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June 3, 2025

Brian Rath, P.E.  
Iowa Department of Natural Resources  
6200 Park Avenue, Suite 200  
Des Moines, IA 50321

Re: Spring 2025 Statistical Notifications  
Cedar Rapids Linn County Solid Waste Agency Site 2  
Permit No. 57-SDP-01-72P

Dear Brian Rath, P.E.:

On behalf of the Cedar Rapids Linn County Solid Waste Agency (Agency), Foth Infrastructure & Environment, LLC (Foth) is submitting the notification and placement of notice in the operating record for the Appendix II constituents detected, statistically significant increases (SSIs) over background, and statistically significant levels (SSLs) over the groundwater protection standard (GWPS) for the Spring 2025 semiannual statistical evaluation at Site 2. The field sampling forms, laboratory reports, and the statistical report associated with the March 2025 monitoring event will be submitted with the 2025 Annual Water Quality Report (AWQR).

## 1. Report Priority

The following request was submitted with the 2024 AWQR (Foth, 2025) and is awaiting the Iowa Department of Natural Resources (IDNR) review and approval:

- ◆ Discontinue measuring and evaluating the gas collection and control system (GCCS) operational metrics as a source control measure for the approved benzene and cobalt groundwater remedies (HDR, 2017 and 2021) as requested in Table 16 of the 2024 AWQR (Foth, 2025). The gas system metrics measure the performance of the overall Site 2 GCCS, which includes the 30-Acre Cell, 13-Acre Cell, and Phases 1-4. Since the operational metrics cannot be isolated to the closed 30-Acre Cell, Foth recommended discontinuing the measurement and evaluation of the GCCS operational metrics for remedy source control performance.

In addition, Foth requests IDNR review and approval of the following:

- ◆ As further discussed in Section 5.1, approval of the pending alternative source demonstration (ASD) for MW-501 is requested.

## 2. Summary of the Monitoring Network and Sampling Schedules

A summary of the groundwater monitoring network and the status of the sampling schedules is outlined in Table 1 of Attachment 1. The groundwater monitoring locations are depicted in Figure 1 of Attachment 2. Low-flow or grab sampling was continued during the March 2025 sampling

event in accordance with the procedures outlined in the approved *Hydrologic Monitoring System Plan* (HDR, 2021). The low-flow and no-purge sampling rates and equipment utilized will be identified on the field sampling forms submitted with the 2025 AWQR.

### **3. Background**

#### **3.1 Potential Background Expansion**

In March 2025, MW-204A, MW-204B, MW-213A, MW-213B, MW-214, MW-215, and MW-218 were monitored for the Appendix I metals and TSS to continue evaluation for background expansion and/or support the *Alternative Source Demonstration: Spring 2024* (HDR, 2024) for MW-304R and MW-501. Three semiannual rounds of monitoring for the Appendix I list and TSS have been completed at MW-204A, MW-204B, MW-213A, MW-213B, and MW-218 between April 2024 and March 2025. Two semiannual rounds of monitoring for the Appendix I list and TSS were completed at MW-214 and MW-215 in September 2024 and March 2025. Discussion regarding the pending ASD for MW-501 is provided in Section 5.1.

None of these locations were added to the background monitoring network in the Spring 2025 statistical evaluation. MW-204A, MW-204B, MW-213A, MW-213B, MW-214, MW-215, and MW-218 will be monitored in Fall 2025 to continue to evaluate for background expansion or provide additional data regarding conditions in the Indian Creek floodplain over time. Recommendations on future monitoring and the background data set will be provided in the 2025 AWQR.

#### **3.2 Intrawell Background**

Intrawell background was updated during the Spring 2025 statistical evaluation with details provided in the Spring 2025 statistical evaluation memo, which will be submitted with the 2025 AWQR.

Section 5.3.2 of the *Unified Guidance* (USEPA, 2009) recommends that the intrawell background data set be updated periodically, after 4 to 8 new compliance observations have been collected. During previous statistical evaluations, the intrawell prediction limits were conducted for the following analytes and sample dates:

- ◆ GU-1: October 2015 through April 2022 arsenic, barium, cobalt, lead, nickel, and zinc.
- ◆ GU-L: October 2015 through April 2022 arsenic, barium, cobalt, and nickel.
- ◆ GU-O: April 2018 through July 2022 arsenic, barium, and cobalt.
- ◆ GU-P: February 2022 through October 2022 arsenic, barium, cobalt, and lead.
- ◆ MW-501: March 2021 through April 2022 arsenic, barium, cadmium, cobalt, lead, and nickel.

Note that GU-O, GU-P, and MW-501 had limited intrawell background sizes ( $n=5$ ,  $n=4$ , and  $n=5$ , respectively) during previous statistical evaluations, which impacted both power and the false positive rate.

