FOUR RIVERS SANITATION AUTHORITY
ADDENDUM NO. 1
RFP #24-202
BIOSOLIDS UTILIZATION

January 12, 2024

AD1-1 Notice
This Addendum No. 1, dated January 12, 2024, to the Request for Proposals #24-202 Biosolids Utilization, supersedes all contrary and conflicting information in the above-mentioned instructions, specifications, and contract documents which are hereby supplemented or revised in certain particulars as follows:

AD1-2 General Information
The Authority submits Addendum No. 1 to provide the list of mandatory meeting attendees, answer questions, and provide the Land Application Permit and the most recent radium analysis.

AD1-3 Mandatory Meeting Attendees

Company Name	Location	Contact
Stewart Spreading	Sheridan, IL	Greg Halmagyi
Dahm Enterprises	Woodstock, IL	Bryan Dahm
Synagro	Hampshire, IL	Will Walker

AD1- Questions and Answers

Question 1: Does the scale ever break?
Answer 1: Yes. The only times the scale has been out of service was for a hydraulic line replacement 3 hour down time and during a planned replacement of the scale 2 years ago. During the planned replacement a calibrated and certified temporary scale was used. If the scale were to be out of service, FRSA may provide a temporary scale. The temporary scale would be certified and calibrated.

Question 2: Does FRSA choose the application site?
Answer 2: Not entirely. Site selection is based on the mutual agreement between the Farmer/Landowner, The Certified Crop Advisor and FRSA.

Question 3: Does FRSA landfill biosolids?
Answer 3: Yes. In the event FRSA Bio-Solids do not meet the IEPA standards for Class B sludge FSRA would utilize the landfill as a means of disposal.

Question 4: How many times has FRSA landfilled biosolids?
Answer 4: When the FRSA cleaned the digesters in 2019, a small portion of sludge was landfilled. During this event the sludge was profiled, transported and disposed. This disposal was in no way connected to the land application contract and only occurred one time.

Question 5: Who pays the tipping fee at the landfill?
Answer 5: If contractor is late with disposal and biosolids cannot be spread, the contractor pays the landfill tipping fee. If FRSA chooses to landfill biosolids, FRSA pays the tipping fee. The current landfill fee is $24.00/ton for primary screenings.

Question 6: The RFP states the annual cost will be considered. How is the annual cost calculated?
Answer 6: Cost/ton X 15,000 tons (yearly estimated tons utilized).

Question 7: Considering the extension options, are increases based on CPI or other factors allowed for extensions?
Answer 7: Cost would need to be agreed upon to enter an extension.

Question 8: What is the current biosolids utilization rate and who is the current vendor?
Answer 8: $18.98/wet ton April 1, 2023 – March 31, 2024; Stewart Spreading.

Question 9: What is the meaning of Section III, Detailed Specifications, 3.4 Minimum Requirements, C. "The Contractor agrees to hold the Authority harmless against any claims arising from the acceptance, trucking, use or utilization of the delivered biosolids".?
Answer 9: No changes to the Bid Documents related to this question. Any claims arising from the required transportation, bio-solids management services including the ultimate utilization of FRSA's biosolid in an approved lawful manner outlined in FRSA's Permit and the specifications contained in this document.

Question 10: In section III, Detailed Specifications, Page 15, Section 3.4 C. states, "The Contractor agrees to hold the Authority harmless against any claims arising from the acceptance, trucking, use or utilization of the delivered biosolids".

Since USEPA section 503.7 States, any person who prepares sewage sludge shall ensure that the applicable requirements in this part are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Additionally, on page 491 of the NPDES Inspection Manual states the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) "cradle-to-grave" provisions stipulate that a generator remains responsible for all environmental damage resulting from its waste including damage that occurs after disposal. With that being said, the contractor cannot be responsible for anything other than what they control, which is legal and responsible loading, transportation and land application.

We request that bid and any associated contract language be revised in light of the above and section III, Detailed Specifications, Page 15, Section 3.4 C be revised. An example of a revision is as follows, *Contractor shall be deemed to have accepted the biosolids upon loading, removal, and have accepted the biosolids in accordance with the requirements of this agreement, as well as all applicable state, federal and local ordinances, including 40 C.F.R. Part 503 addressing land application of biosolids. At such time all risk of loss and other incidents during the handling, transportation and land application of such materials shall pass from Four Rivers Sanitation Authority to the*

Contractor except to the extent required for compliance with, or as mandated by, 40 C.F.R. Part 503.

