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Site Observation Report

PROJECT NAME: LANDFILL MONITORING AND REPORT NEWBERRY COUNTY CLASS III MSW LANDFILL	RTING FOR THE	PROJECT NO: 17102-0036
DATE: 11/13/2024	ARRIVAL TIME: 2:2	5 □ AM ☑ PM
STAFF PERSONNEL: T. RYAN MERRITT, E.I.T.	DEPARTURE TIME:	4:30 ☐ AM
WEATHER: 60 ° F ☐ HOT ☐ WARM ☐ COOL ☐ COLD ☐ SNOW ☐ SUNNY ☐ CLOUDY ☐ Lt. RAIN ☐ Hvy. RAIN ☐ BREEZY ☐ CALM		ONTRACTORS ON SITE: Alliance Consulting Engineers, Inc.

ITEMS OBSERVED:

Arrived on-site Wednesday, November 13, 2024, to conduct the First (1st) Quarter Fiscal Year 2024-2025 Methane Monitoring at each of the eleven (11) Gas Monitoring Probes (GMPs), evaluate each of the twenty-four (24) Extraction Wells, perform the Operation, Maintenance, and Monitoring (OM&M) for the Soil Gas Extraction System, and observe solid waste management facilities located at the Newberry County Landfill on Cockrell Road.

Due to past persistent elevated methane concentrations in several GMPs, a phased corrective measures approach was implemented by Newberry County starting in 2006. The installation of Passive Gas Vents and a Passive Vent Trench failed to fully reduce methane concentrations below the Lower Explosive Limit (LEL); therefore, an active Soil Gas Extraction System was installed in May 2015. The Passive Vent Trench and the Soil Gas Extraction System remain in service as of this time.

Methane monitoring was conducted on November 23, 2024, using the Gas Measurement Instruments GT 40 Series Gas Detector. The LEL for methane is 5%, and all GMPs registered 0% methane by volume. The attached Methane Summary Chart, Methane Monitoring Field Data Sheets, photographs, and photo key document the gas monitoring activities and results.

The operation of the gas collection system was checked during the November 13, 2024 monitoring event. Condensate Sumps CS-A, CS-B, and CS-C were checked during the monitoring event (Photos 6-14). The blower motor is currently operational for the Soil Gas Extraction System and is removing all methane before it reaches the property boundary as designed.

Hurricane Helene made landfall on September 26, 2024, and cause major destruction up the Savannah River corridor. Newberry Landfill is currently being used as a debris management location with debris grinding taking place for the foreseeable future.

Hurricane Helene also caused several trees to fall around the landfill perimeter. The only damaged sustained to the system was Extraction Well 12 was broken (Photo 21) and GMP 4 is currently under an oak tree. Until such time as this oak tree can be safely removed, the state of GMP 4 cannot be determined.

ITEMS DISCUSSED WITH CONTRACTOR:

- Vacuum tubes for the control panel gauges have become brittle and broken. Once new hoses are obtained, Alliance Consulting Engineers, Inc. will return to the site and replace.
- Once replacement parts for Extraction Well 12 are identified and obtained, Alliance Consulting Engineers, Inc. will return to the site and repair.

ACTION ITEMS STATED BY CONTRACTOR:
- N/A
RESOLUTION TO UNRESOLVED ITEMS:
- N/A.
ITEMS REQUIRING FOLLOW-UP:
- Second (2 nd) Quarter Fiscal Year 2024-2025 sampling should be conducted prior to December 30, 2024.
PHOTOS TAKEN: X YES NO