The statistical comparisons utilized for determining if the intrawell background data set can be updated included non-parametric Wilcoxon rank-sum tests and statistical prediction limits. Except as noted below, the results did not identify statistical differences between the existing intrawell background data set and the results to be added to the intrawell background data sets. At MW-501, total suspended solids (TSS) concentrations were elevated during the October 2023, April 2024, and May 2024 sampling events (i.e., TSS concentrations of 202 mg/L, 1,010 mg/L, and 1,100 mg/L, respectively), and a correlation between TSS and metal concentrations was evident. Therefore, the October 2023, April 2024, and May 2024 results at MW-501 were not used to update the intrawell background data set.

The updated intrawell background data sets consist of:

- ♦ GU-1: October 2015 through September 2024 arsenic, barium, cobalt, lead, nickel, and zinc.
- ♦ GU-L: October 2015 through September 2024 arsenic, barium, cobalt, and nickel.
- ♦ GU-O: April 2018 through September 2024 arsenic, barium, and cobalt.
- ♦ GU-P: February 2022 through September 2024 arsenic, barium, cobalt, and lead.
- ♦ MW-501: March 2021 through April 2023 and September 2024 arsenic, barium, cadmium, cobalt, lead, and nickel (i.e., excludes the October 2023, April 2024, and May 2025 events with elevated TSS).

### **3.3 Interwell Background**

MW-201B was redeveloped in February 2025 and allowed to stabilize and re-equilibrate for approximately 30 days before the Spring 2025 sampling event. Well development field notes indicated notable suspended solids removal during surging and development of MW-201B. Post-development, the TSS concentration at MW-201B reduced to 3.5 mg/L in March 2025. Since redevelopment successfully reduced the TSS concentration at MW-201B, historical metal detections were reviewed for potential impact due to elevated TSS. For most of the detected metals at MW-201B, some correlation was evident when TSS concentrations were greater than 100 mg/L (i.e., in October 2021, October 2022, and April 2023), indicating TSS concentrations likely impacted the metals results during these events. As a result, removal of the October 2021, October 2022, and April 2023 metal concentrations in MW-201B was recommended and incorporated into the Spring 2025 statistical evaluation.

## **4. Appendix II Detections**

The Appendix II constituents detected in the groundwater monitoring wells under the assessment and corrective action monitoring programs during the March 2025 sampling event are presented in Table 2 of Attachment 1.

## **5. Detection Monitoring Statistically Significant Increases**

The detection monitoring SSI summary is presented in Table 3 of Attachment 1. No SSIs were identified at GU-1, GU-L, GU-O, GU-P, and MW-501. The future monitoring schedule is provided in Table 1 of Attachment 1.

## 5.1 Pending Alternative Source Demonstration for MW-501

An *Alternative Source Demonstration: Spring 2024* (HDR, 2024) was submitted on August 2, 2024 which indicated the recent increases in metal concentrations at MW-501 were not the result of a release from the landfill cells but rather appeared to be the result of higher amounts of precipitation and interactions of acidic precipitation with subsurface sediments causing naturally occurring metals to release into groundwater. The *Alternative Source Demonstration: Spring 2024* (HDR, 2024) also identified high reddish orange turbidity with flocculated iron material in the April and May 2024 samples for MW-501. In the letter dated December 23, 2024 (IDNR, 2024), IDNR acknowledged that the ASD may be plausible but believed it was premature to approve the ASD and requested redevelopment of background well MW-204B and detection monitoring well MW-501 before the next sampling event with results discussed in the next report.

Note that redevelopment was inadvertently not conducted at MW-204B, but rather, was conducted at MW-201B. The May 2024 TSS concentration at MW-204B was 272 mg/L, and field staff noted the reddish-orange turbidity with flocculated iron material in the sample. The September 2024 and March 2025 TSS concentrations at MW-204B were 18.7 mg/L and 17.9 mg/L, respectively. Reddish-orange turbidity was not identified at MW-204B during the September 2024 and March 2025 events. As a result, redevelopment of MW-204B is not recommended at this time.

Note that the reddish-orange turbidity with flocculated iron material was not identified at MW-501 during purging and sampling in September 2024. MW-501 was redeveloped in February 2025 and allowed to stabilize and re-equilibrate for approximately 30 days before the Spring 2025 sampling event. Well development field notes did not indicate notable suspended solids removal during surging and development of MW-501. During the Spring 2025 sampling event, some reddish-orange turbidity with flocculated iron material was identified initially but reduced during purging.

