

November 21, 2023

Ms. Cindy Koepke
Hydrogeologist
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Refuse Hideaway Landfill
October 2023 Operation Monitoring and Maintenance Activities

Dear Cindy:

TRC completed the following operation, monitoring, and maintenance activities at the Refuse Hideaway Landfill (the Site) in Middleton, WI in October 2023.

- October 4, 2023 – Bi-weekly Site Inspection and Gas Probe Monitoring
- October 16, 2023 – Bi-weekly and Monthly Site Inspection
- October 25, 2023 – Air Compressor Overload Contact Replacement
- October 27, 2023 – Leachate Collection System Restart
- October 31, 2023 – Cap Inspection

Electrical Upgrades

The onsite transformer was replaced in August 2023 and the electrical service to onsite equipment was reestablished. The motor starter contactor for the air compressor system was replaced in August 2023, and Van Ert replaced the overload contactor for the air compressor system on October 25, 2023. The air compressor system was restarted and operational following the repair.

Gas Extraction System

The gas extraction system (GES) was restarted by TRC on September 6, 2023 following the electrical service repairs. The system was operated for the month of October.

Field data from the gas extraction well monitoring and gas probe monitoring is included in Attachment 1.

Leachate Extraction System

The leachate extraction system was restarted on October 25, 2023 following repair of the compressor system. However, based on exterior temperatures the system was kept off during the month of October. Winter operation conditions are being evaluated to ensure the air compressor and dryer systems can operate through the winter. The high-level float for the leachate tank was noted to be in alarm condition even though the tank level was below high-level conditions. TRC found that a portion of the electrical line for the float was damaged. The line was repaired the alarm float is operational.

The leachate tank level was gauged on October 4, October 16, and October 31, 2023, and contained 63.25 inches, 69.5 inches, and 75.5 inches of leachate, respectively.

Ms. Cindy Koepke
Wisconsin Department of Natural Resources
November 21, 2023
Page 2

Cap Inspection

TRC conducted a monthly inspection of the landfill cap and stormwater conveyance features on October 31, 2023. The landfill cap and stormwater conveyance features are operational. TRC will continue to observe the condition of the features. An inspection form with further details is provided in Attachment 1 and a photographic log is provided in Attachment 2.

If you have any questions, please contact Andrew Stehn at astehn@trccompanies.com or 608-807-8112.

