

ANALYTICAL REPORT

PREPARED FOR

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Generated 10/23/2024 3:20:30 PM Revision 1

JOB DESCRIPTION

Corn Belt-Spencer CCR Landfill Sampling 2024

JOB NUMBER

310-290615-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Revision 1

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Case Narrative

Client: SCS Engineers
Project: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Job ID: 310-290615-1

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Job Narrative 310-290615-1

REVISION

The report being provided is a revision of the original report sent on 10/7/2024. The report (revision 1) is being revised due to Client is requesting we add Molybdenum to all samples.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 9/13/2024 4:26 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C.

HPLC/IC

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW-6 (310-290615-4) and MW-7 (310-290615-5). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW-1 (310-290615-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Sample Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-290615-1	MW-1	Water	09/12/24 12:50	09/13/24 16:26
310-290615-2	MW-4	Water	09/12/24 12:23	09/13/24 16:26
310-290615-3	MW-5	Water	09/12/24 11:59	09/13/24 16:26
310-290615-4	MW-6	Water	09/12/24 11:23	09/13/24 16:26
310-290615-5	MW-7	Water	09/12/24 10:55	09/13/24 16:26
310-290615-6	MW-D	Water	09/12/24 11:59	09/13/24 16:26

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- 13
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Detection Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-1

Lab Sample ID: 310-290615-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.03		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	13.6		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00104	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0511		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.159		0.100	0.0760	mg/L	1		6020B	Total/NA
Iron	0.0417	J	0.100	0.0360	mg/L	1		6020B	Total/NA
Magnesium	16.5		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	0.0273		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00181	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Suspended Solids	3.75		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 310-290615-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26.8		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	58.0		5.00	2.10	mg/L	5		9056A	Total/NA
Fluoride	0.383	J	1.00	0.375	mg/L	5		9056A	Total/NA
Arsenic	0.00477		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.153		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.102		0.100	0.0760	mg/L	1		6020B	Total/NA
Iron	3.75		0.100	0.0360	mg/L	1		6020B	Total/NA
Magnesium	38.3		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	0.387		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.00209		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Suspended Solids	20.8		3.00	2.22	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 310-290615-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.1		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	94.3		5.00	2.10	mg/L	5		9056A	Total/NA
Fluoride	0.665	J	1.00	0.375	mg/L	5		9056A	Total/NA
Arsenic	0.00104	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0331		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.160		0.100	0.0760	mg/L	1		6020B	Total/NA
Cobalt	0.000267	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Iron	0.177		0.100	0.0360	mg/L	1		6020B	Total/NA
Magnesium	33.1		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	0.502		0.0100	0.00360	mg/L	1		6020B	Total/NA
Molybdenum	0.0127		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Suspended Solids	19.7		5.00	3.70	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 310-290615-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20.0		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	93.1		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00242		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.116		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.131		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000215		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.000437	J	0.000500	0.000170	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-6 (Continued)

Lab Sample ID: 310-290615-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.214		0.100	0.0360	mg/L	1		6020B	Total/NA
Magnesium	26.5		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	0.483		0.0100	0.00360	mg/L	1		6020B	Total/NA
Zinc	0.0250		0.0200	0.00970	mg/L	1		6020B	Total/NA
Molybdenum	0.00624		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Suspended Solids	5.88		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 310-290615-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22.3		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	175		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00246		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0830		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	3.84		0.100	0.0760	mg/L	1		6020B	Total/NA
Cobalt	0.00172		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00184	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Iron	0.401		0.100	0.0360	mg/L	1		6020B	Total/NA
Magnesium	28.7		0.500	0.150	mg/L	1		6020B	Total/NA
Manganese	1.07		0.0100	0.00360	mg/L	1		6020B	Total/NA
Selenium	0.00350	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Molybdenum	0.0664		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Suspended Solids	4.38		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D