In April and May 2024, TSS concentrations at MW-501 were 1,010 and 1,100 mg/L, respectively. In September 2024 and March 2025, TSS concentrations reduced to <1.88 and 12.3 mg/L, respectively. Metal concentrations were much higher during the April and May 2024 sampling events than during previous sampling events and the September 2024 and March 2025 sampling events. Based on the September 2024 TSS concentration and limited suspended solids removal during redevelopment, it is unlikely that the need for well rehabilitation or restoration was the cause of the elevated April and May 2024 metal and TSS concentrations at MW-501.

Monthly precipitation ranged between 3-7 inches per month from March to May 2024. Monthly precipitation was 0.09 inches in September 2024 and 0.94 inches in March 2025. There appears to be a correlation between precipitation, the presence of reddish-orange turbidity and flocculated iron (i.e., elevated TSS), and elevated metal concentrations.

Review of redevelopment outcome at MW-501, turbidity, precipitation, and metal concentrations supports the ASD submitted in the *Alternative Source Demonstration: Spring 2024* (HDR, 2024) for the April and May 2024 metal concentrations in MW-501. Therefore, Foth requests approval of the pending ASD for MW-501. No SSIs were identified at MW-501 during the Spring 2025 statistical evaluation. With approval of the pending ASD and the results of the Spring 2025 statistical evaluation, continued detection monitoring is recommended at MW-501.

## **6. Groundwater Assessment, Corrective Action, and Delineation Monitoring SSIs and SSLs**

### **6.1 Site-Specific GWPS for Cobalt**

Consistent with the 2024 AWQR (Foth, 2025), two site-specific background GWPS values are utilized for cobalt depending on the geologic formation of the screened interval and location of the monitoring well.

- ♦ For wells screened in erosion surface or weathered/unweathered glacial till and not located in the Indian Creek floodplain, the confidence limit is compared to the combined MW-9AR and MW-201B background upper tolerance limit with 95% confidence and 95% coverage. Cobalt Background GWPS = 0.00243 mg/L.
- ♦ For wells screened in alluvium and located in the Indian Creek floodplain, IDNR approved a site-specific cobalt GWPS of 0.00631 mg/L in the letter dated December 23, 2024 (IDNR, 2024). This value was based on the May 2024 cobalt concentration in MW-213A. As listed in Table 1, monitoring for the Appendix I list was continued at MW-213A in March 2025; however, those results were not included in background at this time. While an interwell tolerance limit with 95% confidence and 95% coverage can be calculated using the three MW-213A background results collected, additional background samples are recommended. Once 4-8 data points are collected from MW-213A, an interwell tolerance limit with 95% confidence and 95% coverage using the MW-213A background data will be utilized to update the site-specific background GWPS for wells screened in alluvium and located in the Indian Creek floodplain. Note: results from additional existing or newly installed (if applicable) background wells located within the Indian Creek floodplain may also be utilized to develop and update the background data set for wells screened in alluvium and located in the Indian Creek floodplain.

### **6.2 Results**

Summaries of the assessment, corrective action, and delineation monitoring SSIs and SSLs are provided in Tables 4 and 5 of Attachment 1. The future monitoring schedules are provided in Table 1 of Attachment 1.

Notably, compliance with the GWPS remained for cobalt in MW-18 and MW-20 and benzene in MW-20 during the Spring 2025 statistical evaluation. In accordance with 567 IAC 113.10(9)e(2), cobalt in MW-18 and MW-20 and benzene in MW-20 will return to assessment constituents in Spring 2027 and Fall 2027, respectively, as long as concentrations remain below the GWPS during interim statistical evaluations.

## **7. References**

Foth Infrastructure & Environment (Foth), 2025. *2024 Annual Water Quality Report, Cedar Rapids Linn County Solid Waste Agency Site 2, 1954 County Home Road, Marion, IA 52302, Permit No. 57-SDP-01-72P*. February 28. [Doc. No. 112396].

HDR Engineering, Inc. (HDR), 2017. *Assessment of Corrective Measures, Cedar Rapids/Linn County Solid Waste Agency, Site 2, Permit No. 57-SDP-01-72P, Marion, Iowa*. (Written by

Foth, September 2014; Updated by HDR Engineering, Inc., January 2017). January. [Doc. No. 101219 and No. 102539].

HDR, 2021. *2021 Landfill Permit Renewal Application, Cedar Rapids Linn County Solid Waste Agency Site 2, Permit No. 57-SDP-01-72P, Appendix J: Hydrologic Monitoring System Plan*. September. [Doc. No. 101219 and No. 102539].

HDR, 2024. *Alternative Source Demonstration: Spring 2024, Cedar Rapids/Linn County Solid Waste Agency Site 2, Permit No. 57-SDP-01-72P*. August 2. [Doc. No. 110634].