Sincerely,

TRC



Molly Wagler, EIT
Project Engineer



Andrew Stehn, PE
Project Manager

Attachments: 1. October 2023 Monitoring Results
2. Photographic Log

Attachment 1
October 2023 Monitoring Results

REFUSE HIDEAWAY LANDFILL GAS PROBE MONITORING FORM

TECHNICIAN(S): J. Roelke

DATE: 10/4/2023

START TIME: 7:45 AM

END TIME: 1:30 PM

GAS/INSTRUMENT TYPE: GEM 2000

SERIAL NO.: 11668

WEATHER CONDITIONS: cloudy

DATE LAST CALIBRATED: 10/4/2023

TEMPERATURE: 68°F

METHOD: Standard Calibration Gases

BAROMETRIC PRESSURE & TREND: 29.89in. Hg., rising

PRESS INSTRUMENT : Manometer

GROUND CONDITIONS: dry

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (%, by vol.)	CARBON DIOXIDE (%, by vol.)	OXYGEN (%, by vol.)	COMMENTS
GP-1D	8:25	0.0	0.0	0.0	10.7	6.0	(2)
GP-1S	8:27	0.0	28	1.4	15.9	0.0	(2)
GP-2D	8:31	0.11	8	0.4	10.3	8.7	(1)
GP-2S	8:33	0.0	14	0.7	16.0	2.6	(1)
GP-3	8:35	0.03	>100	22.7	19.4	0.9	(1)
GP-4	8:42	0.0	0.0	0.0	6.3	14.9	(1)
GP-5	8:43	0.0	0.0	0.0	4.4	17.0	(2)
GP-6	8:49	0.0	0.0	0.0	3.7	18.1	(1)
GP-7	8:55	0.0	0.0	0.0	3.9	16.8	(2)
GP-8	9:01	0.0	0.0	0.0	6.9	14.8	(2)
GP-9	9:07	0.0	0.0	0.0	3.9	17.6	(1)
GP-10	9:11	0.0	0.0	0.0	6.6	14.9	(1)
GP-11D	9:16	0.0	>100	5.0	16.4	0.0	(2)
GP-11S	9:19	0.0	39	1.9	16.6	0.0	(2) Stable readings at 2 minutes.
GP-12D	9:23	0.0	>100	5.8	12.5	8.2	(1)
GP-12S	9:26	0.0	0.0	0.0	3.5	18.2	(1) Stable readings at 2 minutes.
GP-13D	9:39	0.0	20	1.0	10.7	8.2	(2)
GP-13S	9:43	0.0	0.0	0.0	7.4	14.1	(2)

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (%, by vol.)	CARBON DIOXIDE (%, by vol.)	OXYGEN (%, by vol.)	COMMENTS
GP-16D	9:52	0.04	0.0	0.0	2.0	18.8	(2)
GP-16S	9:54	0.0	0.0	0.0	3.1	18.3	(2)
GP-17D	9:47	0.0	0.0	0.0	3.1	18.0	(1)
GP-17M	9:49	0.0	0.0	0.0	3.8	17.1	(1)
GP-17S	9:51	0.03	0.0	0.0	3.9	17.3	(1)
GP-18D	9:58	0.04	0.0	0.0	4.1	15.9	(2)
GP-18M	10:00	0.0	0.0	0.0	2.6	18.2	(2)
GP-18S	10:02	0.0	0.0	0.0	4.2	17.3	(2)
GP-19 ⁸⁵⁻¹⁰⁰	10:53	0.0	0.0	0.0	0.0	20.8	(1)
GP-19 ⁵⁰⁻⁷⁰	10:55	0.0	0.0	0.0	0.9	20.2	(1)
GP-19 ²⁵⁻⁴⁰	10:57	0.0	0.0	0.0	0.5	20.4	(1)
GP19 ²⁻¹⁵	10:59	0.0	0.0	0.0	0.7	20.2	(1)
GP-20 ⁸⁵⁻¹⁰⁰	10:43	0.00	0.0	0.0	0.3	20.6	(2)
GP-20 ⁵⁰⁻⁷⁰	10:45	0.0	0.0	0.0	0.0	20.8	(2)
GP-20 ²⁵⁻⁴⁰	10:47	0.0	0.0	0.0	0.3	20.5	(2)
GP-20 ²⁻¹⁵	10:49	0.0	0.0	0.0	0.7	20.2	(2)
GP-21 ⁸⁵⁻¹⁰⁰	10:34	0.0	0.0	0.0	0.4	20.4	(2)
GP-21 ⁵⁰⁻⁷⁰	10:36	0.0	0.0	0.0	0.2	20.7	(2)
GP-21 ²⁵⁻⁴⁰	10:38	0.0	0.0	0.0	0.0	20.8	(2)
GP-21 ²⁻¹⁵	10:40	0.0	0.0	0.0	0.8	20.4	(2)
GP-22 ⁸⁵⁻¹⁰⁰	11:05	0.04	0.0	0.0	1.7	19.5	(2)
GP-22 ⁵⁰⁻⁷⁰	11:07	0.03	0.0	0.0	1.5	19.3	(2)
GP-22 ²⁵⁻⁴⁰	11:09	0.0	0.0	0.0	0.9	20.2	(2)
GP-22 ²⁻¹⁵	11:11	0.0	0.0	0.0	1.7	19.6	(2)

