

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 1847-BUYJHC  
Issue Date: November 23, 2020

Sampago Ltd.  
31 Athabasca Drive, Maple  
Vaughan, Ontario  
L6A 2W1

Site Location: 11990 Leslie Street  
City of Richmond Hill  
Regional Municipality of York, Ontario  
L4B 4J8

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:*

sewage works for the collection, transmission, treatment and subsurface disposal of domestic sewage to service a seven (7) bedroom single family dwelling at the above-mentioned Site Location with a daily sanitary sewage flow of 17,500 litres per day and a balance flow of 7,500 litres per day, consisting of the following:

***Tanks***

1. one (1) concrete one-compartment septic tank (***Anaerobic digester tank*** ) with capacity of 36,000 litres, equipped with an OBC approved effluent filter and access risers to the grade, receiving domestic wastewater from the seven (7) bedroom single family dwelling discharging treated effluent, via gravity, to the balancing tank described below.
2. one (1) concrete one-compartment balancing tank (***Balancing Tank*** ) with capacity of 36,000 litres, equipped with two (2) effluent pumps (operating on an alternating timer), a 2-float tree with a timer enable float and high-level alarm/timer override to dose (7,500 litres per day) the Waterloo Biofilter Treatment unit described below.

***Waterloo Biofilter with WaterNOx-LS Advanced Treatment System***

a Waterloo Biofilter advanced treatment system, designed to treat the daily sewage of 7,500 L/day, consisting of the following:

1. one (1) concrete Waterloo Biofilter tank with capacity of 18,000 litres, housing two (2) baskets (each

containing approximately 6.6 cubic metre of Biofilter media), and equipped with a submersible effluent pump operating on a timer, two (2) submersible effluent pumps operating on an alternating timer, and a 3-float tree, with timer enable [anaerobic digester], timer enable [WaterNOx-LS Dosing], and high-level alarm/timer override [WaterNOx-LS dosing] floats.

2. one (1) 6,800 litres capacity alkalinity tank, bulk-filled with 6.8 cubic metres alkaline medium, receiving a maximum of 7,500 litres per day of treated effluent from the basket biofilter tank and recirculate it to the inlet of the anaerobic digester tank.
3. one (1) two-compartment 18,000 litres concrete WaterNOx-LS denitrification and closed loop basket biofilter tank with:
  - i. the first compartment bulk-filled with 12 cubic metres of de-nitrifying medium (the de-nitrified effluent flows by gravity into the second compartment of the tank), and
  - ii. the second compartment housing one (1) basket filled with approximately 1.9 cubic metres of Biofilter medium, and equipped with two (2) submersible effluent pumps operating on separate timers, two (2) submersible effluent pumps operating on an alternating timer, and a 2-float tree with timer enable [leaching bed] and high-level alarm/timer enable [leaching bed] floats. The duplex pumps pump the final effluent to the subsurface disposal bed described below.

#### ***Type A Dispersal Bed***

one (1) leaching bed consisting of six (6) runs of shallow buried trenches, each 25 metres long, installed 2 metres apart centre to centre (area for each run of trenches and chambers to be 300-600 millimetre in depth and 300-600 millimetre in width), installed overlaying a minimum 200 millimetre thick sand layer with a percolation rate of 6 to 10 minutes per centimetre with scarified native soils below, and a minimum 300 millimetre thick sand mantle area, extending at least 15 metres beyond the edge of piping in any direction that the effluent entering the soil will move horizontally.

all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned sewage works.

all in accordance with supporting documents listed in Schedule A.

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "Approval" means this entire Approval document and any Schedules to it, including the application and Supporting Documentation;
2. "BOD<sub>5</sub>" (also known as TBOD<sub>5</sub>) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;
3. "CBOD<sub>5</sub>" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand

measured in an unfiltered sample;

4. "Director" means a person appointed by the Minister pursuant to Section 5 of the EPA for the purposes of Part II.I of the EPA;
5. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
6. "EPA" means the *Environmental Protection Act* , R.S.O. 1990, c.E.19, as amended;
7. "Licensed Installer" means a person who is registered under the OBC to construct, install, repair, service, clean or empty on-site sewage systems;
8. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
9. "OBC" means the Ontario Building Code;
10. "Owner" means Sampago Ltd., and its successors and assignees;
11. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended;
12. "Professional Engineer" means a person entitled to practice as a Professional Engineer in the Province of Ontario under a licence issued under the *Professional Engineers Act* ;
13. "Works" means the sewage works described in the Owner's application, and this Approval.