Iowa Department of Natural Resources (Brian L. Rath, P.E.), Letter to Karmin McShane, 23 Dec 2024. "Cedar Rapids/Linn County Solid Waste Agency Sanitary Landfill (Site #2 – Marion), Permit No. 57-SDP-01-72P, 2023 Annual Water Quality Report (Document No. 108948), 2024 Spring Statistical Report (Document No. 110633), Alternative Source Demonstration: Spring 2024 (Document No. 110634)." [Doc. No. 111536].

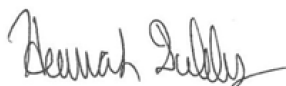
USEPA, 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. EPA 530-R-09-007. Office of Resource Conservation and Recovery, Program Implementation and Information Division, Washington, D.C.

Sincerely,

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Enclosures

Attachment 1: Tables  
Attachment 2: Figure

**Attachment 1**  
**Tables**

**Table 1**  
**Monitoring Program Implementation Schedule**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Monitoring Location	Monitoring Program	Sampling Date and Constituents <sup>(1)</sup>		Upcoming Sampling Dates and Constituents <sup>(1)</sup>		Full Appendix II Sample Dates	
		Feb. 2025	Mar. 2025	Fall 2025	Spring 2026	Previously Collected	Next Event <sup>(1)</sup>
Underdrain Monitoring Locations							
GU-1	Detection	Zinc <sup>(2)</sup>	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A - Detection Monitoring	N/A
GU-L	Detection		Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A - Detection Monitoring	N/A
GU-O	Detection		Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A - Detection Monitoring	N/A
GU-P	Detection		Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A - Detection Monitoring	N/A
Downgradient Monitoring Locations							
MW-15	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	2010, Sep. 2010, Sep. 2011, Dec. 2017, Oct. 2022	Fall 2027
MW-18	Corrective Action		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	2009, Sep. 2010, Sep. 2011, Oct. 2017, Oct. 2022	Fall 2027
MW-19	Corrective Action		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	2009, Sep. 2010, Sep. 2011, Nov. 2016, Oct. 2021	Fall 2026
MW-20	Corrective Action		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	2009, Sep. 2010, Sep. 2011, Nov. 2016, Oct. 2021	Fall 2026
MW-22	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	2010, Sep. 2010, Sep. 2011, Nov. 2016, Oct. 2021	Fall 2026
MW-24	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Jun. 2010, Aug. 2010, Sep. 2010, Dec. 2010, Sep. 2011, Dec. 2017, Oct. 2022	Fall 2027
MW-26A	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Aug. 2010, Sep. 2010, Mar. 2011, Jun. 2011, Jul. 2018, Nov. 2018, Apr. 2024	Spring 2029
MW-300	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Jun. 2011, Sep. 2011, Dec. 2011, Mar. 2012, Nov. 2016, Oct. 2021	Fall 2026
MW-301	Corrective Action		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	2012, Dec. 2014, Nov. 2016, Oct. 2021	Fall 2026
MW-302R	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Dec. 2017, Oct. 2022	Fall 2027
MW-303	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Dec. 2021	Fall 2026
MW-304R	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	May 2019, Apr. 2024	Spring 2029
MW-305	Assessment		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Dec. 2017, Oct. 2022	Fall 2027
MW-501	Detection		Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A - Detection Monitoring	N/A
MW-502	Future Detection <sup>(3)</sup>		Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A - Detection Monitoring	N/A
Delineation Monitoring Locations							
MW-29	Delineation		Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	N/A - Delineation Monitoring	N/A
MW-30	Delineation		Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	N/A - Delineation Monitoring	N/A
MW-306	Delineation		Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	N/A - Delineation Monitoring	N/A
MW-307A	Delineation		Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	Benzene, Cobalt, TSS	N/A - Delineation Monitoring	N/A
Background Monitoring Locations							
MW-9AR	Background		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Oct. 2016	Fall 2026
MW-201B	Background		Appendix II, TSS	Appendix II, TSS	Appendix II, TSS	Nov. 2018	Fall 2026



**Table 1**  
**Monitoring Program Implementation Schedule**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Monitoring Location	Monitoring Program	Sampling Date and Constituents <sup>(1)</sup>		Upcoming Sampling Dates and Constituents <sup>(1)</sup>		Full Appendix II Sample Dates	
		Feb. 2025	Mar. 2025	Fall 2025	Spring 2026	Previously Collected	Next Event <sup>(1)</sup>
Potential Background Expansion <sup>(4)</sup>							
MW-204A	Background		Appendix I, TSS	Appendix I, TSS	TBD	N/A	N/A
MW-204B	Background		Appendix I, TSS	Appendix I, TSS	TBD	N/A	N/A
MW-213A	Background		Appendix I, TSS	Appendix I, TSS	TBD	N/A	N/A
MW-213B	Background		Appendix I, TSS	Appendix I, TSS	TBD	N/A	N/A
MW-214	Background		Appendix I, TSS	Appendix I, TSS	TBD	N/A	N/A
MW-215	Background		Appendix I, TSS	Appendix I, TSS	TBD	N/A	N/A
MW-218	Background		Appendix I, TSS	Appendix I, TSS	TBD	N/A	N/A

