

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION MEMPHIS ENVIRONMENTAL FIELD OFFICE

8383 WOLF LAKE DRIVE BARTLETT, TN 38133-4119

PHONE (901) 371-3000 STATEWIDE 1-888-891-8332 FAX (901) 371-3170

May 06, 2019

Kenny L. Brown Director Hardeman County Solid Waste 100 N. Main Street Bolivar, TN 38008 CERTIFIED MAIL # 91 7108 2133 3932 2042 9724 RETURN RECEIPT REQUESTED

RE:

COMPLIANCE EVALUATION INSPECTION NOTICE OF VIOLATION

HARDEMAN COUNTY LANDFILL

SNL350000223

Dear Kenny Brown:

On April 23, 2019, the Division of Solid Waste Management (Division) conducted a Compliance Evaluation Inspection at the referenced facility. The inspection was conducted to evaluate the facility's compliance with the *Tennessee Solid Waste Disposal Act*, Tennessee Code Annotated § 68-211-101 et seq. and with Tennessee's Solid Waste Regulations (Division Rule Chapter 0400-11-01) promulgated pursuant to that Act. During the inspection, violations of Tennessee's solid waste management regulations were identified. The attached Inspection Report/Notice of Violation (NOV) details the observations made by Division personnel during the inspection of your facility. Corrective measures for each violation must be implemented immediately and completed by May 27, 2019. A follow-up inspection will be conducted to confirm that the violations have been corrected.

The Division appreciates the courtesy and cooperation shown by Hardeman County Landfill during the inspection. If you have any questions or comments concerning this correspondence, please contact me by email John boatright@tn.gov or by phone 901-371-3011.

Sincerely,

Mohn Boatright, P.E.

Environmental Consultant II

ENCL: Inspection Report

CC: JB/nb/07905062019

Ashley Holt, Deputy Director, DSWM Chris Lagan, DSWM – Enforcement

SOLID WASTE INSPECTION REPORT

SITE/PHYSICAL LOCATION

Bolivar-Hardeman County Landfill SNL350000223 75 Landfill Lane Bolivar, TN 731-658-2884

PRIMARY CONTACT

Kenny Brown Director Hardeman County Department of Solid Waste

DATE/TIME OF INSPECTION

April 23, 2019, at 11:54 a.m.

INSPECTION PARTICIPANTS

Nathan Jordan, Site Operator John Boatright, P.E., DSWM

REPORT PREPARED BY

John Boatright, P.E. Division of Solid Waste Management Memphis Environmental Field Office 8383 Wolf Lake Drive' Bartlett, TN 38113 901-371-3011

PURPOSE OF INSPECTION

This inspection was conducted to evaluate the solid waste disposal facility's compliance with the applicable requirements of the rules and regulations promulgated pursuant to the *Tennessee Solid Waste Disposal Act*.

Facility Description:

Hardeman County Landfill (SNL 350000223), is a permitted Class I Landfill. The landfill can not accept regulated hazardous waste. The landfill currently has 3 active special waste approvals (1 "one time" and 2 continuous disposal).

Hardeman County Landfill May 06, 2019 Page 2

The landfill property consist of 163 acres, with 19 acres of permitted waste disposal in the current built landfill area. An older pre subtitle D landfill area has been closed. The current landfill consists of five phases. Phase I has received final cover. Phases II and III are in operation. Phase IV has been constructed but not approved to receive waste. Phase IV is scheduled to be reconstructed to achieve approval to receive waste.

INSPECTION FINDINGS

During the course of the inspection the following violations were identified.

Division Rule 0400-11-01-.04(2)(i)6.

- (2) General Facility Standards Unless specifically noted otherwise, the standards of this paragraph apply to Class I, Class II, Class III, and Class IV disposal facilities.
 - (i) Run-on, Run-off, and Erosion Control
 - 6. The operator must take other erosion control measures (e.g., temporary mulching or seeding, silt barriers) as necessary to control erosion of the site.

Violation Observation:

Inadequate Erosion Control – Erosion was observed on the East, North, and West slopes of the landfill. Other than one silt fence along the northern edge of the landfill, no temporary erosion control measures were observed at the time of the inspection. The silt fence on the north side has collapsed in one location and was overtopped by accumulated sediment along almost it's entire length (photos 15 and 16).