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (%, by vol.)	CARBON DIOXIDE (%, by vol.)	OXYGEN (%, by vol.)	COMMENTS
GP-23 ⁸⁵⁻¹⁰⁰	11:16	0.0	0.0	0.0	0.7	20.3	(2)
GP-23 ⁵⁰⁻⁷⁰	11:18	0.0	0.0	0.0	4.1	17.9	(2)
GP-23 ²⁵⁻⁴⁰	11:20	0.0	0.0	0.0	0.4	20.6	(2)
GP-23 ²⁻¹⁵	11:22	0.0	0.0	0.0	3.5	18.1	(2)
GP-24 ⁸⁵⁻¹⁰⁰	11:30	0.09	0.0	0.0	10.3	8.5	(2)
GP-24 ⁵⁰⁻⁷⁰	11:32	0.06	0.0	0.0	3.4	16.6	(2)
GP-24 ²⁵⁻⁴⁰	11:34	0.04	0.0	0.0	4.3	16.9	(2)
GP-24 ²⁻¹⁵	11:36	0.03	0.0	0.0	4.1	16.9	(2)
GPW-1D	13:20	0.00	0.0	0.0	1.5	19.1	(1)
GPW-1M	13:22	0.00	0.0	0.0	0.6	20.2	(1)
GPW-1S	13:24	0.0	0.0	0.0	1.7	18.8	(1)
G-1D	8:20	0.0	44	2.2	17.9	0.0	(1)
G-1S	8:22	0.0	>100	7.7	19.7	0.0	(1)
G-2D	9:31	0.0	0.0	0.0	1.6	18.8	(1)
G-2S	9:33	0.0	>100	5.6	18.6	0.0	(1) Stable readings at 2 minutes.
G-5	8:59	0.15	0.0	0.0	5.7	15.4	(1)
G-6	8:13	0.0	0.0	0.0	0.8	20.1	(1)
G-8	10:26	0.0	0.0	0.0	0.2	19.1	(1)
G-9	10:15	0.0	0.0	0.0	0.3	20.4	(1)
G-10	11:42	0.40	0.0	0.0	0.4	20.6	(1)
Speedway Office	8:24	0.0	0.0	0.0	0.0	20.8	Open to ATM

NOTES: 8:13 Stopped monitoring probes to assist with compressor/leachate pumps. 9:16 Started to monitor probe GP-6.

- (1): Locked probe casing.
- (2): Probe is above casing and cannot be locked.
- (3): No cap for probe casing and cannot be locked.

Key:

Shallow or 2'-15'
Medium or 25'-40'
Deep or 50'-70'
85'-100'

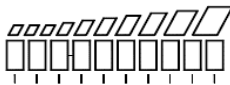
Entered by: J. Roelke 10/4/2023
Checked by: M. Wagler 10/30/2023

Bi-weekly - System Inspection Log
Landfill Gas Extraction and Leachate Pump System
WDNR - Refuse Hideaway Landfill
Middleton, Wisconsin

TRC Operator Name: <u>J. Roelke</u>	Arrival Time: <u>12:00 AM</u>	Departure Time: <u>12:30 AM</u>
Date: <u>10/4/2023</u>		

Site Conditions		Equipment	
Weather Conditions:	cloudy	Gas/Instrument Type:	GEMS 2000
Ground Condition:	dry	Serial Number:	11668
Barometric Pressure:	29.89 in. Hg	Date Last Calibrated:	10/4/2023
Barometric Pressure Trend:	steady	Method:	standard field calibration gas
Temperature:	73°F	Pressure Instrument:	Dwyer Manometer

