



**Conservation**

Climate Change and Environmental Protection Division  
Environmental Assessment and Licensing Branch  
123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5  
T 204 945-8321 F 204 945-5229  
[www.gov.mb.ca/conservation/eal](http://www.gov.mb.ca/conservation/eal)

**CLIENT FILE NO.: 4752.10**

October 24, 2011

Jerry Stahl  
Grand Colony Farms Ltd.  
Box 10  
Oakville MB R0H 0Y0

Dear Mr. Stahl:

Enclosed is revised **Environment Act Licence No. 2599 R** dated October 24, 2011 issued to **Grand Colony Farms Ltd.** for the construction and operation of the Development being a wastewater collection system and a wastewater treatment lagoon located on NE Section 15, Township 10, Range 4 WPM in the Rural Municipality of Portage la Prairie and with discharge of treated effluent by irrigation onto land owned by the Licencee or to a constructed ditch that flows to a municipal ditch that flows southward into Scott Drain that flows eastward into Scott Coulee that flows into the La Salle River in accordance with the Proposal filed under The Environment Act on February 25, 2002 and subsequent information supplied in letters dated May 22, 2002 and October 1, 2002, and the supplementary Proposal filed under *The Environment Act* on August 26, 2006 and subsequent information provided in letters dated January 31, 2007 and September 26, 2007.

In addition to the enclosed Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with. A Notice of Alteration must be filed with the Director for approval prior to any alteration to the Development as licensed.

For further information on the administration and application of the Licence, please feel free to contact Raymond Reichelt, Environment Officer at (204) 239-3608.

Pursuant to Section 27 of The Environment Act, this licensing decision may be appealed by any person who is affected by the issuance of this Licence to the Minister of Conservation within 30 days of the date of the Licence.

Yours truly,

Tracey Braun, M. Sc.  
Director  
Environment Act

Enc.

c: Don Labossiere, Director, Environmental Operations  
Jason Bunn, P. Eng. Genivar  
Public Registries

**NOTE:** Confirmation of Receipt of this Licence No. 2599 R (*by the Licencee only*) is required by the Director of Environmental Assessment and Licensing. Please acknowledge receipt by signing in the space provided below and faxing a copy (letter only) to the Department by November 7, 2011.

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On behalf of Grand Colony Farms Ltd.

Date

**\*\*A COPY OF THE LICENCE MUST BE KEPT ON SITE AT THE DEVELOPMENT AT ALL TIMES\*\***

# LICENCE

Licence No. / Licence n°	<u>2599 R</u>
Issue Date / Date de délivrance	<u>April 25, 2003</u>
Revised:	<u>October 24, 2011</u>

In accordance with The Environment Act (C.C.S.M. c. E125)  
Conformément à la Loi sur l'environnement (C.P.L.M. c. E125)

Pursuant to Sections 11(1) and 14(2) / Conformément au Paragraphe 11(1) et 14(2)

THIS LICENCE IS ISSUED TO: / CETTE LICENCE EST DONNÉE À:

**GRAND HOLDING CO. LTD.; "the Licencee"**

for the construction and operation of the Development being a wastewater collection system and a wastewater treatment lagoon located on NE Section 15, Township 10, Range 4 WPM in the Rural Municipality of Portage la Prairie and with discharge of treated effluent by irrigation onto land owned by the Licencee or to a constructed ditch that flows to a municipal ditch that flows southward into Scott Drain that flows eastward into Scott Coulee that flows into the La Salle River in accordance with the Proposal filed under The Environment Act on February 25, 2002 and subsequent information supplied in letters dated May 22, 2002 and October 1, 2002, and the supplementary Proposal filed under *The Environment Act* on August 26, 2006 and subsequent information provided in letters dated January 31, 2007 and September 26, 2007 and subject to the following specifications, limits, terms and conditions:

## **DEFINITIONS**

In this Licence,

"**accredited laboratory**" means an analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation to be equivalent to the SCC, or be able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the Director;

"**affected area**" means a geographical area excluding the property of the Development;

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**"approved"** means approved by the Director, or an assigned Environment Officer, in writing;

**"appurtenances"** means machinery, appliances, or auxiliary structures attached to a main structure to enable it to function, but not considered an integral part of it;