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				NEWE		Methane By V TY CLASS TH	olume) HREE MSW L	ANDFILL				
GMP No.	Mar-07	Aug-07	Sep-07	Dec-07	Mar-09	Dec-09	Jun-10	Feb-10	Feb-12	Jun-12	Jul-12	Aug-12
GMP-1S	0	-	-	-	-	-	0.1	0	-	-	0	0
GMP-1D	0	-	-	-	-	-	0	0	-	-	0	0
GMP-3S	0	2.4	19.3	4.8	0.1	-	8.9	0.1	-	9.6	-	1.5
GMP-3D	0	3.2	23.3	5.5	0.1	-	9.3	0.1	-	8.8	-	1.8
GMP-4	0.5	60.4	36.1	25.8	60.5	-	36.7	38.3	60.2	-	-	55.2
GMP-5S GMP-5D	2.8	4.2	0.7	0.5	4 18.8	-	0.1 11.5	0.1	0.1	32.9 0.6	-	47.7 1.2
GMP-5D GMP-6S	0.5	43.3	44.3	21.2	0	0.1	52.5	16.8	49.2	-	-	0
GMP-6D	0.5	43.3	44.3	21.2	0	0.1	30.7	0.1	22.6	-	-	0
GMP-7S	0	0	0	0	0.1	-	21.4	0.1	-	-	0.1	0
GMP-7D	-	-	-	-	0	-	10.2	1.5	-	-	0.1	0
CLUB											-	
HOUSE	0	0	0	0	0	0	0	0	0	-	-	0
SHED	0	0	0	0	0	-	0.1	0	-	-	0.1	0
GMP No.	Feb-13	Aug-13	Feb-14	May-14	Nov-14	Feb-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
GMP-1S	0	0.3	-	-	0	0.1	0	-	-	-	-	-
GMP-1D	0	0.2	-	-	0	0.1	0	-	-	-	-	-
GMP-3S	0	52.6	-	30.7	15	8	0.03	0	0	0	0	0
GMP-3D	0	52.8	-	28.5	6.5	6.5	0	0	0	0	0	0
GMP-4	61.3	60.1	-	59	39	37	0.01	0	0	-	0	0
GMP-5S	43.3	58.1	-	57.2	34	27	0	0	0	0	0	0
GMP-5D	2.8	32.4	-	19.1	5.6	2.5	0	0	0	0	0	0
GMP-6S	34.3	57	-	47.1	34	27	14	38.4	48.4	38	34.4	0
GMP-6D GMP-7S	0	49.3		41.8	22	18	17	46.3	54.2	45	15.4	0 -
GMP-75	0	0.2	-	0.1 16.3	0.03	0.08	0	-	-	-	-	-
CLUB			-		-			-	-	-	-	-
HOUSE	0	0.4	-	0.1	0.01	0	0	-	-	-	-	-
01155												
SHED	0	0.2	-	0.1	0.01	0	0	-	-	-	-	-
GMP No.	0 Jan-16	0.2 Feb-16	- Mar-16			0 Jun-16	0 Jul-16	Aug-16	Sep-16	Apr-17	Jul-17	Oct-17
GMP No.		Feb-16	- Mar-16	0.1 Apr-16	0.01 May-16			Aug-16	Sep-16	Apr-17	Jul-17	Oct-17
	Jan-16	Feb-16	- Mar-16 -		May-16			Aug-16	Sep-16	Apr-17 0 0		
GMP No.	Jan-16	Feb-16	-	Apr-16	May-16	Jun-16 -	Jul-16	0	-	0	Jul-17	Oct-17
GMP No. GMP-1S GMP-1D	Jan-16 - -	Feb-16 0 0	-	Apr-16 - -	May-16 - -	Jun-16 - -	Jul-16 - -	0	-	0	Jul-17 0 0	Oct-17 0 0
GMP No. GMP-1S GMP-1D GMP-3S	Jan-16 0 0 0	Feb-16 0 0 0 0 0 0	- - 0 0	Apr-16	May-16	Jun-16 0 0 0	Jul-16	0 0 0 0	- - 0 0	0 0 0	Jul-17 0 0 0 0	Oct-17 0 0
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S	Jan-16 0 0 0 0 0	Feb-16 0 0 0 0 0 0 0 0 0	- - 0 0 0	Apr-16	May-16	Jun-16	Jul-16	0 0 0 0 0	- - 0 0 0	0 0 0 0 0 24	Jul-17 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D	Jan-16 0 0 0 0 0 0	Feb-16 0 0 0 0 0 0 0 0 0 0 0 0	- - 0 0 0	Apr-16 0 0 0 0 0 0 0	May-16	Jun-16 0 0 0 0 0 0	Jul-16 0 0 0 0 0 0	0 0 0 0 0 0	- - 0 0 0 0	0 0 0 0 0 24 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 0 16 0 0
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S	Jan-16 0 0 0 0 0 45.2	Feb-16 0 0 0 0 0 0 0 0 0 42.1	- 0 0 0 0 0 0 45.5	Apr-16 0 0 0 0 0 42.7	May-16	Jun-16 0 0 0 0 0 53.3	Jul-16 0 0 0 0 0 50	0 0 0 0 0 0 0 0 45.7	- - 0 0 0 0 0	0 0 0 0 24 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6S	Jan-16 0 0 0 0 0 0 45.2 22.3	Feb-16 0 0 0 0 0 0 0 0 42.1 14.7	0 0 0 0 0 0 0 45.5	Apr-16	May-16	Jun-16 0 0 0 0 0 0 53.3 36.7	Jul-16	0 0 0 0 0 0 0 0 45.7	- 0 0 0 0 0 0 0 0 0 55	0 0 0 0 24 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6S GMP-6D GMP-7S	Jan-16 0 0 0 0 0 45.2 22.3	Feb-16 0 0 0 0 0 0 0 0 42.1 14.7	- 0 0 0 0 0 0 45.5	Apr-16 0 0 0 0 0 42.7 18.5	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 50 51.3	0 0 0 0 0 0 0 0 45.7 49	- 0 0 0 0 0 0 0 0 0 55 52	0 0 0 0 24 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6G GMP-7S GMP-7S	Jan-16 0 0 0 0 0 0 45.2 22.3	Feb-16 0 0 0 0 0 0 0 0 42.1 14.7	0 0 0 0 0 0 0 45.5	Apr-16	May-16	Jun-16 0 0 0 0 0 0 53.3 36.7	Jul-16	0 0 0 0 0 0 0 0 45.7 49 0	- 0 0 0 0 0 0 0 0 0 55	0 0 0 0 24 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6S