Comments:

N/A = not applicable

TBD = to be determined

TSS = total suspended solids

<sup>(1)</sup> Appendix II locations were sampled for the Appendix I and detected Appendix II constituents in Mar. 2025, and will be sampled for the Appendix I and detected Appendix II constituents in Fall 2025 and Spring 2026. In accordance with Permit Special Provision X.4.f, resampling for the full Appendix II list at assessment and corrective action monitoring wells is conducted every five years. While not required for compliance reasons, consideration will be given to sampling for the full Appendix II list at the background monitoring locations when the assessment and corrective action monitoring wells are resampled.

<sup>(2)</sup> A single Double Quantification Rule (DQR) detection was identified for zinc in GU-O during the Fall 2024 statistical evaluation. A retest sample was collected in Feb. 2025, and the results are discussed in Table 3.

<sup>(3)</sup> Monitoring was initiated at MW-502 in Mar. 2021 to establish baseline intrawell background. MW-502 will continue semiannual monitoring for the Appendix I list to build intrawell background. Compliance monitoring under the detection monitoring program will be initiated at MW-502 following the future construction of Phase 5B (HDR, 2021).

<sup>(4)</sup> In Mar. 2025, MW-204A, MW-204B, MW-213A, MW-213B, MW-214, MW-215, and MW-218 were monitored for the Appendix I list and TSS to continue evaluation for background expansion and/or support the *Alternative Source Demonstration: Spring 2024* (HDR, 2024) for MW-304R and MW-501. Additional discussion is provided in Section 3.1 of the Spring 2025 Statistical Notifications report included in Appendix B of the 2025 Annual Water Quality Report (AWQR). These locations were not added to the background monitoring network at this time. MW-204A, MW-204B, MW-213A, MW-213B, MW-214, MW-215, and MW-218 will be monitored in Fall 2025 to continue to evaluate for background expansion or provide additional data regarding conditions in the Indian Creek floodplain over time. Recommendations on future monitoring and the background data set will be provided in the 2025 AWQR.

**Table 2**  
**March 2025 Appendix II Detections - Assessment and Corrective Action Monitoring Locations**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Constituent	Unit	MW-15 (d)	MW-18 (d)	MW-19 (d)	MW-20 (d)	MW-22 (d)	MW-24 (d)	MW-26A (d)	MW-300 (d)
1,4-Dichlorobenzene	ug/L			0.729 J	0.38 J				
Acetone	ug/L				4.34 J			4.49 J	
Antimony	mg/L	0.00135 J						0.00129 J	
Arsenic	mg/L	0.000833 J	0.000894 J	0.000847 J	0.0022	0.00278	0.000581 J	0.0154	
Barium	mg/L	0.0716	0.0572	0.0324	0.801	0.944	0.0408	0.641	0.0657
Benzene	ug/L				4.21	1.19		0.51	
Cadmium	mg/L		0.00015 J						
Chlorobenzene	ug/L				3.61	0.556 J			
cis-1,2-Dichloroethene	ug/L			0.404 J		0.273 J			
Cobalt	mg/L	0.00154	0.00506	0.011	0.00237	0.000341 J	0.000217 J	0.0612	
Copper	mg/L	0.00243 J					0.00308 J		
Lead	mg/L							0.00067	
Nickel	mg/L	0.00677	0.0172	0.0175	0.0136	0.0309	0.00634	0.0364	
Selenium	mg/L	0.00143 J							
Thallium	mg/L	0.000824 J							
Total Suspended Solids	mg/L		3.13	3.25	45	14.7		103	2
Vanadium	mg/L	0.00119 J			0.00234 J				
Zinc	mg/L		0.00998 J						