Lab Sample ID: 310-290615-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.6		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	97.5		5.00	2.10	mg/L	5		9056A	Total/NA
Fluoride	0.655	J	1.00	0.375	mg/L	5		9056A	Total/NA
Arsenic	0.000884	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0381		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.00166		0.00100	0.000500	mg/L	5		6020B	Total/NA
Cobalt	0.000293	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00180	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Iron	0.140		0.100	0.0360	mg/L	1		6020B	Total/NA
Magnesium	35.0		2.50	0.750	mg/L	5		6020B	Total/NA
Manganese	0.701		0.0500	0.0180	mg/L	5		6020B	Total/NA
Molybdenum	0.0227		0.0100	0.00650	mg/L	5		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-1

Lab Sample ID: 310-290615-1

Date Collected: 09/12/24 12:50

Matrix: Water

Date Received: 09/13/24 16:26

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.03		5.00	2.25	mg/L			09/24/24 10:02	5
Sulfate	13.6		5.00	2.10	mg/L			09/24/24 10:02	5
Fluoride	<1.00		1.00	0.375	mg/L			09/24/24 10:02	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00104	J	0.00200	0.000530	mg/L		09/18/24 09:00	09/18/24 20:43	1
Barium	0.0511		0.00200	0.000660	mg/L		09/18/24 09:00	09/18/24 20:43	1
Boron	0.159		0.100	0.0760	mg/L		09/18/24 09:00	10/04/24 13:52	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/18/24 09:00	09/23/24 19:08	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		09/18/24 09:00	09/18/24 20:43	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/18/24 09:00	09/18/24 20:43	1
Iron	0.0417	J	0.100	0.0360	mg/L		09/18/24 09:00	09/18/24 20:43	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/18/24 09:00	09/18/24 20:43	1
Magnesium	16.5		0.500	0.150	mg/L		09/18/24 09:00	09/23/24 19:08	1
Manganese	0.0273		0.0100	0.00360	mg/L		09/18/24 09:00	09/23/24 19:08	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/18/24 09:00	09/18/24 20:43	1
Molybdenum	0.00181	J	0.00200	0.00130	mg/L		09/18/24 09:00	10/04/24 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	3.75		1.88	1.39	mg/L			09/17/24 20:21	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-4

Lab Sample ID: 310-290615-2

Date Collected: 09/12/24 12:23

Matrix: Water

Date Received: 09/13/24 16:26

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.8		5.00	2.25	mg/L			09/24/24 10:37	5
Sulfate	58.0		5.00	2.10	mg/L			09/24/24 10:37	5
Fluoride	0.383	J	1.00	0.375	mg/L			09/24/24 10:37	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00477		0.00200	0.000530	mg/L		09/18/24 09:00	09/18/24 20:45	1
Barium	0.153		0.00200	0.000660	mg/L		09/18/24 09:00	09/18/24 20:45	1
Boron	0.102		0.100	0.0760	mg/L		09/18/24 09:00	10/04/24 13:55	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/18/24 09:00	09/23/24 19:12	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		09/18/24 09:00	09/18/24 20:45	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/18/24 09:00	09/18/24 20:45	1
Iron	3.75		0.100	0.0360	mg/L		09/18/24 09:00	09/18/24 20:45	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/18/24 09:00	09/18/24 20:45	1
Magnesium	38.3		0.500	0.150	mg/L		09/18/24 09:00	09/23/24 19:12	1
Manganese	0.387		0.0100	0.00360	mg/L		09/18/24 09:00	09/23/24 19:12	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/18/24 09:00	09/18/24 20:45	1
Molybdenum	0.00209		0.00200	0.00130	mg/L		09/18/24 09:00	10/04/24 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	20.8		3.00	2.22	mg/L			09/17/24 15:55	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-5