GMP-6D GMP-7S	Jan-16 0 0 0 0 0 45.2 22.3	Feb-16 0 0 0 0 0 0 0 0 42.1 14.7	- 0 0 0 0 0 0 45.5	Apr-16 0 0 0 0 0 42.7 18.5	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 50 51.3	0 0 0 0 0 0 0 0 45.7 49	- 0 0 0 0 0 0 0 0 0 55 52	0 0 0 0 24 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5S GMP-6S GMP-6S GMP-6S GMP-7S GMP-7D CLUB	Jan-16 0 0 0 0 0 45.2 22.3	Feb-16 0 0 0 0 0 0 0 0 42.1 14.7	- 0 0 0 0 0 0 0 0 0 45.5 17.7	Apr-16 0 0 0 0 0 42.7 18.5	May-16 0 0 0 0 0 51.1 31.7 -	Jun-16 0 0 0 0 0 0 53.3 36.7 -	Jul-16 0 0 0 0 50 51.3	0 0 0 0 0 0 0 0 45.7 49 0	- 0 0 0 0 0 0 0 55 52 -	0 0 0 0 24 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4S GMP-5S GMP-5D GMP-6S GMP-6S GMP-7D CLUB HOUSE SHED	Jan-16 0 0 0 0 0 45.2 22.3 0	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0	- 0 0 0 0 0 0 0 45.5 17.7	Apr-16	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 0 50 51.3	0 0 0 0 0 0 0 45.7 49 0 0.65	- 0 0 0 0 0 0 0 55 55 	0 0 0 24 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 0 20 8 0 -
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6D GMP-7S GMP-7S GMP-7D CLUB HOUSE SHED	Jan-16 0 0 0 0 0 0 45.2 22.3 0 Feb-18	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0	- 0 0 0 0 0 0 0 45.5 17.7	Apr-16	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 0 50 51.3 Nov-19	0 0 0 0 0 0 0 45.7 49 0 0.65	- 0 0 0 0 0 0 0 55 52	0 0 0 24 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20	Oct-17 0 0 0 0 16 0 20 8 0 -
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6D GMP-7D CLUB HOUSE SHED GMP No. GMP-1S	Jan-16	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 0 0 0 0 0 0 0 0 45.5 17.7	Apr-16 0 0 0 0 0 42.7 18.5 Sep-18	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 0 50 51.3 Nov-19	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0	- 0 0 0 0 0 0 0 0 0 55 52	0 0 0 0 24 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20	Oct-17 0 0 0 0 16 0 20 8 0 - Cot-20 0
GMP No. GMP-1S GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6D GMP-7S GMP-7D CLUB HOUSE SHED GMP-1S GMP-1S GMP-1S	Jan-16 0 0 0 0 0 45.2 22.3 0 Feb-18 0 0	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 0 0 0 0 0 0 0 0 45.5 17.7	Apr-16 0 0 0 0 0 42.7 18.5 Sep-18 0 0	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 0 50 51.3 Nov-19 0 0	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0	0 0 0 0 0 0 0 55 52 Jan-20 0 0	0 0 0 0 24 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20 0 0	Oct-17 0 0 0 0 16 0 20 8 0 Oct-20 0 0
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6D GMP-7D CLUB HOUSE SHED GMP No. GMP-1S	Jan-16	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 0 0 0 0 0 0 0 0 45.5 17.7	Apr-16	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 0 50 51.3 Nov-19	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0	- 0 0 0 0 0 0 0 0 0 55 52	0 0 0 0 24 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20	Oct-17 0 0 0 0 0 16 0 0 20 8 0 0 Oct-20 0 0 24
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4S GMP-5S GMP-5D GMP-6S GMP-6S GMP-7D CLUB HOUSE SHED GMP No. GMP-1D GMP-1D GMP-1D	Jan-16 0 0 0 0 0 45.2 22.3 0 Feb-18 0 0	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 Apr-18 0 0 0	- 0 0 0 0 0 0 0 45.5 17.7	Apr-16 0 0 0 0 0 42.7 18.5 Sep-18 0 0	May-16 0 0 0 0 0 51.1 31.7	Jun-16 0 0 0 0 0 53.3 36.7	Jul-16 0 0 0 0 0 50 51.3 0 Nov-19 0 0	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0	0 0 0 0 0 0 0 555 52	0 0 0 24 0 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20 0 0 22	Oct-17 0 0 0 0 16 0 20 8 0 Oct-20 0 0
