

**COMPLIANCE INSPECTION REPORT**  
**LONGUEUIL TOWNSHIP**

**SOLID NON-HAZARDOUS  
WASTE DISPOSAL SITE**

**REPORT PREPARED BY THE CORNWALL OFFICE OF THE  
MINISTRY OF THE ENVIRONMENT, EASTERN REGION**

**Inspected by: Gerry Murphy  
Inspection: January 30, 2003**

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## Solid Non-Hazardous Waste Disposal Site Inspection Report

Client:	The Corporation of the Township of Champlain Mailing Address: 948 Pleasant Corners Road East, Vankleek Hill, Ontario, Canada, K0B 1R0 Physical Address: 948 Pleasant Corners Road East, Champlain, Township, United Counties of Prescott and Russell, Ontario, Canada Telephone: (613)678-3003, FAX: (613)678-3363 Client #: 5820-4RZMAS, Client Type: Municipal Government		
Inspection Site Address:	Longueuil Township Waste Disposal Site Address: 1897 Cassburn Road, Champlain, Township, United Counties of Prescott and Russell District Office: Cornwall		
Contact Name:	Robert Lefebvre	Title:	Clerk/Treasurer
Contact Telephone:	(613)678-3003 ext	Contact Fax:	(613)678-3363
Last Inspection Date:	1999/10/20		
Inspection Start Date:	2003/01/30	Inspection Finish Date:	2003/01/30
Region:	Eastern		

### 1.0 INTRODUCTION

The latest amended Certificate of Approval (C of A) is dated March 11, 1980, with the condition that the waste disposal site be registered on title. The site was registered on title on May 20, 1980, as Instrument No. 15606.

The Municipality, through their consultant, have been involved with a full hydrogeological site assessment and monitoring program.

### 2.0 INSPECTION OBSERVATIONS

#### Certificate of Approval Number(s):

Appendix "A" contains all pertinent Certificates of Approval (Cs of A) that were issued to the site.

A471601 issued March 11, 1980

A471601 issued July 31, 1975

A471601 issued July 31, 1974

A471601 issued August 1, 1973

A471601 issued July 31, 1972

A 471601 issued February 4, 1971

#### 2.1 FINANCIAL ASSURANCE:

There are no records of financial assurance on Ministry of the Environment (MOE) files

#### 2.2 APPROVED AREA OF THE SITE:

The approved area of the site is 24.84 hectares. The approximate area of the footprint is 13 hectares, of which approximately 4 hectares have been landfilled. The footprint area has clearly been identified (flagged). All waste is being deposited within the footprint.

### **2.3 APPROVED CAPACITY:**

Currently, there is no approved capacity. The site serves the Village of L'Orignal and the old Township of Longueuil, with a combined population of approximately 3,300 people.

### **2.4 ACCESS CONTROL:**

Site access is controlled by a locked gate as regulated by C of A No. 471601 issued July 31, 1972. During days when the site is opened to the public, there is an attendant on hand.

### **2.5 COVER MATERIAL:**

At the time of the inspection, the site waste was adequately covered. The July 31, 1972 C of A states: "That the wastes are deposited in the specified area, compacted and covered once each week with six (6) inches of cover material". An August 1, 1973 letter from W. Williamson, MOE Director, to the Township of Longueuil stated: "All waste materials shall be covered with six (6) inches of earth cover material, twice a month, by a proper landfilling operation."

### **2.6 WASTE BURNING:**

Controlled burning of clean wood waste is practiced at the site, under supervision by the Municipality.

### **2.7 GROUNDWATER/SURFACEWATER IMPACT:**

The Ministry's Technical Support Section has received for review, the Municipality's consultant report of March 2003 entitled "Longueuil Waste Disposal Site Annual Monitoring Program (2002) and Additional Subsurface Investigation". When Technical Support Section's recommendations are made available, they will be forwarded to the Municipality for implementation.

### **2.8 LEACHATE CONTROL SYSTEM:**

The Municipality's consultant report of March 2003 entitled "Longueuil Waste Disposal Site, Annual Monitoring Program (2002) and Additional Subsurface Investigation" mentions: "The chemical analysis of the leachate quality of the shallow and deep overburden groundwater tables at the property limit reveals that no health related parameters exceed the Reasonable Use Guidelines (RUG) limits. However, Aesthetic and Operational Guidelines such as manganese, iron, aluminum and DOC were found to exceed RUG guidelines". This information is to be further evaluated by our Technical Support Section.

### **2.9 METHANE GAS CONTROL SYSTEM:**

The consultant mentions that on several occasions, no methane gas was detected after monitoring with the use of a piezometer installed above the groundwater table and located within the waste fill area. This information will be further evaluated when our Ministry's Technical Support Section reviews the March 2003 consultant report.

### **2.10 OTHER WASTES:**

The Municipality does not accept waste refrigerant equipment or appliances unless the unit is first emptied of the refrigerant and tagged by a certified ozone depletion prevention (ODP) certificate holder.

## **3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES**

As was requested in the 1999 compliance inspection report, the Municipality, through their consultant, submitted a Hydrogeological Site Assessment in May 2001. The Ministry's Regional Technical Support Section reviewed the above mentioned document and reported their recommendation for implementation on November 26, 2001 (Appendix "B").