*You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **1. GENERAL PROVISIONS**

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.

3. Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
4. Where there is a conflict between the documents listed in the Schedule submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
5. The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

## **2. EXPIRY OF APPROVAL**

1. This Approval will cease to apply to those parts of the Works which have not been constructed within **five (5) years** of the date of this Approval.

## **3. CHANGE OF OWNER**

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:
  - a. change of Owner;
  - b. change of address of the Owner;
  - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act*, R.S.O. 1990, c.B17 shall be included in the notification to the District Manager; and
  - d. change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the *Corporations Informations Act*, R.S.O. 1990, c. C39 shall be included in the notification to the District Manager.
2. In the event of any change in ownership of the Works, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

#### 4. CONSTRUCTION

1. The Owner shall ensure that the construction of the Works is supervised by a Licensed Installer or a Professional Engineer.
2. The Owner shall ensure that the Waterloo Biofilter Treatment system is installed in accordance with the Manufacturer's Installation Manual.
3. The Owner shall ensure that an imported soil that is required for construction of proposed subsurface disposal bed as per this Approval is tested and verified by the Professional Engineer or Licensed Installer for the percolation time (T) prior to delivering to the site location and the written records are kept at the site.
4. Upon construction of the Works, the Owner shall prepare a statement, certified by a Professional Engineer, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry staff.
5. Upon construction of the Works, the Owner shall prepare a set of as-built drawings showing the works "as constructed". "As-built" drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the site for the operational life of the Works and shall be made available for inspection by Ministry staff.

#### 5. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the Works, carry out the following monitoring program:

1. All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.
2. Samples shall be collected at the sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the Influent Monitoring Table included in **Schedule B**.
3. Samples shall be collected at the sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the Effluent Monitoring Table included in **Schedule B**.
4. The Owner shall employ measurement devices to accurately measure quantity of effluent being discharged to each individual subsurface disposal system, including but not limited to water/wastewater flow meters, event counters, running time clocks, or electronically controlled dosing, and shall record the daily volume of effluent being discharged to the subsurface disposal system.

5. The Owner shall ensure that flow of treated effluent discharged into the subsurface sewage system does not exceed 7,500 litres per day.
6. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:
  - a. the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)", as amended from time to time by more recently published editions;
  - b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions; and
  - c. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.
7. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

## **6. EFFLUENT OBJECTIVES**

1. The Owner shall use best efforts to construct, operate and maintain the Works with the objective that the concentrations of the materials named as effluent parameters in the Effluent Objectives Table listed in **Schedule B** are not exceeded in the effluent being discharged to the subsurface disposal system.

## **7. OPERATIONS AND MAINTENANCE**

1. The Owner shall prepare an operations manual within **six (6) months** of the introduction of sewage to the Works, that includes, but not necessarily limited to, the following information:
  - a. operating procedures for routine operation of all the Works;
  - b. inspection programs, including frequency of inspection, for all the Works and the methods or tests employed to detect when maintenance is necessary;
  - c. repair and maintenance programs, including the frequency of repair and maintenance for all the Works; copies of maintenance contracts for any routine inspections & pump-outs should be included for all the tanks and treatment units;

- d. procedures for the inspection and calibration of monitoring equipment;
  - e. a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the District Manager; and
  - f. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
2. The Owner shall maintain the operations manual current and retain a copy at the location of the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.
  3. The Owner shall, upon the construction, prepare and make available for inspection by Ministry staff, a maintenance agreement with the manufacturer for the treatment process/technology or its authorized agent. The maintenance agreement must be retained at the site and kept current for the operational life of the Works.
  4. The Owner shall ensure that all septic tanks are pumped out every 3-5 years or when the tank is 1/3 full of solids and the effluent filters are cleaned out at minimum once a year or more often if required.
  5. The Owner shall ensure that grass-cutting is maintained regularly over all the subsurface disposal beds, and the surface of the bed(s) are visually observed on a monthly basis.
  6. In the event a break-out is observed from a subsurface disposal bed, the Owner shall ensure that the sewage discharge to the bed is discontinued and the incident immediately reported verbally to the District Manager, followed by a written report within one (1) week. The Owner shall ensure that during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to a surface water body or to the environment, and shall be safely collected and disposed off through a licensed waste hauler to an approved waste disposal site.
  7. The Owner shall ensure that adequate steps are taken to ensure that the area of the Works are protected from all forms of vehicle traffic.