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-5S GMP-5D GMP-6S GMP-6C GMP-7S GMP-7D CLUB HOUSE SHED GMP-1S GMP-1S GMP-1S GMP-1S GMP-1S GMP-3S	Jan-16 0 0 0 0 0 45.2 22.3 0 Feb-18 0 0 0	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 0 0 0 0 0 0 45.5 17.7 	Apr-16	May-16 0 0 0 0 0 51.1 31.7	Jun-16	Jul-16 0 0 0 0 0 50 51.3 0 Nov-19 0 0 0 0	0 0 0 0 0 0 0 45.7 49 0 0.65 0	- 0 0 0 0 0 0 0 55 52	0 0 0 24 0 0 0 0 0 0 0 -	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20 0 0 0 9	Oct-17 0 0 0 0 16 0 20 8 0 0 Oct-20 0 0 24 31
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4S GMP-5D GMP-6S GMP-6D GMP-7D CLUB HOUSE SHED GMP-1S GMP-1S GMP-1S GMP-1S GMP-1S GMP-1S GMP-1S GMP-3D GMP-3D GMP-3D	Jan-16	Feb-16 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 Apr-18 0 0 0 0 222	- 0 0 0 0 0 0 0 45.5 17.7	Apr-16	May-16	Jun-16	Jul-16	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0	- 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20 0 0 22 9	Oct-17 0 0 0 0 16 0 20 8 0 0 Oct-20 0 0 24 31
GMP No. GMP-1S GMP-3S GMP-3D GMP-4 GMP-5S GMP-5D GMP-6S GMP-6C GMP-7D CLUB HOUSE SHED GMP-1S GMP-1D GMP-3S GMP-4 GMP-5S	Jan-16 0 0 0 0 0 45.2 22.3 0 Feb-18 0 0 0 0 0	Feb-16 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 0 0 2 22 0	- 0 0 0 0 0 0 0 45.5 17.7 	Apr-16	May-16	Jun-16 0 0 0 0 0 0 53.3 36.7 42 0	Jul-16 0 0 0 0 0 50 51.3 0 Nov-19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 45.7 49 0 0.65 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Jul-20 0 0 22 9 25 0	Oct-17 0 0 0 0 16 0 20 8 0 Oct-20 0 0 24 31 52 30
GMP No. GMP-1S GMP-1D GMP-3S GMP-3D GMP-4 GMP-5D GMP-5D GMP-6S GMP-6D GMP-7D CLUB HOUSE SHED GMP-1S GMP-1D GMP-1S GMP-1D GMP-3S GMP-3S GMP-3D GMP-4 GMP-5S GMP-5S GMP-6S GMP-6S GMP-6S	Jan-16 0 0 0 0 0 0 45.2 22.3 0 Feb-18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 Apr-18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 0 0 0 0 0 0 0 0 45.5 17.7	Apr-16	May-16	Jun-16	Jul-16	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 0 20 8 0 0 Oct-20 0 0 24 31 52 30 6 34 37
GMP No. GMP-1S GMP-3S GMP-3D GMP-4S GMP-5D GMP-5D GMP-6S GMP-6D GMP-7S GMP-7D CLUB HOUSE SHED GMP-1S GMP-1S GMP-1S GMP-3S GMP-1D GMP-3S GMP-3B GMP-4 GMP-5S GMP-5S GMP-5D GMP-6D GMP-7S	Jan-16	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 Apr-18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Apr-16	May-16	Jun-16 0 0 0 0 0 0 53.3 36.7 42 0 0 0 0 3 0	Jul-16 0 0 0 0 0 50 51.3 Nov-19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8 0 0 Oct-20 0 0 24 24 31 52 30 6 34 37 0
GMP No. GMP-1D GMP-3S GMP-3D GMP-4S GMP-5D GMP-6S GMP-6S GMP-7D CLUB HOUSE SHED GMP-1S	Jan-16 0 0 0 0 0 0 45.2 22.3 0 Feb-18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 Apr-18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- 0 0 0 0 0 0 0 0 45.5 17.7	Apr-16	May-16	Jun-16	Jul-16	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8 0 0 Oct-20 0 0 24 31 52 30 6 34 37
GMP No. GMP-1S GMP-3S GMP-3D GMP-4S GMP-5D GMP-5D GMP-6S GMP-6D GMP-7S GMP-7D CLUB HOUSE SHED GMP-1S GMP-1S GMP-1S GMP-3S GMP-1D GMP-3S GMP-3B GMP-4 GMP-5S GMP-5S GMP-5D GMP-6D GMP-7S	Jan-16	Feb-16 0 0 0 0 0 0 0 0 0 42.1 14.7 - 0 0 0 Apr-18 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Apr-16	May-16	Jun-16 0 0 0 0 0 0 53.3 36.7 42 0 0 0 0 3 0	Jul-16 0 0 0 0 0 50 51.3 Nov-19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 45.7 49 0 0.65 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Jul-17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Oct-17 0 0 0 0 16 0 20 8 0 0 Oct-20 0 0 24 31 52 30 6 34 37 0

