

Mr. Clay McDaniel, Engineer via email: clay.mcdaniel@arkansas.gov
Arkansas Department of Energy and Environment
Division of Environmental Quality, Office of Land Resources
Assessment and Remediation
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

Re: Monitoring Point Inspection – May 2024

NABORS Landfill (AFIN 03-00051)

1320 Landfill Road, Mountain Home, Arkansas 72653

Contract No.: 4600043737

Dear Mr. McDaniel:

On May 14, 2024, EnSafe Inc. conducted a site inspection of the NABORS Landfill at 1320 Landfill Road in Mountain Home, Arkansas (Site). The purpose of the inspection was to visually assess monitoring points associated with ongoing Operations and Maintenance and monitoring efforts completed at the Site. EnSafe's subcontractor, Harbor Environmental Inc. (Harbor) was onsite at the time of the inspection and accompanied EnSafe during the inspection.

The EnSafe and Harbor inspection included a visual inspection of accessible groundwater monitoring wells, springs/seeps, and landfill gas monitoring wells. The assessment focused on accessibility, current status of Site features, and required repairs. Attachment A includes a Harbor generated figure illustrating the overall layout of the Site and the location of leachate collection points, landfill gas monitoring points, and groundwater monitoring wells. A detailed discussion of the results of the visual inspection are provided in the table included as Attachment B. Attachment C includes a Harbor-generated photographic log of groundwater monitoring wells and landfill gas monitoring wells.

As detailed in the table in Attachment B, items of note include the following.

- Landfill groundwater monitoring well NAB-4 is damaged. The well casing is bent and cannot be locked; however, the well can still be sampled.
- Landfill gas monitoring well GP-16R is damaged. The well casing is bent and cannot be locked and the concrete pad is significantly cracked. The integrity of this location has been compromised.
- A number of monitoring wells lack identification.
- A number of well casings and bollards show signs of deteriorating or peeling/cracked paint.



 Access to a number of monitoring wells is hindered by steep terrain and, access to many locations is only achievable via all-terrain vehicle or by foot.

If the Arkansas Department of Energy and Environment, Division of Environmental Quality, Office of Land Resources Assessment and Remediation has any questions regarding this letter or attachments, please contact the undersigned by phone at 214-529-5600 or by email at ebrickman@ensafe.com.

Respectfully submitted,

EnSafe Inc.