Lab Sample ID: 310-290615-3

Date Collected: 09/12/24 11:59

Matrix: Water

Date Received: 09/13/24 16:26

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.1		5.00	2.25	mg/L			09/24/24 10:48	5
Sulfate	94.3		5.00	2.10	mg/L			09/24/24 10:48	5
Fluoride	0.665	J	1.00	0.375	mg/L			09/24/24 10:48	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00104	J	0.00200	0.000530	mg/L		09/18/24 09:00	09/18/24 20:47	1
Barium	0.0331		0.00200	0.000660	mg/L		09/18/24 09:00	09/18/24 20:47	1
Boron	0.160		0.100	0.0760	mg/L		09/18/24 09:00	10/04/24 13:59	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/18/24 09:00	09/23/24 19:15	1
Cobalt	0.000267	J	0.000500	0.000170	mg/L		09/18/24 09:00	09/18/24 20:47	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/18/24 09:00	09/18/24 20:47	1
Iron	0.177		0.100	0.0360	mg/L		09/18/24 09:00	09/18/24 20:47	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/18/24 09:00	09/18/24 20:47	1
Magnesium	33.1		0.500	0.150	mg/L		09/18/24 09:00	09/23/24 19:15	1
Manganese	0.502		0.0100	0.00360	mg/L		09/18/24 09:00	09/23/24 19:15	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/18/24 09:00	09/18/24 20:47	1
Molybdenum	0.0127		0.00200	0.00130	mg/L		09/18/24 09:00	10/04/24 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	19.7		5.00	3.70	mg/L			09/17/24 20:21	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-6

Lab Sample ID: 310-290615-4

Date Collected: 09/12/24 11:23

Matrix: Water

Date Received: 09/13/24 16:26

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.0		5.00	2.25	mg/L			09/24/24 11:00	5
Sulfate	93.1		5.00	2.10	mg/L			09/24/24 11:00	5
Fluoride	<1.00		1.00	0.375	mg/L			09/24/24 11:00	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00242		0.00200	0.000530	mg/L		09/18/24 09:00	09/18/24 20:58	1
Barium	0.116		0.00200	0.000660	mg/L		09/18/24 09:00	09/18/24 20:58	1
Boron	0.131		0.100	0.0760	mg/L		09/18/24 09:00	10/04/24 14:03	1
Cadmium	0.000215		0.000200	0.000100	mg/L		09/18/24 09:00	09/23/24 19:19	1
Cobalt	0.000437	J	0.000500	0.000170	mg/L		09/18/24 09:00	09/18/24 20:58	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/18/24 09:00	09/18/24 20:58	1
Iron	0.214		0.100	0.0360	mg/L		09/18/24 09:00	09/18/24 20:58	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/18/24 09:00	09/18/24 20:58	1
Magnesium	26.5		0.500	0.150	mg/L		09/18/24 09:00	09/23/24 19:19	1
Manganese	0.483		0.0100	0.00360	mg/L		09/18/24 09:00	09/23/24 19:19	1
Zinc	0.0250		0.0200	0.00970	mg/L		09/18/24 09:00	09/18/24 20:58	1
Molybdenum	0.00624		0.00200	0.00130	mg/L		09/18/24 09:00	10/04/24 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	5.88		1.88	1.39	mg/L			09/17/24 15:55	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-7

Lab Sample ID: 310-290615-5

Date Collected: 09/12/24 10:55

Matrix: Water

Date Received: 09/13/24 16:26

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.3		5.00	2.25	mg/L			09/24/24 11:12	5
Sulfate	175		5.00	2.10	mg/L			09/24/24 11:12	5
Fluoride	<1.00		1.00	0.375	mg/L			09/24/24 11:12	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00246		0.00200	0.000530	mg/L		09/18/24 09:00	09/18/24 21:01	1
Barium	0.0830		0.00200	0.000660	mg/L		09/18/24 09:00	09/18/24 21:01	1
Boron	3.84		0.100	0.0760	mg/L		09/18/24 09:00	10/04/24 14:06	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/18/24 09:00	09/23/24 19:23	1
Cobalt	0.00172		0.000500	0.000170	mg/L		09/18/24 09:00	09/18/24 21:01	1
Copper	0.00184	J	0.00500	0.00180	mg/L		09/18/24 09:00	09/18/24 21:01	1
Iron	0.401		0.100	0.0360	mg/L		09/18/24 09:00	09/18/24 21:01	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/18/24 09:00	09/18/24 21:01	1
Magnesium	28.7		0.500	0.150	mg/L		09/18/24 09:00	09/23/24 19:23	1
Manganese	1.07		0.0100	0.00360	mg/L		09/18/24 09:00	09/23/24 19:23	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/18/24 09:00	09/18/24 21:01	1
Selenium	0.00350	J	0.00500	0.00140	mg/L		09/18/24 09:00	09/18/24 21:01	1
Molybdenum	0.0664		0.00200	0.00130	mg/L		09/18/24 09:00	10/04/24 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	4.38		1.88	1.39	mg/L			09/17/24 15:55	1

