

**DES Waste Management Division  
29 Hazen Drive; PO Box 95  
Concord, NH 03302-0095**

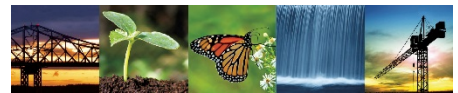
**June 23, 2022 Landfill Inspection  
Campton-Thornton Municipal Landfill  
Route 175  
Thornton, NH 03285**

**NHDES Site #: 199101060  
Project Type: Groundwater Management  
Project Number: 2690  
Permit No. DES-SW-TP-94-021**

Prepared For:  
Town of Thornton  
16 Merrill Access Road  
Thornton, NH 03285  
Phone Number: (603) 726-8168  
RP Contact Name: Desiree Mahurin  
RP Contact Email: townadmin@thorntonnh.org

Prepared By:  
Emery & Garrett Groundwater Investigations,  
A Division of GZA  
P.O. Box 1578  
Meredith, NH 03253  
Phone Number: (603) 279-4425  
Contact Name: Ryan Allen  
Contact Email: ryan.allen@gza.com

Date of Report: July 19, 2022



**VIA EMAIL:** townadmin@thorntonnh.org  
toc.cp@camptonnh.org  
dobellsworth@gmail.com

July 19, 2022

Project Nos.: 33.0083078.08, 33.0083078.09, 33.0083078.10

Solid Waste Management Bureau  
State of New Hampshire  
Department of Environmental Services  
29 Hazen Drive, P.O. Box 95  
Concord, NH 03302-0095

**Re: Campton-Thornton Municipal Landfill – June 2022 Landfill Inspection  
Permit No. DES-SW-TP-94-021**

To Whom it May Concern,

Emery & Garrett Groundwater Investigations (EGGI), a Division of GZA GeoEnvironmental, Inc. (GZA), performed the Landfill Gas Monitoring and Inspection at the Campton-Thornton Landfill on June 23, 2022. The Campton-Thornton Landfill (**Permit No. DES-SW-TP-94-021**) is monitored in accordance with Groundwater Management **Permit No. GWP-199101060-T-006**, which was issued on April 26, 2022. Please find attached, the NHDES landfill inspection report and summary of landfill gas monitoring results for the Campton-Thornton Municipal Landfill.

I hope you find this information responsive to your needs. If you have any questions, please do not hesitate to contact us.

Best Regards,

EMERY & GARRETT GROUNDWATER INVESTIGATIONS, A DIVISION OF GZA

Ryan Allen  
Senior Project Manager

James M. Emery, P.G.  
Principal/District Office Manager  
Senior Hydrogeologist

RPA/DJT:bar

J:\33.0083000 to 33.0083099\33.0083078.08 TLF-Thornton 2021\Report\June 2022 Inspection\CamptonThornton\_Cover Letter\_June2022\_Inspection 33.0083078.08 33.0083078.09 33.0083078.10.docx

**Attachments:**

NHDES Post-closure Landfill Inspection Report

Campton-Thornton Municipal Landfill Summary of Landfill Gas Monitoring Results

# Landfill Post-Closure Inspection Report

A. Site Information		B. Contact Information				
Facility Name: Campton-Thornton Municipal Landfill		Permittee Name: Town of Thornton				
Address: NH Rte. 175		Address: 16 Merrill Access Road				
Date Waste Receipt Stopped: December 21, 1994		Phone #: 603-726-8168				
Closure Date: 1997      Cap Date: 12/1997		Contact Person: Desiree Mahurin				
Cap Design: Soil: <input type="checkbox"/> Paper Fiber: <input type="checkbox"/> Geomembrane: LLDPE: <input checked="" type="checkbox"/> HDPE: <input type="checkbox"/> Other:        describe _____						
Permit #: DES-SW-TP-94-021		Inspected by: Ryan Allen			Date: 6/23/2022	
C. Funding						
Is the Facility owner receiving funding from the State for closure of the landfill [Grant Program, etc.]?						
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If yes, provide the funding source.						
D. Enforcement						
Is the Facility under any enforcement action? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
If yes, check the appropriate box:						
Notice of Finding; <input type="checkbox"/> : Letter of Deficiency; <input type="checkbox"/> : Administrative Order; <input type="checkbox"/> : Administrative Fine; <input type="checkbox"/> Other:						
If yes, provide status of enforcement:						
E. Off-Cap Features						
If damage is present, indicate if damage is Minor or Major then use Section H to provide additional information as necessary.						
[Minor damage = no immediate repair needed, but should be repaired or watched during the year]						
[Major damage = requires immediate repair and submittal of a work scope to conduct repair]						
		Yes	No	NA	Minor	Major
(1)	Is there adequate access control [e.g., fencing or natural boundaries]?	<input checked="" type="checkbox"/>				
(2)	Are perimeter warning signs present?	<input checked="" type="checkbox"/>				
(3)	Is the access road(s) in good condition?	<input checked="" type="checkbox"/>				
(4)	Is the retention/infiltration basin(s) in good condition?			<input checked="" type="checkbox"/>		
(5)	Is the drainage system in good working order?	<input checked="" type="checkbox"/>				
(6)	Are all culverts intact and free of obstructions?	<input checked="" type="checkbox"/>				
(7)	Are all under-the-cap drain outlets in good condition?			<input checked="" type="checkbox"/>		
(8)	Are all of the soil gas probes in good condition?	<input checked="" type="checkbox"/>				
(9)	Were there any landfill odors detected at the property line?		<input checked="" type="checkbox"/>			