**"ASTM"** means the American Society for Testing and Materials;

**"base"** means the exposed and finished elevation of the bottom of any cell of the wastewater treatment lagoon;

**"bentonite"** means specially formulated standard mill grade sodium bentonite conforming to American Petroleum Institute Specification 13-A;

**"cut-off"** means a vertical or slanted trench filled with compacted clay or a sand and bentonite mixture, or a wall constructed from compacted clay;

**"Director"** means an employee so designated pursuant to *The Environment Act*;

**"effluent"** means treated wastewater flowing or pumped out of the wastewater treatment lagoon;

**"fecal coliform"** means aerobic and facultative, Gram-negative, nonspore-forming, rod-shaped bacteria capable of growth at 44.5 °C, and associated with fecal matter of warm-blooded animals;

**"five-day biochemical oxygen demand (BOD<sub>5</sub>)"** means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within five days at a temperature of 20°C;

**"five-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>)"** means that part of the oxygen demand usually associated with biochemical oxidation of carbonaceous organic matter within five days at a temperature of 20°C, excluding the oxygen demand usually associated with the biochemical oxidation of nitrogenous organic matter;

**"flooding"** means the flowing of water onto lands, other than waterways, due to the overtopping of a waterway or waterways;

**"grab sample"** means a quantity of wastewater taken at a given place and time;

**"high water mark"** means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is at the maximum allowable liquid level or the line of the exterior of the perimeter dykes which is reached during local flooding;

**"hydraulic conductivity"** means the quantity of water that will flow through a unit cross-sectional area of a porous material per unit of time under a hydraulic gradient of 1.0;

**"influent"** means water, wastewater, or other liquid flowing into the wastewater treatment lagoon;

**"in-situ"** means on the site;

**"low water mark"** means the line on the interior surface of the primary and secondary cells which is normally reached when the cell is discharged;

**"MPN Index"** means the most probable number of coliform organisms in a given volume of wastewater which, in accordance with statistical theory, would yield the observed test result with the greatest frequency;

**"odour nuisance"** means a continuous or repeated odour, smell or aroma, in an affected area, which is offensive, obnoxious, troublesome, annoying, unpleasant, or disagreeable to a person:

- a) residing in an affected area;
- b) working in an affected area; or
- c) present at a location in an affected area which is normally open to members of the public;

if the odour, smell or aroma

- d) is the subject of at least 5 written complaints, received by the Director in a form satisfactory to the Director and within a 90-day period, from 5 different persons falling within clauses a), b) or c), who do not live in the same household; or
- e) is the subject of at least one written complaint, received by the Director in a form satisfactory to the Director, from a person falling within clauses a), b) or c), and the Director is of the opinion that if the odour, smell or aroma had occurred in a more densely populated area there would have been at least 5 written complaints received within a 90 day period from 5 different persons who do not live in the same household;

**"primary cell"** means the first in a series of cells of the wastewater treatment lagoon system and which is the cell that receives the untreated wastewater;

**"record drawings"** means engineering drawings complete with all dimensions which indicate all features of the Development as it has actually been built;

**"rip rap"** means small, broken stones or boulders placed compactly or irregularly on dykes or similar embankments for protection of earth surfaces against wave action or current;

**"secondary cell"** means a cell of the wastewater treatment lagoon system which is the cell that receives partially treated wastewater from the primary cell;

**"septage"** means the sludge produced in individual on-site wastewater disposal systems such as septic tanks;

**"sewage"** means household and commercial wastewater that contains human waste;

**"sludge"** means accumulated solid material containing large amounts of entrained water, which has separated from wastewater during processing;

**"sludge solids"** means solids in sludge;

**"Standard Methods for the Examination of Water and Wastewater"** means the most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation;

**"total coliform"** means a group of aerobic and facultative anaerobic, Gram-negative, nonspore-forming, rod-shaped bacteria, that ferment lactose with gas and acid formation within 48 hours at 35 °C, and inhabit predominantly the intestines of man or animals, but are occasionally found elsewhere and include the sub-group of fecal coliform bacteria;

**"wastewater"** means the spent or used water of a community or industry which contains dissolved and suspended matter;

**"wastewater collection system"** means the sewer and pumping system used for the collection and conveyance of domestic, commercial and industrial wastewater; and

**"wastewater treatment lagoon"** means the component of the development which consists of an impoundment into which wastewater is discharged for treatment and storage.