Landfill Gas Extraction System ¹						
System	Location	Tag #	Equipment Description	Set Point	Typical Range	Field Reading
Blower Motor	Remote	GHS-BLR-301	Amperage	-	3 - 4 amps	3.36
			Speed	-	1800 - 1900 rpm	1544
			Frequency	-	30 - 35 Hz	25.91
	HMI		Amperage	-	3 - 4 amps	3.3
			Speed	-		36
			Hours	-	-	8697
Blower Operating (yes/no). Note excessive noise or issues observed. _____						
Blower Inlet	HMI	PT-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	-7.0
	HMI	TE-301	Blower Inlet Temperature	-	50 - 90 °F	75
	Local	GHS-PI-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	-6.89
	Local	GHS-TI-301	Blower Inlet Temperature	-	50 - 90 °F	68
	Local	Sample Port	Gas Composition - % Methane	-		8.2
			Gas Composition - % CO2	-		8.7
			Gas Composition - % Oxygen	-		14.9
Gas Composition - % Balance			-		68.2%	
Demister	Local	GHS-PDI-301	Demister Differential Pressure	-	1-2 in w.c	0.98
	Local		Slight Glass: Liquid Present	-	-	none
	HMI	LS-701	Level Indication	-	-	--
Blower Outlet	HMI	PT-302	Blower Outlet Flow Pressure	-	-	0.1
	HMI	TE-302	Blower Outlet Temperature	-	50 - 90 °F	84
	HMI	PDT-301	Blower Outlet Flow Differential Pressure	-	1-2 in w.c	0.99
	HMI	-	Blower Outlet Flow Rate	-	180 - 190 scfm	144
	Local	GHS-PI-302	Blower Outlet Flow Pressure	-	-	0.14
	Local	GHS-TI-302	Blower Outlet Temperature	-	50 - 90 °F	78
	Local	Sample Port	Gas Composition - % Methane	-		8.2
			Gas Composition - % CO2	-		8.7
			Gas Composition - % Oxygen	-		15.0
Gas Composition - % Balance			-		68.1%	
Branch Headers	Local	North	North Branch Vacuum	-	6 - 7 in w.c.	-6.14
	Local	North	Valve Position	6 turns open /6	6 turns open	6/6
	Local	North Sample Port	Gas Composition - % Methane	-		19.2
			Gas Composition - % CO2	-		14.8
			Gas Composition - % Oxygen	-		8.8
			Gas Composition - % Balance	-		57.2%
	Local	Central	Central Branch Vacuum	-	6 - 7 in w.c.	-6.08
	Local	Central	Valve Position	-	6 turns open	6/6
	Local	Central Sample Port	Gas Composition - % Methane	-		5.2
			Gas Composition - % CO2	-		6.7
			Gas Composition - % Oxygen	-		16.1
			Gas Composition - % Balance	-		72.0%
	Local	South	South Branch Vacuum	-	6 - 7 in w.c.	-6.17
	Local	South	Valve Position	-	6 turns open	6/6
	Local	South Sample Port	Gas Composition - % Methane	-		9.7
Gas Composition - % CO2			-		9.8	
Gas Composition - % Oxygen			-		14.6	
Gas Composition - % Balance			-		65.9%	

Air Compressor System ^{1,3,4} (Off Line)								
Operational Settings	Pressure Set Points					Condensate Set Points		
	Tank Low (psi)	Tank High (psi)	Well Field (psi)	On (min.)	Off (min.)	Open (sec.)	Closed (min.)	Test Operation
Air Dryer System² (Off Line)			Electrical Status			HMI Heater/Air Conditioner		
System Operational:		YES	3-Phase Power Indicator:		__3__ of 3	Operational	Yes	
Condensate Drain Operational:		YES	GFI 1 Status:		(Green / Red)	Temperature	86°F	
Alarm Indicator:		OFF	GFI 2 Status:		(Green / Red)	Filter Cleaned	no	
Condenser Cleaned ² :		NO	Leachate Tank/Loadout					
Dew Point Indicator:			Liquid Level (inches):		63.25	Visual Check:		
 <p>Indicate which bars are green(G) or red (R) and note (F) if flashing.</p>		Contact WDNR if level is above		71	· Evidence of Tank Overflow: no			
		Leak Detection Test Completed:		no	· Inspect concrete pad and storm sewer for damage or backup			
		Overfill Float Functional ⁵ :		no				
Exhaust Stack								
Drain Stack Sump (vol. removed)				0 gallons	Stack Condition ⁴ : good			

1. Check all air lines and gas extraction lines for leaks during each site visit. Drain inline air filters and replace as needed.
2. Air Dryer - Clean the condenser monthly using an air jet (max. 2 bar / 30 psig) inside out. Make sure not to damage the aluminum lamellae of the cooling package.
3. On a quarterly basis change the oil and check/clean the air filters and intercoolers for the air compressor.
4. Inspect mounting brackets and bolts for the air compressor and effluent stack for tightness.
5. Test overfill float operation on a monthly basis.