The majority of the cover on Phases II and III has not had grass or other material applied to control erosion. Where grass has been established, little or no erosion has occurred. The erosion on Phases II and III has exposed waste. Photos 4, 6, 17, and 19 show erosion of the initial and intermediate covers on the East, North, and West slopes of the landfill. Other photographs in the photograph attachment show details of the erosion.

It should also be noted that the facility does not appear to have discharge permit with the Division of Water Resources. An approved Storm Water Pollution Prevention Plan could not be located. The Tennessee Erosion Prevention and Sediment Control Training Program (available at https://tnepsc.org/index.asp) provides valuable training on preventing erosion.

Division Rule 0400-11-01-.04(2)(a)3.

(2) General Facility Standards - Unless specifically noted otherwise, the standards of this paragraph apply to Class I, Class II, Class III, and Class IV disposal facilities.

- (a) Overall Performance Standard The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable:
 - 3. The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies;

Violation Observation:

Leachate Observed at the Site – Leachate was observed on the West, North, and East faces of the landfill (Phases II and III). Leachate on the West face is captured by the liner of Phase IV and is addressed in a compliance agreement covering Phase IV. Photographs 9, 10, 11, 12, 13, 14, 15, and 16 document the leachate observed. This violation has been observed at the site thirty seven times in the last five years.

Violation Observation:

Leachate Observed Entering Run-Off – Leachate was observed entering the landfill run-off system at the time of the inspection. Photographs 10, 12, and 15 show the leachate flowing into the run-off system.

No leachate was observed entering the facility's sediment basin. In the event of a large rain event the leachate observed will be washed into the sediment basin and ultimately into surface waters.

Division Rule 0400-11-01-.04(6)(a)3 and 5.

- (6) Waste Handling and Cover Standards -
 - (a) Class I Disposal Facilities -
 - 3. The compacted solid waste must be covered at the end of each operating day with an initial cover consisting of at least a six inch layer of compacted soil or an adequate standard of other material as approved by the Commissioner.

And

5. All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

Violation Observation:

Unsatisfactory Initial Cover - Several areas of phase III appear to have never had an approved initial cover applied. The facility has approval for a tarp and for "Finn Waste Cover". Thin plastic tarps/drop cloths are being used to cover some areas. This material has not been approved as an alternative initial cover. Photographs 4, 5, 6, 7, and 18 show the use of the unapproved alternate initial cover material. Large areas of Phase III have eroded down to waste.

Division Rule 0400-11-01-.04(6)(a)3 and 5.

- (6) Waste Handling and Cover Standards -
 - (a) Class I Disposal Facilities -
 - 3. Except for those completed portions to be finally closed (e.g., the final lift), all surfaces which will be left exposed for a period of over thirty days (e.g., initial and intermediate lifts) must be covered by an intermediate cover consisting of at least a one-foot layer of compacted soil or other material approved by the Commissioner.

And

5. All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

Violation Observation:

Unsatisfactory Intermediate Cover – Areas of Phase II and III where intermediate cover has been applied in the past are heavily eroded. Waste has been exposed and numerous leachate seeps are present. Photos 17 and 19 show the North and East faces. The photographs clearly show that where vegetation has been established, little or no erosion has occurred.

Division Rule 0400-11-01-.04(6)(a)5 and 6.

- (6) Waste Handling and Cover Standards -
 - (a) Class I Disposal Facilities -
 - 5. All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

w/Y

And

6. Upon achieving final grade or as otherwise required by the Commissioner, final cover shall be placed as set forth in the closure standards of paragraph (8) of this rule.

Division Rule 0400-11-01-.04(8)(c)6.

- (8) Closure and Post Closure Standards
 - (c) Closure Requirements
 - 6. In addition to the drainage and grading requirements and vegetative cover requirements, the operator shall take other measures as may be necessary to minimize and control erosion and sedimentation (e.g., soil stabilization, sediment ponds) at the site.

Facility Specific Permit Conditions – The following conditions of this permit are established pursuant to Rule 0400-11-01-.02(5)(b):

4. During the entirety of the post-closure period for Phase I of the facility, adequate erosion control on the crown and side slopes of the filled area must be maintained. In the event that side-slope erosion becomes a chronic problem, the facility may be required to install additional interceptor berms on the side slopes, as well as run-off let-down structures, armored ditches, and energy-dissipation devices.