(d) = downgradient

(b) = background

**Table 2**  
**March 2025 Appendix II Detections - Assessment and Corrective Action Monitoring Locations**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Constituent	Unit	MW-301 (d)	MW-302R (d)	MW-303 (d)	MW-304R (d)	MW-305 (d)	MW-9AR (b)	MW-201B (b)
1,4-Dichlorobenzene	ug/L							
Acetone	ug/L							
Antimony	mg/L							
Arsenic	mg/L	0.00508	0.000732 J	0.000932 J	0.000573 J		0.0015 J	
Barium	mg/L	0.061	0.113	0.0216	0.0357	0.036	0.405	0.0997
Benzene	ug/L							
Cadmium	mg/L			0.00167				
Chlorobenzene	ug/L	0.459 J						
cis-1,2-Dichloroethene	ug/L							
Cobalt	mg/L	0.00494		0.00366	0.00885	0.00161	0.000667	0.000273 J
Copper	mg/L			0.00336 J				
Lead	mg/L							
Nickel	mg/L	0.00825		0.0669	0.00505	0.00257 J		
Selenium	mg/L							
Thallium	mg/L							
Total Suspended Solids	mg/L	19.4	3.25	4.25	25.8	7.38	19.5	3.5
Vanadium	mg/L							
Zinc	mg/L			0.0141 J				

(d) = downgradient

(b) = background

**Table 3**  
**Summary of Well/Detected Constituent Pairs With No Previous SSIs**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Well	Constituent <sup>(1)</sup>	Units	Retest Result (Feb. 2025)	Most Recent Result (Mar. 2025)	Background Standard Intrawell PL/RL <sup>(2)</sup>
<b>Detection Monitoring Locations</b>					
GU-1	Acetone	ug/L		3.29 J	10.0
	Arsenic	mg/L		0.00278	0.09105
	Barium	mg/L		0.185	1.443
	Cobalt	mg/L		0.00231	0.0198
	Nickel	mg/L		0.0228	0.06745
	Total Suspended Solids	mg/L		26	N/A
GU-L	Arsenic	mg/L		0.00178 J	0.0069
	Barium	mg/L		0.0345	0.1037
	Cobalt	mg/L		0.00619	0.0129
	Nickel	mg/L		0.00773	0.01066
	Total Suspended Solids	mg/L		4.67 J	N/A
GU-O	Arsenic	mg/L		0.00125 J	0.005158
	Barium	mg/L		0.305	0.372
	Total Suspended Solids	mg/L	13	11.7	N/A
	Zinc	mg/L	<0.02		0.02
GU-P	Arsenic	mg/L		0.00181 J	0.004019
	Barium	mg/L		0.298	0.3526
	Cobalt	mg/L		0.000496 J	0.002072
	Total Suspended Solids	mg/L		6.67	N/A
MW-501	Arsenic	mg/L		0.000722 J	0.0126
	Barium	mg/L		0.0191	0.08662
	Cadmium	mg/L		0.000136 J	0.0004288
	Cobalt	mg/L		0.0123	0.01827
	Nickel	mg/L		0.0238	0.0415
	Total Suspended Solids	mg/L		12.3	N/A
	Zinc	mg/L		0.0166 J	0.02

\* Current result is above background, if confirmed by retest sample(s) an SSI will be identified (1-of-2 retesting plan for groundwater prediction limits and DQR constituents).

\*\* Current result is a confirmed SSI. Appendix II sampling will be completed within 90 days.

\*\*\* Non-MSWLF Unit source of the SSI identified.

Comments:

N/A = not applicable

PL = prediction limit

RL = reporting limit (identified as the laboratory practical quantitation limit)

SSI = statistically significant increase (over background)

<sup>(1)</sup> Except for Feb. 2025, list contains constituents detected above the laboratory MDL and includes J-flagged concentrations.

<sup>(2)</sup> Sources of background standards are provided in the Spring 2025 statistical evaluation memo, which will be submitted with the 2025 Annual Water Quality Report (AWQR). N/A = not applicable.

- A retest sample was collected for zinc in GU-O in Feb. 2025 due to identification of single Double Quantification Rule (DQR) detection during the Fall 2024 statistical evaluation (Foth, 2025). Under the retesting plan, an SSI is not declared until one subsequent resample result confirms the DQR detection identified. The Feb. 2025 retest did not confirm the single DQR detection; therefore, an SSI is not identified for zinc in GU-O.

- Intrawell background was updated during the Spring 2025 statistical evaluation with details provided in the Spring 2025 statistical evaluation memo, which will be submitted with the 2025 AWQR. The updated intrawell background data sets consist of:

- GU-1: October 2015 through September 2024 arsenic, barium, cobalt, lead, nickel, and zinc.
- GU-L: October 2015 through September 2024 arsenic, barium, cobalt, and nickel.
- GU-O: April 2018 through September 2024 arsenic, barium, and cobalt.
- GU-P: February 2022 through September 2024 arsenic, barium, cobalt, and lead.
- MW-501: March 2021 through April 2023 and September 2024 arsenic, barium, cadmium, cobalt, lead, and nickel (i.e., excludes the October 2023, April 2024, and May 2025 events with elevated total suspended solids).