Comments/Notes:
 NM - Not Measured
 Overfill float is not functional; TRC has contacted electrician to discuss or repair.

Data Entered By: J. Roelke 10/18/2023
 Checked By: M. Wagler 10/30/2023

LANDFILL GAS MONITORING FORM
REFUSE HIDEAWAY GAS MONITORING PROGRAM (EPA ID: WID980610604, Facility ID: 113112010)

TECHNICIAN(S): J. Roelke
 GAS/INSTRUMENT TYPE: GEM 2000
 SERIAL NO.: 11668
 DATE LAST CALIBRATED: 10/16/2023
 METHOD: Standard Calibration Gases
 PRESSURE INSTRUMENT: Dwyer Digital Manometer
 Project # _____

STARTING _____ ENDING _____
 DATE: 10/16/23 10/16/23
 TIME: 8:23 AM 11:45 AM
 BAROMETRIC PRESSURE [25] 30.15 in. Hg 30.16 in. Hg
 BAROMETRIC TREND [46381] rising steady
 WEATHER CONDITIONS: cloudy cloudy
 TEMPERATURE [21] 41 °F 48 °F
 GROUND CONDITIONS [No DNR ID]: dry dry

Well No.	Time	Well Temp. (°F)	Available Header Pressure (in. W.C.)	Applied Well Pressure (in. W.C.)	Differential Pressure (in. W.C.)	Final Well Pressure (in. W.C.)	Final Deferential Pressure (in. W.C.)	Estimated Gas Flow (scfm)	Methane (% by vol.)	Carbon Dioxide (% by vol.)	Oxygen (% by vol.)	Initial Valve Setting (% open)	Final Valve Setting (% open)	Pump Counter
GW-1	8:51	46	-5.87	-0.03	0.02	-0.03	0.02	NA	21.4	32.8	0.4	0.5 / 12	0.5 / 12	Counter #: NM
GW-2	9:03	38	-5.77	-0.05	0.02	-0.05	0.02	NA	0.0	0.1	20.7	0.00 / 12	0.00 / 12	Counter #: NM
GW-3	9:10	52	-5.72	-5.20	0.08	-5.2	0.08	NA	30.6	32.5	0.00	5.00 / 12	5.00 / 12	Counter #: NM
GW-4	9:18	42	-5.70	-0.05	0.02	-1.1	0.08	NA	73.5	26.5	0.0	0.25 / 12	1.0 / 12	Counter #: NM
GW-5	9:26	42	-5.45	-1.30	0.02	-1.3	0.02	NA	28.9	18.3	7.6	0.50 / 12	0.50 / 12	Counter #: NM
GW-6	10:34	48	-5.94	-3.57	0.03	-3.57	0.03	NA	25.3	32.5	0.0	1.50 / 12	1.50 / 12	Counter #: NM
GW-7	10:27	48	-5.78	-5.61	0.03	-5.68	0.03	NA	49.8	32.6	0.8	6.00 / 12	7.00 / 12	Counter #: NM
GW-8	10:16	46	-5.84	-5.64	0.03	-5.71	0.03	NA	62.8	19.8	3.6	2.75 / 12	3.50 / 12	Counter #: NM
GW-9	10:10	44	-5.54	-0.05	0.01	-0.05	0.01	NA	11.5	7.2	9.8	0.25 / 12	0.25 / 12	Counter #: NM
GW-10	10:03	52	-6.14	-2.58	0.04	-1.18	0.02	NA	22.2	24.4	0.9	1.0 / 12	0.50 / 12	Counter #: NM
GW-11	9:38	48	-5.97	-5.09	0.26	-2.31	0.03	NA	4.8	2.6	18.4	1.25 / 12	0.50 / 12	Counter #: NM
GW-12	9:44	48	-6.02	-0.69	0.02	-0.25	0.01	NA	15.8	10.4	13.9	0.25 / 12	0.125 / 12	Counter #: NM
GW-13	9:56	46	-6.09	-0.48	0.02	-0.17	0.01	NA	10.2	10.0	11.3	0.75 / 12	0.25 / 12	Counter #: NM

