

June 22, 2023

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

Subject: Refuse Hideaway Landfill May 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 May 2023.

- May 3, 2023 Bi-weekly Site Inspection and Gas Probe Monitoring
- May 24, 2023 Monthly Site Inspection

## **Electrical Upgrades**

TRC and Van Ert Electrical Company Inc. (Van Ert) are working to restore electrical service to the Site to allow for system operation. Van Ert and TRC were onsite on May 23, 2023, and the following tasks were completed as part of the electric service repairs:

- Two harmonics voltage monitoring devices were installed to monitor voltage from the Madison Gas and Electric service and from the solar panel system onsite. The instruments were installed on May 23, 2023, and remained in place for a two-week duration.
- Van Ert completed an electrical motor insulation resistance test on the air compressor motor for the leachate extraction system and determined that no damage to the electrical winding system was detected. The motor passed tests recommended by ANSI/NETA ATS-2017 7.15.1.B.
- Van Ert collected details to create a one-line diagram for the electrical distribution system for the Site.
- A report will be provided by Van Ert summarizing details of the voltage monitoring, electrical motor testing, and the one-line diagram following completion of the voltage monitoring work. Further details will be provided to WDNR and summarized as needed in the June 2023 Monthly Report.

### **Gas Extraction System**

The gas extraction system (GES) was restarted in October 2022 and was operated until December 15, 2022 when an overvoltage fault was observed and the system was shut down until the electrical service to the Site is repaired.

Perimeter gas probe monitoring was conducted at the site on May 3, 2023.

Field data from system and gas probe monitoring is included in Attachment 1.

Ms. Cindy Koepke Wisconsin Department of Natural Resources June 22, 2023 Page 2

### Leachate Extraction System

The leachate extraction system remained off during the month of May due to the issues with the electrical service to the Site.

The leachate tank level was gauged on May 3, and May 24, 2023, and contained 69.75 inches and 74.5 inches of leachate, respectively.

### **Cap Inspection**

TRC conducted a monthly inspection of the landfill cap and stormwater conveyance features on May 24, 2022. The landfill cap and stormwater conveyance features are operational. TRC will continue to observe the condition of the features as the growing season continues. 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

**Thomas Perkins Project Engineer** 

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

Steh

Andrew Stehn, PE **Project Manager** 



Attachment 1

May 2023 Monitoring Results

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

TRC Operator Date:	r Name: 5/3/2023	John Roelke	Arrival Time: 9:00 AM	Doparturo Timo:	1-20 DM				
Date.	3/3/2023			Departure Time: 1:30 PM					
W/oot	her Conditior	Site Conditio		as/Instrument Type:	Equipment GEMS 2000				
	und Condition		moist	Serial Number:	11668				
	netric Pressu			Date Last Calibrated:	5/3/2023				
	ic Pressure 1		rising	Method:	standard field calibra	ation gas			
	emperature:		•	Pressure Instrument:	Dwyer Manometer				
	•				,				
System	Location	Tag #	Landfill Gas Extraction System <sup>1</sup> Landfi Equipment Description	Il Gas System Off Line Set Point	Typical Range	Field Reading			
System	Location	rug #	Amperage	-	3 - 4 amps	NM			
	Remote		Speed	-	1800 - 1900 rpm	NM			
			Frequency	-	30 - 35 Hz	NM			
Blower Motor	HMI	GHS-BLR-301	Amperage	-	3 -4 amps	NM			
	HMI		Speed	-		NM			
	HMI		Hours	-	-	NM			
Blower Operating (	yes/no). Note	e excessive noise	or issues observed.						
	HMI	PT-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	NM			
	HMI	TE-301	Blower Inlet Temperature	-	50 - 90 °F	NM			
	Local	GHS-PI-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	NM			
Blower Inlet	Local	GHS-TI-301	Blower Inlet Temperature	-	50 - 90 °F	NM			
biower iniet			Gas Composition - % Methane	-		NM			
	Local	Sample Port	Gas Composition - % CO2	-		NM			
	Local	Sample Fore	Gas Composition - % Oxygen	-		NM			
			Gas Composition - % Balance	-		NM			
	Local	GHS-PDI-301	Demister Differential Pressure	-	1-2 in w.c	NM			
Demister	Local		Slight Glass: Liquid Present	-	-	NM			
	HMI	LS-701	Level Indication	-	-	NM			
	HMI	PT-302	Blower Outlet Flow Pressure	-	-	NM			
	HMI	TE-302	Blower Outlet Temperature	-	50 - 90 °F	NM			
	HMI HMI	PDT-301 -	Blower Outlet Flow Differential Pressur Blower Outlet Flow Rate	e -	1-2 in w.c 180 - 190 scfm	NM NM			
	Local	GHS-PI-302	Blower Outlet Flow Pressure		-	NM			
Blower Outlet	Local	GHS-TI-302	Blower Outlet Temperature		50 - 90 °F	NM			
	Local	0115 11 502	Gas Composition - % Methane	-	50 50 1	NM			
			Gas Composition - % CO2	-		NM			
	Local	Sample Port	Gas Composition - % Oxygen	-		NM			
			Gas Composition - % Balance	-		NM			
	Local	North	North Branch Vacuum	-	6 - 7 in w.c.	NM			
	Local	North	Valve Position	6 turns open /6	6 turns open	NM			
			Gas Composition - % Methane	-		NM			
	Local	North Sample	Gas Composition - % CO2	-		NM			
		Port	Gas Composition - % Oxygen	-		NM			
			Gas Composition - % Balance	-		NM			
	Local	Central	Central Branch Vacuum	-	6 - 7 in w.c.	NM			
	Local	Central	Valve Position	-	6 turns open	NM			
Branch Headers		Control	Gas Composition - % Methane	-		NM			
	Local	Central Sample Port	Gas Composition - % CO2 Gas Composition - % Oxygen		<u>├</u>	NM NM			
		Sample Port	Gas Composition - % Oxygen			NM			
	Local	South	South Branch Vacuum		6 - 7 in w.c.	NM			
	Local	South	Valve Position		6 turns open	NM			
	20001		Gas Composition - % Methane	-		NM			
		South Sample	Gas Composition - % CO2	-	<u> </u>	NM			
	Local	Port	Gas Composition - % Oxygen	-		NM			
			Gas Composition - % Balance	-		NM			