Other outstanding issues requiring municipal action are outlined in letters from the Municipality dated December 20, 1999 (Appendix "C") and March 27, 2000 (Appendix "D").

## **4.0 SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)**

**Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate ?**

No

Specifics:

**Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material ?**

No

**Specifics:**

**Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment ?**

No

**Specifics:**

**Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material ?**

No

**Specifics:**

## **5.0 ACTION(S) REQUIRED**

The MOE Cornwall Area Office received for review and comment, the Municipality's consultant report in March 2003 entitled "Longueuil Waste Disposal Site, Annual Monitoring Program (2002) and Additional Subsurface Investigation". This report has been forwarded to this Ministry's Regional Technical Support Section for their review and recommendations. The area office will forward these recommendations to the Municipality for implementation when they are received.

After a completed site assessment, the Municipality is to review information to amend the current C of A pertaining to the area of service, financial assurance, monitoring program, site development and operation plan, and possible leachate collection program.

## **6.0 OTHER INSPECTION FINDINGS**

For the last three years, the site has been used exclusively for the disposal of solid non-hazardous commercial waste. The site is not opened to the service area's general public, except for certain publicized days during the year for the disposal of solid non-hazardous commercial waste.

## **7.0 INCIDENT REPORT**

☐ Applicable      ☒ Not Applicable

## **8.0 ATTACHMENTS**

**Required attachments:**

Appendix "A" - Certificates of Approval.

Appendix "B" - MOE's Response to Review of Previous Non-compliance Issues.

Appendix "C" - Municipality's Response to Review of Previous Non-compliance Issues dated December 20, 1999.

Appendix "D" - Municipality's Response to Review of Previous Non-compliance Issues dated March 27, 2000.

**PREPARED BY:**

**Environmental Officer:**

**Name:**

Gerry Murphy

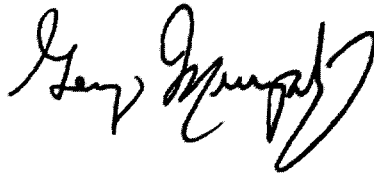
**District Office:**

Cornwall Area Office

**Date:**

2003/04/14

**Signature**



**REVIEWED BY:**

**District Supervisor:**

**Name:**

Michael Seguin

**District Office:**

Cornwall Area Office

**Date:**

2003/05/28

**Signature:**



**File Storage Number:**

SI PC LO P100 252

**Note:**

"This inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory requirements"

## Appendix "A"

### Certificates of Approval



## PROVISIONAL CERTIFICATE OF APPROVAL WASTE DISPOSAL SITE

Under The Environmental Protection Act, 1971 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:

Township of Longueuil  
Box 298  
L'Orignal, Ontario  
K0B 1K0

for the use and operation of a 25 hectare landfilling site

all in accordance with the following plans and specifications:

Located: Part Lot 59, Registered Plan Number M-100  
Township of Longueuil  
Counties of Prescott and Russell

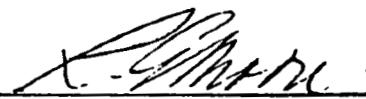
which includes the use of the site only for the receiving and disposal of the following categories of waste (NOTE: Use of the site for additional categories of wastes requires a new application and amendments to the Provisional Certificate of Approval) domestic, commercial, and non-hazardous solid industrial wastes.

and subject to the following conditions:

1. No operation shall be carried out at the site after sixty days from this condition becoming enforceable unless this Certificate including the reasons for this condition has been registered by the applicant as an instrument in the appropriate Land Registry Office against title to the site and a duplicate registered copy thereof has been returned by the applicant to the Director.

registered

Dated this 11th day of March, 19 80.

  
Director, Section 39,  
The Environmental Protection Act, 1971



Ontario

TO: Township of Longueuil  
Box 298  
L'Orignal, Ontario  
K0B 1K0

You are hereby notified that Provisional Certificate of Approval No. A 471601 has been issued to you subject to the conditions outlined therein.

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

1. The reason for the condition requiring registration of the Certificate is that Section 46 of the Environmental Protection Act, 1971 prohibits any use being made of the lands after they cease to be used for waste disposal purposes in order to protect future occupants of the site and the environment from any hazards which might occur as a result of waste being disposed of on the site. This prohibition and potential hazard should be drawn to the attention of future owners and occupants by the Certificate being registered on title.


You may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board.

This Notice should be served upon:

The Secretary,  
Environmental Appeal Board, AND  
1 St. Clair Ave. West,  
5th Floor,  
Toronto, Ontario.  
M4V 1K7

The Director,  
Section 3a, E.P.A.  
Ministry of the Environment,

DATED at Toronto this 11th day of March , 1980 .

  
\_\_\_\_\_  
Director,  
Section 3a, E.P.A.

## MUNICIPAL WASTE DISPOSAL SITE

### What is permitted

- a) Domestic Waste - 80% of what could be dumped should encompass such matter.
- b) Commercial and - old car tires  
NON-HAZARDOUS - wooden crates  
SOLID Industrial Wastes

### What is not permitted

- NO derelict motor vehicles or farm equipment and Council is responsible for the control of the dumping of such materials.
- NO used car oil - (not solid waste material)

(copy of provisional Certificate of Approval for the Municipal Waste Disposal Site attached hereto)

DATED THE 11th DAY OF  
MARCH, 1980

BETWEEN

THE DIRECTOR

-and-

TOWNSHIP OF LONGUEUIL

PROVISIONAL CERTIFICATE  
OF APPROVAL  
UNDER  
THE ENVIRONMENTAL  
PROTECTION ACT, 1971

PART LOT 59, REGISTERED PLAN NUMBER M-100  
TOWNSHIP OF LONGUEUIL  
COUNTIES OF PRESCOTT AND RUSSELL

TOWNSHIP OF LONGUEUIL  
L'ORIGINAL, ONTARIO

KOB 1KO

THE LAND TITLES ACT

Application to Register Notice of a Provisional  
Certificate of Approval -- Waste Disposal Site.