By: Emily J. Brickman, PG

Senior Project Manager

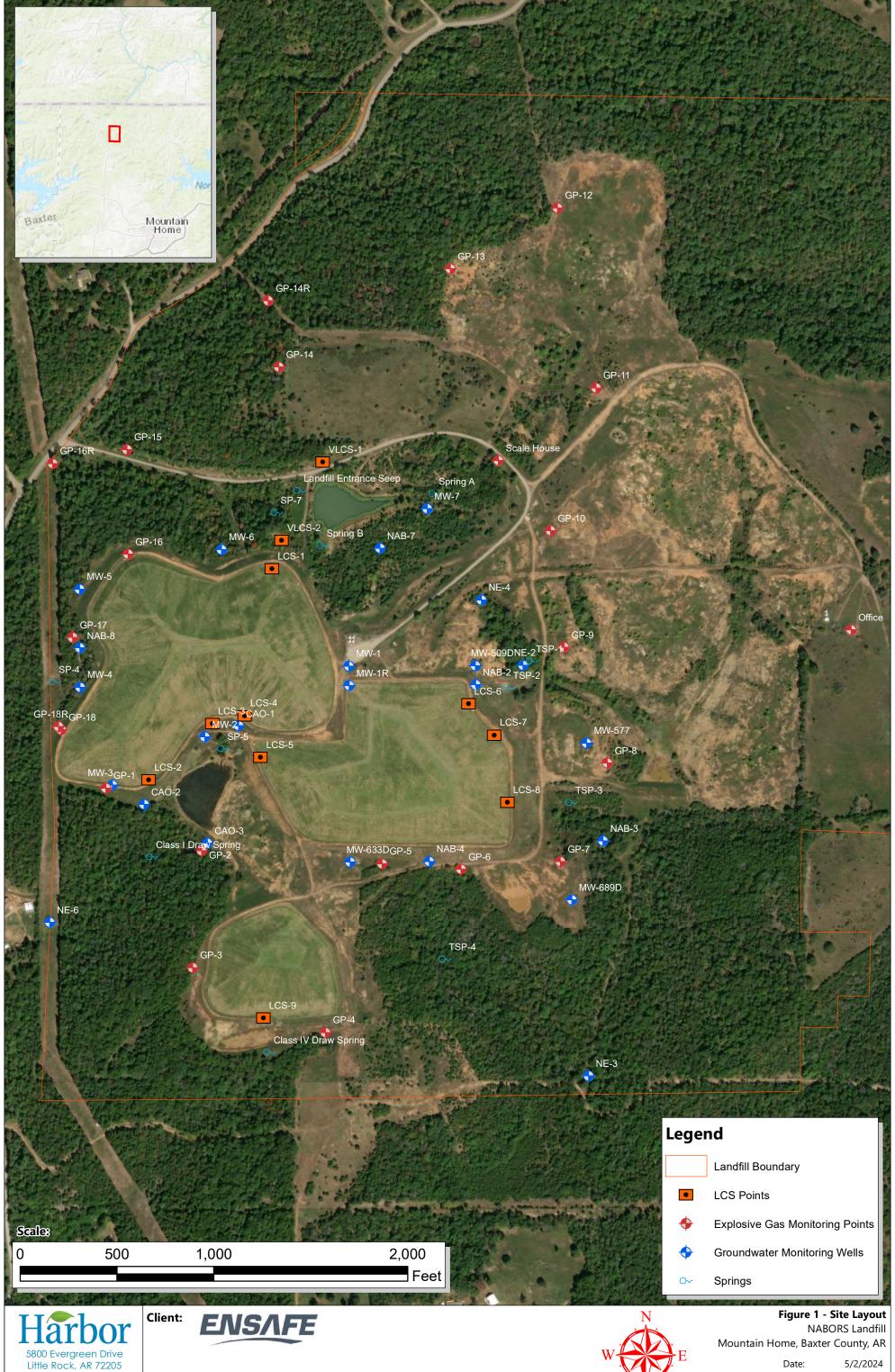
Attachments:

Attachment A — Site Layout Figure

Attachment B — Inspection Results Summary Table

Attachment C — Photographic Log

Attachment A
Site Layout Figure



Little Rock, AR 72205 P: 501.663.8800 www.HarborEnv.com



Drawn by: Checked by: LD

## Attachment B Inspection Results Summary Table

## NABORS Landfill Monitoring Points 1320 Landfill Road — Mountain Home, Arkansas Contract No.: 4600043737

Contract No.: 4600043737									
Monitoring Well ID	Latitude	Longitude	TD (feet below TOC)	Sampled (Y/N)	Needs ATV (Y/N)	May 2024 Status	Repairs Required - May 2024	October 2022 Status	
CAO-1	36.460000	-92.449167	36.8	Y	N	Well intact and accessible by vehicle	Consider adding well identification labeling/painting	Well intact and accessible by vehicle	
CAO-2	36.458889	-92.450833	45.6	Y	Y	This well was extended vertically during the landfill closure. The casing is bent slightly and is situated on the side of a steep slope. Access is via all terrain vehicle (ATV) only along sloped pathway.	Slightly bent, still functioning, no repairs required at this time	Well has been extended and is accessible by ATV — behind new chain-link fence	
CAO-3	36.458333	-92.449722	23.1	Υ	N	Well intact and accessible by vehicle	Consider adding well identification labeling/painting	Well intact and accessible by vehicle/ATV	
MW-1	36.460833	-92.447222	77.2	Υ	N	Well intact and accessible by vehicle — near leachate tanks	_	Well intact and accessible by vehicle	
MW-1R	36.460556	-92.447222	78.6	Y	N	Well intact and accessible by vehicle — near leachate tanks	Consider adding well identification labeling/painting	Well intact and accessible by vehicle	
MW-2	36.459842	-92.449760	48.7	Y	Foot	This well is intact but is down a steep, uneven, rocky slope that is highly overgrown with underbrush. Access is difficult and by foot only as it is behind a narrow gate in the fence.	_	Well intact and accessible by foot — behind new-chain link fence	
MW-3	36.459167	-92.451389	39.6	Y	Y	This well was extended vertically during the landfill closure. The casing is bent slightly(but still can be sampled) and is situated on the side of a steep slope. Access is via ATV only along sloped pathway.	_	Well has been extended and is accessible by ATV — behind new chain-link fence	
MW-4	36.460556	-92.451944	99.9	Y	Y	Well intact and accessible by vehicle; however, ATV access preferable	_	Well intact and accessible by ATV — behind new-chain link fence	
MW-5	36.461944	-92.451944	89.0	Υ	Υ	Well intact and accessible by ATV via difficult, sloped pathway — try accessing from MW-4	_	Well intact and behind new chain-link fence, but direct access blocked due to erosion — equipment was carried on foot	
MW-6	36.462500	-92.449444	68.3	Y	Y	Well intact and accessible by vehicle; however, ATV access preferable	_	Well intact and accessible by ATV — access road needs clearing	
MW-7	36.463056	-92.445833	22.9	Υ	Υ	Well intact and accessible by vehicle; however, ATV access preferable	_	Well intact and accessible by ATV — access road needs clearing	
MW-509D	36.460833	-92.445000	39.7	Υ	Y	Well intact and accessible by ATV only via difficult, sloped pathway	Consider adding well identification labeling/painting	Well on top of topographic mound, but mostly accessible by ATV — grading would help access	
MW-577	36.459722	-92.443056	55.2	Υ	Y	Well intact and accessible by ATV only via difficult, sloped pathway	Consider adding well identification labeling/painting	Well on top of topographic mound, but mostly accessible by ATV — grading would help access	
MW-633D	36.458056	-92.447222	88.1	Υ	N	Well intact and accessible by vehicle; however, ATV access preferable but vehicle is fine	_	Well intact and accessible by vehicle	
MW-689D	36.457500	-92.443333	43.8	Y	N	Well intact and accessible by vehicle; however, ATV access preferable	_	Well intact and accessible by ATV — access road needs clearing	
NAB-2	36.460556	-92.445000	102.8	Y	Y	This is one of the wells extended during the landfill closure. The casing is bent slightly and is situated on the side of a steep slope, but can still be sampled. Access is via ATV only along a sloped pathway.	_	Well has been extended and is accessible by ATV	
NAB-3	36.458333	-92.442778	46.3	Y	N	Well intact and accessible by vehicle; however, ATV access preferable	Consider adding well identification labeling/painting	Well intact and accessible by ATV — access road needs clearing	
NAB-4	36.458056	-92.445833	140.0	Y	Y	This is one of the wells extended during the landfill closure. The casing is severely bent (but can be sampled) and is situated on the side of a steep, rocky slope. The well lid can not be closed. Access is on foot via a gate.	It is recommended that the existing well completion (3-foot by 3-foot above grade completion) be reinstalled as an above grade completion so that the well lid can be closed and the integrity of the well can be confirmed.	Well has been extended but is on steep slope with dense vegetation; partially accessible by ATV — behind new chainlink fence	
NAB-7	36.462500	-92.446667	43.7	Υ	Υ	Well intact and accessible by vehicle; however, ATV access is preferable. This well is located in a dense cedar grove and is hard to locate.	Consider adding well identification labeling/painting	Well intact and accessible by ATV — access road needs clearing	
NAB-8	36.461111	-92.451944	85.6	Y	Y	The well is accessible by vehicle, with less than 3 feet of water, and is purged and sampled with a bailer. The well goes dry and recovers slowly. It is typically sampled on the next day.	_	Well accessible by vehicle — purged and sampled with bailer	
NE-2	36.460833	-92.444167	63.0	Y	Υ	Well intact and accessible by ATV only via difficult, sloped pathway	_	Well intact and accessible by foot only — need better access The well is purged and sampled with a bailer.	
NE-3	36.455000	-92.443056	27.8	Υ	Y	Well intact and accessible by vehicle; however, ATV access preferable — access is from NAB-3	_	Well intact and accessible by ATV — access road needs clearing	
NE-4	36.461762	-92.444888	112.2	Y	Y	Well intact and accessible by ATV only via difficult, sloped pathway	_	Well intact and accessible by foot only — need better access	
NE-6	36.457222	-92.452500	18.2	Υ	Υ	Well intact and accessible by ATV only via steeply sloped pathway along power easement.	_	Well intact and mostly accessible by ATV.	