		Air Compr	essor Syste	m <sup>1,3,4</sup> Air Co	ompressor	System Off Line			
		Press	sure Set Poin	ts		Condensate Set Points			
Operational Settings	Tank Low (psi)	Tank High (psi)	Well Field (psi) On (min.) Off (min.)		Open (sec.)	Closed (min.)	Test Operation		
Air Dryer	Air Dryer System <sup>2</sup>			Electrical Status			HMI Hea	ter/Air Conditioner	
System Operatio	onal:	YES	3-Phase Power Indicator:		of 3	Operational	ok		
Condensate Drain Op	erational:	YES	GFI 1 Status:		(Green / Red)	Temperature 70 F			
Alarm Indicto	r:	OFF	GFI 2 Status:		(Green / Red)	Filter Cleaned	no		
Condenser Clear	ned <sup>2</sup> :	NO				Leachate Tank	/Loadout		
Dew Point	Indicator:		Liquid Level (inches):			69.75 Visual Check:			
			Contact V	Contact WDNR if level is above		71	Evidence of Tank Overflow: no		
			Leak Dete	ction Test Co	ompleted:	no	no  · Inspect concrete pad and storr		
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	Indicate which bars red (R) and note	0 ()	Overfill Float Functional <sup>5</sup> :		yes	damage or backu	qu		
니다나다니니니		. ,				Exhaust St	ack		
				Drain Stack Sump (vol. removed)			Stack Condition <sup>4</sup>	:	

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:

- The blower insolation blanket stored in the on site storage shed was removed and brought back to the TRC office for seasonal storage.

- The light bulb for the high level indicator at the leachate tank was replaced.

NM - Not Measured

Data Entered By: J. Roelke 5/3/2023 Checked By: T. Perkins 6/19/2023

### REFUSE HIDEAWAY LANDFILL GAS PROBE MONITORING FORM

TECHNICIAN(S): J. Roelke

DATE: 5/3/2023

START TIME: <u>9:00 AM</u> END TIME: 1:30 PM

GAS/INSTRUMENT TYPE: GEM 2000

SERIAL NO.: 11668

DATE LAST CALIBRATED: 5/3/2023

METHOD: Standard Calibration Gases

PRESS INSTRUMENT : Manometer

WEATHER CONDITIONS: <u>clear</u> TEMPERATURE: <u>42°F</u> BAROMETRIC PRESSURE & TREND: 29.98 in. Hg, rising