Violation Observation:

Unsatisfactory Stabilization of Cover – Areas of Phase I have erosion. On the West face a road up the side of the landfill has eroded down to the synthetic cap. Sediment from the Phase II has partially filled the erosion gullies (photo 7). On the East face several erosion gullies have formed on the steeper bottom slope (photo 8). There are currently no erosion control devises or structures installed on the final cover of Phase I. Areas with steep slopes or long sheet flow lengths in excess of 90 feet should be equipped with appropriate erosion controls.

John Boatright, P.E.

Herb Nicholson, P.G., CHMM Environmental Field Office Manager

Attachments:

- (1) Facility Evaluation Form
- (2) Photographs of violations

Initial Inspection

TENNESSEE DIVISION OF SOLID WASTE MANAGEMENT CLASS I FACILITY INSPECTION CHECKLIST*

CI	LAS	SI
FA	CIL	ITY

SITE					DATE 20190423	TIME 11:54	- 1	VEATHER 60'S PC
Bolivar-Har	deman County Landfill	SNL350000223 75 Land	dfill Way		INSPECTOR JWB			TEFO MEMP
		*SEE DISCLAIME	RONLAST	PA				IVICIVIE
	VIOL	ATION			REGULATION			OBSERVATION
		BUFFER ZONE STANDARD	S SOR SIT	118				NVO AOC V1 V2
	BUFFER ZONE STANDARD VIOL		0400-11-0	_				
8310								
COMMENTS								
		COLLECTED						
8330	LEACHATE IMPROPERLY MANA	GED	0400-11-0	1	04(4)(a)8(i-iii)		?	
COMMENTS								
8340	INADEQUATE LEACHATE COLLE	CTION SYSTEM	0400-11-01	1	04(4)(a)7		?	
COMMENTS	See 8570.							
		COMMUN	ICATIONS	;				
8130	NO COMMUNICATION DEVICES	= 1	0400-11-01	1	04(2)(f)		?	
COMMENTS		,	•					
		COVER M						
8160	UNAVAILABILITY OF COVER MA	TERIAL.	0400-11-01	1-,	04(2)(h)		?	
COMMENTS								
		DEAD AN						
8250	DEAD ANIMALS IMPROPERLY H	ANDLED	0400-11-01	10	04(2)(k)5.(ii) (I-III)		?	
COMMENTS								
		DUST CO						
8190	INADEQUATE DUST CONTROL		0400-11-01	1(04(2)(j)		?	
COMMENTS								
		DUTY TO PROVIDE	INFORM	A	rion			

	*SEE DISCLAIM	ER ON LAST PAGE		
	VIOLATION	REGULATION		OBSERVATION NVO AOC V1 V2
	DUTY TO PROVI	DE INFORMATION		
	UNSATISFACTORY RECORDS OR REPORTS	0400-11-0102(5)(a)7	?	
8530		TCA 68-211-862(a)		
COMMENTS				
8590	PERMITS, PLANS, OPERATING MANUAL NOT AVAILABLE	0400-11-0102(5)(a)(7)	?	
COMMENTS				
	FIRE:	SAFETY		
8080	EVIDENCE OF OPEN BURNING	0400-11-0104(2)(c)1	?	
COMMENTS			,	
8090	INADEQUATE FIRE PROTECTION	0400-11-0104(2)(c)2	?	
COMMENTS				
	GAS MIGRATION CO	NTROL STANDARDS		
8380	INADEQUATE GAS MIGRATION CONTROL SYSTEM	0400-11-0104(5)(a)	?	
COMMENTS				
8390	INADEQUATE MAINTENANCE OF GAS MIGRATION CONTROL SYSTEM	0400-11-0104(5)(a)	?	
COMMENTS				
	GENERAL FACIL	ITY STANDARDS		
8010	INADEQUATE VECTOR CONTROL	0400-11-0104(2)(a)1	?	
COMMENTS				
8020	ACCESS NOT LIMITED TO OPERATING HOURS	0400-11-0104(2)(a)4	?	
COMMENTS				
8030	INADEQUATE ARTIFICIAL OR NATURAL BARRIER	0400-11-0104(2)(b)1	?	
COMMENTS				
				1/-