## NABORS Landfill Monitoring Points 1320 Landfill Road — Mountain Home, Arkansas Contract No.: 4600043737

Needs ATV

Springs/Seeps	Latitude	Longitude	Sampled (Y/N)	(Y/N)	May 2024 Status	Repairs Required (Y/N)	October 2022 Status
Landfill entrance seep	36.463330	-92.448060	Y	Foot	Flowing, collected sample	NA	No flow observed
Spring A	36,463273	-92.445690	Y	Foot	Flowing, collected sample	NA	No flow observed
Spring B		-92.447661	N	Foot	No flow observed	NA	No flow observed
TSP-1		-92.444001	Y	Foot	Flowing, collected sample	NA	No flow observed
TSP-2		-92.444403	Y		Flowing, collected sample	NA	No flow observed
TSP-3		-92.443324	N	Foot	No flow observed	NA	No flow observed
TSP-4		-92.445560	N	Foot	No flow observed	NA	No flow observed
Class I Draw		-92.450692	N	Foot	No flow observed	NA	No flow observed
Class IV Draw		-92.448645	N	Foot	No flow observed	NA	No flow observed
SP-4		-92.452376	N	Foot	Minimal flow in seep	NA	No flow observed
SP-5		-92.449427	N	Foot	No flow observed	NA	No flow observed
SP-7		-92.448468	Y	Foot	Flowing, collected sample	NA	Flowing, collected sample
Spring near NE-3		-92.443042	N		Minimal flow, mixed with surface water	NA	No flow observed
Spring rical NE S	301 13 1323	<u> </u>	.,		· · · · · · · · · · · · · · · · · · ·		
Gas Monitoring			Charled with Form Con	Needs ATV			
_	1 -4:4		Checked with Four- Gas		Mary 2024 Status	Dennius Descrived (V/N)	Amril 2022 Chatric
Well	Latitude	Longitude	Monitor (Y/N)	(Y/N)	May 2024 Status	Repairs Required (Y/N)	April 2023 Status
GP-1	36.459125	-92.451500	Υ	Υ	Well intact, access is via ATV only along sloped pathway outside fence	N	
GP-2	36.458228	-92.449827	Υ	N	Well intact and accessible by vehicle	N	
GP-3		-92.449992	Υ	N	Well intact and accessible by vehicle	N	
GP-4		-92.447669	Υ	N	Well intact and accessible by vehicle	N	
GP-5		-92.446659	Υ	N	Well intact and accessible by vehicle	N	
GP-6		-92.445276	Υ	N	Well intact and accessible by vehicle	N	
GP-7		-92.443528	Υ	N	Well intact and accessible by vehicle	N	
GP-8		-92.442697	Υ	N	Well intact and accessible by vehicle	N	
GP-9		-92.443443	Υ	N	Well intact and accessible by vehicle	N N	
GP-10		-92.443669	Υ	N	Well intact and accessible by vehicle	N N	
GP-11		-92.442778	Y	N	Well intact and accessible by vehicle	N N	
GP-12		-92.443333	Y	Y	Well intact and accessible by ATV only	N N	
GP-13		-92.445556	Y	Y	Well intact and accessible by ATV only	N N	Lock was rusted and well could not be opened or measured
GP-14	36.465000		Y	Y	Well intact and accessible by ATV only	N	
GP-14R	36.466111		Υ	Y	Well intact and accessible by ATV only	N N	
GP-15		-92.451111	Υ		Well intact and accessible by vehicle	N N	
GP-16		-92.451086	Y		Well intact and accessible by vehicle	N N	
GP-16R		-92.452500	Υ		Well was damaged a few years back by someone clearing electrical utility easement. The concrete pad is cracked and the stick-up well casing is bent preventing locking. The integrity of the well is compromised.	It is recommended that the existing well completion (3-foot by 3-foot above grade completion) be reinstalled as an above grade completion so that the well lid can be closed and the integrity of the well can be confirmed.	
GP-17	36,461260	-92.452072	Υ	Υ	Well intact and accessible by ATV only	N	
GP-18		-92.452279	Y	Ý	Well intact and accessible by ATV only	N N	
GP-18R		-92.452327	Y	Ý	Well intact and accessible by ATV only	N N	
Main Office Area		-92.438399	Y	N	Accessible by vehicle	N N	
Second Office		-92.438463	Ý	N	Accessible by vehicle	N N	
Restroom/Storage		-92.438386	Y	N	Accessible by vehicle  Accessible by vehicle	N N	
Scale House		-92.444331	Y	N	Accessible by vehicle	N N	
Scale House	20.402202	ジと・オオコンコ	1	I IN	ACCESSING DY VEHICLE	IV	