Client Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-D

Lab Sample ID: 310-290615-6

Date Collected: 09/12/24 11:59

Matrix: Water

Date Received: 09/13/24 16:26

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.6		5.00	2.25	mg/L			09/24/24 11:46	5
Sulfate	97.5		5.00	2.10	mg/L			09/24/24 11:46	5
Fluoride	0.655	J	1.00	0.375	mg/L			09/24/24 11:46	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.000884	J	0.00200	0.000530	mg/L		09/18/24 09:00	09/18/24 21:03	1
Barium	0.0381		0.00200	0.000660	mg/L		09/18/24 09:00	09/18/24 21:03	1
Boron	<0.500		0.500	0.380	mg/L		09/18/24 09:00	09/24/24 18:29	5
Cadmium	0.00166		0.00100	0.000500	mg/L		09/18/24 09:00	09/24/24 18:29	5
Cobalt	0.000293	J	0.000500	0.000170	mg/L		09/18/24 09:00	09/18/24 21:03	1
Copper	0.00180	J	0.00500	0.00180	mg/L		09/18/24 09:00	09/18/24 21:03	1
Iron	0.140		0.100	0.0360	mg/L		09/18/24 09:00	09/18/24 21:03	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/18/24 09:00	09/18/24 21:03	1
Magnesium	35.0		2.50	0.750	mg/L		09/18/24 09:00	09/24/24 18:29	5
Manganese	0.701		0.0500	0.0180	mg/L		09/18/24 09:00	09/24/24 18:29	5
Zinc	<0.0200		0.0200	0.00970	mg/L		09/18/24 09:00	09/18/24 21:03	1
Molybdenum	0.0227		0.0100	0.00650	mg/L		09/18/24 09:00	09/24/24 18:29	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			09/17/24 20:21	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-434244/3
Matrix: Water
Analysis Batch: 434244

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			09/24/24 09:27	1
Sulfate	<1.00		1.00	0.420	mg/L			09/24/24 09:27	1
Fluoride	<0.200		0.200	0.0750	mg/L			09/24/24 09:27	1

Lab Sample ID: LCS 310-434244/4
Matrix: Water
Analysis Batch: 434244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.690		mg/L		97	90 - 110
Sulfate	10.0	10.00		mg/L		100	90 - 110
Fluoride	2.00	1.889		mg/L		94	90 - 110

Lab Sample ID: 310-290615-1 MS
Matrix: Water
Analysis Batch: 434244

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	5.03		25.0	28.36		mg/L		93	80 - 120
Sulfate	13.6		25.0	38.26		mg/L		98	80 - 120
Fluoride	<1.00		5.00	5.135		mg/L		103	80 - 120

Lab Sample ID: 310-290615-1 MSD
Matrix: Water
Analysis Batch: 434244

Client Sample ID: MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	5.03		25.0	26.58		mg/L		86	80 - 120	7	15
Sulfate	13.6		25.0	37.74		mg/L		96	80 - 120	1	15
Fluoride	<1.00		5.00	4.809		mg/L		96	80 - 120	7	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-433444/1-A
Matrix: Water
Analysis Batch: 433630

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		09/18/24 09:00	09/18/24 19:56	1
Barium	<0.00200		0.00200	0.000660	mg/L		09/18/24 09:00	09/18/24 19:56	1
Boron	<0.100		0.100	0.0760	mg/L		09/18/24 09:00	09/18/24 19:56	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		09/18/24 09:00	09/18/24 19:56	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/18/24 09:00	09/18/24 19:56	1
Iron	<0.100		0.100	0.0360	mg/L		09/18/24 09:00	09/18/24 19:56	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/18/24 09:00	09/18/24 19:56	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/18/24 09:00	09/18/24 19:56	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/18/24 09:00	09/18/24 19:56	1

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QC Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 310-433444/1-A
Matrix: Water
Analysis Batch: 434059

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433444

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/18/24 09:00	09/23/24 18:39	1
Magnesium	<0.500		0.500	0.150	mg/L		09/18/24 09:00	09/23/24 18:39	1
Manganese	<0.0100		0.0100	0.00360	mg/L		09/18/24 09:00	09/23/24 18:39	1
Molybdenum	<0.00200		0.00200	0.00130	mg/L		09/18/24 09:00	09/23/24 18:39	1