	*SEE DISCLAIM	ER ON LAST PAGE	
	VIOLATION	REGULATION	OBSERVATION NVO AOC V1 V2
	GENERAL FACI	LITY STANDARDS	
	INADEQUATE INFORMATION SIGNS	0400-11-0104(2)(b)2	? 🖂 🗆 🗆
8040		TCA 68-211-703(h)	
COMMENTS			
8050	UNSATISFACTORY ACCESS ROAD(S)/PARKING AREA(S)	0400-11-0104(2)(b)3	? 🗵 🗆 🗆
COMMENTS			
8060	CERTIFIED PERSONNEL NOT PRESENT DURING OPERATING HOURS	0400-11-0104(2)(b)5	[?] 🗵 🗆 🗆
COMMENTS			
8070	UNAPPROVED SALVAGING OF WASTE	0400-11-0104(2)(b)6	
COMMENTS			
	LITTER	CONTROL	
8110	UNSATISFACTORY LITTER CONTROL	0400-11-0104(2)(d)	? 🛛 🗆 🗆 🗆
COMMENTS			
	OPERATING	EQUIPMENT	
8140	INADEQUATE OPERATING EQUIPMENT	0400-11-0104(2)(g)	? 🗵 🗆 🗆 🗆
COMMENTS			
8150	UNAVAILABILITY OF BACKUP EQUIPMENT	0400-11-0104(2)(g)	? 🗵 🗆 🗆
COMMENTS	*1		
	OVERALL PERFORI	MANCE STANDARD	
8270	WASHOUT OF SOLID WASTE	0400-11-0104(2)(a)(3)	? 🗆 🗆 🖂
COMMENTS	Phases II and III have extensive erosion exposing waste and w	aste has been transported down the sides	of the landfill.
	INADEQUATE MAINTENANCE OF LEACHATE MANAGEMENT SYSTEM (INSPECTOR TO CHECK AND RECORD LEACHATE LEVELS AT EVERY LANDFILL SUMP)	0400-11-0104(2)(a)(3) 0400-11-0104(4)(a)7	? 🗆 🗆 🖂
COMMENTS	Leachate flow meter showed 10,335,771 gallons pumped at the read the meter. The lower leachate pipe was disconnected on Phase III had no free board and was extensively silted up.	ne time of the inspection. The window on the from the standpipe at the time of the inspe	ne meter is crazed and it is difficult ection. The temporary leachate pit

	*SEE DISCLAII	MER ON LAST PAGE	
	VIOLATION	REGULATION	OBSERVATION NVO AOC V1 V2
	OVERALL PERFO	RMANCE STANDARD	
0250	LEACHATE OBSERVED AT THE SITE	0400-11-0104(2)(a)(3)	
8350		0400-11-0104(4)(a)6,	
COMMENTS	Numerous leachate breakouts observed on phases II and III inspector visited the site in February.	l. The amount of leachate observed has lessened sin	ce the last time this
0260	LEACHATE ENTERING RUN-OFF	0400-11-0104(2)(a)(3)	
8360		0400-11-0104(4)(a)6	
COMMENTS	Leachate staining and flow paths show leachate entering the entering the run-off system at the time of the inspection.	e perimeter run-off system in numerous areas. Leac	hate was observed
0070	LEACHATE ENTERING A WATER COURSE	0400-11-0104(2)(a)(3)	
8370		0400-11-0104(4)(a)6	
COMMENTS	While no discoloration or other overt indicator in the unname run-off system discharges into that stream and leachate has	ned tributary to Short Creek shows leachate entering s been observed in the run-off system.	this water course, the
0.430	POTENTIAL FOR EXPLOSIONS OR UNCONTROLLED FIRES	0400-11-0104(2)(a)2	
8420		0400-11-0104(5)(a)	
COMMENTS			
0.400	EXCESSIVE POOLING OF WATER	0400-11-0104 (2)(a)3	
8490		0400-11-0104(8)(c)4(iii)	
COMMENTS			
8520	DUMPING OF WASTE INTO WATER	0400-11-01-,04 (2)(a)3	
COMMENTS			
	PERMANEN	T BENCHMARK	
8280	NO PERMANENT BENCHMARK	0400-11-0104(2)(o) ?	
COMMENTS			
	PERSONN	EL SERVICES	
8120	INADEQUATE EMPLOYEE FACILITIES	0400-11-0104(2)(e) ?	
COMMENTS			
	PROPER OPERATION	AND MAINTENANCE	
8540	GROUNDWATER MONITORING SYSTEM IMPROPERLY MAINTAINED	0400-11-0102(5)(a)4	
COMMENTS			