**Table 3**  
**Summary of Well/Detected Constituent Pairs With No Previous SSIs**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Comments Continued:

- No SSIs were identified at GU-1, GU-L, GU-O, GU-P, and MW-501 during the Spring 2025 statistical evaluation. These locations will remain in detection monitoring. The future sampling schedules are provided in Table 1.
- Discussion regarding the pending alternative source demonstration for MW-501 is provided in Section 5.1 of the Spring 2025 Statistical Notifications report.

**Table 4**  
**Summary of Ongoing and Newly Identified SSIs**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Well	Constituent <sup>(1)</sup>	Units	Most Recent Result <sup>(2)</sup>	Background Standard <sup>(3)</sup>	Lower Confidence Limit	GWPS <sup>(3)</sup>	Sample Dates		
							Initial Exceedance (above background)	Resample(s)	5th Background Sample <sup>(4)</sup>
Assessment Monitoring Locations									
MW-15	Nickel	mg/L	0.00677	0.00508	0.006	0.1	Mar. 2017	Jun. 2017	Mar. 2017
MW-22	Barium	mg/L	0.944	0.575	1.02	2	Mar. 2017	Oct. 2017	Mar. 2017
	Benzene	ug/L	1.19	0.50	1.17	5	Jan. 2008	Mar. 2008	Oct. 2008
	Nickel	mg/L	0.0309	0.00508	0.032	0.1	Mar. 2017	Oct. 2017	Mar. 2017
MW-24	Nickel	mg/L	0.00634	0.00508	0.030	0.1	Mar. 2017	Jun. 2017	Mar. 2017
MW-26A	Arsenic	mg/L	0.0154	0.00866	0.0010	0.01	Apr. 2024	May 2024	Mar. 2017
	Barium	mg/L	0.641	0.575	0.09	2	Sep. 2024	N/S	Mar. 2017
	Benzene	ug/L	0.51	0.50	0.25	5	Mar. 2025	N/S	Mar. 2017
	Cobalt	mg/L	0.0612	0.00243	0.00080	0.00631	Mar. 2017	Jun. 2017	Mar. 2017
	Nickel	mg/L	0.0364	0.00508	0.007	0.1	Apr. 2015	Apr. 2016	Mar. 2017
MW-300	No SSIs								
MW-302R	No SSIs								
MW-303	Cadmium	mg/L	0.00167	0.0002	0.00012	0.005	Apr. 2021	May 2021	Mar. 2017
	Cobalt	mg/L	0.00366	0.00243	0.00025	0.00631	Apr. 2021	May 2021	Mar. 2017
	Nickel	mg/L	0.0669	0.00508	0.003	0.1	Apr. 2021	May 2021	Mar. 2017
MW-304R	Cobalt	mg/L	0.00885	0.00243	0.00108	0.00631	Mar. 2019	May 2019	Mar. 2017
MW-305	No SSIs								
Corrective Action Monitoring Locations - Assessment Constituents									
MW-18	Nickel	mg/L	0.0172	0.00508	0.015	0.1	Mar. 2017	Jun. 2017	Mar. 2017
MW-19	Nickel	mg/L	0.0175	0.00508	0.023	0.1	Mar. 2017	Oct. 2017	Mar. 2017
MW-20	Barium	mg/L	0.801	0.575	0.99	2	Mar. 2017	Oct. 2017	Mar. 2017
	Chlorobenzene	ug/L	3.61	1.00	5.7	100	Jan. 2008	Mar. 2008	Oct. 2008
	Nickel	mg/L	0.0136	0.00508	0.017	0.1	Mar. 2017	Oct. 2017	Mar. 2017
MW-301	Nickel	mg/L	0.00825	0.00508	0.007	0.1	Mar. 2017	Oct. 2017	Mar. 2017
Delineation Monitoring Locations									
MW-29	No SSIs								
MW-30	Cobalt	mg/L	0.00274	0.00243	0.00030	0.00631	Apr. 2024	N/S	Mar. 2020
MW-306	No SSIs								
MW-307A	Cobalt	mg/L	0.00763	0.00243	0.00089	0.00631	Mar. 2020	N/S	Sep. 2020

\* For assessment monitoring locations, all current results are below background. If confirmed by a second event, location may return to detection monitoring in accordance with IAC 113.10(6)e. However, three consecutive events will be utilized to make the determination to return to detection monitoring to limit frequent fluctuation of wells moving between the detection and assessment monitoring program.

\*\* LCL has exceeded the GWPS, this well/constituent pair is now identified as an SSL.

\*\*\* Non-MSWLF Unit source of the SSI or SSL identified.

Comments:

N/A = Not applicable.

N/S = Not resampled; SSI was declared in lieu of conducting resample(s).