TO THE LAND REGISTRAR AT L'ORIGINAL, in the County of PRESCOTT, ONTARIO.  
I, JEANNE CHARLEBOIS, CLERK TREASURER, of the TOWNSHIP OF LONGUEUIL,  
the registered owner of Parcel 59,  
in the Register for Section P-M 100, Township of Longueuil,  
hereby apply to have entered on the Register for the said Parcel  
a Notice of a PROVISIONAL CERTIFICATE OF APPROVAL -- Waste Disposal Site.


The evidence in support of this Application consists of:

- 1) A copy of the PROVISIONAL CERTIFICATE OF APPROVAL-- Waste Disposal Site.

The address of the Applicant for service is:

R.R. NO. 2, Bay Road, L'Original, Ontario, K0B 1K0.

Dated at L'Original, Ontario, this 20th day of May, 1980.

  
Jeanne Charlebois  
Jeanne Charlebois, Clerk Treas.

Instrument # 15606



Ontario

Ministry of the Environment

Provisional Certificate No.  
**471601**

# PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

Under The Environmental Protection Act, 1971 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:

**Township of Longueuil,  
R. R. #1,  
L'Original, Ontario.**

for the  
located

**Landfill  
Lot 59, Plan 100-M  
Township of Longueuil**

Site

subject to the following conditions:

1. All waste materials shall be covered with six (6) inches of earth cover material, twice per month, by a proper landfilling operation.

This Provisional Certificate expires on the **31st** day of **July**, 19 **75**

Dated this **1st** day of **August**, 19 **74**

  
DIRECTOR, SECTION 3 (a) E.P.A.

TO: Township of Longueuil,  
R. R. #1,  
L'Orignal, Ontario.

You are hereby notified that Provisional Certificate of Approval No. **471601** has been issued to you subject to the conditions outlined therein.

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

**For the conservation of the natural environment.**

You may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board.

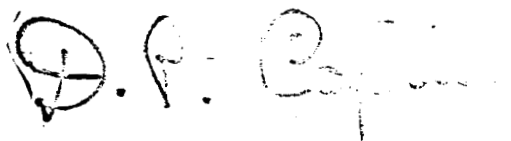
This Notice should be served upon:

Environmental Appeal Board,  
365 Bay Street,  
Suite 300,  
Toronto, Ontario.  
M5H 2V3

AND

The Director,  
Section 3a, E.P.A.,  
Ministry of the Environment,  
135 St. Clair Ave. West,  
Toronto, Ontario.  
M4V 1P5.

DATED at Toronto this **1st** day of **August**, 19 **74**.



Director,  
Section 3a, E.P.A.,  
Ministry of the Environment.



Ministry of the Environment

RECEIVED

AUG 9 1973

OTTAWA  
EASTERN REGION

# PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

Appendix "A"

Provisional Certificate No. 471601

Under The Environmental Protection Act, 1971 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to

Township of Longueuil

L'Original, Ontario

for the Landfill Site

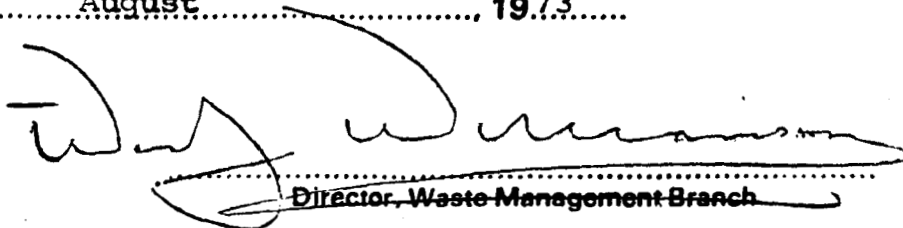
located Lot 59, Plan 100-M

Township of Longueuil

subject to the following conditions

This Provisional Certificate expires on the 31st day of July, 1974

Dated this 1st day of August, 1973

  
Director, Waste Management Branch

Phone: 965-7752

August 1, 1973

Township of Longueuil  
L'Original  
Ontario

Dear Sir:

This site (facility) does not meet the standards required by the Environmental Protection Act and Regulation.

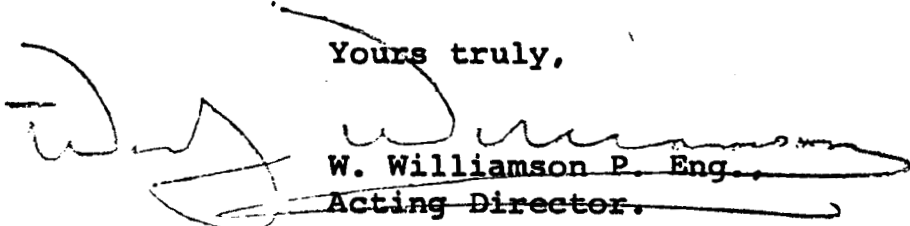
A Provisional Certificate of Approval No. 471601 has been issued with an expiry date of July 31, 1974. During this period the following improvements shall be implemented and maintained:

The access and on-site are to be improved and maintained in a manner which will permit regular vehicle traffic to travel readily on such roads under normal weather conditions.