	*SEE DISCLAIME	ER ON LAST PAGE	,	
	VIOLATION	REGULATION	OBSERVATION NVO AOC V1 V2	
	RANDOM INSPEC	CTION PROGRAM		
8290	INADEQUATE RANDOM INSPECTION PROGRAM	0400-11-0104(2)(s) ?		
COMMENTS				
	RECORDS OF ORIGIN AND	AMOUNT OF SOLID WASTE		
8610	NO OPERATING SCALES AND/OR FAILURE TO MAINTAIN WASTE RECORDS	TCA 68-211-862(a)(b)(1)(2)		
COMMENTS				
	RUN-ON, RUN-OFF, AN	ND EROSION CONTROL		
8170	INADEQUATE MAINTENANCE OF RUN-ON/RUN-OFF SYSTEM(S	0400-11-0104(2)(i)1-5 ? 0400-11-0104(8)(c)4(i)		
COMMENTS	The previous issues noted remain. The perimeter run-off syst appears to be no run-off system other than the perimeter syst	em that routes storm water to the sediment basin a em.	ppears to work. There	
8180	INADEQUATE EROSION CONTROL	0400-11-0104(2)(i)6 ? 0400-11-0104(8)(c)4(ii)		
COMMENTS	No temporary erosion control measures were observed observed at the bottoms of the side slopes of phases II	l at the time of this inspection. Extensive sedir and III,	nent deposits were	
	SPECIAL WASTE AP	PROVAL PROCESS		
8300	MISHANDLING OF SPECIAL WASTE	0400-11-0101(4)(d)1		
COMMENTS				
	UNLAWFUL METHO	DDS OF DISPOSAL		
8570	OPERATION DOES NOT CORRESPOND WITH ENGINEERING PLANS (EVALUATE AND RECORD THE APPROXIMATE INTERIOR AND EXTERIOR SLOPE OF THE LANDFILL)	TCA 68-211-104(3) ? TCA 68-211-105(b)		
This facility has been given temporary permission by DSWM to utilize a leachate pit near the Interface between Phase III and IV to collect leachate from Phase I to III. A minimum of 2 feet of free board will be maintained. A minor modification is proposed to reconstruct phase IV to fix this problem.				
8580	OPERATION DOES NOT CORRESPOND WITH PERMIT CONDITIONS	TCA 68-211-104(3) 0400-11-0102(5)(a)(1)		
COMMENTS				
	WASTE HANDLING ANI	D COVER STANDARDS		
8430	WASTE NOT CONFINED TO A MANAGEABLE AREA	0400-11-0104(6)(a)1		
COMMENTS	The current working face appears to exceed the area covered b	by the ADC tarp.		

*SEE DISCLAIMER ON LAST PAGE					
	VIOLATION	REGULATION	OBSERVATION NVO AOC V1 V2		
	WASTE HANDLING AN	D COVER STANDARDS			
8440	IMPROPER SPREADING OF WASTE	0400-11-0104(6)(a)2			
COMMENTS					
8450	IMPROPER COMPACTING OF WASTE	0400-11-0104(6)(a)2			
COMMENTS					
	UNSATISFACTORY INITIAL COVER	0400-11-0104(6)(a)3			
8460		0400-11-0104(6)(a)5			
COMMENTS	Several areas of phase III appear to have never had an approve Waste Cover". Thin plastic tarps/drop cloths are being used to daily cover.	ed daily cover applied. The facility has approval for cover some areas. This material has not been appr	a tarp and for "Finn oved as an alternative		
	UNSATISFACTORY INTERMEDIATE COVER	0400-11-0104(6)(a)4			
8470		0400-11-0104(6)(a)5			
COMMENTS	While intermediate cover may have bee applied at some time in many areas.	n the past, the current cover has extensive erosion.	Waste is exposed in		
	UNSATISFACTORY FINAL COVER	0400-11-0104(6)(a)6			
8480		0400-11-01-,04(8)(c)4			
The soil cover in the north west corner of Phase I has eroded away where a road ran up the side of the landfill. Weather conditions have prevented repairs. On the East side of Phase I erosion gullies have began to develop on the bottom slope.					
8510	UNSATISFACTORY STABILIZATION OF COVER	0400-11-0104(6)(a)5,6 ?			
COMMENTS	Areas where grass has been established appear to be stable. The rest of the cover on Phase II and III has extensive erosion scars. The use of straw, mulch, or other material to stabilize the cover until grass can be established would mitigate the erosion.				
	WASTE RES	TRICTIONS			
	UNAUTHORIZED WASTE ACCEPTED	0400-11-0104(2)(k)1			
8210		0400-11-01-,04(2)(k)6			
COMMENTS					
8220	UNAPPROVED SPECIAL WASTE ACCEPTED	0400-11-0101(4)(b) ? 0400-11-0101(4)(c)5			
COMMENTS	The facility has two approved active special waste and one one entering the facility during the inspection.	time only special waste approvals. No special wast	e were observed		