VETRIC FRESSORE & TREND. 29.90 III. Hg,

GROUND CONDITIONS: moist

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (%, by vol.)	CARBON DIOXIDE (%, by vol.)	OXYGEN (%, by vol.)	COMMENTS
GP-1D	9:42	0.0	0.0	0.0	2.1	16.3	(2)
GP-1S	9:44	0.0	0.0	0.0	0.0	20.8	(2)
GP-2D	9:47	0.1	0.0	0.0	1.3	18.6	(1)
GP-2S	9:49	0.0	0.0	0.0	0.4	20.3	(1)
GP-3	9:51	0.0	4.0	0.2	1.3	20.0	(1) Stable readings at 2 minutes.
GP-4	9:56	0.0	0.0	0.0	0.8	18.6	(1)
GP-5	9:58	0.0	0.0	0.0	1.3	19.6	(2)
GP-6	10:02	0.0	0.0	0.0	0.0	20.8	(1)
GP-7	10:09	0.2	0.0	0.0	0.0	20.8	(2)
GP-8	10:15	0.0	0.0	0.0	1.8	19.4	(2)
GP-9	10:18	0.0	0.0	0.0	2.0	18.6	(1)
GP-10	10:22	0.0	0.0	0.0	1.5	18.5	(1)
GP-11D	10:25	0.0	0.0	0.0	0.0	20.8	(2)
GP-11S	10:27	0.0	0.0	0.0	0.3	20.4	(2)
GP-12D	10:30	0.0	76	3.8	4.6	16.2	(1)
GP-12S	10:32	0.0	0.0	0.0	0.7	19.2	(1)
GP-13D	10:34	0.0	2.0	0.1	1.7	18.2	(2)
GP-13S	10:36	0.0	0.0	0.0	1.2	19.6	(2)

GAS PROBE NAME	Time	PRESSURE (in. WC)	METHANE (% LEL)	METHANE (%, by vol.)	CARBON DIOXIDE (%, by vol.)	OXYGEN (%, by vol.)	COMMENTS
GP-16D	10:53	0.0	8.0	0.4	1.1	19.0	(2)
GP-16S	10:55	0.0	60	3.0	5.5	12.9	(2)
GP-17D	10:45	0.0	6.0	0.3	2.9	16.3	(1)
GP-17M	10:47	0.0	4.0	0.2	1.3	18.5	(1)
GP-17S	10:49	0.0	4.0	0.2	1.6	19.0	(1)
GP-18D	10:58	0.0	0.0	0.0	0.0	20.8	(2)
GP-18M	11:00	0.0	0.0	0.0	0.0	20.8	(2)
GP-18S	11:02	0.0	0.0	0.0	0.0	20.8	(2)
GP-19 <sup>85-100</sup>	11:30	0.0	0.0	0.0	0.9	19.8	(1)
GP-19 <sup>50-70</sup>	11:32	0.0	0.0	0.0	1.4	19.2	(1)
GP-19 <sup>25-40</sup>	11:34	0.0	0.0	0.0	1.2	19.4	(1)
GP19 <sup>2-15</sup>	11:36	0.0	0.0	0.0	1.4	20.0	(1)
GP-20 <sup>85-100</sup>	11:42	0.0	0.0	0.0	0.0	20.8	(2)
GP-20 <sup>50-70</sup>	11:44	0.0	0.0	0.0	0.1	20.7	(2)
GP-20 <sup>25-40</sup>	11:46	0.0	0.0	0.0	0.6	20.0	(2)
GP-20 <sup>2-15</sup>	11:48	0.0	0.0	0.0	1.2	19.5	(2)
GP-21 <sup>85-100</sup>	11:21	0.1	0.0	0.0	0.3	20.3	(2)
GP-21 <sup>50-70</sup>	11:23	0.0	0.0	0.0	0.0	20.8	(2)
GP-21 <sup>25-40</sup>	11:25	0.0	0.0	0.0	0.3	20.6	(2)
GP-21 <sup>2-15</sup>	11:27	0.0	0.0	0.0	0.4	20.3	(2)
GP-22 <sup>85-100</sup>	11:31	0.1	0.0	0.0	1.9	19.3	(2)
GP-22 <sup>50-70</sup>	11:33	0.0	0.0	0.0	0.0	20.8	(2)
GP-22 <sup>25-40</sup>	11:35	0.0	0.0	0.0	0.5	20.4	(2)
GP-22 <sup>2-15</sup>	11:37	0.0	0.0	0.0	1.3	19.8	(2)