Answer 10: Unless otherwise noted in this Addendum, the Bidding Documents, including the sample contract language, are to remain unchanged.

Question 11: Are biosolids tested for radium?
Answer 11: Yes; FRSA tests monthly, exceeding the quarterly requirement. The last two sludge cake sample results are attached.

Question 12: Section II, General Specifications, 2.7 Response Format, Section 1 – Required Documents; how is insurance submitted for proposal purposes?
Answer 12: The proof of insurance may be a sample COI of the proposer's coverage. If awarded the contract, the contractor will be required to supply the COI and additional insured endorsements as described in Section III, Detailed Specifications, 3.11 Insurance.

Question 13: Does FRSA have offsite storage?
Answer 13: No, FRSA has an open storage building at 3333 Kishwaukee St. Offsite storage by the contractor is not permitted.

Question 14: Is an adjustment for fuel costs allowed?
Answer 14: No. Fuel surcharges are not permitted.

Question 15: How many days does a typical haul take?
Answer 15: Approximately 4 days.

Question 16: What is the distance between the FRSA and the fields?
Answer 16: The average distance of all fields one way is 12 Miles.

Question 17: Will the sample version of the contract in the proposal document be the actual contract?
Answer 17: Yes. No changes to the contract wording – the watermark will be removed.

Question 18: Who supplies the loader?
Answer 18: The contractor.

Question 19: The specs state that the Four Rivers Authority has 120 days storage (4 months) with no field stockpiling allowed. How do you go/store from fall to spring, or spring to fall? At least one of those is more than 4 months. How does the current vendor manage that hurdle?
Answer 19: In Section III Detailed Specifications, 3.4 Minimum Requirements F. strike 120 days and replace with 180 days. "The Authority's biosolids storage building capacity is approximately ~~120~~ 180 days".

Question 20: Will the Authority provide and exception to section 3.4 (E) allowing for annual adjustments for CPI and Fuel Surcharge?
Answer 20: No, the Authority will not provide an exception allowing for annual adjustments for CPI and fuel surcharge.

Question 21: Will the Authority accept the Contractors request that the following language be added to Section 3.13 to Clarify Force Majeure events;
" Force Majeure events shall be defined as including, but not limited to: fires; floods; strikes (except any strikes involving a Party's personnel); a change in Federal, State, or local law or ordinance; orders or judgments of any Federal, State or local court, administrative agency or governmental body; change in permit conditions or requirements; accidents; extreme weather conditions including, for example, hurricanes, tornadoes, unusually high amounts of precipitation, unusual extremes of temperature or wind, or unusually extended periods of adverse weather conditions; acts of war, aggression or terrorism (foreign or domestic); riot, insurrection; equipment failure (other than due to the inadequate maintenance thereof); and acts of God."
Answer 21: No, Section 3.13 is to remain unchanged.

Question 22: Will the Authority accept the Contractor's request to include the following language in the Contract? **"**Waiver of Consequential Damages - Neither party shall be liable for consequential or punitive damages on any claims arising out of the performance or non-performance of obligations under the Contract."
Answer 22: No.

Question 23: Does the Four Rivers Sewer Authority have PFAS / PFOA testing data on the materials specified in the scope of work and /or information on any other 40 CFR 503 regulated materials present in the Scope of Work? If yes, would the Authority be willing to Share that information with the Bidders? Additionally, does the Authority have planned testing for PFAS / PFOA or other 40 CFR 503 regulated materials scheduled for the digester during the duration of this contract?
Answer 23: No to all questions.