## **8. REPORTING**

1. One week prior to the start up of the operation of the Works, the Owner shall notify the District Manager (in writing) of the pending start up date.
2. In addition to the obligations under Part X of the EPA, the Owner shall, within 10 working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures

taken, preventative measures to be taken and schedule of implementation.

3. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
4. The Owner shall prepare a performance reports on a calendar year basis and submit, upon request by the Ministry, to the District Manager by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:
  - a. a summary and description of efforts made and results achieved in meeting the Effluent Objectives of Condition 6;
  - b. a review and assessment of performance of sewage works, including all treatment units and disposal beds;
  - c. a description of any operating problems encountered and corrective actions taken at all sewage Works located at the property;
  - d. a record of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of all Works located at the property including but not limited to: records of maintenance inspections for the treatment system, records of septic tank effluent filters cleaning, records of septic tank pump-outs, records of sludge pump-outs accumulated from the treatment system, records of visual inspections of all disposal systems;
  - e. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
  - f. a summary and interpretation of all daily flow data and results achieved in not exceeding the maximum daily sewage flow discharged into each one of the subsurface disposal system;
  - g. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
  - h. a summary of all spill or abnormal discharge events; and
  - i. any other information the District Manager requires from time to time.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to



emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the Owners their responsibility to notify any person they authorized to carry out work pursuant to this Approval the existence of this Approval.

2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.
3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the approved works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.
4. Condition 4 is included to ensure that the Works are constructed, and may be operated and maintained such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.
5. Condition 5 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives specified in the Approval and that the Works does not cause any impairment to the receiving watercourse.
6. Condition 6 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
7. Condition 7 is included to require that the Works be properly operated, maintained, and equipped such that the environment is protected. As well, the inclusion of an operations manual, maintenance agreement with the manufacturer for the treatment process/technology and a complete set of "as constructed" drawings governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the owner and made available to the Ministry. Such information is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the work.
8. Condition 8 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

## **Schedule A**

1. Environmental Compliance Approval Application for Private Sewage Works submitted by Michelle Dada Ortiz, P.Enbg., MNT Consulting Group Inc., dated April 19, 2020, and signed by Denis Tarsky, A.S.O., Sampago Ltd., and all supporting documentation and information.

## Schedule B

### Influent Monitoring Table

<b>Sampling Location</b>	Balancing Tank
<b>Frequency</b>	Quarterly
<b>Sample Type</b>	Grab
<b>Parameters</b>	BOD <sub>5</sub> , Total Suspended Solids, Total Kjeldahl Nitrogen, Total Ammonia Nitrogen, pH, and Alkalinity.

### Effluent Monitoring Table

<b>Sampling Location</b>	WaterNOx-LS denitrification and closed loop basket biofilter Tank
<b>Frequency</b>	Quarterly
<b>Sample Type</b>	Grab
<b>Parameters</b>	CBOD <sub>5</sub> , Total Suspended Solids, Total Ammonia Nitrogen, Nitrate Nitrogen, Nitrite Nitrogen, and pH.

### Effluent Objectives Table

<b>Effluent Parameter</b>	<b>Concentration</b> (milligrams per litre unless otherwise indicated)
CBOD <sub>5</sub>	10
Total Suspended Solids	10
Nitrate Nitrogen	8.5

*In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:*

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*The Notice should also include:*

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

*And the Notice should be signed and dated by the appellant.*

*This Notice must be served upon:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5

AND

The Minister of the Environment,  
Conservation and Parks  
777 Bay Street, 5th Floor  
Toronto, Ontario  
M7A 2J3

AND

The Director appointed for the purposes of  
Part II.1 of the Environmental Protection Act  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.*

*The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.*

DATED AT TORONTO this 23rd day of November, 2020



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Fariha Pannu, P.Eng.

Director

appointed for the purposes of Part II.1 of the  
*Environmental Protection Act*

AA/

c: District Manager, MECP York-Durham District Office  
Michelle Dada Ortiz, P.Enbg., MNT Consulting Group Inc.