S = shallow well
D = deep well
Shaded concentrations exceed LEL
LEL = lower explosive limit (5.00% Methane by volume)





				NEWI	(% ا	IANE GAS DE Methane By V ITY CLASS TI	olume)	ANDFILL				
GMP No.	Apr-21	Jul-21	Sep-21	Dec-21	Mar-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24
GMP-1S	0	0	0	0	0	0	0	0	0	0	0	0
GMP-1D	0	0	0	0	0	0	0	0	0	0	0	0
GMP-3S	0	0	0	0	0	7	20	4	3	0	0	0
GMP-3D	0	0	0	0	0	0	15	0	0	0	4	0
GMP-4	31	0	0	0	0	25	52	0	17	0	47	0
GMP-5S	28	2	0	0	0	0	3	0	0	0	22	0
GMP-5D	1	3	0	0	0	0	4	0	0	0	4	0
GMP-6S	35	0	0	0	0	16	29	0	0	0	10	0
GMP-6D	5	0	0	0	0	0	0	0	0	0	0	0
GMP-7S	0	0	0	0	0	0	0	0	0	0	0	0
GMP-7D	0	0	0	0	0	0	0	0	0	0	0	0
CLUB	_	_	_	_	_	_	_	_	_	_	_	_
HOUSE												
SHED	-	-	-	-	-	-	-	-	-	-	-	-
GMP No.	Nov-24											
GMP-1S	0											
GMP-1D	0											
GMP-3S	0											
GMP-3D	0											
GMP-4	N/A											
GMP-5S	0											
GMP-5D	0											
GMP-6S	0											
GMP-6D	0											
GMP-7S	0											
GMP-7D	0											
CLUB HOUSE	-											
SHED	-											