### **GENERAL TERMS AND CONDITIONS**

This Section of the Licence contains requirements intended to provide guidance to the Licencee in implementing practices to ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for present and future Manitobans.

1. The Licencee shall direct all wastewater generated within the farmsite toward the wastewater treatment lagoon or other approved sewage treatment facilities.

2. In addition to any of the limits, terms and conditions specified in this Licence, the Licencee shall, upon the request of the Director:
  - a) sample, monitor, analyze and/or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants or ambient quality, aquatic toxicity, leachate characteristics and discharge or emission rates, for such duration and at such frequencies as may be specified;
  - b) determine the environmental impact associated with the release of any pollutant(s) from the Development; or
  - c) provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and analytical procedures being used, bioassay data, flow rate measurements and such other information as may from time to time be requested.
  
3. The Licencee shall, unless otherwise specified in this Licence:
  - a) carry out all preservations and analyses on liquid samples in accordance with the methods prescribed in "Standard Methods for the Examination of Water and Wastewater" or in accordance with an equivalent analytical methodology approved by the Director;
  - b) have all analytical determinations undertaken by an accredited laboratory; and
  - c) report the results to the Director, in writing and in an electronic format acceptable to the Director, within 60 days of the samples being taken.
  
4. The Licencee shall comply with the provisions of the Department of Fisheries and Oceans Canada/Manitoba Natural Resources publication, "*Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat*" (May, 1996).
  
5. The Licencee shall obtain and maintain classification of the Development pursuant to *Manitoba Regulation 77/2003* respecting *Water and Wastewater Facility Operators* or any future amendment thereof and maintain compliance with all requirements of the regulation including, but not limited to, the preparation and maintenance of a Table of Organization, Emergency Response Plan and Standard Operating Procedures.
  
6. The Licencee shall carry out the operation of the Development with individuals properly certified to do so pursuant to *Manitoba Regulation 77/2003* respecting *Water and Wastewater Facility Operators* or any future amendment thereof.
  
7. The Licensee shall, in the event of a release, spill, leak, or discharge of a pollutant or contaminant in an amount or concentration, or at a level or rate of release, that exceeds the limit that is expressly provided under this Act, another Act of the Legislature, or an Act of Parliament, or in a regulation, licence, permit, order,

instruction, directive or other approval or authorization issued or made under one of those Acts, immediately report the release, spill, leak, or discharge by calling 204-944-4888. The report shall indicate the nature of the release, leak, or discharge, the time and estimated duration of the event and the reason for the release, spill, leak, or discharge.

8. The Licencee shall submit all information required to be provided to the Director under this Licence, in writing, in such form (including number of copies), and of such content as may be required by the Director, and each submission shall be clearly labeled with the Licence Number and Client File Number associated with this Licence.

### **SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS**

9. The Licencee shall notify the assigned Environment Officer not less than two weeks prior to beginning construction of the Development. The notification shall include the intended starting date of construction and the name of the contractor responsible for the construction.
10. The Licencee shall, during construction of the wastewater treatment lagoon, operate, maintain and store all materials and equipment in a manner that prevents any deleterious substances (fuel, oil, grease, hydraulic fluids, coolant, paint, uncured concrete and concrete wash water, etc.) from entering the wastewater treatment lagoon, the discharge route and associated watercourses, and have an emergency spill kit for in water use available on-site during construction.
11. The Licencee shall construct and maintain the wastewater treatment lagoon system with a continuous liner, including cutoffs, under all interior surfaces of the cells in accordance with the following specifications:
  - a) the liner shall be made of clay;
  - b) the liner shall be at least one metre in thickness;
  - c) the liner shall have a hydraulic conductivity of  $1 \times 10^{-7}$  centimetres per second or less at all locations; and
  - d) the liner shall be constructed to an elevation of 2.5 metres above the floor elevation of the primary and the secondary cells.
12. The Licencee shall operate and maintain the wastewater treatment lagoon in such a manner that:
  - a) the organic loading on the primary cell of the wastewater treatment lagoon, as indicated by the five-day biochemical oxygen demand, is not in excess of 56 kilograms per hectare per day; and
  - b) the depth of liquid in the primary cell and secondary cell does not exceed 1.5 metres.