## Landfill Post-Closure Inspection Report

		Yes	No	NA	Minor	Major
(10)	Is the Gas Management System: <input checked="" type="checkbox"/> Passive <input type="checkbox"/> Active					
(11)	If the cap has an active gas collections system, are all components of the system in good working order? Date system last tested:			X		
(12)	Is the soil gas cutoff trench performing as designed?			X		
(13)	Are all of the groundwater monitoring wells in good condition?	X				
(14)	Were any leachate break-outs observed?		X			
(15)	Is there evidence of damaged/weakened vegetation?		X			
(16)	Has any off-cap portion of the site, during this or past monitoring periods, been used for activities other than post-closure? Explain in Sec. H.	X				
(17)	Other observations?:		X			

### F. Cap Features

If damage is present, indicate damage as Minor or Major then use Section H to provide additional information if necessary.

[Minor damage = no immediate repair needed, but should be repaired or watched during the year]

[Major damage = requires immediate repair and submittal of a work scope to conduct repair]

		Yes	No	NA	Minor	Major
(1)	Is the vegetative layer in good condition? When was the landfill last mowed? Fall 2021	X				
(2)	Are all landfill side slopes in good condition?	X				
(3)	Is there evidence of erosion?		X			
(4)	Has cap settlement been uniform?	X				
(5)	Are there depressions in the cap's surface?		X			
(6)	Is there evidence of damage due to burrowing animals?		X			
(7)	Is there evidence of damage due to unauthorized access?		X			
(8)	Is there any blockage of the drainage swales?		X			
(9)	Do All drainage swales have positive drainage?	X				
(10)	Are all culverts intact and free of obstructions?	X				
(11)	Are all landfill gas vents in good condition?	X				
(12)	Are there any leachate break-outs present?		X			
(13)	Is the landfill cap used for other than post-closure monitoring and maintenance? Explain in Sec. H.	X				
(14)	Is the access road across the landfill cap in good condition?			X		
(15)	The overall condition of the cap? [circle one]	Good	Fair	Poor		
(16)	Other:					

### G. Reporting Requirements

		Yes	No	NA
(1)	Was a report submitted to the DES for the prior monitoring period?	X		
(2)	Was there any reported damage [minor or major] to the capping system in the		X	

## Landfill Post-Closure Inspection Report

	previous report?			
		Yes	No	NA
(3)	If damage to the cap is being reported for the current monitoring period, is the damage similar to the previous monitoring period.			X
(4)	Is an instrument survey of the cap required? [If required, attach a settlement data summary table.]		X	
(5)	Is the owner required to monitor methane generation from the landfill?	X		
(6)	For this monitoring period have methane levels exceeded 25% of the LEL inside any on or off-site structures?		X	
(7)	For this monitoring period have methane levels exceeded 50% of the LEL at the property line?		X	
(8)	For this monitoring period have methane levels exceeded 10% of the LEL in the ambient air at the property line?		X	
(9)	Are there any trends in the methane data thus far collected? [If yes, please provide an explanation in Section H.]		X	
(10)	Is the Facility in compliance with its Groundwater Management Permit?	X		
(11)	For this monitoring period, are there any AGQS violations?	X		
(12)	Has the landfill been used in the past for activities other than post-closure monitoring and maintenance? [Explain using Sec. H.]		X	
(13)	Other:			
(14)	Other:			
Attach summary table of all settlement data collected to date, if applicable.				
Attach summary table of all methane data collected to date, if applicable				
Attach summary table [ <b>only</b> ] of all water quality data collected to date.				
Attach a site plan, <b>only</b> if a plan has <b>not</b> previously been submitted. [Note: Submittal of cap and/or vent construction details is no longer necessary]				
<b>H. Comments and Recommendations</b>				
E (16) - A transfer station is operated on-site in an off-cap location.				
F (13) -- Overhead powerlines cross the landfill cap.				
G (11) – Data collected in 2021 indicate that the concentrations of arsenic and manganese at certain downgradient locations from the landfill continue to exceed their AGQS. Iron is also elevated in these downgradient monitoring locations. For further details, please refer to the 2021 Application for Groundwater Management Permit Renewal – Campton-Thornton Municipal Landfill, prepared by EGGI, dated December 16, 2021.				

# Landfill Post-Closure Inspection Report

A handwritten signature in black ink, appearing to be "J. Doe", written over a horizontal line.

