

DATE: December 20, 2024

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

FROM: Ian Klein, *Staff Engineer, 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 December 17, 2024, to conduct 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.

Upon commencement of the subcontract with EnSafe, Inc. (EnSafe) in April 2024, Harbor retained Comfort Systems USA (CSUSA) to begin repairs of the LCS. CSUSA conducted partial repairs of the system; however, they were unable or unwilling to conduct all of the repairs necessary and have since been terminated as the repair contractor. Harbor contacted Landmarc Environmental (Landmarc), a company specializing in LCS installation and service, to assess the leachate collection system. Mr. Matt Baker with Landmarc began initial repairs on December 3-4, 2024. A report summarizing his activities is pending.

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 photograph 1).
 - VLCS-2 appeared to be functioning correctly, and the sump was at approximately $\frac{3}{4}$ capacity.
 - Approximately three inches of stormwater was observed in the leachate tank battery containment. The stormwater had a pH of 9.45, which exceeded the 9-pH threshold. No water was released (see photograph 2).
 - The panel displays were off at all LCS stations except LCS-55 and LCS-9.
 - LCS-5 displayed a level of 9.7 inches and did not activate when the sump was placed in "hand" or "auto" mode.
-

- The display at LCS-9 was physically removed.
- The closure turf has some significant rills present between LCS-1 and LCS-2 on the north side of Area 1-2. 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.

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 December 15, 2024, 417 Services hauled 161 loads of leachate totaling 616,450 gallons to the City of Springfield, Missouri wastewater treatment plant under wastewater contribution permit #593.

Attachments:

Attachment A – Site Map

Attachment B – Site Photographs

Attachment C – Field Notes and Leachate Collection System Status Form

Attachment A

Site Map



Legend

Landfill Boundary

VLCS Points

LCS Points



Attachment B

Site Photographs



Photograph 1: View of VLCS-1 at capacity and beginning to overflow.



Photograph 2: View of stormwater in leachate tank containment.

Attachment C

Field Notes and Leachate Collection System Status Inspection Form

Tuesday December 17th, 2024
Nabors Leachate System BiWeekly
Cloudy, 50-60°F

12:00 Ian Arrives On-Site
12:10 VCLS-2 75% Capacity
12:10 VCLS-1 Overflowing
12:15 Leachate tank Battery
↳ 17.7 in
↳ 3" of rainwater in containment
↳ pH of rainwater = 9.45 (not released)
12:20 LCS-1 No Display
12:20 LCS-2 No Display
12:25 LCS-3 No Display
12:25 LCS-4 No Display
12:25 LCS-5
↳ 9.7" Leachate Level
↳ "OK" Alarm
↳ 0 operating hours
12:30 LCS-9 Display physically removed
12:35 LCS-8 No Display
12:35 LCS-7 No Display
12:35 LCS-6 No Display
12:45 Ian Off-Site

Ian Kei



Leachate Collection System Status

Date: 12/17/24 Arrival Time: 12:00 Location: NABORS Landfill Leachate Tank Battery Level (inches): 17.7
 Weather Conditions: Cloudy 60°F

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:	Overflow
VLCS-2	N/A	N/A	N/A	N/A	—	—	—	N/A	N/A	N/A	Sump status:	75% full
LCS-1	N	—	—	—	—	—	—	—	—	—		
LCS-2	N	—	—	—	—	—	—	—	—	—		
LCS-3	N	—	—	—	—	—	—	—	—	—		
LCS-4	N	—	—	—	—	—	—	—	—	—		
LCS-5	Y	9.7	—	—	—	N	—	—	0	OK		
LCS-6	N	—	—	—	—	—	—	—	—	—		
LCS-7	N	—	—	—	—	—	—	—	—	—		
LCS-8	N	—	—	—	—	—	—	—	—	—		
LCS-9	N/A	—	—	—	—	—	—	—	—	—	Display gone	
General Comments:		Rainwater containment → 3in 9.45 PH										

End of Report