All waste materials shall be covered with six (6) inches of earth cover material, twice a month, by a proper landfilling operation.

The operation of the site (facility) will be inspected periodically prior to the expiry date of the certificate. Failure to comply with this program of upgrading the site (facility) may result in refusal to reissue this certificate or such other action as is available under the Act.

Yours truly,



W. Williamson P. Eng.  
Acting Director.





Ministry of the Environment

For Head Office Use

O

R

2nd Sheet

Waste Management Branch  
RECEIVED

JUL 28 1972

OTTAWA  
EASTERN REGION

PROVISIONAL CERTIFICATE OF APPROVAL  
FOR A WASTE DISPOSAL SITE

Appendix "A"

Provisional Certificate No. 472601

Under The Environmental Protection Act, 1971 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to.....

Municipality of Longueuil

Original, Ontario

for the Landfill

located Lot 59, Plan M-100

Site

subject to the following conditions.....

1. That specific attention be given to Items (1), (12), (13), (15) and (16) of Section 10, Subsection 1 of Ontario Regulation 624, by taking the following action :-

Provision of an access road to the disposal area in the trench. (Item 1)

Provision of supervision at the site and particularly in the disposal area. (Item 12)

That the wastes are deposited in the specified area, compacted and covered once each week with six (6) inches of cover material. (Item 13)

SUBJECT AS WELL TO THE CONDITIONS SET OUT ON THE ATTACHED SHEET

This Provisional Certificate expires on the 21st day of July, 1973

Dated this 21st day of July, 1972

Director, Waste Management Branch

(Page 1 of 2 Pages)





# PROVISIONAL CERTIFICATE OF APPROVAL FOR A WASTE DISPOSAL SITE

10 1971

Appendix A

Certificate No. 471601

Under The Waste Management Act, 1970 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to.....

Township of Longueuil

L'Original, Ontario.

FAXED

for the Landfill Site  
located Lot 59, Plan M-100

subject to the following conditions.....

1. Trench and fill operation to be conducted with weekly coverage.

2. Burning to be carried out only with the permission of the Air

Management Branch.

3. Restricted hours enforced, supervised during open hours.

This Provisional Certificate expires on the 15th day of August  
1971....

Dated this 4th day of February 1971....

*J. D. Heenan*

Director, Waste Management Branch

# RECOMMENDATION OF REGIONAL ENGINEER

NOTE: This form shall be submitted by the Regional Engineer to Head Office along with the application form and all supporting information.

(1) DATE APPLICATION RECEIVED: January 25, 1971 File: A. 4716

(2) APPLICANT: Township of Longueuil

(3) ISSUE: Certificate of Approval ☐

Provisional Certificate of Approval ☒

(4) TIME: Provisional Certificate to Expire in 6 months from date of issue.

(5) CONDITIONS OF ISSUE:

- 1) TRENCH / FILL OPERATION TO BE CONDUCTED WITH WEEKLY COVERAGE
- 2) BURNING TO BE CARRIED OUT ONLY WITH THE PERMISSION OF THE A.M.B.
- 3) RESTRICTED HOURS ENFORCED, SUPERVISED DURING OPEN HOURS

(6) DO NOT ISSUE: REFUSE APPLICATION ☐

REVOKE (Cert. No. ....) ☐

(7) REASONS FOR (6)

(8) DEFER: CIRCULATE TO: .....

FOR: .....

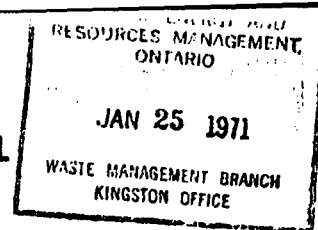
(9) DATE: JAN. 26/71 SIGNED: [Signature]

Regional Engineer

(NOTE : DAVIDSON'S LETTER OF JUNE 19, 1970 TO LONGUEUIL TWP. ADVISING  
PRELIMINARY OK FOR SITE.)  
LETTER ON FILE A-4716



Department of Energy and Resources Management  
Waste Management Branch



APPLICATION FOR A CERTIFICATE OF APPROVAL  
FOR A WASTE DISPOSAL SITE

TO: THE DEPARTMENT OF ENERGY AND RESOURCES MANAGEMENT  
880 Bay Street,  
Toronto, Ontario

To be submitted through Regional  
Waste Management Engineer

(1) Under the Waste Management Act, 1970 and the regulations, this applica-  
tion is made by..... Township of Longueuil .....

Owner of Facility

..... L'Orignal, Ontario .....

Address

(2) for the ~~Renewal~~ <sup>Issue</sup> of a Certificate of Approval for a  
~~Partial Sanitary Landfill~~ - LANDFILL Site

Delete item inapplicable

Type of Disposal

(3) located .... Lot No. 59, Plan L-100 .....

Full particulars of Location

(4) A Certificate of Approval No. .... Nil ..... for this  
Provisional Certificate  
site was issued..... 19.....

