May 20, 2024

Mr. Geoffrey Spain Land Quality Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, Iowa 50319-0034



RE: 2024 Semi-Annual Water Quality Notification Ida County Sanitary Landfill 47-SDP-01-76C

Dear Mr. Spain:

Hydrologic Monitoring System Plan (HMSP)

At the Ida County Sanitary Landfill, the following monitoring wells are the upgradient/background wells for the facility: MW-3. Since there is only a single background well for this site, the background may not be representative and may not include effects of spatial variability. For this reason, the site water quality is evaluated by both interwell and intrawell statistical methods.

The following downgradient monitoring points are in the detection monitoring system: MW-3, MW-10, and MW-13.

The following downgradient wells are in the assessment monitoring system: MW-7 and PZ-11.

Notification of Results of Spring Sampling, Analysis, and Statistical Evaluation Wells in the Detection Monitoring System

A. Interwell Statistical Evaluation

Verified Prediction Limit Exceedances (SSI) for inorganic compounds:

None

Verified Prediction Limit Exceedances (SSI) for VOC include:

None.

B. Intrawell Statistical Evaluation

Verified Prediction Limit Exceedances (SSI) for inorganic compounds: None.

Wells in the Assessment Monitoring System

A. Interwell Statistical Evaluation

Verified Prediction Limit Exceedances (SSI) for **inorganic** compounds:

None.

Verified Prediction Limit Exceedances (SSI) for **VOC** include:

MW-7 – cis-1,2-dichloroethene, dichlorofluoromethane

PZ-11 – 1.1-dichloroethane

B. Intrawell Statistical Evaluation

Verified Prediction Limit Exceedances (SSI) for **inorganic** compounds:

None.

As reported in the 2023 Annual Water Quality Monitoring Report (AWQR), dichlorofluoromethane at MW-7 continues to be sampled on a semi-annual basis. There are no other on-going requirements to sample for any additional Appendix I or Appendix II compounds during semi-annual monitoring events based on historic sampling data. Further, the frequency of the annual requirement for Appendix II sampling has been reduced to once per five (5) years.

Assessment Monitoring Compound Detections

| Date | bis(2-ethylhexyl)phthalate (ug/L) | | Dichlorofluoromethane (ug/L) | |
|------------|-----------------------------------|-------|------------------------------|-------|
| | MW-7 | PZ-11 | MW-7 | PZ-11 |
| 4/11/2011 | <8 | NT | <1.0 | NT |
| 9/26/2011 | NT | NT | NT | NT |
| 4/1/2012 | <8 | NT | 1.4 | NT |
| 8/23/2012 | NT | NT | 2.3 | NT |
| 4/12/2013 | NT | <8 | 3.5 | <1.0 |
| 9/14/2013 | NT | NT | 3.0 | NT |
| 4/11/2014 | NT | NT | 2.1 | NT |
| 9/27/2014 | NT | NT | 2.6 | NT |
| 3/16/2015 | NT | NT | <1.0 | NT |
| 9/28/2015 | NT | NT | <1.0 | NT |
| 3/14/2016 | NT | NT | <1.0 | NT |
| 9/3/2016 | NT | NT | <1.0 | NT |
| 4/10/2017 | <8 | NT | 1.4 | NT |
| 9/1/2017 | NT | NT | NT | NT |
| 4/23/2018 | NT | NT | 1.4 | NT |
| 9/14/2018 | NT | NT | 1.2 | NT |
| 4/15/2019 | NT | NT | 1.4 | NT |
| 9/17/2019 | NT | NT | <1.0 | NT |
| 4/8/2020 | NT | 6.0 | 1.6 | <1.0 |
| 10/2/2020 | NT | NT | 1.0 | NT |
| 4/12/2021 | NT | 8.0 | <1.0 | <1.0 |
| 10/26/2021 | NT | 7.0 | 1.4 | NT |
| 4/4/2022 | NT | <6 | <1.0 | NT |
| 10/7/2022 | <6 | <6 | 1.3 | NT |
| 4/19/2023 | NT | <6 | <1.0 | NT |
| 10/25/2023 | NT | NT | 1.0 | NT |
| 4/17/2024 | NT | NT | 1.0 | NT |

Evaluation of Assessment Monitoring Data

There are no 95% Lower Confidence Level (LCL) values that exceed a GWPS, therefore no SSL are identified at the site.

Wells returning to the detection monitoring system

None.

This notification is intended to satisfy requirements of Iowa Administrative Code (IAC) 567-113.10(5)"c"(1); 113.10(6)"d"(1); and 113.10(6)"g".

The water quality results for the Spring of 2024 will be fully evaluated in the Annual Water Quality Report in accordance with the permit and IAC 567-113.10(10).

Please feel free to contact our office at (515) 733-4144 with any questions you may have.

Sincerely,

HLW Engineering Group

Todd Whipple, CPG Project Manager

cc: Charlys Folk, County Auditor

STATISTICAL ANALYSIS FOR THE

IDA COUNTY SANITARY LANDFILL

First Semi-Annual Monitoring Event in 2024

Prepared for: Ida County Sanitary Landfill Ida County, IA

Prepared by:
Jeffrey A. Holmgren
Otter Creek Environmental Services, LLC
40W565 Foxwick Court
Elgin, IL 60124
(847) 464-1355