Lab Sample ID: MB 310-433444/1-A
Matrix: Water
Analysis Batch: 435361

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433444

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.100		0.100	0.0760	mg/L		09/18/24 09:00	10/04/24 13:44	1

Lab Sample ID: LCS 310-433444/2-A
Matrix: Water
Analysis Batch: 433630

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433444

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.1055		mg/L		106	80 - 120
Boron	0.200	0.2101		mg/L		105	80 - 120
Cobalt	0.100	0.09078		mg/L		91	80 - 120
Copper	0.200	0.1873		mg/L		94	80 - 120
Iron	0.200	0.1971		mg/L		99	80 - 120
Lead	0.200	0.1963		mg/L		98	80 - 120
Zinc	0.200	0.1834		mg/L		92	80 - 120
Selenium	0.400	0.3920		mg/L		98	80 - 120

Lab Sample ID: LCS 310-433444/2-A
Matrix: Water
Analysis Batch: 434059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433444

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.2047		mg/L		102	80 - 120
Magnesium	2.00	2.051		mg/L		103	80 - 120
Manganese	0.100	0.1006		mg/L		101	80 - 120
Zinc	0.200	0.1871		mg/L		94	80 - 120

Lab Sample ID: LCS 310-433444/2-A
Matrix: Water
Analysis Batch: 435361

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433444

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	0.200	0.1942		mg/L		97	80 - 120

QC Sample Results

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-433438/1
Matrix: Water
Analysis Batch: 433438

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			09/17/24 15:55	1

Lab Sample ID: LCS 310-433438/2
Matrix: Water
Analysis Batch: 433438

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	103.0		mg/L		103	81 - 116

Lab Sample ID: MB 310-433449/1
Matrix: Water
Analysis Batch: 433449

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			09/17/24 20:21	1

Lab Sample ID: LCS 310-433449/2
Matrix: Water
Analysis Batch: 433449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	102.0		mg/L		102	81 - 116

QC Association Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

HPLC/IC

Analysis Batch: 434244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-1	MW-1	Total/NA	Water	9056A	
310-290615-2	MW-4	Total/NA	Water	9056A	
310-290615-3	MW-5	Total/NA	Water	9056A	
310-290615-4	MW-6	Total/NA	Water	9056A	
310-290615-5	MW-7	Total/NA	Water	9056A	
310-290615-6	MW-D	Total/NA	Water	9056A	
MB 310-434244/3	Method Blank	Total/NA	Water	9056A	
LCS 310-434244/4	Lab Control Sample	Total/NA	Water	9056A	
310-290615-1 MS	MW-1	Total/NA	Water	9056A	
310-290615-1 MSD	MW-1	Total/NA	Water	9056A	

Metals

Prep Batch: 433444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-1	MW-1	Total/NA	Water	3005A	
310-290615-2	MW-4	Total/NA	Water	3005A	
310-290615-3	MW-5	Total/NA	Water	3005A	
310-290615-4	MW-6	Total/NA	Water	3005A	
310-290615-5	MW-7	Total/NA	Water	3005A	
310-290615-6	MW-D	Total/NA	Water	3005A	
MB 310-433444/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-433444/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 433630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-1	MW-1	Total/NA	Water	6020B	433444
310-290615-2	MW-4	Total/NA	Water	6020B	433444
310-290615-3	MW-5	Total/NA	Water	6020B	433444
310-290615-4	MW-6	Total/NA	Water	6020B	433444
310-290615-5	MW-7	Total/NA	Water	6020B	433444
310-290615-6	MW-D	Total/NA	Water	6020B	433444
MB 310-433444/1-A	Method Blank	Total/NA	Water	6020B	433444
LCS 310-433444/2-A	Lab Control Sample	Total/NA	Water	6020B	433444