	*SEE [DISCLAIMER ON LAST PAGE	
	VIOLATION	REGULATION	OBSERVATION NVO AOC V1 V2
	W	ASTE RESTRICTIONS	
8230	TIRES IMPROPERLY HANDLED	0400-11-0104(2)(k)3.(i)	? 🛛 🗆 🗆
COMMENTS			
8240	MEDICAL WASTE IMPROPERLY HANDLED	0400-11-0104(2)(k)4.(i-iv)	? 🗵 🗆 🗆
COMMENTS			
LEACHATE LEV	/ELS		

*Disclaimer: The information contained in these documents (checklists/notes, etc.) is not intended to be all inclusive and is subject to change. These documents are intended solely for use by DSWM staff. These documents are not a substitute for evaluation of compliance in accordance with applicable laws and regulations. These documents are not intended for, nor can they be relied upon, to create any rights, substantive or procedural, enforceable or useable by any party in litigation with the State of Tennessee or its employees.

5/27/19	
Compliance Date	
LOCK Form	
SAVE FORM	

ADDITIONAL COMMENTS

Given the nature and severity of the violations listed, a written Notice of Violation will follow this inspection report. If you anticipate not being able to correct the violations listed by follow-up inspection date, please request an extension prior to the follow-up inspection date. If you anticipate that the time required to correct the violations will extend beyond 10 June 2019, a written compliance plan shoul be submitted before that date.
The specific violations related to the reconstruction of Phase IV (8340, 8320, and 8570) are not included in the follow-up inspection date listed above.

Photographic Log

Site Name:
Hardeman County Landfill

Tracking No.:
SNL350000223

20190423

2019/04/23 11:54
+35.289953,-89.064060

Photo 1. View East of the landfill from Highway 64. Picture cropped to remove excess sky.

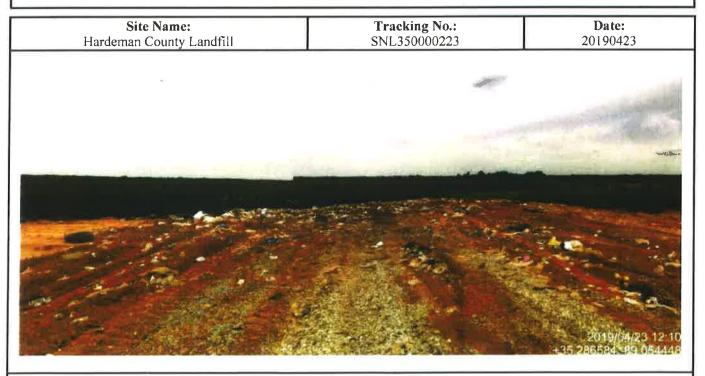


Photo 2. View over the working face.



Photo 3. The leachate line riser below Phase IV. Note that the line from Phases I to III is disconnected.

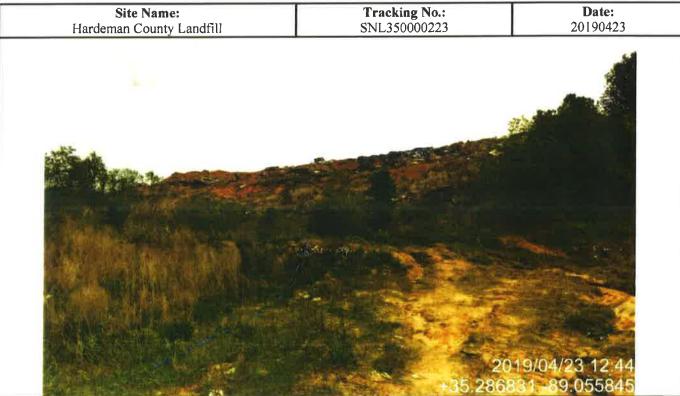
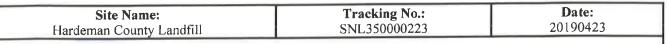


Photo 4. View from Phase IV of the West face of Phase II/III. Note the uncovered waste and the unapproved tarp. This picture has been cropped to remove excess sky.