		PRESSURE	METHANE	METHANE	CARBON DIOXIDE	OXYGEN	
GAS PROBE NAME	Time	(in. WC)	(% LEL)	(%, by vol.)	(%, by vol.)	(%, by vol.)	COMMENTS
GP-23 <sup>85-100</sup>	11:45	0.0	0.0	0.0	0.0	20.8	(2)
GP-23 <sup>50-70</sup>	11:47	0.0	0.0	0.0	0.0	20.8	(2)
GP-23 <sup>25-40</sup>	11:49	0.0	0.0	0.0	0.0	20.8	(2)
GP-23 <sup>2-15</sup>	11:51	0.0	0.0	0.0	0.0	20.8	(2)
GP-24 <sup>85-100</sup>	11:54	0.0	0.0	0.0	0.0	20.8	(2)
GP-24 <sup>50-70</sup>	11:56	0.0	0.0	0.0	0.0	20.8	(2)
GP-24 <sup>25-40</sup>	11:58	0.0	0.0	0.0	0.0	20.8	(2) Stable readings at 2 minutes.
GP-24 <sup>2-15</sup>	12:00	0.0	0.0	0.0	1.4	19.9	(2)
GPW-1D	13:10	0.3	0.0	0.0	0.0	20.8	(1)
GPW-1M	13:12	0.2	0.0	0.0	0.0	20.8	(1)
GPW-1S	13:14	0.0	0.0	0.0	0.6	20.3	(1)
G-1D	9:34	0.0	0.0	0.0	0.0	20.8	(1)
G-1S	9:36	0.0	0.0	0.0	0.8	19.9	(1)
G-2D	10:39	0.0	0.0	0.0	1.1	19.9	(1)
G-2S	10:41	0.0	50	2.5	6.9	12.4	(1) Stable readings at 2 minutes.
G-5	10:13	0.0	0.0	0.0	2.2	18.7	(1)
G-6	9:28	0.0	0.0	0.0	0.0	20.8	(1)
G-8	11:16	0.0	0.0	0.0	0.0	20.8	(1)
G-9	11:08	0.0	0.0	0.0	0.9	18.5	(1)
G-10	12:06	-0.7	0.0	0.0	0.0	20.8	(1)
Speedway Office	9:39	0.0	0.0	0.0	0.0	20.8	Open to ATM

#### NOTES:

(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 5/4/2023 Checked by: T. Perkins 6/19/2023

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

iniduleton, misconsin										
RC Operator Name: J. Roelke										
Date: 5/24/2023	Arrival Time: 8:30	Departure T	ime: 11:30							
Site Conditions	Initial <sup>1</sup>	Final <sup>2</sup>		Equipment						
Weather Conditions:	sunny	NM	Gas/Instrument Type:	GEMS 2000						
Ground Condition:	dry	NM	Serial Number:	11668						
Barometric Pressure:	29.25 in. Hg	NM	Date Last Calibrated:	NM						
Barometric Pressure Trend:	falling	NM	Method:	Standard field calibration						
Temperature:	63	NM	Pressure Instrument:	Dwyer Series 475 Manometer						