Analysis Batch: 434059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-1	MW-1	Total/NA	Water	6020B	433444
310-290615-2	MW-4	Total/NA	Water	6020B	433444
310-290615-3	MW-5	Total/NA	Water	6020B	433444
310-290615-4	MW-6	Total/NA	Water	6020B	433444
310-290615-5	MW-7	Total/NA	Water	6020B	433444
MB 310-433444/1-A	Method Blank	Total/NA	Water	6020B	433444
LCS 310-433444/2-A	Lab Control Sample	Total/NA	Water	6020B	433444

Analysis Batch: 434205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-6	MW-D	Total/NA	Water	6020B	433444

QC Association Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Metals

Analysis Batch: 435361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-1	MW-1	Total/NA	Water	6020B	433444
310-290615-2	MW-4	Total/NA	Water	6020B	433444
310-290615-3	MW-5	Total/NA	Water	6020B	433444
310-290615-4	MW-6	Total/NA	Water	6020B	433444
310-290615-5	MW-7	Total/NA	Water	6020B	433444
MB 310-433444/1-A	Method Blank	Total/NA	Water	6020B	433444
LCS 310-433444/2-A	Lab Control Sample	Total/NA	Water	6020B	433444

General Chemistry

Analysis Batch: 433438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-2	MW-4	Total/NA	Water	I-3765-85	
310-290615-4	MW-6	Total/NA	Water	I-3765-85	
310-290615-5	MW-7	Total/NA	Water	I-3765-85	
MB 310-433438/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-433438/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 433449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-290615-1	MW-1	Total/NA	Water	I-3765-85	
310-290615-3	MW-5	Total/NA	Water	I-3765-85	
310-290615-6	MW-D	Total/NA	Water	I-3765-85	
MB 310-433449/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-433449/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-1

Date Collected: 09/12/24 12:50

Date Received: 09/13/24 16:26

Lab Sample ID: 310-290615-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	434244	HE7K	EET CF	09/24/24 10:02
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	434059	NFT2	EET CF	09/23/24 19:08
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	435361	NFT2	EET CF	10/04/24 13:52
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	433630	NFT2	EET CF	09/18/24 20:43
Total/NA	Analysis	I-3765-85		1	433449	MDU9	EET CF	09/17/24 20:21

Client Sample ID: MW-4

Date Collected: 09/12/24 12:23

Date Received: 09/13/24 16:26

Lab Sample ID: 310-290615-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	434244	HE7K	EET CF	09/24/24 10:37
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	434059	NFT2	EET CF	09/23/24 19:12
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	435361	NFT2	EET CF	10/04/24 13:55
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	433630	NFT2	EET CF	09/18/24 20:45
Total/NA	Analysis	I-3765-85		1	433438	MDU9	EET CF	09/17/24 15:55

Client Sample ID: MW-5

Date Collected: 09/12/24 11:59

Date Received: 09/13/24 16:26

Lab Sample ID: 310-290615-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	434244	HE7K	EET CF	09/24/24 10:48
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	434059	NFT2	EET CF	09/23/24 19:15
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	435361	NFT2	EET CF	10/04/24 13:59
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	433630	NFT2	EET CF	09/18/24 20:47
Total/NA	Analysis	I-3765-85		1	433449	MDU9	EET CF	09/17/24 20:21

Client Sample ID: MW-6

Date Collected: 09/12/24 11:23

Date Received: 09/13/24 16:26

Lab Sample ID: 310-290615-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	434244	HE7K	EET CF	09/24/24 11:00
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	434059	NFT2	EET CF	09/23/24 19:19

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Lab Chronicle

Client: SCS Engineers
 Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Client Sample ID: MW-6

Date Collected: 09/12/24 11:23

Date Received: 09/13/24 16:26

Lab Sample ID: 310-290615-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	435361	NFT2	EET CF	10/04/24 14:03
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	433630	NFT2	EET CF	09/18/24 20:58
Total/NA	Analysis	I-3765-85		1	433438	MDU9	EET CF	09/17/24 15:55

Client Sample ID: MW-7

Date Collected: 09/12/24 10:55

Date Received: 09/13/24 16:26

Lab Sample ID: 310-290615-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	434244	HE7K	EET CF	09/24/24 11:12
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	434059	NFT2	EET CF	09/23/24 19:23
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	435361	NFT2	EET CF	10/04/24 14:06
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	433630	NFT2	EET CF	09/18/24 21:01
Total/NA	Analysis	I-3765-85		1	433438	MDU9	EET CF	09/17/24 15:55

