SCS ENGINEERS

# Transmittal

West Des Moines, IA

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|---|---|---|---|
| PROJECT: | Adair County LF,FY26 Env Comp,IA 27224370.26 | DATE: | 7/6/2026 |
| SUBJECT: | Adair County Sanitary Landfill - 01-SDP-01-74P - 2026 Spring Sampling Notification | TRANSMITTAL ID: | 00005 |
| PURPOSE: | For your approval | VIA: | Info Exchange |

FROM

| NAME | COMPANY | EMAIL | PHONE |
|---|---|---|---|
| Sean Marczewski<br>West Des Moines, IA | SCS Engineers | SMarczewski@scsengineers.com | +1-515-631-6152 |

TO

| NAME | COMPANY | EMAIL | PHONE |
|---|---|---|---|
| Brad Davison | | brad.davison@dnr.iowa.gov | |

REMARKS:

Brad -

SCS Engineers, on behalf of the Adair County Sanitary Landfill and Recycling Center, is submitting the 2026 Spring Sampling Notification, for the Adair County Sanitary Landfill. If you have any questions or comments regarding this report, please contact me at the number below.

Thanks,

Sean A. Marczewski
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DESCRIPTION OF CONTENTS

| QTY | DATED | TITLE | NOTES |
|---|---|---|---|
| 1 | 7/6/2026 | 2026-07-06_Adair County Sanitary Landfill_2026 SSN_v1.0.pdf | |

COPIES:

# Transmittal

DATE: 7/6/2026
TRANSMITTAL ID: 00005

| | |
|---|---|
| DJ Luhrs | (Adair County Sanitary Landfill & Recycling Center Commission) |
| Nathan Ohrt | (SCS Engineers) |
| Sean Marczewski | (SCS Engineers) |
| Becky Jolly | |

July 6, 2026
File No. 27224370.26

Mr. Brad Davison
Iowa Department of Natural Resources
Solid Waste & Contaminated Sites Section
6200 Park Avenue
Des Moines, Iowa 50321

Subject: 2026 Spring Sampling Notification
Adair County Sanitary Landfill
Permit No. 01-SDP-01-74P

Dear Brad:

SCS Engineers, on behalf of the Adair County Sanitary Landfill and Recycling Center, is submitting herewith a summary of the 1st 2026 semi-annual groundwater sampling event for the closed Adair County Sanitary Landfill (Landfill) in general accordance with Iowa Administrative Code (IAC) 567-113.10(5) and 113.10(6).

## Report Priority

It is recommended to reduce groundwater sampling to once a year and to develop an alternative list of inorganic parameters for sampling in accordance with 567 Iowa Administrative Code (IAC) 113.10(5)*a*(1).

Reviewed analytical data from 2015 to 2026 shows that inorganic parameters antimony, beryllium, chromium, and silver had no detections above the reporting limit. Copper was detected twice, thallium three times, and vanadium once. Lead was detected once at four monitoring points, with one monitoring point showing two detections and three monitoring points showing none. If these metals were excluded from the sampling list, the alternative inorganic parameter list would include arsenic, barium, cadmium, cobalt, nickel, selenium, and zinc.

Detections of benzene, chlorobenzene, chloroethane, cis-1,2-dichloroethene (none since 2018), and vinyl chloride were limited to monitoring well MW-2, with none exceeding a GWPS. No other monitoring points had volatile organic compound (VOC) detections from 2015 to 2026.

Non-Appendix I detections, which were single detections of 4,4-DDT in monitoring well MW-7 and sulfide in MW-9, were both below GWPS levels.

A Mann-Kendall trend analysis at the 99% confidence level ($\alpha$=0.01) indicates that most parameters are stable or decreasing. Negative values signify a decreasing trend, and positive values indicate an increasing trend. The trends are summarized in Table 1 below.

Table 1 – Trend Comparison

| Monitoring Well | Decreasing Trend | Increasing Trend |
|---|---|---|
| MW-2 | 5 | 4 |
| MW-3 | 1 | 1 |
| MW-6 | 3 | 1 |
| MW-7 | 5 | 3 |
| MW-9 | 4 | 2 |
| Total | 18 | 11 |

Over 62% of the evaluated trends are decreasing. Barium in monitoring well MW-9 was decreasing at a statistically significant rate. Nine of the eleven increasing trends had Mann-Kendall values less than 10. Since the critical value is 21, it indicates that these positive values are generally steady rather than increasing.

Due to the low concentrations of detected inorganic parameters, the infrequency and low concentrations of VOC detections, and the generally stable to decreasing concentration trends, the following sampling is recommended, beginning in 2026:

Annual monitoring of arsenic, barium, cadmium, cobalt, nickel, selenium, zinc, Appendix I VOCs, detected non-Appendix I parameters, and total suspended solids.

The complete list of Appendix II parameters would be sampled every five years in accordance with the current schedule.

### Statistical Evaluation

Groundwater sampling was completed on February 5, 2026, and the associated field sheets were completed. Groundwater underdrains GU-2 and GWD-1 could not be sampled due to the discharges being frozen; it should be noted that GU-2 has not produced a sample since 2021, and since 2016, GWD-1 has only produced one sample in 2025. The samples were received at the laboratory with acceptable preservation requirements and at appropriate temperatures. Statistical evaluation was performed using analytical data received from the laboratory. The field sheets, laboratory analytical reports, data validation documentation, and statistical output from the statistical evaluation will be included in the 2026 Annual Water Quality Report.

Statistical evaluation results for the Landfill 1st 2026 semi-annual sampling event are summarized in Table 2.

Table 2 – 1st 2026 Semi-Annual Groundwater Monitoring Summary

| Monitoring Point | Monitoring Program | Indicated SSIs | SSLs |
|---|---|---|---|
| MW-2 | Assessment | Arsenic, Benzene | None |
| MW-3 | Assessment | None | None |
| MW-6 | Assessment | Selenium | None |
| MW-7 | Assessment | Nickel | None |
| MW-9 | Assessment | Cobalt | None |
| MW-10 | Background | Background data collection. | |
| GU-2 | Detection | Not calculated (frozen) | Not applicable |
| GWD-1 | Detection | Not calculated (frozen) | Not applicable |

There were five well/detected constituent pairs with indicated statistically significant increases (SSIs) above background. The monitoring wells are in assessment monitoring and do not require a retest; therefore, the SSIs were not confirmed. No exceedances of the groundwater protection standards (GWPSs) at statistically significant levels (SSLs) were identified. As monitoring points GU-2 and GWD-1 did not produce samples, prediction limits were not calculated.

Services were performed in general accordance with IAC 567-113.10 and the current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP) for the Landfill. This correspondence constitutes the 2026 Spring Sampling Notification.

If you have any questions regarding this notification, please contact Nathan Ohrt at (319) 331-9613.

Sincerely,

Nathan Ohrt
Senior Project Professional
SCS Engineers

Sean Marczewski
Senior Project Professional
SCS Engineers

NPO/SAM

Copies: Mr. DJ Luhrs, Adair County Sanitary Landfill