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2nd QUARTER LANDFILL GAS MONITORING
June 2021

Berkley Landfill
County Street
Berkley, Massachusetts
Facility #384031

Prepared for

Waste Management Disposal Services of Massachusetts, Inc.
c/o 600 New Ludlow Road
South Hadley, Massachusetts 01075

Prepared by

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Project Number BR0321I

July 2021

Geosyntec consultants

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1. INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) has prepared this quarterly landfill gas monitoring report on behalf of Waste Management Disposal Services of Massachusetts, Inc. (WMDSM) for the former Berkley Landfill located on County Street in Berkley, Massachusetts (the Site). This landfill gas monitoring report is being submitted in accordance with the January 15, 2010 Post-Closure Monitoring Plan (the Plan) to the Massachusetts Department of Environmental Protection (MassDEP). On behalf of Geosyntec, Katahdin Analytical Laboratories, Inc. (Katahdin) conducted landfill gas monitoring at the Site on June 16, 2021 in accordance with 310 CMR 19.132(5). Geosyntec has reviewed the findings, and this report provides a summary of the monitoring.

Oxygen was detected at all locations monitored during the June 2021 field event under initial and steady state conditions at concentrations ranging from 20.5% to 21.1%. The ambient oxygen concentration was measured as 21.1%.

Hydrogen sulfide was not detected at any of the locations monitored during the June 2021 field event including the ambient reading.

NMVOCs were detected at eleven of seventeen monitoring locations under initial conditions at concentrations ranging from 0.1 to 6 ppm_v. Under steady state conditions, NMVOCs were detected at five of thirteen monitoring locations at concentrations ranging from 0.1 to 1.8 ppm_v. The ambient NMVOC concentration was measured as 0.0 ppm_v.

TABLE

Table 1

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Landfill Gas Monitoring Results

June 16, 2021

Berkley Landfill - Berkley, Massachusetts

	Units	GP-1	GP-2	GP-9	GP-10	GP-12	Vent-1	Vent-2	CB-1	CB-2	BHP-1	BHP-2	BHP-3	BHP-4	BHP-5*	BHP-6	BHP-7	BHP-8	Ambient
Initial Condition																			
Methane	%	0.0	0.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% of LEL	%	0	14	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0
Oxygen	%	20.8	20.5	20.9	20.9	20.7	20.9	21.0	21.1	21.0	21.0	21.0	21.0	20.8	20.9	20.8	20.8	20.8	21.1
Hydrogen Sulfide	ppm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NMVOCs	ppm	2.0	0.4	0.0	0.0	0.2	0.1	0.1	0.0	0.0	4.0	0.1	0.0	0.1	0.2	0.1	0.0	6.0	0.0
Steady-State Condition																			
Methane	%	0.0	0.2	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
% of LEL	%	0	4	0	0	0					0	0	0	0	0	0	0	0	
Oxygen	%	20.8	20.7	21.0	20.9	20.9					21.0	21.0	21.0	20.9	21.0	20.9	20.9	20.8	
Hydrogen Sulfide	ppm	0	0	0	0	0					0	0	0	0	0	0	0	0	
NMVOCs	ppm	0.7	0.3	0.0	0.0	0.1					1.8	0.0	0.0	0.0	0.0	0.0	0.0	1.3	

Notes:

Weather: Clear; wind ENE 0-5 mph
Time: 14:20
Temp: 76˚F
Rel Humidity: 70%
Bar. Pressure: 29.71
Monitoring Data was collected by Katahdin Analytical Laboratories, Inc. on June 16, 2021.

Ground Conditions: Clear no mud or puddles

Abbreviations: ppm = parts per million
LEL = lower explosive limit
NMVOC = non-methane volatile organic compounds

*BHP-5 is located across the street from landfill gated entrance. BHP-1-4 and 6-8 are located on same side of street as the landfill.

FIGURE