Delete item inapplicable

(5) No change in use, operation, or ownership of the site has occurred since  
the date of the original application.

Dated this..... 10th. day of November ..... 1970.....

*Ernest Salandre*  
Signature of Applicant

(6) The following changes in use, operation or ownership (have occurred  
since the date of the original application) (are proposed)

Delete item inapplicable

..... Nil .....

If necessary, provide additional  
details on separate sheets and attach  
to application.

Continued on Attached Sheets ☐

(7) The site will be operated in accordance with The Waste Management Act,  
1970 and the regulations by..... Township of Longueuil .....

Name of Operator

..... L'Orignal Ont. ....

Address

The required supporting information to the application is appended hereto.

(8) Notice of this application has been published in the..... E. & O. Review  
and Le Carillon  
..... on..... Three weeks from 18 Nov, 1970 and  
..... 19.70..... and a copy of the notice is attached.

(9) A certificate that the site does not contravene any of the by-laws of the  
municipality is attached.

To be completed if applicant is other  
than a municipality

See notes on sections 1 to 9 on back  
of last copy (pink) which is to be  
retained by Applicant.

Dated this..... 10TH ..... day of NOV. .... 19.70.....

*Ernest Salandre*  
Signature of Applicant

No Carbon Paper Required

TO AN  
APPLICATION FOR APPROVAL  
OF A  
LANDFILL DISPOSAL SITE

1. Wastes to be Disposed of Comprise

Domestic	99 %
Commercial	2 %
Industrial Waste	%
Hauled Liquid Industrial Waste	%
Agricultural Waste	%
Hazardous Waste	%
Hauled Sewage	%
*Other	%
	100%

\*Describe.....

Total.....250 Lbs / Day..... Tons/Day  
1,650

Population Served.....

3. Distance to Nearest Watercourse	6000...Ft.
Distance to Source of Potable Water	3000...Ft.
Distance to Dwelling	3300...Ft.
Distance to Public Road	2000...Ft.
Distance to Cemetery	4000...Ft.

Total Area of Site	61.35 Acres
Anticipated Life	45 Years

General Description of Site  
Sand all through

5. Proposed Future Land Use

Reforestation

2. Origin and Composition of Principal Components of Waste (other than domestic and commercial)

It is a pure other than domestic and commercial waste dumped at this future site

4. Maximum Depth of Excavation	13 Ft.
Below Surface	
Maximum Height of Fill	4 Ft.
Above Surface	

Type(s) of Material Encountered  
From Surface Sand, sandy loam

Depth of Watertable Below Surface.....19 Ft.

on Summer 1970

(Date).

6. Operating Equipment

Back Hoe or Bull dozer  
when available

Hours of Operation.....3 hours /Week

7. The Following Documents are Attached

.....

Prepared by

Bruno Lalonde Clerk

DATED.....15 Dec 1970

SIGNED Bruno Lalonde

FOR DEPARTMENTAL USE

8. Authorities Consulted:

Health Unit	<input type="checkbox"/> Objection	<input checked="" type="checkbox"/> No Objection
O.W.R.C.	<input type="checkbox"/> Objection	<input type="checkbox"/> No Objection
A.M.B.	<input type="checkbox"/> Objection	<input type="checkbox"/> No Objection
Municipality	<input type="checkbox"/> Objection	<input type="checkbox"/> No Objection
Conservation Authority	<input type="checkbox"/> Objection	<input type="checkbox"/> No Objection

Other.....

Inspection Record Forms Attached

Regional Engineer's Report Attached ☐

RECOMMENDATION

SEE FORM 2.11

DATED.....Dec 26/71

SIGNED

## Appendix "B"

### MOE's Response to Review of Previous Non-Compliance Issues

Ministry of the  
Environment

133 Dalton Avenue  
P O Box 820  
Kingston ON K7L 4X6

Ministère de  
l'Environnement

133 avenue Dalton  
C P 820  
Kingston ON K7L 4X6

Appendix B  
002



Ontario

1-613/549-4000 1-800/267-0974 Fax: 613/548-6908

## MEMORANDUM

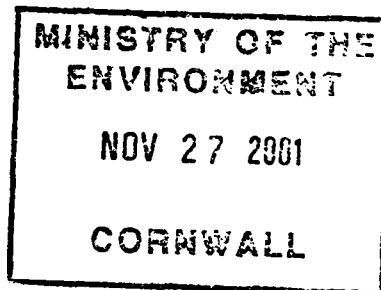
TO: Gerry Murphy  
Environmental Officer  
Cornwall Area Office  
Eastern Region

FROM: Sara Ryan  
Hydrogeologist  
Technical Support Section  
Eastern Region

RE: Longueuil Waste Disposal Site  
Township of Longueuil, Part of Lot 59 Registered Plan # M-100  
Certificate of Approval A471601

RECEIVED  
Nov 29/01  
Neil Levac Eng.  
Chapman + up.

November 26, 2001



I have reviewed the report, *Hydrogeological Site Assessment Longueuil Waste Disposal Site*, by Neil Levac and Associates Limited.