13. The Licencee shall not discharge effluent from the wastewater treatment lagoon:
  - a) where the organic content of the effluent, as indicated by the five-day biochemical oxygen demand, is in excess of 25 milligrams per litre;
  - b) where the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample; or
  - c) where the total coliform content of the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample;
  
14. The Licencee shall not discharge effluent from the wastewater treatment lagoon to the municipal ditch and Scott Drain:
  - a) where the total suspended solids content of the effluent is in excess of 25 milligrams per litre, unless the exceedance is caused by algae;
  - b) between the 1<sup>st</sup> day of November of any year and the 15<sup>th</sup> day of June of the following year;
  - c) when flooding from any cause is occurring along the effluent drainage route; or
  - d) when such a discharge of effluent would cause or contribute to flooding in or along the discharge route.
  
15. The Licencee shall not discharge effluent from the wastewater treatment lagoon by spray irrigation between the 15<sup>th</sup> day of October of any year and the 15<sup>th</sup> day of May of the following year.
  
16. The Licencee shall, when discharging effluent by spray irrigation:
  - a) dispose of all effluent onto land owned by the Licencee;
  - b) only discharge effluent to irrigate:
    - i) actively growing cereal, forage or oil seed crops;
    - ii) grasslands which will not be utilized for grazing:
      - A. by dairy cattle for at least 30 days after effluent is applied; or
      - B. by livestock other than dairy cattle for at least 7 days after effluent is applied;
  - c) not harvest agriculture crops for at least 7 days after the crops are irrigated with effluent;
  - d) use any corn irrigated with effluent solely for making silage;
  - e) not apply effluent to particular lands for more than 10 continuous hours in every 24-hour period;
  - f) if ponding or surface runoff occurs during application, reduce the gross depth of effluent applied during any application of effluent so that ponding or surface runoff does not occur; and
  - g) if wind conditions cause the effluent to drift within the restricted zones outlined in Clause 17 of this Licence, stop the spray irrigation until the wind conditions subside.



17. The Licencee shall not discharge effluent, by spray irrigation:
  - a) within 300 metres of any dwelling not owned or lawfully controlled by the Licencee;
  - b) within 100 metres of any surface watercourse or groundwater well; or
  - c) within 100 metres of any adjoining property boundary.
18. The Licencee shall install and maintain a fence around the wastewater treatment lagoon to limit access. The fence shall be a minimum of 1.2 meters high and have a locking gate, which shall be locked at all times except to allow access to the wastewater treatment lagoon.
19. The Licencee shall, if in the opinion of the Director significant erosion of the interior surfaces of the dykes occurs, repair the dyke and place rip rap on the interior dyke surfaces from 0.6 metres above the high water mark to at least 0.6 metres below the low water mark to protect the dykes from wave action.
20. The Licencee shall provide and maintain a grass cover on the dykes of the wastewater treatment lagoon and shall regulate the growth of the vegetation so that the height of the vegetation does not exceed 0.3 metres on all dykes.
21. The Licencee shall annually remove by mechanical methods all reeds, rushes and trees located above the low water mark in every cell of the wastewater treatment lagoon.
22. The Licencee shall implement an ongoing program to remove burrowing animals from the site of the wastewater treatment lagoon.
23. The Licencee shall locate fuel storage and equipment servicing areas established for the construction and operation of the Development a minimum distance of 100 metres from any waterbody, and shall comply with the requirements of *Manitoba Regulation 188/2001* respecting *Storage and Handling of Petroleum Products and Allied Products Regulation* or any future amendment thereof.
24. The Licencee shall, when discharging to the municipal ditch and Scott Drain, discharge the wastewater treatment lagoon over at least a two-week period, while accelerating discharge as necessary to maintain normal operation of the wastewater treatment lagoon, such that increased nutrient uptake from the wastewater effluent may occur along the discharge route.
25. The Licencee shall maintain the discharge route of the wastewater treatment lagoon such that it effectively performs its intended service.
26. The Licencee shall actively participate in any current or future watershed-based management study, plan and/or nutrient reduction program, approved by the Director, for the La Salle River and associated waterways and watersheds.