	-		Landfill Gas Extraction System <sup>3</sup> Landf	ill Gas Extraction S	System Off Line		
System	Location	Tag #	Equipment Description	Set Point	Typical Range	Initial Field Reading <sup>1</sup>	Final Field Reading <sup>2</sup>
			Amperage	-	3 - 4 amps	MN	
	Remote		Speed	-	1800 - 1900 rpm	MN	
Blower Motor	GHS-BLR-301	Frequency	-	30 - 35 Hz	MN		
BIOWEI WOLDI	HMI HMI	GIIS-BER-SUI	Amperage	-	3 -4 amps	MN	
			Speed	-		NM	
	HMI		Hours	-	-	NM	
Blower Operating (	YES). Note ex	cessive noise or is	ssues observed.				
	HMI	PT-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	NM	NM
	HMI	TE-301	Blower Inlet Temperature	-	50 - 90 °F	NM	NM
	Local	GHS-PI-301	Blower Inlet Vacuum	7 in. w.c.	7 in. w.c.	NM	NM
	Local	GHS-TI-301	Blower Inlet Temperature	-	50 - 90 °F	NM	NM
Blower Inlet			Gas Composition - % Methane	-		NM	NM
			Gas Composition - % CO2	-		NM	NM
	Local	Sample Port	Gas Composition - % Oxygen	-		NM	NM
			Gas Composition - % Balance	-		NM	NM
	Local	GHS-PDI-301	Demister Differential Pressure	-	1-2 in w.c	NM	
Demister	Local		Slight Glass: Liquid Present	-	-		
	HMI	LS-701	Level Indication	-	-		
	HMI	PT-302	Blower Outlet Flow Pressure	-	-	NM	NM
	HMI	TE-302	Blower Outlet Temperature	-	50 - 90 °F	NM	NM
	HMI	PDT-301	Blower Outlet Flow Differential Pressure	-	1-2 in w.c	NM	NM
	HMI	-	Blower Outlet Flow Rate	-	180 - 190 scfm	NM	NM
	Local	GHS-PI-302	Blower Outlet Flow Pressure	-	-	NM	NM
Blower Outlet	Local	GHS-TI-302	Blower Outlet Temperature	-	50 - 90 °F	NM	NM
			Gas Composition - % Methane	-		NM	NM
			Gas Composition - % CO2	-		NM	NM
	Local	Sample Port	Gas Composition - % Oxygen	-		NM	NM
			Gas Composition - % Balance	-		NM	NM
	Local	North	North Branch Vacuum	-	6 - 7 in w.c.	NM	NM
	Local	North	Valve Position	6 turns open /6	6 turns open	NM	NM
		1	Gas Composition - % Methane	-		NM	NM
		North Sample	Gas Composition - % CO2	-		NM	NM
	Local	Port	Gas Composition - % Oxygen	-		NM	NM
			Gas Composition - % Balance	-		NM	NM
	Local	Central	Central Branch Vacuum	-	6 - 7 in w.c.	NM	NM
	Local	Central	Valve Position	-	6 turns open	NM	NM
Dura de Harad			Gas Composition - % Methane	-	· · · ·	NM	NM
Branch Headers	1.41	Central	Gas Composition - % CO2	-		NM	NM
	Local	Sample Port	Gas Composition - % Oxygen	-		NM	NM
		ľ	Gas Composition - % Balance	-		NM	NM
	Local	South	South Branch Vacuum	-	6 - 7 in w.c.	NM	NM
	Local	South	Valve Position	-	6 turns open	NM	NM
			Gas Composition - % Methane	-		NM	NM
	Level	South Sample	Gas Composition - % CO2	-		NM	NM
	Local	Port	Gas Composition - % Oxygen	-		NM	NM
		1	Gas Composition - % Balance	-		NM	NM

			Air C	ompressor	System <sup>3,5,6</sup>						
		Pressure Set Points					Condensate Set Points				
Operational Settings	Tank Low (psi)	Tank High (psi)	Well Field (psi) On (min.) Off (min.)		Open	(sec.)	Closed (min.)	Test Operation			
				NOT OPER	ATING				(ye	es/no)	
Air Dryer	Air Dryer System <sup>4</sup>			Electr	ical Status			HMI Hea	ter/Air Condi	tioner	
System Operation	nal:		3-Phase Power Indicator:		3	_ of 3	Operational Yes		Yes		
Condensate Drain Ope	Condensate Drain Operational:		GFI 1 Status:		GRE	EN	Temperature	emperature 70			
Alarm Indictor	:		GFI 2 Status:		GRE	EN	Filter Cleaned No		No		
Condenser Clean	ed²:					Leacha	te Tank	/Loadout			
Dew Point I	ndicator:	•	Liquid Level (inches):			74.5			Visual Check:		
			Contact V	Contact WDNR if level is above		71 inches		Evidence of Tank Overflow: No		No	
			Leak Dete	ction Test Co	ompleted:	No  · Inspect concret		e pad and storm sewer for			
	Indicate which bars	• • •	Overfill Float Functional <sup>7</sup>			Ye	es	damage or backu	р		
	red (it) and note	red (R) and note (F) if flashing.		Exhaust Stack							
			Drain Stac	Drain Stack Sump (vol. removed)			)	Stack Condition <sup>6</sup>		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: Conducted cap inspection

NM - Not Measured

schedule leachate tank pumped out.