Notes:
 (1): Sample port frozen and no measurement taken.
 (2): Air compressor system was down and no counter numbers were reported.
 "NA" = Data Not Available
 "NM" = Not Monitored

Data Entered By: J. Roelke 10/18/2023
 Checked By: M. Wagler 10/30/2023

Monthly System Inspection Log
Landfill Gas Extraction and Leachate Pump System
WDNR - Refuse Hideaway Landfill
Middleton, Wisconsin

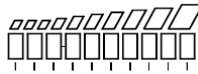
TRC Operator Name: John Roelke	Arrival Time: 8:23 AM	Departure Time: 11:45 AM
Date: 10/16/2023		

Site Conditions	Initial ¹	Final ²	Equipment	
Weather Conditions:	cloudy	cloudy	Gas/Instrument Type:	GEMS 2000
Ground Condition:	dry	dry	Serial Number:	11668
Barometric Pressure:	30.15 in. Hg	30.16 in. Hg	Date Last Calibrated:	10/16/2023
Barometric Pressure Trend:	rising	steady	Method:	Standard field calibration
Temperature:	41 °F	48 °F	Pressure Instrument:	Dwyer Series 475 Manometer

Landfill Gas Extraction System ³							
	Location	Tag #	Equipment Description	Set Point	Typical Range	Initial Field Reading ¹	Final Field Reading ²
Blower Motor	Remote	GHS-BLR-301	Amperage	-	3 - 4 amps	3.3	--
			Speed	-	1800 - 1900 rpm	1374	--
			Frequency	-	30 - 35 Hz	23.04	--
	HMI		Amperage	-	3-4 amps	3.2	--
			Speed	-	-	31	--
			Hours	-	-	8982	--

Blower Operating (YES). Note excessive noise or issues observed.

Blower Inlet	HMI	PT-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	-7	-7
	HMI	TE-301	Blower Inlet Temperature	-	50 - 90 °F	59	60
	Local	GHS-PI-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	-6.96	-6.95
	Local	GHS-TI-301	Blower Inlet Temperature	-	50 - 90 °F	52	54
	Local	Sample Port	Gas Composition - % Methane	-	-	8.1	9.1
			Gas Composition - % CO2	-	-	9.2	9.7
Gas Composition - % Oxygen			-	-	15.9	14.6	
Gas Composition - % Balance			-	-	66.8%	66.6%	
Demister	Local	GHS-PDI-301	Demister Differential Pressure	-	1-2 in w.c	0.95	--
	Local		Slight Glass: Liquid Present	-	-	no	--
	HMI	LS-701	Level Indication	-	-	--	--
Blower Outlet	HMI	PT-302	Blower Outlet Flow Pressure	-	-	0.1	0.1
	HMI	TE-302	Blower Outlet Temperature	-	50 - 90 °F	61	63
	HMI	PDT-301	Blower Outlet Flow Differential Pressure	-	1-2 in w.c	0.76	0.74
	HMI	-	Blower Outlet Flow Rate	-	180 - 190 scfm	129	127
	Local	GHS-PI-302	Blower Outlet Flow Pressure	-	-	0.09	0.03
	Local	GHS-TI-302	Blower Outlet Temperature	-	50 - 90 °F	58	60
	Local	Sample Port	Gas Composition - % Methane	-	-	8.1	9.1
			Gas Composition - % CO2	-	-	9.2	9.7
			Gas Composition - % Oxygen	-	-	15	14.5
			Gas Composition - % Balance	-	-	67.7%	66.7%
Branch Headers	Local	North	North Branch Vacuum	-	6 - 7 in w.c.	-6.26	-6.29
	Local	North	Valve Position	6 turns open /6	6 turns open	6/6	6/6
	Local	North Sample Port	Gas Composition - % Methane	-	-	16.1	18.8
			Gas Composition - % CO2	-	-	15.6	18.9
			Gas Composition - % Oxygen	-	-	8.6	6.1
			Gas Composition - % Balance	-	-	59.7%	56.2%
	Local	Central	Central Branch Vacuum	-	6 - 7 in w.c.	-6.14	-6.15
	Local	Central	Valve Position	-	6 turns open	6/6	6/6
	Local	Central Sample Port	Gas Composition - % Methane	-	-	5.3	5
			Gas Composition - % CO2	-	-	6.9	6.8
			Gas Composition - % Oxygen	-	-	16.4	16.2
			Gas Composition - % Balance	-	-	71.4%	72.0%
	Local	South	South Branch Vacuum	-	6 - 7 in w.c.	-6.20	-6.21
	Local	South	Valve Position	-	6 turns open	6/6	6/6
	Local	South Sample Port	Gas Composition - % Methane	-	-	9.6	12.2
Gas Composition - % CO2			-	-	10.6	11.9	
Gas Composition - % Oxygen			-	-	14.5	13.3	
Gas Composition - % Balance			-	-	65.3%	62.6%	

