen - Injected		
Nitrogen - Early Fall Applied	10.93	21.94
Nitrogen - Late Fall Applied	11.53	23.12
Phosphate	6.70	13.44
Potash	10.30	20.66

Nutrients Applied (lb/ac)

Application Rate (ton/ac)	Nitrogen Incorporated 1 Day	Nitrogen Incorporated 3 Days	Nitrogen Incorporated 5 Days	Nitrogen Not Incorporated	Nitrogen Injected	Nitrogen Early Fall Applied	Nitrogen Late Fall Applied	Phosphate	Potash
1	18.9	18.7	18.4	17.9		21.9	23.1	13.4	20.7
2	37.8	37.3	36.8	35.8		43.9	46.2	26.9	41.3
3	56.8	56.0	55.3	53.7		65.8	69.4	40.3	62.0
4	75.7	74.7	73.7	71.6		87.8	92.5	53.8	82.6
5	94.6	93.4	92.1	89.5		109.7	115.6	67.2	103.3

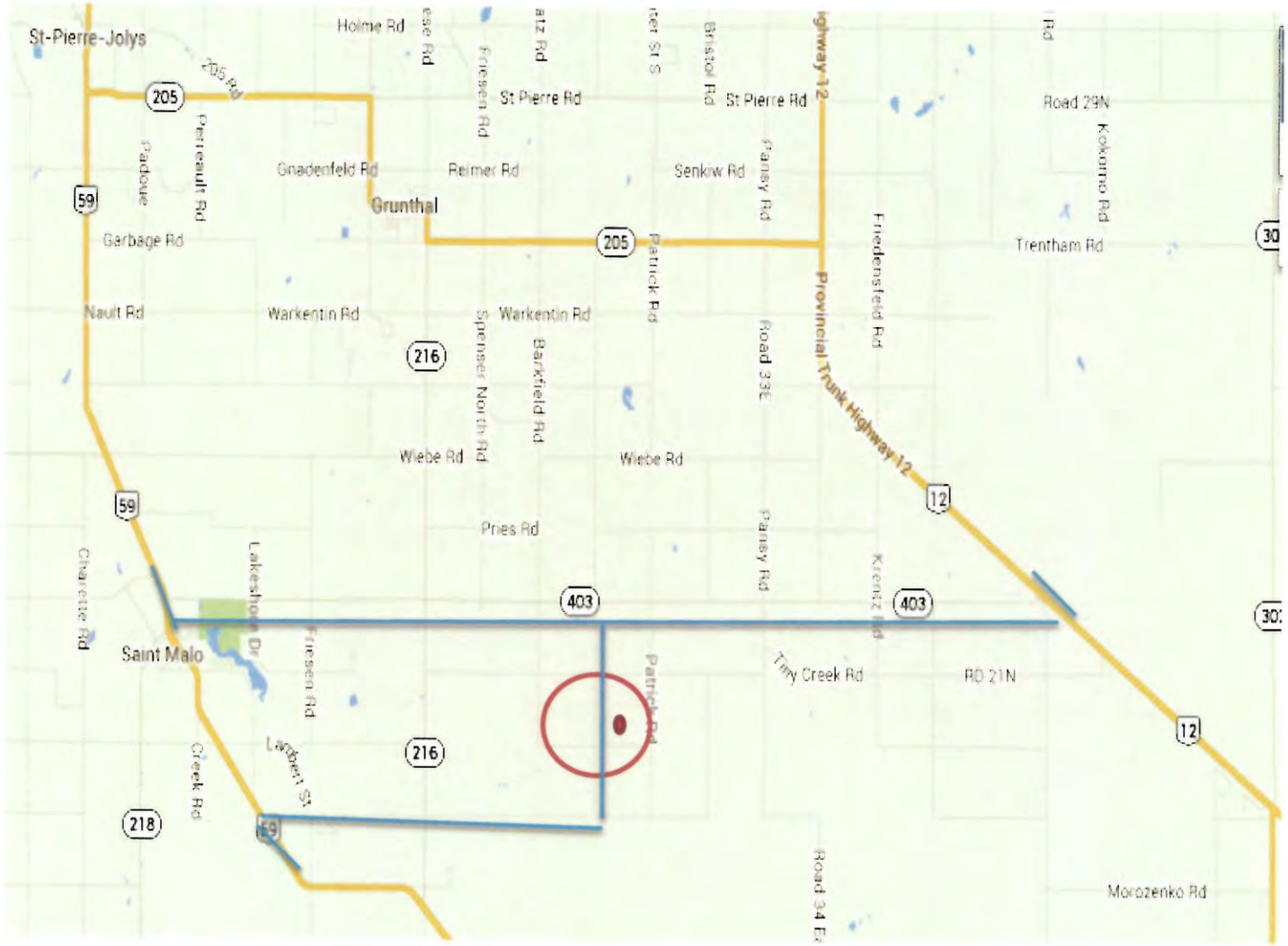
Value of Manure ($/ton)