Question 24: Will the Authority accept Contractor's request to amend the contract to include the following language as a new provision to the final contract agreement? "As to any claim made against Contractor, District waives any insulation from liability or immunity from suit with respect to injuries to District's employees that may be extended to District as a result of any payments made by District to such employees or under any applicable worker's compensation statute or similar law or judicial in the course and scope of their employment by District unless such claim was the sole and proximate result of the gross negligence or willful misconduct of Contractor. Contractor will be held harmless from any worker's compensation liens incurred from District's insurance carrier, third party administrator or self-administered decision. District hereby indemnifies and holds harmless Contractor from and against any claims made by any of Provider's employees, contractors or representatives working, self-insured claims programs."
Answer 24: No.

Question 25: Can you please provide current analytics of the product?
Answer 25: 2022 503 USEPA Report is attached.

Proposer shall initial this Addendum No. 1 and include it with their proposal.

_____Proposer's Initials

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2023-68519

PERMIT NO.: 2023-SC-68519

BUREAU ID: W2010300010

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS

DATE ISSUED: AUG 11 2023

PREPARED BY: Four Rivers Sanitation Authority

SUBJECT: FOUR RIVERS SANITATION AUTHORITY – Biosolids Disposal Permit Renewal

AUG 16 2023

PERMITTEE TO OPERATE

Four Rivers Sanitation Authority
3333 Kishwaukee Street
Rockford, Illinois 61109

Permit is hereby granted to the above designated permittee(s) to operate water pollution control facilities described as follows:

Application of approximately 5000 dry tons per year of anaerobically digested sewage sludge to agricultural lands at rates not to exceed the agronomic nitrogen demand of the crop grown.

This operating permit expires on July 31, 2028.

This permit renews and replaces Permit Number 2018-SC-63720 which was previously issued for the herein permitted facilities.

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplemental Permit.

SPECIAL CONDITION 1: For the duration of this permit, the permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with a percent total solids analysis. The permittee shall maintain adequate records of the quantities of sludge produced and have said records available for Agency inspection. The permittee shall submit to the Agency a semi-annual summary report of the quantities of sludge generated and disposed (in units of dry tons) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the Agency by January 31 and July 31 of each year reporting the preceding July through December and January through June sludge disposal operations respectively. The Sludge Management Report Form can be obtained at the following IEPA website, https://www2.illinois.gov/epa/Documents/epa.state.il.us/water/compliance/waste-water/forms/sludge-management.pdf. The permittee shall submit the semi-annual sludge management report electronically or in writing to the following addresses:

Illinois Environmental Protection Agency

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

BDF:CWB:n:\bow\permits\wpdocs\docs\permits\statecon\branson\2023-68519.docx

DIVISION OF WATER POLLUTION CONTROL

cc: EPA-Des Plaines FOS
Records - Municipal
Compliance Assurance Section

Brant D. Fleming, P.E.
Manager, Municipal Unit, Permit Section

Bureau of Water
Compliance Assurance Section
Mail Code #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

EPA.PrmtSpecCondtns@Illinois.gov

SPECIAL CONDITION 2: For the duration of this permit, the permittee shall sample all different sludges being applied to land or publicly distributed on a semi-annual basis and chemically analyze said samples in accordance with the recommended procedures contained in the latest edition of Standard Methods for the Examination of Water and Wastewater for the following parameters:

Nutrients (mg/kg)	Metals (mg/kg)	Other
Total Kjeldahl Nitrogen	Cadmium	pH
Ammonia Nitrogen	Copper	% TS
Phosphorus	Lead	% VS
Potassium	Manganese	
	Nickel	
	Zinc	

Sampling shall consist of a grab sample and be reported as a maximum value.

The results of these analyses shall be submitted to this Agency on a semi-annual basis on Discharge Monitoring Report (DMR) electronic forms. The permittee shall update the sludge application rate utilizing all sludge analyses obtained after the previous sludge application period. Sampling results shall be submitted to the Agency by July 30 and January 31 of each year, reporting the preceding six months of sampling data on a semi-annual basis.

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, https:www2.illinois.gov/epa/topics/water-quality/surface-water/netdmr/pages/quick-answer-guide.aspx.