### SUMMARY

The Background Section outlines the pertinent information in the report and my recommendations are discussed in the Hydrogeology Review Section. Overall, I offer the following recommendations:

- Implement the groundwater monitoring program with some changes that include sampling all of the monitoring wells and analysing the samples for a VOC EPA624 scan.
- Monitor the water quality in the background well closely as it is downgradient of the landfill.
- Evaluate alternatives to dewatering the sand to prevent seepage of landfill leachate impacted water.
- Explain the unusual groundwater chemistry.
- Investigate the possibility of a closed landfill existing on the adjacent property to the north.





## BACKGROUND

The site is located on the east side of County Road 11 and it is 2 km southeast of Cassburn. A closed landfill is reported to have operated on the adjacent property to the north of this landfill.

### Geology

The overburden varies in thickness from 2 to 8 m. The topography is generally flat and the variations in overburden thickness are mostly caused by undulations in the bedrock surface. The landfill is located where the overburden is thinnest and the clay layer pinches out. Below and around the landfill the overburden consists of 2 to 5 m of sand and silt overlying 3 to 5 m of clay overlying 1 m of till. The bedrock consists of limestone.

### Hydrogeology

The groundwater is interpreted to flow northeast in the shallow subsurface, northwest in the shallow-deep subsurface and north in the deep subsurface. A perched aquifer exists in the shallow sand deposits and they have a hydraulic conductivity of  $10^{-3}$  to  $10^{-6}$  m/s. The hydraulic conductivity of the silty sand and silt layer is  $10^{-7}$  m/s. The hydraulic conductivity of the clay is  $< 10^{-10}$  m/s. The hydraulic conductivity of the till is  $10^{-7}$  m/s and the hydraulic conductivity of the bedrock is  $10^{-6}$  m/s.

Eight monitoring wells have been installed in and around the landfill. Five of the monitoring wells have two or more intervals. MW-3 is screened below the fill area. MW8 and MW11 are background wells which are located to the south and southeast of the landfill, respectively.

The following wells are screened in the sand: MW-1S, MW-2S, MW-4S, MW-5S and MW8-2. The following monitoring wells are screened in the till: MW1-D (sand and till); MW3-D; MW4-D; MW8-D (deep); and MW-11. The following wells are screened in the bedrock: MW5-D and MW7.

MW3, MW5A, MW5B, MW8A, MW8B and MW11 were sampled in the spring of 2001. These wells and MW7 were sampled again in the fall of 2001. MW3 is screened below the fill area and it has been impacted by landfill leachate. MW5 and MW7 show slightly elevated concentrations of landfill leachate indicator parameters. No volatile organic compounds were detected in MW 3,4,7 and 8.

The closest residential wells are 550 m east of the landfill and 1.1 km north of the landfill.

The consultant recommends a monitoring program that includes sampling MW3,5,7,8 and 11 twice a year. The first set of samples should be analyzed for a full suite of landfill leachate indicator parameters and the second set for a reduce list of landfill leachate indicator parameters. The results of the monitoring program would be summarized and interpreted in an annual monitoring report.

### **Guideline B-7 Reasonable Use Concept**

MW-11 was used as the background well to calculate the maximum allowable concentrations at the downgradient property limit. The manganese, aluminum and iron concentrations exceeded the maximum allowable concentrations in many of the downgradient monitoring wells. These parameters are aesthetic and the consultant recommends to monitor these concentrations. The consultant also suggests that these elevated concentrations could be natural.

### **Potential Surface Water Impacts**

The consultant reports that the on-site ponds were backfilled.

### **HYDROGEOLOGY REVIEW**

I support the consultant's recommendation to implement a groundwater monitoring program. I recommend that all of the monitoring wells be sampled twice a year (spring and fall) for the landfill leachate indicator parameters (Column 2 of Schedule 5 of Landfill Guideline). I support the consultants recommendation to sample MW3,5,7,8 and 11 for volatile organic compounds (EPA624 scan). I recommend that pH and conductivity be measured in the field using hand held meters. The annual monitoring report should be submitted to the MOE Cornwall Area Office for review.

I am concerned about the background well (MW11) because it is downgradient from the landfill well (MW3). The water quality in the MW11 should be monitored closely to ensure it is representative of background water quality. In the event the water quality gets worse a new background well should be installed.

The consultant recommends moving the fill area east by dewatering the sand layer because the clay in this area is thicker. I am concerned about the dewatering area because the dewatering will probably result in leachate seeping to the surface in this area. I recommend that the consultant consider other alternatives to move the landfilling operations eastward, such as excavating the sand layer.

I am concerned about the chemical results in general because many of the results are typical for the groundwater in Ontario. For example the alkalinity, conductivity, and hardness concentrations are very low, the pHs variable and the COD, iron and manganese elevated. I recommend that pH and conductivity be measured in the field using hand held meters. I recommend that the consultant explain the unusual analytical results and ensure sampling procedures are being followed (i.e. field filter and preserve metal samples).

The consultant reports that a landfill operated from the adjacent property to the north. I recommend that this possibility be further investigated to ensure that it no longer operates and that it is not impacting the environment.

A handwritten signature in black ink, appearing to read 'Sara Ryan', with a stylized flourish at the end.