S = shallow well
D = deep well
Shaded concentrations exceed LEL
LEL = lower explosive limit (5.00% Methane by volume)
N/A = not available for testing











 $Photograph\ 1-Gas\ Monitoring\ Probe\ GMP-1$



Photograph 2 – Gas Monitoring Probe GMP-3





 $Photograph \ 3-Gas \ Monitoring \ Probe \ GMP-5$



Photograph 4 – Gas Monitoring Probe GMP-6





 $Photograph \ 5-Gas \ Monitoring \ Probe \ GMP-7$



Photograph 6 – Condensate Pump A





Photograph 7 – Condensate Pump A Gauge

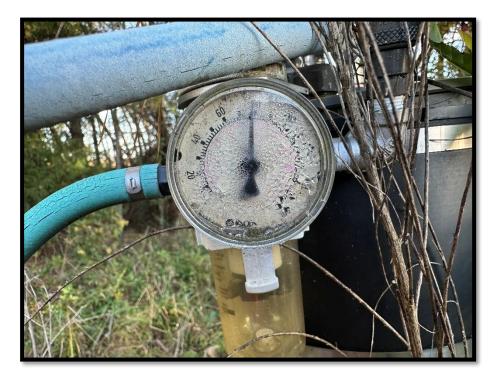


Photograph 8 – Condensate Pump A Counter





Photograph 9 – Condensate Pump B



Photograph 10 – Condensate Pump B Gauge





Photograph 11 – Condensate Pump B Counter

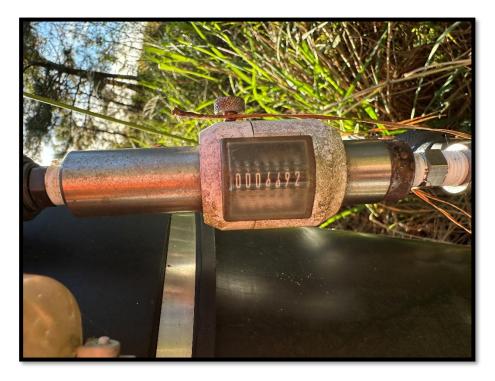


Photograph 12 – Condensate Pump C





Photograph 13 – Condensate Pump C Gauge



Photograph 14 – Condensate Pump C Counter





Photograph 15 – Air Compressor



Photograph 16 – Control Panel and Overgrowth





Photograph 17 – Flow Rate through Blower Motor before Well Adjustment



Photograph 18 – Flow Rate through Blower Motor after Well Adjustment





Photograph 19 – Inside Blower Motor Enclosure



 $Photograph\ 20-Soil\ Vapor\ Extraction\ System$





Photograph 21 – Damaged Extraction Well 12

Newberry County Landfill Gas Extraction System O&M Forms

Date 11/12/24 Technician Ryan Merritt

Equipment	Conditio	on/Comments		
Blower Enclosure	OK			
Blower	OK			
Knockout Tank (KOP)	OK	Liquid Level	0	
Transfer Pump	OK	•		
Gages	OK			
KOP Inlet Vacuum	OK			
KOP Outlet Vacuum	OK			
Carbon Vessel (Odors)	None			
Storage Tank	OK	Liquid Level	0	
Air Compressor	OK	Pressure	150 psi	
Air Compressor Shed	OK			
Process Control Panel	OK			
Actuated Valves	OK			

Condensate Sumps	Time	Pressure	Counter
CS-A	3:19 PM	56	100,823
CS-B	3:23 PM	78	23,335
CS-C	3:26 PM	72	6,692

Initial Readings (Before Measuring/Adjusting Well Field)

Time: 2:50 PM Weather: Sunny and Windy Temp.: 60 °F Bar. Pres.: 29.91 mm Hg

Control Panel Gauges	Vacuum	Methane	Oxygen
Zone A	N/A	N/A	-
Zone B	N/A	N/A	-
Zone C	N/A	N/A	-

Other Gauges		
KOP Inlet Vacuum	-30	Inch H ₂ O
KOP Outlet Vacuum	-44	Inch H ₂ O
Inlet-Outlet	14	Inch H ₂ O
Flow Rate	22	x10 SCFM