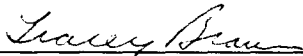
### **MONITORING AND REPORTING**

27. The Licencee shall prior to each effluent discharge campaign obtain grab samples of the treated wastewater and have them analyzed for:
  - a) the organic content as indicated by the five-day biochemical oxygen demand and expressed as milligrams per litre;
  - b) the organic content as indicated by the five-day carbonaceous biochemical oxygen demand and expressed as milligrams per litre;
  - c) the fecal coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample; and
  - d) the total coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample.
  
28. The Licencee shall, prior to each effluent discharge campaign to the municipal ditch and Scott Drain, obtain grab samples of the treated wastewater and have them analyzed for the total suspended solids content expressed as milligrams per litre.
  
29. The Licencee shall:
  - a) during each year maintain records of:
    - i) reports of visual inspections conducted at a minimum of once per month;
    - ii) wastewater sample dates;
    - iii) original copies of laboratory analytical results of the sampled wastewater; and
    - iv) effluent discharge dates;
  - b) make the records being maintained pursuant to sub-Clause 29 a) of this Licence available to an Environment Officer upon request; and
  - c) keep the maintained records of any one calendar year available for inspection for a period of three years following the respective calendar year in which they were recorded.
  
30. The Licencee shall arrange with the designated Environment Officer a mutually acceptable time and date for any required soil sampling between the 15<sup>th</sup> day of May and the 15<sup>th</sup> day of October of any year, unless otherwise approved by the Environment Officer.
  
31. The Licencee shall take and test undisturbed soil samples, in accordance with Schedule "A" to this Licence, from the liner of the wastewater treatment lagoon; the number and location of samples and test methods to be specified by the designated Environment Officer up to a maximum of 20 samples.
  
32. The Licencee shall, not less than 2 weeks before the wastewater treatment lagoon is placed in operation, submit for the approval of the Environment Officer the results of the tests carried out pursuant to Clause 31 of this Licence.

33. The Licencee shall:
- a) prepare updated "record drawings" for the Development and shall label the drawings "Record Drawings"; and
  - b) provide to the Director, within six months of approved commissioning of the wastewater treatment lagoon, two sets of "record drawings" of the wastewater treatment lagoon.
34. The Licencee shall, during the first year of operation of the Development under this Licence that a discharge must occur to the municipal ditch and Scott Drain, obtain two representative grab samples of the effluent during each effluent discharge campaign. The grab samples shall be obtained near the start of each discharge and near the end of each discharge, and shall be analysed and reported in accordance with Schedule "B" attached to this Licence.

#### **REVIEW AND REVOCATION**

- A. This Licence replaces Licence No. 2599, which is hereby rescinded.
- B. If, in the opinion of the Director, the Licencee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms, or conditions set out in this Licence, the Director may, temporarily or permanently, revoke this Licence.
- C. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 11 of The Environment Act.

  
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**Tracey Braun, M. Sc.**  
**Director**  
**Environment Act**

**FILE: 4752.10**

**Schedule "A" to Environment Act Licence No. 2599 R**

**Soil Sampling:**

1. The Licencee shall provide a drilling rig, acceptable to the designated Environment Officer, to extract soil samples from the liner which is not placed or found at the surface of the lagoon structure. This includes all wastewater treatment lagoons constructed with clay cut-offs at the interior base of the dyke or with a clay cut-off in the centre of the dyke. The drill rig shall have the capacity to drill to the maximum depth of the clay cut-off plus an additional 2 metres. The drill rig shall be equipped with both standard and hollow stem augers. The minimum hole diameter shall be 5 inches.
2. For lagoon liners placed or found at the surface of the lagoon structure, the Licencee shall provide a machine, acceptable to the designated Environment Officer, capable of pressing a sampling tube into the liner in a straight line motion along the centre axis line of the sample tube and without sideways movement.
3. Soil samples shall be collected and shipped in accordance with ASTM Standard D 1587 (Standard Practice for Thin-Walled Tube Sampling of Soils), D 4220 (Standard Practice for Preserving and Transporting Soil Samples) and D 3550 (Standard Practice for Ring-Lines Barrel Sampling of Soils). Thin-walled tubes shall meet the stated requirements including length, inside clearance ratio and corrosion protection. An adequate venting area shall be provided through the sampling head.
4. At the time of sample collection, the designated Environment Officer shall advise the Licencee as to the soil testing method that must be used on each sample. The oedometer method may be used for a sample where the Environment Officer determines that the soil sample is taken from an undisturbed clay soil which has not been remoulded and which is homogeneous and unweathered. The triaxial test shall be used for all samples taken from disturbed and remoulded soils or from non homogenous and weathered soils. The rigid-wall, compaction-mold permeameter test shall be used on soil-bentonite mixtures that have elevated moisture contents and that cannot be sampled without the use of additional containment devices.
5. The Licencee shall provide a report on the collection of soil samples to the designated Environment Officer and to the laboratory technician which includes but is not limited to: a plot plan indicating sample location, depth or elevation of sample, length of advance of the sample tube length of soil sample contained in the tube after its advancement, the soil test method specified by the Environment Officer for each soil sample and all necessary instructions from the site engineer to the laboratory technician.
6. All drill and sample holes shall be sealed with bentonite pellets after the field drilling and sampling has been completed.