Sara Ryan  
SR/gl

c: Conrad DeBarros  
File SI PC LO M-100 / File GW 07 04 Township of Longueuil  
SER Star 13123

Appendix "C"

Municipality's Response to Review of  
Previous Non-Compliance Issues  
dated December 20, 1999

CANTON DE **CHAMPLAIN** TOWNSHIP

BUREAU ADMINISTRATIF / ADMINISTRATION OFFICE  
948 EST, CHEMIN PLÉASANT CORNERS ROAD EAST  
VANKLEEK HILL, ONTARIO (K0B 1R0)

613-678-3003  
(FAX) 613-678-3363

December 20<sup>th</sup>, 1999

Mr. Gerald Murphy  
Ministry of the Environment  
113 Amelia Street  
Cornwall, Ontario  
K6H 3P1

RECEIVED  
DEC 23 1999

Dear Sir:

**RE: Compliance Inspection Report - Longueuil Waste Disposal Site**

I wish to acknowledge receipt of Mr. R.J. Robertson's letter of November 26<sup>th</sup>, 1999 regarding the above subject matter of which the same was presented to the Township Municipal Council at its last meeting of December 14<sup>th</sup>, 1999.

As I explained in our most recent telephone conversation, the Township of Champlain with its new Council structure has not been able to address all issues of the former municipalities since their amalgamation of January 1<sup>st</sup>, 1998. The Longueuil waste disposal site is one of these issues whereby most of the Members of Council are unfamiliar with its status and operation. The Compliance Inspection Report was of great assistance in providing preliminary background information in order that the Council Members can begin addressing this issue.

At the meeting of Council on December 14<sup>th</sup>, 1999, the Township of Champlain adopted a number of policies, being as follows:

1. that tires will only be accepted without rims;
2. that refrigerators will only be accepted if freon has been properly removed and tagged as such.

CANTON DE **CHAMPLAIN** TOWNSHIP

Mr. Gerald Murphy  
Ministry of the Environment

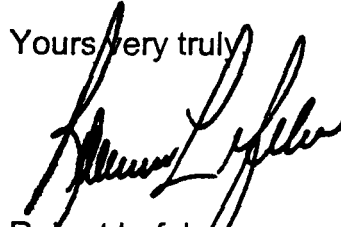
- 2 -

December 20<sup>th</sup>, 1999

I am presently in the process of reviewing past files of the former municipality of Longueuil as it relates to the landfill site including the initial site characteristic report as prepared by Mr. Levac of Neil A. Levac Engineering Ltd. The remaining issues that were identified in the Compliance Inspection Report, for instance, the footprint of the landfill site, the required amendment to the Certificate of Approval regarding disposal of waste in the site including further hydro geological works will all be considered by Council at a meeting to be scheduled early in the new year. In all likelihood the consultant will be requested to <sup>meet</sup> meet with Council for the purpose of informing Council Members of the history. In addition, we wish to inquire if representative of the Ministry of the Environment or yourself would be available for such a meeting.

We wish to thank you for your understanding of this situation and should you have any questions, please feel free to contact the undersigned.

Yours very truly



Robert Lefebvre  
Clerk-Treasurer

/llls

c.c. John Wilson, Mayor  
c.c. R.J. Robertson, Area Supervisor

Appendix "D"

Municipality's Response to Review of  
Previous Non-Compliance Issues  
dated March 27, 2000

CANTON DE CHAMPLAIN TOWNSHIP

Appendix 'D'

BUREAU ADMINISTRATIF / ADMINISTRATION OFFICE  
948 EST. CHEMIN PLEASANT CORNERS ROAD EAST  
VANKLEEK HILL, ONTARIO (K0B 1R0)

613-678-3003  
(FAX) 613-678-3363

March 27<sup>th</sup>, 2000.

RECEIVED  
APR 08 2000

Ministry of the Environment,  
133 Dalton Avenue,  
P.O. Box 820,  
Kingston, Ontario. K7L 4X6

Attention: Mr. Frank Crossley,  
Hydrogeologist,  
Technical Support Section

RE: Longueuil Township Waste Disposal  
Site - Lot 59, Plan M-100, A471601

Dear Sir,

The Township Municipal Council has reviewed the last Compliance Inspection Report dated October, 1999, as prepared by Mr. Gerry Murphy of the Ministry, and is in the process of correcting issues which have been identified in this Report.

The Report in question, more specifically page 3, states as follows:

*"At the time of the Compliance Inspection there were no obvious signs of ground/surface water impacts, but a complete hydrogeological investigation would be required to determine the extent of contamination from the site."*

/.....2



CANTON DE CHAMPLAIN TOWNSHIP

Frank Crossley, Hydrogeologist  
Ministry of the Environment

- 2 -

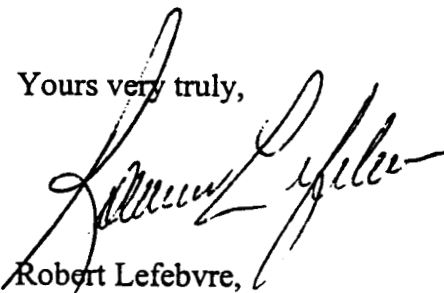
March 27<sup>th</sup>, 2000

As you are aware, the former Township of Longueuil had requested the consulting firm of Neil A. Levac Engineering Limited to complete a Site Characteristic Report and the Township Council of Champlain has also requested an action plan for a hydrogeological assessment of the property in question.

Please find enclosed the proposed action plan including a budget for these works. It would be greatly appreciated if the same could be reviewed and if you could provide your comments on this work plan in satisfying the matter that was itemized in the compliance report.

Should you have any questions, please do not hesitate to contact me.