Data Entered By: J. Roelke 5/25/2023 Checked By: T. Perkins 6/19/2023 - Made call to

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:
Cap integrity:
- Cap integrity is acceptable
-Fencing around GW-1 and GW-2 is damaged but still provides well protection from mowing operations (see photo #6).
- 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 #7).
Condition of drainage ways:
West Drainage Ditch - During the May inspection, areas of vegetation die off were observed at the drainage path to the north (see photo #1). 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.
East Drainage Ditch - A small portion of the riprap at the west embankment of the northern culvert appears to have eroded/failed (see photo #2).
- Evidence was observed of erosion beginning to occur at the north portion of the slope towards the sediment pond (see photo #3).
Drainage ways are acceptable with minimal to no changes form previous conditions aside from those described above.
Extent of vegetation cover:
Vegetation cover is acceptable over the majority of the site. Various areas were reseeded and ground cover was applied in the fall of 2022 and remains in place
(see photo #4).
Burrowed areas were filled in with soil as gas extraction wells GW-2, GW-4, and GW-12. New burrowing was identified at GW-2 and GW-4 (see photo # 5).
Significant erosion:
No evidence if significant erosion was observed at the site.
Repeated erosion:
No evidence if significant erosion was observed at the site.
Vegetation die-off:
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 and TRC will continue to monitor regrowth in 2023. (see photo # 4).
Maintain surface water conveyances and the sedimentation basin by completing the following:
Inspect drainage ditches for erosion, blockages, and vegetation, describe and note any issues:
Evidence of light erosion at the eastern drainage ditch was previously observed and reseeded in the fall of 2022. Ground cover remains in place and TRC will continue to
monitor the area for vegetation regrowth and any additional evidence of erosion. See photo # 3.
Inspect sedimentation basin banks and outfalls for erosion, describe and note any issues:
No erosion or other issues at sedimentation basin banks or outfalls.
Measure the distance between the invert of the sedimentation basin outlet and the top of the sediments accumulated in the basin (June Only!): NM

Attachment 2 Photographic Log



## **Client Name:** Site Location: Project No.: Wisconsin Department of Natural Refuse Hideaway Landfill TRC # 457573 Resources (WDNR) Middleton, WI Photo No. Date 5/24/2023 1 Description Western Drainage Ditch: Vegetation die off was observed at the north portion of the drainage ditch. Photo No. Date 2 5/24/2023 Description Eastern Drainage Ditch: Some riprap has begun to deteriorate at the west side of the western culvert. Surface water is not being obstructed.

## Photographic Log



	e Location: Project No.:
	Hideaway Landfill ddleton, WI TRC # 457573
Photo No.       Date         3       5/24/2023         Description       Eastern Drainage Ditch:         Areas were reseeded and erosion mat was applied cover in the fall of 2022. Grass is emerging from mat. Evidence of erosion is visible and will be monitored.       Image: Comparison of the fall of 2022 is a set of the fall of 2022 is a set of the fall of 2022 is a set of the fall of erosion is visible and will be monitored.	

# Photographic Log

Photo No.	Date	
4	5/24/2023	
<b>Description</b> <u>Eastern Landfill</u> Reseeding and was previously Fall of 2022 and place. Grass is emerge from ma events, reseedin be reapplied.	<u>Extents</u> ground cover applied in the remains in starting to at. Due to rain	



## Photographic Log

(	Client Name:	Site Location: Project No.:
Wisconsin Department of Natural Resources (WDNR)		atural Refuse Hideaway Landfill TRC # 457573 Middleton, WI
Photo No.	Date	
5	5/24/2023	
<b>Description</b> <u>Southern Landfill Extents:</u> Evidence of burrowing around GW-2, and GW-4. Burrowing at GW-2, GW-4, and GW-12 was filled with soil in the Fall of 2022.		
Photo No.	Date	
6	5/24/2023	
Description Southern Landfill Extents: GW-2 protective fencing is falling apart. Fencing still		

 6
 5/24/2023

 Description

 Southern Landfill Extents:

 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.



Client Name:			Site Location:	Project No.:
Wisconsin Department of Natural Resources (WDNR)		Refuse Hideaway Landfill Middleton, Wl	TRC # 457573	
Photo No.Date75/24/2023DescriptionSouthern and Northern LandfillExtents:Snow fencing was installed to protect the airlines during mowing events at GasExtraction Wells: GW-2, GW-4, GW-7, GW-8, GW-9, GW-10, GW-11, GW-12, and GW-13.				TRC # 457573

# Photographic Log