Permittees that have been granted a waiver shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Mail Code #19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2023-68519 **PERMIT NO.:** 2023-SC-68519

BUREAU ID: W2010300010

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS **DATE ISSUED:** [illegible]

PREPARED BY: Four Rivers Sanitation Authority

SUBJECT: FOUR RIVERS SANITATION AUTHORITY – Biosolids Disposal Permit Renewal

SPECIAL CONDITION 3:

A. Sludge shall be applied to sites within the following guidelines:

1. Sludge shall not be applied to sites during precipitation.
2. Sludge shall not be applied to sites which are saturated or with ponded water.
3. Sludge shall not be applied to ice or snow covered sites.
4. Frozen land, which is not ice or snow covered and has a slope of 5% or less, may be used for land application of sludge provided a 200 foot grassy area exists between the sludge applied land and any surface water or potable water supply well.

B. It is not recommended that sludge be applied to sites:

1. When precipitation is imminent,
2. Which have received greater than 1/4 inch rainfall within the 24-hour period preceding the intended sludge application time.

C. Sludge shall not be applied to land which lies within 200 feet from a community water supply well, potable water supply well, surface waters or intermittent streams or within one-fourth of a mile of any potable water supply wells located in consolidated bedrock such as limestone or sinkhole areas unless a 50 foot depth of non-sandy or non-gravelly unconsolidated material exists. In no case shall sludge be applied within 400 feet of a community water supply well deriving water from an unconfined shallow fractured or highly permeable bedrock formation or from an unconsolidated and unconfined sand and gravel formation.

D. Sludge shall not be applied within 100 feet of an occupied residence.

E. Sludge shall not be applied to sites during the periods in which the seasonal high water table rises within 3 feet of the surface at the site.

F. Sludge shall only be applied to land with a background soil pH of 6.5 or greater unless lime or other suitable materials are applied to the site prior to sludge application to raise the soil pH to a minimum of 6.5.

G. Sludge amended land shall have a crop grown and harvested pursuant to normal agricultural practices.

H. The delivery and application of sludge, and the choice of an application site, shall be made so as to minimize the emission of odors to nearby residents taking into account the direction of wind, humidity and day of the week.

I. Sludge application shall not exceed the following maximum metal loading rates over the lifetime of a site (pounds per acre).

1. Soils with 5-15 meq/100 grams Cation Exchange Capacity (CEC):

Metal	Total Loading	Annual Loading
Cadmium	10	2

Nickel	100	--
Copper	250	--
Zinc	500	--
Manganese	900	--
Lead	1000	--

2. Soils with 0-5 meq/100 grams CEC shall apply only half the metal loading rates set forth in item J(1) above.

3. Soils with 15 or greater meq/100 grams CEC may apply double the total metal loading rates set forth in item J(1) above, however a supplemental permit shall be required for that specific site.

J. Sludge stored off the sewage treatment plant site shall be performed within the following guidelines:

1. Off-site interim storage of liquid sludge shall not be allowed.

2. Off-site interim storage of dried sludge in excess of 30 days shall not be allowed. In addition, measures shall be taken to contain runoff and leachate from any dried sludge that is stored.

3. Off-site stockpiling of sludge is prohibited from November 15 to March 1, unless such stockpiling occurs on sites specifically identified in an effective State Operating Permit as suitable for application on ice and/or snow covered ground.

4. Sludge stockpiled on sites not approved for winter application after November 15 shall be returned to the generating facility or moved to a site approved for application on ice and/or snow covered ground.

K. Users applying sludge to sites greater than 300 acres under common ownership or control or users of more than 1500 dry tons per year shall obtain a sludge user permit from this Agency unless the site is specifically identified in the permittee's application.

L. User information sheets, in conformance with the Design Criteria for Sludge Application on Land (Title 35, Subtitle C, Chapter II, Part 391), shall be provided by the permittee to all sludge users and shall be signed by sludge users requesting more than 25 cubic yards. Records regarding sludge users shall be retained by the permittee for the duration of this permit and 2 years after the expiration date of this permit.

M. No sooner than 90 days and no later than 7 days prior to the application of sludge to land written notice shall be provided to the owner(s) of the land receiving the sludge, the owners of land adjacent to the land receiving the sludge and the Township and County officials whose jurisdiction encompasses the sludge application site.

N. The permittee shall retain agronomic calculations and supporting sludge analyses for a period of not less than 5 years. Said sludge analysis shall be in compliance with 40 CFR 503.8 and 35 Ill. Adm. Code 391.501. Such records shall be available to any person or party upon request.