## Notes:

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Attachment C
Photographic Log

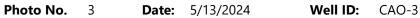


**Photo No.** 1 **Date:** 5/13/2024 **Well ID:** CAO-1



**Photo No.** 2 **Date:** 5/13/2024 **Well ID:** CAO-2







**Photo No.** 4 **Date**: 5/13/2024 **Well ID**: MW-1



**Photo No.** 5 **Date:** 5/13/2024 **Well ID:** MW-1R



**Photo No.** 6 **Date:** 5/13/2024 **Well ID:** MW-2



**Photo No.** 7 **Date:** 5/13/2024 **Well ID:** MW-3



**Photo No.** 8 **Date:** 5/13/2024 **Well ID:** MW-4



**Photo No.** 9 **Date:** 5/13/2024 **Well ID:** MW-5



**Photo No.** 10 **Date:** 5/13/2024 **Well ID:** MW-6



**Photo No.** 11 **Date:** 5/13/2024 **Well ID:** MW-7



**Photo No.** 12 **Date:** 5/13/2024 **Well ID:** MW-509D

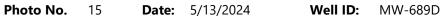


**Photo No.** 13 **Date:** 5/13/2024 **Well ID:** MW-577



**Photo No.** 14 **Date:** 5/13/2024 **Well ID:** MW-633D







**Photo No.** 16 **Date:** 5/13/2024 **Well ID:** NAB-2



**Photo No.** 17 **Date:** 5/13/2024 **Well ID:** NAB-3



**Photo No.** 18 **Date:** 5/13/2024 **Well ID:** NAB-4



**Photo No.** 19 **Date:** 5/13/2024 **Well ID:** NAB-7



**Photo No.** 20 **Date:** 5/13/2024 **Well ID:** NAB-8



**Photo No.** 21 **Date:** 5/13/2024 **Well ID:** NE-2



**Photo No.** 22 **Date:** 5/13/2024 **Well ID:** NE-3



**Photo No.** 23 **Date:** 5/13/2024 **Well ID:** NE-4



**Photo No.** 24 **Date:** 5/13/2024 **Well ID:** NE-6



**Photo No.** 1 **Date:** 5/13/2024 **Well ID:** GP-1



**Photo No.** 2 **Date:** 5/13/2024 **Well ID:** GP-2



**Photo No.** 3 **Date:** 5/13/2024 **Well ID:** GP-3



**Photo No.** 4 **Date:** 5/13/2024 **Well ID:** GP-4



**Photo No.** 5 **Date:** 5/13/2024 **Well ID:** GP-5



**Photo No.** 6 **Date:** 5/13/2024 **Well ID:** GP-6

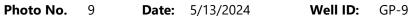


**Photo No.** 7 **Date:** 5/13/2024 **Well ID:** GP-7



**Photo No.** 8 **Date:** 5/13/2024 **Well ID:** GP-8







**Photo No.** 10 **Date:** 5/13/2024 **Well ID:** GP-10



**Photo No.** 11 **Date**: 5/13/2024 **Well ID**: GP-11



**Photo No.** 12 **Date:** 5/13/2024 **Well ID:** GP-12

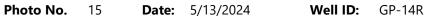


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**Photo No.** 14 **Date**: 5/13/2024 **Well ID**: GP-14

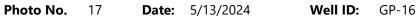






**Photo No.** 16 **Date:** 5/13/2024 **Well ID:** GP-15

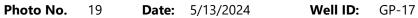






**Photo No.** 18 **Date:** 5/13/2024 **Well ID:** GP-16R







**Photo No.** 20 **Date:** 5/13/2024 **Well ID:** GP-18



**Photo No.** 21 **Date:** 5/13/2024 **Well ID:** GP-18R