GWPS = Groundwater Protection Standard

RL = reporting limit (identified as the laboratory practical quantitation limit)

<sup>(1)</sup> List contains constituents which have been identified as SSIs in Spring 2025. Unless otherwise noted, all current results listed in this table are above background. SSIs were declared in lieu of conducting resamples.

<sup>(2)</sup> Most recent results are from Mar. 2025.

<sup>(3)</sup> Sources of background standards and GWPS values are provided in the Spring 2025 statistical evaluation memo, which will be submitted with the 2025 AWQR. N/A = not applicable.

<sup>(4)</sup> The 5th background sample for the Appendix I and II metals is the fifth sampling event conducted using low-flow sampling methods. Low-flow sampling was initiated in Apr. 2015.

- No SSLs were identified for the assessment monitoring locations. Details regarding the future sampling schedules are provided in Table 1.
- No SSLs were identified for the assessment constituents in the corrective action monitoring locations. These locations will continue corrective action monitoring in Fall 2025 as listed in Table 1. A summary of the statistical comparisons for the corrective action constituents is provided in Table 4.
- No SSLs were identified for the delineation monitoring locations. These locations will continue delineation monitoring in Fall 2025 as listed in Table 1.

**Table 5**  
**Summary of Ongoing and Newly Identified SSLs**  
**Spring 2025 Statistical Notifications**  
**Cedar Rapids Linn County Solid Waste Agency Site 2**  
**Permit No. 57-SDP-01-72P**

Well <sup>(1)</sup>	Constituent <sup>(1)</sup>	Units	Most Recent Result <sup>(1)</sup>	Upper Confidence Limit <sup>(2)</sup>	GWPS <sup>(3)</sup>	Initial Exceedance	Consecutive Compliance Dates		
							1st Occurrence	Most Recent	Duration
Corrective Action Monitoring Locations									
MW-18	Cobalt	mg/L	0.00506	0.00454	0.00631	Mar. 2017	Spring 2024	Spring 2025	1.5 years
MW-19	Cobalt	mg/L	0.011	0.01459	0.00243	Mar. 2017	N/A	N/A	N/A
MW-20	Benzene	ug/L	4.21	4.38	5	2009	Fall 2024	Spring 2025	1 year
	Cobalt	mg/L	0.00237	0.00438	0.00631	Oct. 2018	Spring 2024	Spring 2025	1.5 years
MW-301	Cobalt	mg/L	0.00494	0.00516	0.00243	Mar. 2017	N/A	N/A	N/A

\* This well/contaminant pair has been compliant for 3 consecutive years and no longer has an SSL.

\*\* Non-MSWLF Unit source of the SSL identified.

Comments:

GWPS = Groundwater Protection Standard

N/A = Not applicable; indicates the analyte/well pair has not achieved compliance with the GWPS (i.e., upper confident limit or the upper 95% confidence limit on the trend line is lower than the GWPS for a period of three consecutive years).

<sup>(1)</sup> The most recent results are from the Mar. 2025 event.

<sup>(2)</sup> If a decreasing trend was identified, the value is the upper 95% confidence limit on the trend line.

<sup>(3)</sup> Sources of GWPS values are provided in the Spring 2025 statistical evaluation memo, which will be submitted with the 2025 AWQR. N/A = not applicable.

- Two site-specific background GWPS values are utilized for cobalt depending on the geologic formation of the screened interval and location of the monitoring well. Details are provided in the Spring 2025 Statistical Notifications report.

- SSLs over the GWPS remained for cobalt in MW-19 and MW-301. While compliance with the GWPS was not achieved, a statistically significant decreasing trend was identified for cobalt in MW-301.

- Compliance with the GWPS was achieved for cobalt in MW-18 and MW-20 starting with the Spring 2024 statistical evaluation and with benzene in MW-20 starting with the Fall 2024 statistical evaluation, and remained during the Spring 2025 statistical evaluation. In accordance with 567 IAC 113.10(9)e(2), cobalt in MW-18 and MW-20 and benzene in MW-20 will return to assessment constituents in Spring 2027 and Fall 2027, respectively, as long as concentrations remain below the GWPS during interim statistical evaluations.

- No changes are recommended for the corrective action monitoring locations based on the corrective action statistical results conducted during the Spring 2025 statistical evaluation.



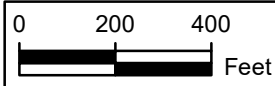
**Attachment 2**  
**Figure**





**NOTES:**  
1. Coordinate System: NAD 1983 State Plane Iowa North  
2. Aerial imagery was flown by Foth in November 2024.

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only.



Cedar Rapids Linn County Solid Waste Agency		
FIGURE 1		
GROUNDWATER MONITORING NETWORK SITE 2		
Date: FEBRUARY 2025	Revision Date:	
Drawn By: DAT	Checked By: HED	Project: 24C034.00