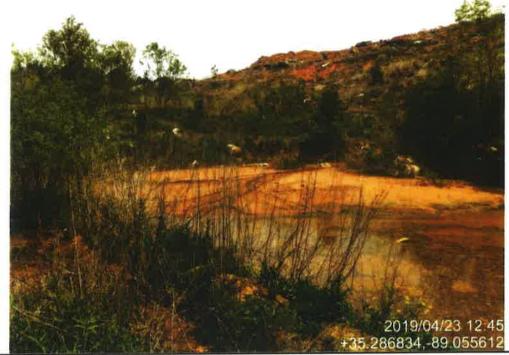


Photo 5. Sediment fan in the temporary leachate pit.

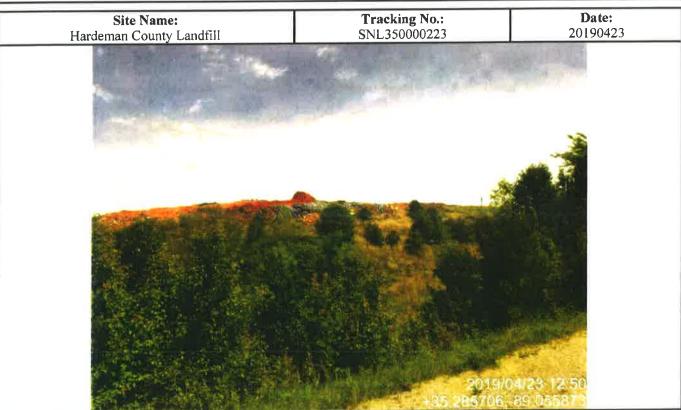


Photo 6. View from the Southwest of the active area of the landfill. Note the uncovered waste and the unapproved tarps.

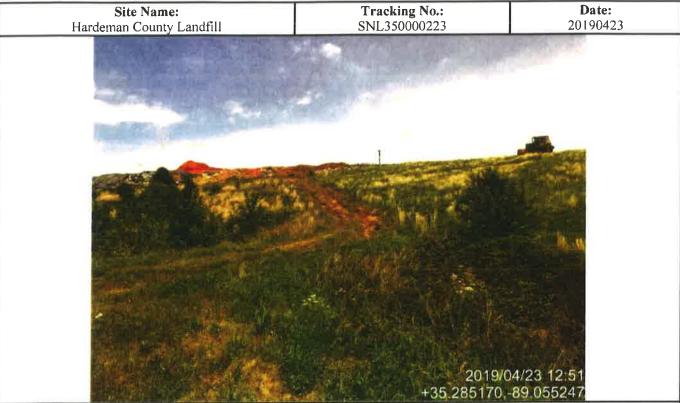


Photo 7. Erosion on Final cover of Phase I in Northwest corner of phase. Note that erosion from Phase II appears to have partially filled the erosion on Phase I.

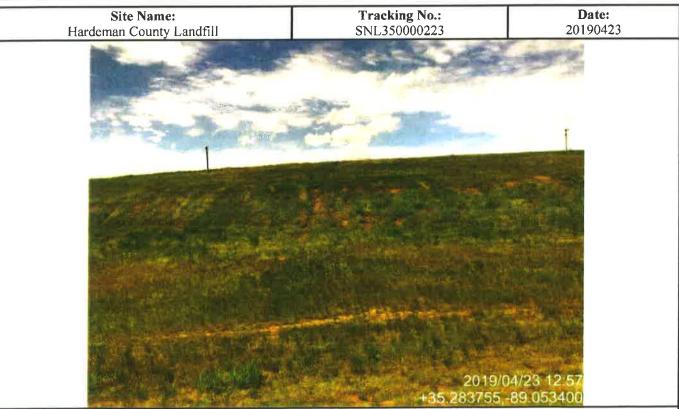


Photo 8. View of the East side of Phase I. Note the starter erosion rills on the final cover.

Site Name:Tracking No.:Date:Hardeman County LandfillSNL35000022320190423

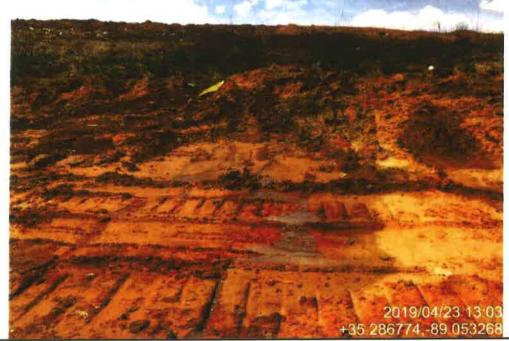


Photo 9. Leachate on the East face.