## Soil Testing Methods:

### 1. Triaxial Test Method

- a) The soil samples shall be tested for hydraulic conductivity using ASTM D 5084 (Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter).
- b) Soil specimens shall have a minimum diameter of 70 mm (2.75 inches) and a minimum height of 70 mm (2.75 inches). The soil specimens shall be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The hydraulic gradient shall not exceed 30 during sample preparation and testing. Swelling of the soil specimen should be controlled to adjust for the amount of compaction measured during sample collection and extraction from the tube and the depth or elevation of the sample. The effective stress used during saturation or consolidation of the sample shall not exceed 40 kPa (5.7 psi) or the specific stress level, that is expected in the field location where the sample was taken, whichever is greater.
- c) The complete laboratory report, as outlined in ASTM D 5084, shall be supplied for each soil sample collected in the field.

### 2. Oedometer Test Method

- a) The soil samples shall be tested for hydraulic conductivity using ASTM D 2435 (Standard Test Method for One-Dimensional Consolidation Properties of Soils).
- b) Soil specimens shall have a minimum diameter of 50 mm (2 inches) and a minimum height of 20 mm (0.8 inches). The soil specimens shall be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The soil specimen shall be taken from an undisturbed soil sample. The soil specimen shall be completely saturated.
- c) The complete laboratory report, as outlined in ASTM D 2435, shall be supplied for each soil sample collected in the field.

## Schedule "B" to Environment Act Licence No. 2599 R

### Initial Characterization of Wastewater

Facility Size: Very small (less than 500 m<sup>3</sup>/day)

Facility Type: Facultative wastewater treatment lagoon - intermittent discharge

#### Effluent Sampling:

During the first year of operation, for all discharge events:

1. Obtain a representative grab sample of the discharging effluent near the beginning of the discharge period and near the end of the discharge period (i.e., two samples for each discharge event.)
2. Determine the temperature of each sample at the time of sampling.

#### Effluent Analysis:

1. For each grab sample, have the grab sample analysed for:
  - a) the organic content as indicated by the five-day biochemical oxygen demand and expressed as milligrams per litre;
  - b) the organic content as indicated by the five-day carbonaceous biochemical oxygen demand and expressed as milligrams per litre;
  - c) the total suspended solids content expressed as milligrams per litre;
  - d) the *Esherichia coli* (*E. Coli*) content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample;
  - e) the fecal coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample;
  - f) the total coliform content as indicated by the MPN index and expressed as MPN per 100 millilitres per sample;
  - g) if chlorine was used as a disinfecting agent, total residual chlorine expressed as milligrams per litre;
  - h) total ammonia nitrogen expressed as milligrams per litre;
  - i) nitrate-nitrite nitrogen expressed as milligrams per litre;
  - j) total kjeldahl nitrogen (TKN) expressed as milligrams per litre;
  - k) dissolved phosphorus expressed as milligrams per litre;
  - l) total phosphorus expressed as milligrams per litre; and
  - m) pH.

#### Effluent Reporting:

1. For each grab sample, report the results to the Director, in writing or in an electronic format acceptable to the Director within 60 days of the sampling date. The report shall include the sampling date, sample temperature, the dates of the effluent discharge, and copies of the laboratory analytical results of the sampled effluent.