	N	P2O5	K2O	Total
Incorporated 1 Day	10.97	9.68	10.12	30.77
Incorporated 3 Days	10.83	9.68	10.12	30.63
Incorporated 5 Days	10.68	9.68	10.12	30.48
Not Incorporated	10.38	9.68	10.12	30.18
Injected				
Early Fall Applied	12.73	9.68	10.12	32.53
Late Fall Applied	13.41	9.68	10.12	33.21

Authorized By: *Jack Legg*

Certified Crop Advisor, CCA-

Appendix 14 – Truck Haul Routes and Access Points Map



Truck Haul and Access Routes Map

Truck Haul Route

NW 18-4-6E (W 1/2 and E 1/2 W 200F OF N 400F) and SW 18-4-6E (W 1/2)

RM of Hanover

Appendix 15 - Response from Conservation Data Centre

Prairie Organic Layer Farms Site Assessment

Friesen, Chris (CWS) [Chris.Friesen@gov.mb.ca]

Sent: Monday, July 21, 2014 8:56 AM
To: Will Redekop

William

Thank you for your information request. I completed a search of the Manitoba Conservation Data Centre's rare species database and found no occurrences at this time for your area of interest.

The information provided in this letter is based on existing data known to the Manitoba Conservation Data Centre at the time of the request. These data are dependent on the research and observations of CDC staff and others who have shared their data, and reflect our current state of knowledge. An absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present; in many areas, comprehensive surveys have never been completed. Therefore, this information should be regarded neither as a final statement on the occurrence of any species of concern, nor as a substitute for on-site surveys for species as part of environmental assessments.

Because the Manitoba CDC's Biotics database is continually updated and because information requests are evaluated by type of action, any given response is only appropriate for its respective request. Please contact the Manitoba CDC for an update on this natural heritage information if more than six months pass before it is utilized.

Third party requests for products wholly or partially derived from Biotics must be approved by the Manitoba CDC before information is released. Once approved, the primary user will identify the Manitoba CDC as data contributors on any map or publication using Biotics data, as follows as: Data developed by the

Manitoba Conservation Data Centre; Wildlife Branch, Manitoba Conservation and Water Stewardship.

This letter is for information purposes only - it does not constitute consent or approval of the proposed project or activity, nor does it negate the need for any permits or approvals required by the Province of Manitoba.

We would be interested in receiving a copy of the results of any field surveys that you may undertake, to update our database with the most current knowledge of the area.

If you have any questions or require further information please contact me directly at (204) 945-7747.

Chris Friesen
Biodiversity Information Manager
Manitoba Conservation Data Centre
204-945-7747
chris.friesen@gov.mb.ca
http://www.gov.mb.ca/conservation/cdc/

-----Original Message-----
From:
Sent: July-14-14 10:57 AM
To: Friesen, Chris (CWS)
Subject: WWW Form Submission

Below is the result of your feedback form. It was submitted by WWW Information Request () on Monday, July 14, 2014 at 10:57:19

DocumentID: Manitoba_Conservation

Project Title: Prairie Organic Layer Farms Site Assessment

Date Needed: 2014/07/28

Name: William Redekop

Company/Organization: Penfor Construction LP

Address: 10 Penner Drive

City: Blumenort

Province/State: Manitoba

Phone: 204-807-8429

Email: wredekop@penforconstruction.com

Project Description: We are preparing a Site Assessment for the setup of a proposed livestock operation with more than 300 animal units and require a Conservation Data Centre Report to accompany this submission to the Technical Review Committee.

Information Requested: The presence of rare species.

Format Requested: If possible, I would prefer to receive the report as a Microsoft Word Doc sent by e-mail. Thank you.

Location: RM of Hanover:

Land parcel is composed of two adjacent plots: NW 18-4-6E (W 1/2) and SW 18-4-6E (W 1/2)

action: Submit

Connected to Microsoft Exchange