Air Compressor System ^{3,5,6} (Off Line)								
Operational Settings	Pressure Set Points					Condensate Set Points		
	Tank Low (psi)	Tank High (psi)	Well Field (psi)	On (min.)	Off (min.)	Open (sec.)	Closed (min.)	Test Operation
								(yes/no)
Air Dryer System ⁴ (Off Line)		Electrical Status			HMI Heater/Air Conditioner			
System Operational:	YES	3-Phase Power Indicator:			3 of 3	Operational	Yes	
Condensate Drain Operational:	YES	GFI 1 Status:			GREEN	Temperature	45 °F	
Alarm Indicator:	OFF	GFI 2 Status:			GREEN	Filter Cleaned	no	
Condenser Cleaned ² :	NO	Leachate Tank/Loadout						
Dew Point Indicator:		Liquid Level (inches):	69.5		Visual Check:			
 Indicate which bars are green(G) or red (R) and note (F) if flashing.		Contact WDNR if level is above	71 inches		Evidence of Tank Overflow: No			
		Leak Detection Test Completed:	no		Inspect concrete pad and storm sewer for damage or backup			
		Overfill Float Functional ⁷ :	no					
		Exhaust Stack						
		Drain Stack Sump (vol. removed)	0.5 gallon		Stack Condition ⁶ : good			

1. Initial site conditions represents readings collected upon arrival to the site and initial field readings are collected prior to the landfill balancing.
2. Final site conditions represents readings collected upon departure from the site and final field readings are collected following the landfill balancing.
3. Check all air lines and gas extraction lines for leaks during each site visit. Drain inline air filters and replace as needed.
4. Air Dryer - Clean the condenser monthly using an air jet (max. 2 bar / 30 psig) inside out. Make sure not to damage the aluminum lamellae of the cooling package.
5. On a quarterly basis change the oil and check/clean the air filters and intercoolers for the air compressor.
6. Inspect mounting brackets and bolts for the air compressor and effluent stack for tightness.
7. Test overfill float operation on a monthly basis.



Comments/Notes:
 NM - Not Measured
 Overfill float is not functional; TRC has contacted electrician to discuss or repair.