Yours very truly,

  
Robert Lefebvre,  
Clerk-Treasurer.

c.c. G.A. Murphy,  
Sr. Environmental Officer

- May 12/00 Spoke with R. Lefebvre, who mentioned the proposed action plan will be presented to council at June 6/00 meeting, at which time an implementation schedule will be prepared, with MOE copied





M 250-9

**NEIL A. LEVAC ENGINEERING LTD / LTEE**

Consulting Engineers / Ingénieur Conseils

**DELIVERED BY HAND**

Our File Ref: L9618

February 8, 2000

**Township of Champlain**  
948 Pleasant Corners Road East  
Vankleek Hill, ON  
K0B 1R0

Attention: Mr. Robert Lefebvre, Clerk-Treasurer

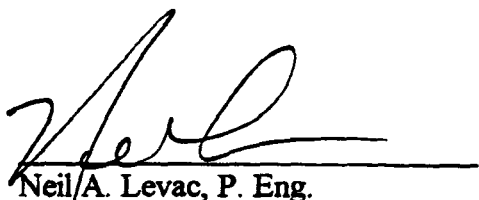
**RE: Longueuil Township Waste Disposal Site**  
**Part of Lot 59, Plan M-100**  
**MOE Site No. A471601**

Dear Sir:

Pursuant to our meeting of January 13, 2000, revision of MOE Compliance Inspection Report dated October 20, 1999, and discussions with MOE representative we are enclosing a proposed budget for further hydrogeological assessment of the above referenced site.

If you have any questions or comments, please contact the undersigned.

Yours truly,  
*Neil A. Levac Engineering Ltd.*



Neil A. Levac, P. Eng.

NAL/jv

cc : Council Members

E-mail: levaceng@istar.ca

2884, rue Laporte Street, Rockland, Ontario K4K 1M6  
480, rue McGill Street, Suite 105 Hawkesbury, Ontario. K6A 2S2  
170, rue Broadway East/est. Gatineau, Québec. J8P 3V3

Fax (613) 446-1427

Tel (613) 446-7777

Tel (613) 632-4583

Tel (819) 663-1639

Documents\FILES96\L9618\02-08-00.doc

# TOWNSHIP OF CHAMPLAIN

## PROPOSED BUDGET FOR FURTHER HYDROGEOLOGICAL SITE ASSESSMENT (Longueuil Township Waste Disposal Site)

TASK	DESCRIPTION	BUDGET
I	Sampling of Existing Monitoring Wells	
	Sampling	\$ 1,800.00
	Interpretation & Report	\$ 2,900.00
	* Chemical Analysis	\$ 1,428.00
	<b>BUDGET FOR TASK I (not including disbursements &amp; G.S.T.)</b>	<b>\$ 6,128.00</b>
II	Installation and Sampling of Additional Monitoring Wells	
	** Drilling & Monitoring Wells Supplies	\$ 7,000.00
	Survey/Supervision and Sampling	\$ 4,400.00
	Report/Recommendations	\$ 4,700.00
	* Chemical Analysis	\$ 3,060.00
	<b>BUDGET FOR TASK II (not including disbursements &amp; G.S.T.)</b>	<b>\$ 19,160.00</b>
***	<b>TOTAL BUDGET FOR TASK I &amp; II (not including disbursements &amp; G.S.T.)</b>	<b>\$ 25,288.00</b>
	Access routes for drilling equipment (Provisional)	\$ 2,000.00

\* Based on 24 parameters per samples at \$8.50/parameter / 7 parameters (H.L.)

\*\* Based on 4 boreholes and monitoring wells @ \$1,750.00 each

\*\*\* Meeting with Authorities, and all professional services to be charged in accordance with our "SCHEDULE OF FEES - 2000" attached

Ministry of the  
Environment

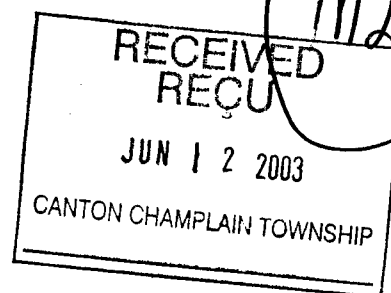
113 Amelia Street  
Cornwall ON K6H 3P1  
Telephone: (613) 933-7402  
Fax: (613) 933-6402

Ministère de  
l'Environnement

113 rue Amelia  
Cornwall ON K6H 3P1  
Téléphone: (613)933-7402  
Télécopieur: (613)933-6402



Ontario



May 28, 2003

Robert Lefebvre, Clerk-Treasurer  
Champlain Township  
948 Pleasant Corner Road  
Vankleek Hill, ON  
K0B 1R0

Dear Sir:

**Re: Compliance Inspection Report**  
**Longueuil Township Waste Disposal Site**

The above-noted facility was inspected on January 30, 2003, by Gerry Murphy, Senior Environmental Officer, for this office. Enclosed is a copy of the inspection report.

Your attention is directed to Sections 5.0 (Action Required) of the report.

If you have any questions or comments, please contact Gerry Murphy at this office at extension 235.

Yours truly,

Michael Séguin  
Acting Area Supervisor  
Cornwall Area Office - Kingston District

GM:sp  
Enclosure

c: Neil A. Levac Engineering Ltd/Ltée

*Submitted to Council  
Aug 5/03  
PL*

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