Check the following:

\checkmark	All 3 Zones are	Open

Each well has a vacuum of 1 to 10 or the flow rate is ~10 scfm (Wells with <2% methane can be turned off)

X Pressure drops across KOP is < 6 inch H_2O

___ ✓ __ Air compressor oil is above the "add" level

✓ Air compressor filter is clean



Final Readings (After Measuring/Adjusting Well Field)

Time: 4:20 PM Weather: Sunny and Windy Temp.: 62 °F Bar. Pres.: 29.91 mm Hg

Control Panel Gauges	Vacuum	Methane	Oxygen
Zone A	N/A	N/A	-
Zone B	N/A	N/A	-
Zone C	N/A	N/A	-

Other Gauges		
KOP Inlet Vacuum	-29	Inch H ₂ O
KOP Outlet Vacuum	-44	Inch H ₂ O
Inlet-Outlet	15	Inch H ₂ O
Flow Rate	22	x10 SCFM

Maintenance Performed/Comments:

- During quarterly maintenance it was noted that the vacuum tubes for the control panel gauges have become brittle and broken. Once new hoses are obtained, Alliance Consulting Engineers, Inc. will return to the site and replace.
- During Hurricane Helene trees fell around the boundary of the landfill. One (1) of these trees damaged Extraction Well #12. Once replacement parts are identified and obtained, Alliance Consulting Engineers, Inc. will return to the site and repair.



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: 2:25
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP \ S □ On-Site Structure ⊠ Site Boundary □ Off-Site Structure
Climate and Physical Conditions: • Ambient Temperature: 60 °F
General Weather Condition
 General Soil Moisture Condition ☑ DRY ☐ MOIST ☐ WET
 Condition of Surrounding Area (stressed vegetation, etc.)
Water Present in Probe ☐ YES ☒ NO
 General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements: • Methane: ⊘
Notes:
Sampler's Signature: Allt



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: $2:25$ \square A.M. \boxtimes P.M.
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP
Climate and Physical Conditions: • Ambient Temperature: 66°F
General Weather Condition
General Soil Moisture Condition □ DRY □ MOIST □ WET
• Condition of Surrounding Area (stressed vegetation, etc.)
 Water Present in Probe ☐ YES ☒ NO General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements:
Methane: Methane By Volume
Notes:
Sampler's Signature: Wellt



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: $3:29$ \square A.M. \boxtimes P.M.
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP35 □ On-Site Structure □ Site Boundary □ Off-Site Structure
Climate and Physical Conditions: • Ambient Temperature: 62°F
General Weather Condition
● General Soil Moisture Condition ☐ DRY ☐ MOIST ☐ WET
• Condition of Surrounding Area (stressed vegetation, etc.)
• Water Present in Probe ☐ YES ☒ NO
 General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements:
Methane: ♥ Methane by Volume
Notes:
Sampler's Signature: All the sample of the



Facility: Newberry County Landfill	=	
Sampling Date: November 13, 202	4	
Sampling Time: 3:2	9	\square A.M. \boxtimes P.M.
Sampler's Name: T. Ryan Merritt		
Monitoring Equipment: Gas Meas	surement Instruments GT	40
Equipment Calibration (By): Safe		
Next Equipment Calibration (Date		
Monitoring Point Location: GMP On-Site Structure ⊠ Site Boundary □ Off-Site Structure		
Climate and Physical Conditions: • Ambient Temperature: 62°	<u>E</u>	
General Weather Condition	LIGHT RAIN HEAVY	RAIN
■ DRY MOIST WET • Condition of Surrounding Are	a (stressed vegetation, etc	;.)
 Water Present in Probe ☐ YE General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ ☐ OTHER (SEVERELY RUS 	CLEARLY LABELED	ON, ETC.)
Measurements:		
Methane: ⊠ %	METHANE BY VOLUME	
Notes:		
Sampler's Signature:	Ruhtt	



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: 3: 25
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP On-Site Structure ⊠ Site Boundary □ Off-Site Structure
Climate and Physical Conditions: • Ambient Temperature: 62 °F
General Weather Condition
General Soil Moisture Condition □ DRY
Condition of Surrounding Area (stressed vegetation, etc.)
Water Present in Probe ☐ YES ☒ NO
 General Conditions of GMP □ LOCKED □ SEALED □ CLEARLY LABELED □ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements: • Methane: N/A Methane By Volume
Notes: GMP 4 could not be located. Likely damaged due to a falling oak tree from Hurricene Helene
Sampler's Signature:



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: 3!(8
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP
Climate and Physical Conditions: • Ambient Temperature: 62°F
General Weather Condition
General Soil Moisture Condition □ DRY
Condition of Surrounding Area (stressed vegetation, etc.)
Water Present in Probe ☐ YES ☒ NO
 General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements: ■ Methane:
Notes:
A. C.
Sampler's Signature: Wellt



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: 3!18
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP SD □ On-Site Structure Site Boundary □ Off-Site Structure
Climate and Physical Conditions: • Ambient Temperature: 62°F
General Weather Condition
General Soil Moisture Condition □ DRY
• Condition of Surrounding Area (stressed vegetation, etc.)
 Water Present in Probe ☐ YES ☐ NO General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements:
● Methane: 🛛 % Methane by Volume
Notes:
Sampler's Signature:



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: A.M. \(\times P.M.
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP On-Site Structure Site Boundary Off-Site Structure
Climate and Physical Conditions: • Ambient Temperature: 62°F
General Weather Condition
 General Soil Moisture Condition ☐ DRY ☐ MOIST ☐ WET Condition of Surrounding Area (stressed vegetation, etc.)
• Water Present in Probe ☐ YES ☒ NO
 General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements: Methane: ✓ % METHANE BY VOLUME
Notes:
Sampler's Signature: ARullty



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: $3:05$ \square A.M. \boxtimes P.M.
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP
Climate and Physical Conditions: • Ambient Temperature: 62°F
General Weather Condition
General Soil Moisture Condition □ DRY □ MOIST □ WET
 Condition of Surrounding Area (stressed vegetation, etc.)
 Water Present in Probe ☐ YES ☒ NO General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements:
Methane:
Notes:
Sampler's Signature: Rellett



Facility	: Newberry Cour	ity Landfill			
Samplii	ng Date: Novem	ber 13, 2024			
Samplii	ng Time:	2:35		☐ A.M.	\boxtimes P.M.
Sample	er's Name: T. Ry	an Merritt			
Monito	ring Equipment	Gas Measurement Inst	ruments G7	7 40	
Equipn	nent Calibration	(By): Safety Plus, Inc.			
Next Ed	quipment Calibr	ation (Date): October 4	, 2025		
GMP_ ☐ On ⊠ Site	ring Point Locat 75 -Site Structure e Boundary f-Site Structure	ion:			
	e and Physical C mbient Temperati				
]	- N-10	M □ COOL □ COLD OUDY □ LIGHT RAIN		' RAIN	
	eneral Soil Moist DRY MOIS andition of Surrou		egetation, etc	c.)	
• W	ater Present in Pr	obe ☐ YES ☒ NO			
• Ge	eneral Conditions ☐ LOCKED ☐ S			ON, ETC.)	
	rements:				
• M	ethane:	🛛 % METHANE BY	VOLUME		
Notes:					
Sample	r's Signature:	- Christ	4		
		A STATE OF THE STA			



Facility: Newberry County Landfill
Sampling Date: November 13, 2024
Sampling Time: 2!35 A.M. \(\times P.M.
Sampler's Name: T. Ryan Merritt
Monitoring Equipment: Gas Measurement Instruments GT 40
Equipment Calibration (By): Safety Plus, Inc.
Next Equipment Calibration (Date): October 4, 2025
Monitoring Point Location: GMP □ On-Site Structure □ Site Boundary □ Off-Site Structure
Climate and Physical Conditions: • Ambient Temperature: 60°F
General Weather Condition
General Soil Moisture Condition □ DRY
Condition of Surrounding Area (stressed vegetation, etc.)
• Water Present in Probe ☐ YES ☒ NO
 General Conditions of GMP ☐ LOCKED ☐ SEALED ☐ CLEARLY LABELED ☐ OTHER (SEVERELY RUSTED, WEAK FOUNDATION, ETC.)
Measurements: Methane: ✓ Methane BY VOLUME
Notes:
Sampler's Signature: (Rull)