Photo 10. Leachate from Photo 09 entering the run-off system.





Photo 11. A group of leachate breakouts on the East face of Phase III.

 Site Name:
 Tracking No.:
 Date:

 Hardeman County Landfill
 SNL350000223
 20190423

Photo 12. Leachate from Photo 11 entering the run-off.

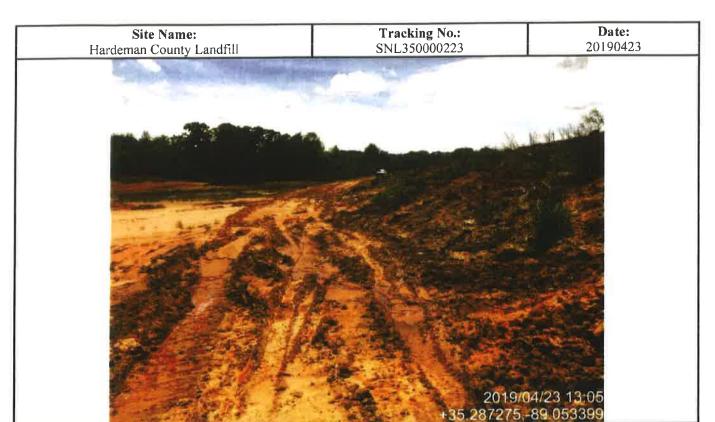


Photo 13. View south along the East face. Photo 11 leachate is in the foreground and photo 09 leachate is in the middle ground.

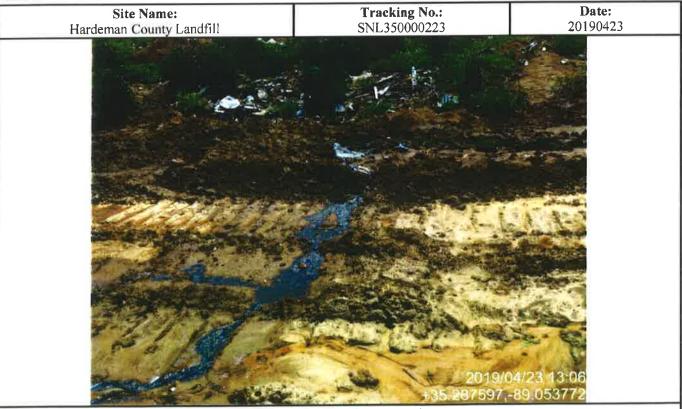
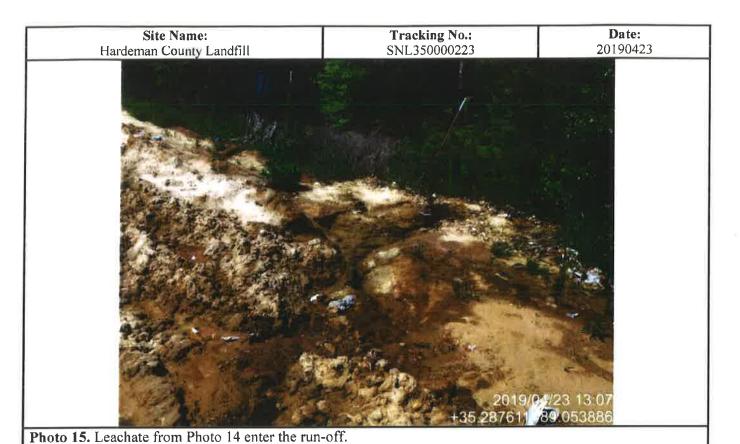


Photo 14. Leachate on the North face of Phase III. Note the exposed waste.



Site Name: Tracking No.: Date:
Hardeman County Landfill SNL350000223 20190423

2019/04/23 13:07
+35 287611 -89 053886

Photo 16. View West along the Northern toe of Phase III.

Site Name:Tracking No.:Date:Hardeman County LandfillSNL35000022320190423



Photo 17. View of the North face of Phase III. Notee the erosion down to waste and the waste washed out. This view is a panorama of three different pictures.

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Photo 18. Center of the North face. The current working area is at the top of the picture. Note the washed out waste.



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Date: 20190423

Date:



Photo 19. Panorama of the East face. Phase I is the covered area to the left. Note that areas where grass has been established are stable and areas where it is not have alluvial fans below them.

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Photo 20. The damaged screen on the leachate flow meter.