

DATE: May 15, 2025

TO: Emily Brickman, P.G., *Senior Project Manager – Geologist, EnSafe*

FROM: Caleb Gourley, Senior Staff Scientist, Harbor

RE: Bi-weekly Site Inspection
NABORS Landfill
Mountain Home, AR
Harbor Project No: ENSF-23299

Harbor visited the NABORS landfill in Mountain Home, Arkansas on May 5 – 7, 2025, to conduct the semi-annual groundwater monitoring event. While on-site, Harbor also conducted the bi-weekly site inspection to assess the general condition of the landfill and the leachate collection system (LCS). The LCS was last fully repaired by Advanced Fluid Technologies (AFT) in October and November of 2022; however, within a few weeks of these repairs, the LCS began malfunctioning. By March 2023, most of the LCS points were malfunctioning. A quote was then requested and received from AFT to again repair the system. No authorization for the subsequent repairs was provided prior to the expiration of Harbor's contract with DEQ in June 2023.

Landmarc Environmental (Landmarc), a company specializing in LCS installation and service, conducted a full assessment of the LCS on December 3-4, 2024. A report summarizing these activities was submitted on January 20, 2025. Harbor discontinued site visits in February 2025 until DEQ approved a new budget for activities occurring at NABORS. The budget was approved on April 3, 2025, and site visits will continue until 2026.

The LCS remains largely unchanged from previous inspections. Findings and observations from the current landfill inspection are summarized below:

- Vertical leachate collection sump (VLCS)-1 is not functioning correctly and was observed at capacity and overflowing (see photographs 1-2). It appears that a fuse holder is missing a metal contact piece, which is causing the sump to malfunction.
 - VLCS-2 appeared to be functioning correctly and was observed at 1/2 capacity.
 - The leachate tank battery level was at 91.1 inches.
 - Minimal stormwater was observed in the leachate tank containment. As such, no water was released (see photograph 3).
 - The panel displays were off at all LCS stations except LCS-2, LCS-5, and LCS-7.
 - LCS-2 level was at 0.0 inches and did not activate when the sump was placed in "hand" or "auto" mode. LCS-2 also displayed a pump fault alarm.
 - LCS-5 level remained at 9.7 inches and did not activate when the sump was placed in "hand" or "auto" mode.
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- LCS-7 level was at 0.0" and the station displayed a pump fault.
- The display at LCS-9 had been removed.
- The closure turf has some significant rills present near LCS-1 and LCS-2. These rills have sediment deposited in them which allows vegetation to grow. An erosional washout is present along the road between LCS-4 and LCS-5.
- The turbine vent that had become detached on Area 1-2 (near coordinates 36.46114, -92.45014) was repaired (see photograph 4).

Attachment A is a map showing the LCS points. Photographs are included in Attachment B. Copies of the field notes and the LCS status form are included in Attachment C.

The leachate collection system has been functioning at a minimal level, resulting in some leachate generation, mainly by placing some of the LCS points in "hand" mode. Harbor contract water hauler 417 Services LLC (417 Services) began hauling leachate on July 2, 2024. As of February 23, 2025, 417 Services hauled 226 loads of leachate totaling 866,700 gallons to the City of Springfield, Missouri wastewater treatment plant under wastewater contribution permit #593. No leachate was hauled between February 24, 2025, and April 10, 2025. 417 Services resumed hauling leachate on April 11, 2025. As of April 28, 2025, 417 Services hauled 19 loads totaling 73,150 gallons of leachate to the City of Springfield for disposal.

Attachments:

Attachment A – Site Map

Attachment B – Site Photographs

Attachment C – Field Notes and Leachate Collection System Status Form

Attachment A

Site Map



Attachment B

Site Photographs



Photograph 1: View of erosional rill from VLCS-1 overflow.



Photograph 2: View of VLCS-1 sump at capacity.



Photograph 3: View of leachate tank containment.



Photograph 4: View of repaired turbine vent on north side of Area 1-2.

Attachment C

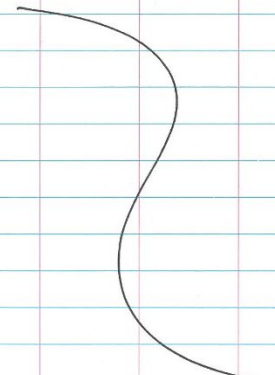

Field Notes and Leachate Collection System Status Inspection Form

NABORS Landfill

727: on-site
 735: Sample EB-2
 807: Pump on @ NE-2
 830: Sample @ NE-2
 845: Arrive @ NAB-4
 847: Decon Eq.
 858: Pump on @ NAB-4
 913: Sample @ NAB-4
 936: Arrive @ NW-33
 957: Sample @ NW-633D
 1010: Arrive @ LCS-8
 - no display
 1012: Arrive @ LCS-7
 - 24hr, PF, 0.0 Lvl
 1014: Arrive @ LCS-6
 - no display
 1018: Arrive @ VLCS-2
 - 1/2 capacity
 1020: Arrive @ NW-6
 1028: Pump on
 1043: Sample @ NW-6
 1058: Arrive @ NW-1
 1109: Pump on @ NW-1
 1124: Sample NW-1
 + NW-1 dup

5/7/25

1135: Arrive @ NW-102
 1200: Sample @ NW-102
 12:20 91.1" Tank Level @ Leachate Battery
 1.5" of stormwater in containment
 12:22 LCS-1 No Display
 11:50 Turbine Vent Repaired
 12:25 LCS-2 1853 hr, 0.0 ~~min~~, pf
 12:26 LCS-3 No Display
 12:26 LCS-4 No Display
 12:28 LCS-5 9.7, 0 ~~min~~ hr, Station OK
 12:31 VLCS-1 Overflow
 12:35 Caleb + Ian off-site



Leachate Collection System Status

 Date: 5/7/25 Arrival Time: 0727 Location: NABORS Landfill Leachate Tank Battery Level (inches): 91.1"

 Weather Conditions: 70's, cloudy, light drizzle

Panel Number	Display Functioning (Yes/No)	Leachate Level (inches)	Green Flashing? (Yes/No)	Amber Flashing? (Yes/No)	Red Flashing? (Yes/No)	Working in Hand? (Yes/No)	Working in Auto? (Yes/No)	VFD Status	Hours	Alarm	Comments	
VLCS-1	N/A	N/A	N/A	N/A	✓	✓	✓	N/A	N/A	N/A	Sump status:	at capacity
VLCS-2	N/A	N/A	N/A	N/A	✓	✓	✓	N/A	N/A	N/A	Sump status:	1/2 full
LCS-1	✓	—	—	—	—	—	—	—	—	—	station not operational	
LCS-2	✓	0.0	✓	✓	✓	✓	✓	—	1853	✓	Pump Fault	
LCS-3	✓	—	—	—	—	—	—	—	—	—	station not operational	
LCS-4	✓	—	—	—	—	—	—	—	—	—	" "	
LCS-5	✓	9.7	✓	✓	✓	✓	✓	—	0	✓	station OK	
LCS-6	✓	—	—	—	—	—	—	—	—	—	station not operational	
LCS-7	✓	0.0	✓	✓	✓	✓	✓	—	29	✓	Pump Fault	
LCS-8	✓	—	—	—	—	—	—	—	—	—	station not operational	
LCS-9	✓	—	—	—	—	—	—	—	—	—	" "	
General Comments:		Detached turbine vent repaired										

End of Report