Data Entered By: J. Roelke 10/18/2023
 Checked By: M. Wagler 10/30/2023

Cap Inspection
Note: Photograph all issues encountered during inspection
Note: Keep vehicle traffic to gravel roadways, avoid driving on the landfill surface
Is the landfill surface covered in snow (Y/N)? No
Inspect the landfill surface when not covered in snow. Describe the condition and any issues observed for each category below:
<p>Cap integrity:</p> <ul style="list-style-type: none"> - Cap integrity is acceptable - Fencing around GW-1 and GW-2 is damaged but still provides well protection from mowing operations (see photo #6). - GW-2 and GW-4 on the south side have wildlife burrowing inside the fencing (see photo #5) - Snow fencing was installed to protect the airlines for the Gas Extraction Wells during mowing events at GW-2, GW-4, GW-7, GW-8, GW-9, GW-10, GW-11, GW-12, GW-13 (see photo #6).
<p>Condition of drainage ways:</p> <p>West Drainage Ditch - During the previous inspections, areas of vegetation die off were observed at the drainage path to the north. This area was previously identified as having less positive slope than its surrounding and was regraded during 2020-2021 grading work at the site. The final post construction survey showed positive slope. Currently, the area showed improvement but will still be monitored moving forward.</p> <p>East Drainage Ditch - Drainage ways are acceptable with minimal to no changes from previous conditions aside from those described below.</p>
<p>Extent of vegetation cover:</p> <p>Vegetation cover is acceptable over the majority of the site. Various areas were reseeded and ground cover was applied in the fall of 2022. Some bare spots remain and will likely require reseeding in Spring of 2024 (see photo #3 and #4).</p>
<p>Significant erosion:</p> <p>No evidence if significant erosion was observed at the site.</p>
<p>Repeated erosion:</p> <p>No evidence if significant erosion was observed at the site.</p>
<p>Vegetation die-off:</p> <p>Areas at the west drainage ditch and east drainage ditch previously showed signs of vegetation die-off and were reseeded in the fall of 2022. Ground cover in these areas remains, however some areas may require reseeding in Spring of 2024 (see photo #1).</p>
<p>Maintain surface water conveyances and the sedimentation basin by completing the following:</p> <p>Inspect drainage ditches for erosion, blockages, and vegetation, describe and note any issues:</p> <p>Evidence of erosion at the eastern drainage ditch above the sediment basin was observed. Vegetation is in place, but ruts are starting to form (See photo #2). TRC will continue to monitor the area.</p>
<p>Inspect sedimentation basin banks and outfalls for erosion, describe and note any issues:</p> <p>No erosion or other issues at sedimentation basin banks or outfalls.</p>
<p>Measure the distance between the invert of the sedimentation basin outlet and the top of the sediments accumulated in the basin (June Only!): NM</p>

Attachment 2
Photographic Log

Photographic Log

Client Name: Wisconsin Department of Natural Resources (WDNR)		Site Location: Refuse Hideaway Landfill Middleton, WI	Project No.: TRC # 457573
Photo No. 1	Date 10/31/2023		
Description <u>Eastern Drainage Ditch:</u> Bare spots are present to the north, above the drainage way and will likely require reseeding in Spring of 2024.			
Photo No. 2	Date 10/31/2023		
Description <u>Eastern Drainage Ditch:</u> Evidence of erosion starting to occur was observed at the north portion of the eastern drainage ditch leading to the sediment basin. Vegetation is still intact but ruts are starting to form.			

Photographic Log



Client Name: Wisconsin Department of Natural Resources (WDNR)		Site Location: Refuse Hideaway Landfill Middleton, WI	Project No.: TRC # 457573
Photo No. 3	Date 10/31/2023		
Description <u>Eastern Landfill Extents</u> Reseeding and ground cover was previously applied in the Fall of 2022. Some bare spots remain and will likely require reseeding in Spring of 2024.			

Photo No. 4	Date 10/31/2023		
Description <u>Eastern Landfill Extents</u> Reseeding and ground cover was previously applied in the Fall of 2022. Some bare spots remain and will likely require reseeding in Spring of 2024.			

Photographic Log



Client Name: Wisconsin Department of Natural Resources (WDNR)		Site Location: Refuse Hideaway Landfill Middleton, WI	Project No.: TRC # 457573
Photo No. 5	Date 10/31/2023		
Description <u>Southern Landfill Extents</u> GW-2 and GW-4 have burrowing from wildlife inside fencing.			

Photo No. 6	Date 10/31/2023		
Description <u>Southern Landfill Extents:</u> GW-2 protective fencing is falling apart. Fencing still provides protection during mowing operations. GW-1 protective fencing is in the same condition as GW-2.			

Photographic Log

Client Name: Wisconsin Department of Natural Resources (WDNR)		Site Location: Refuse Hideaway Landfill Middleton, WI	Project No.: TRC # 457573
Photo No. 7	Date 10/31/2023		
Description <u>Northern Landfill Extents:</u> Cap remains in good condition with full vegetation cover.			