Client Sample ID: MW-D

Date Collected: 09/12/24 11:59

Date Received: 09/13/24 16:26

Lab Sample ID: 310-290615-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	434244	HE7K	EET CF	09/24/24 11:46
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		5	434205	NFT2	EET CF	09/24/24 18:29
Total/NA	Prep	3005A			433444	F5MW	EET CF	09/18/24 09:00
Total/NA	Analysis	6020B		1	433630	NFT2	EET CF	09/18/24 21:03
Total/NA	Analysis	I-3765-85		1	433449	MDU9	EET CF	09/17/24 20:21

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: SCS Engineers
Project/Site: Corn Belt-Spencer CCR Landfill Sampling 2024

Job ID: 310-290615-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401





Environment Testing
America



310-290615 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received:	DATE	TIME	Received By:
	<u>9/13/24</u>	<u>1626</u>	<u>XB</u>
Delivery Type: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> FedEx Ground <input type="checkbox"/> US Mail <input type="checkbox"/> Spee-Dee			
<input checked="" type="checkbox"/> Lab Courier <input type="checkbox"/> Lab Field Services <input type="checkbox"/> Client Drop-off <input type="checkbox"/> Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes: Cooler ID: _____	
Multiple Coolers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler # _____ of _____	
Cooler Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Cooler custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Sample Custody Seals Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Sample custody seals intact? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes: Which VOA samples are in cooler? ↓	
Temperature Record			
Coolant: <input checked="" type="checkbox"/> Wet ice <input type="checkbox"/> Blue ice <input type="checkbox"/> Dry ice <input type="checkbox"/> Other: _____ <input type="checkbox"/> NONE			
Thermometer ID: <u>2</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>1.0</u>		Corrected Temp (°C): <u>1.0</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? <input type="checkbox"/> Yes <input type="checkbox"/> No			
a) If yes: Is there evidence that the chilling process began? <input type="checkbox"/> Yes <input type="checkbox"/> No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) <input type="checkbox"/> Yes <input type="checkbox"/> No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Eurofins Cedar Falls

3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

eurofins

Client Information Client Contact: Kevin Jensen Company: SCS Engineers Address: 1690 All State Court, Suite 100 City: West Des Moines State, Zip: IA, 50265 Phone: 515-368-3155 (Tel) Email: Kjensen@scsengineers.com Project Name: Corn Belt-Spencer CCR Landfill Sampling 2024 Site: Corn Belt-Spencer CCR Landfill		Lab PM: Yang, Mary E E-Mail: Mary Yang@ET EurofinsUS.com Carrier Tracking No(s): State of Origin: Job #:		COC No: 310-95836-23505 1 Page: Page 1 of 1			
Due Date Requested: TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: Purchase Order not required WO #:		Analysis Requested					
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> 906A_ORGM_28D - (MOD) Chloride and Sulfate Fluoride 9020B - (MOD) Metals List I_376E_86 - Residue, Non-Filterable (TSS) 6020 - Selenium		Total Number of Containers:					
Sample Identification MW-1 MW-4 MW-5 MW-6 MW-7 MW-D		Sample Date 9-12-24 9-12-24 9-12-24 9-12-24 9-12-24 9-12-24	Sample Time 12:50 12:23 11:59 11:23 10:55 11:59	Sample Type (C=comp, G=grab) G G G G G G	Matrix (W=water, S=solid, O=water/oli, BT=tissue, A=air) Water Water Water Water Water Water	Preservation Code: N D N X X X X X X X X X X X X X X X X X X	Special Instructions/Note: Metals List: As, Ba, Bo, Cd, Co, Cu, Fe, Pb, Mg, Mn, Zn
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:		Method of Shipment:					
Relinquished by: <i>Kaner Ruth</i> Relinquished by: Relinquished by:		Date: 9-13-24 / 10:00 Date/Time: Date/Time: Date/Time:					
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No		Cooler Temperature(s) °C and Other Remarks:					



Ver 05/06/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-290615-1

Login Number: 290615

List Number: 1

Creator: Collins, Charlotte G

List Source: Eurofins Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	