7/19/2022

Authorized Signature/Date

# **Landfill Post-Closure Inspection Report**

**Table 1 - Gas Monitoring Data**  
**Campton-Thornton Landfill - Thornton, New Hampshire**

Date	GMW-1			GMW-2			GMW-3			GMW-4			Property Line			Scale House			Recycling Shed		
	% LEL	% O <sub>2</sub>	% CO <sub>2</sub>	% LEL	% O <sub>2</sub>	% CO <sub>2</sub>	% LEL	% O <sub>2</sub>	% CO <sub>2</sub>	% LEL	% O <sub>2</sub>	% CO <sub>2</sub>	% LEL	% O <sub>2</sub>	% CO <sub>2</sub>	% LEL	% O <sub>2</sub>	% CO <sub>2</sub>	% LEL	% O <sub>2</sub>	% CO <sub>2</sub>
5/18/2011	0	20.0	0.1	0	20.1	0.1	0	20.2	0.1	0	20.0	0.2	0	20.3	0.1	0	20.4	0.1	0	20.4	0.1
12/20/2011	0	20.0	1.4	0	21.1	0.0	0	21.0	0.0	0	20.4	0.7	0	20.9	0.1	0	20.9	0.1	0	20.9	0.1
3/15/2012	0	19.5	1.5	0	19.8	0.8	0	20.9	0.1	0	18.3	1.8	0	20.9	0.1	0	0.0	Closed	0	0.0	Closed
9/27/2012	0	20.6	0.0	0	20.6	0.0	0	20.5	0.0	0	20.1	0.2	0	20.4	0.0	0	0.0	Closed	0	0.0	Closed
6/27/2013	0	20.2	0.0	0	20.1	0.0	0	20.1	0.0	0	20.0	0.1	0	20.1	0.0	0	20.1	0.0	0	20.1	0.0
12/10/2013	0	19.2	2.0	0	19.0	1.0	0	19.9	0.7	0	17.4	3.1	0	20.8	0.1	0	21.0	0.1	0	20.9	0.1
6/25/2014	0	19.3	0.2	0	18.5	0.8	0	18.5	0.5	0	17.5	1.2	0	19.4	0.0	0	19.5	0.0	0	19.5	0.0
12/5/2014	0	19.8	1.7	0	20.2	0.9	0	20.9	0.2	0	19.2	1.8	0	20.8	0.1	0	21.0	0.1	0	20.9	0.1
6/23/2015	0	20.5	0.9	0	19.4	0.9	0	19.8	0.3	0	17.8	1.5	0	20.4	0.0	0	20.4	0.0	0	20.4	0.0
12/9/2015	0	20.7	0.1	0	20.6	0.1	0	20.5	0.1	0	20.8	0.1	0	20.8	0.1	0	20.4	0.2	0	20.4	0.1
6/27/2016	0	20.5	0.0	0	20.6	0.0	0	20.7	0.0	0	20.2	0.0	0	20.3	0.0	0	20.8	0.0	0	20.8	0.0
12/20/2016	0	21.6	0.1	0	21.7	0.1	0	21.3	0.1	0	21.8	0.1	0	21.8	0.1	0	20.9	0.1	0	20.9	0.1
6/27/2017	0	20.0	0.0	0	20.0	0.0	0	20.0	0.0	0	20.0	0.0	0	20.0	0.0	0	20.0	0.0	0	20.0	0.0
12/4/2017	0	21.1	0.0	0	20.9	0.0	0	20.9	0.0	0	21.3	0.0	0	21.2	0.0	0	20.7	0.1	0	20.8	0.0
6/5/2018	0	21.1	0.0	0	21.1	0.0	0	20.9	0.1	0	21.0	0.0	0	21.0	0.0	0	21.0	0.0	0	21.1	0.0
12/7/2018	0	20.8	0.1	0	20.5	0.1	0	21.5	0.1	0	21.5	0.1	0	21.6	0.1	0	21.5	0.1	0	21.3	0.1
6/12/2019	0	20.5	0.1	0	20.5	0.0	0	20.5	0.1	0	20.0	0.3	0	20.4	0.0	0	20.6	0.0	0	20.6	0.0
12/12/2019	0	20.5	0.2	0	19.7	0.8	0	21.0	0.1	0	19.3	1.5	0	20.5	0.1	0	20.8	0.1	0	20.9	0.1
6/16/2020	0	20.3	1.0	0	20.3	0.7	0	20.6	0.2	0	18.7	1.3	0	21.1	0.0	0	21.3	0.0	0	21.4	0.0
12/14/2020	0	21.0	0.4	0	20.2	0.1	0	19.9	0.5	0	18.8	2.2	0	21.5	0.0	0	20.6	0.1	0	20.6	0.1
6/23/2021	0	21.1	0.0	0	21.0	0.0	0	21.5	0.0	0	20.8	0.0	0	20.9	0.0	0	21.4	0.0	0	21.5	0.0
12/15/2021	0	19.6	1.4	0	19.7	0.9	0	20.3	0.2	0	18.6	2.3	0	20.8	0.0	0	20.3	0.2	0	20.5	0.1
6/23/2022	0	20.9	0.1	0	20.9	0.0	0	20.8	0.1	0	20.0	0.8	0	20.9	0.0	0	20.9	0.0	0	21.0	0.0

The gas monitoring data presented in this table were collected by EGGI staff using a Landtec GA-90 or GEM 2000 Landfill Gas Meter.