SPECIAL CONDITION 4: Sludge applied to land under this permit shall comply with 32 Ill. Adm. Code 330.40(d).

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2023-68519

PERMIT NO.: 2023-SC-68519

BUREAU ID: W2010300010

FINAL PLANS, SPECIFICATIONS, APPLICATION AND SUPPORTING DOCUMENTS

DATE ISSUED: AUG 11 2023

PREPARED BY: Four Rivers Sanitation Authority

SUBJECT: FOUR RIVERS SANITATION AUTHORITY – Biosolids Disposal Permit Renewal

SPECIAL CONDITION 5: Sludge, which is to be land applied shall be sampled for radium on a quarterly basis. The resulting data shall be submitted to both the Illinois Environmental Protection Agency and the Illinois Emergency Management Agency. Data shall be submitted to the Illinois Emergency Management Agency at the following address:

Illinois Emergency Management Agency
Attn: Treatment Residuals Exemption
1035 Outer Park Drive
Springfield, Illinois 62704

SPECIAL CONDITION 6: Sludge applied to land in order to establish ground cover on the Four Rivers Sanitation Authority plant grounds shall not be applied within 10 meters of the Rock River.

SPECIAL CONDITION 7: If sludge is applied to any parcel of land other than the site(s) specified in the permittee's application, information in accordance with 35 Ill. Adm. Code 391.202(b) shall be submitted to this Agency. The required site information shall also be forwarded to the Winnebago Soil and Water Conservation District and to the Winnebago Public Health Department.

SPECIAL CONDITION 8: Sludge shall not be applied on soil types where the depth to bedrock is 18 inches or less.

SPECIAL CONDITION 9: Sludge shall be applied on soil types where the depth to bedrock is greater than 18 inches but less than or equal to 36 inches at one-half the agronomic application rate.

SPECIAL CONDITION 10: Sludge shall be applied in accordance with applicable portions of 40 CFR Section 503 and are hereby incorporated by reference.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 29, 2023

Stephen Peterson
Four Rivers Sanitation Authority
3333 Kishwaukee
Rockford, IL 61109

RE: Project: 35939-HBN 15644
Pace Project No.: 30636928

Dear Stephen Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on November 06, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Justin Horn

Justin P. Horn
justin.horn@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Craig Cox, Four Rivers Sanitation Authority
Erin Midtsem, Four Rivers Sanitation Authority

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CERTIFICATIONS

Project: 35939-HBN 15644
Pace Project No.: 30636928

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30636928001	**12247001**	Water	10/19/23 22:30	11/06/23 10:30
30636928002	**12247002**	Water	10/20/23 05:00	11/06/23 10:30
30636928003	**12247003**	Solid	10/20/23 07:00	11/06/23 10:30
30636928004	**12248001**	Water	10/23/23 12:30	11/06/23 10:30
30636928005	**12248003**	Water	10/23/23 11:40	11/06/23 10:30
30636928006	**12429001**	Water	10/30/23 11:40	11/06/23 10:30
30636928007	**12429003**	Water	10/30/23 12:35	11/06/23 10:30

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: 35939-HBN 15644
Pace Project No.: 30636928

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30636928001	**12247001**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30636928002	**12247002**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30636928003	**12247003**	EPA 901.1	MAH	2	PASI-PA
30636928004	**12248001**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30636928005	**12248003**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30636928006	**12429001**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30636928007	**12429003**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Sample: 12247001 **Lab ID: 30636928001** Collected: 10/19/23 22:30 Received: 11/06/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**-2.88 ± 3.18 (7.25)** **C:NA T:52%**	pCi/L	11/17/23 12:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**3.35 ± 3.67 (7.68)** **C:65% T:23%**	pCi/L	11/20/23 12:29	15262-20-1	

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Sample: 12247002 **Lab ID: 30636928002** Collected: 10/20/23 05:00 Received: 11/06/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.530 ± 0.981 (1.72) C:NA T:89%**	pCi/L	11/17/23 12:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.16 ± 0.538 (0.926) C:77% T:77%**	pCi/L	11/20/23 12:29	15262-20-1	

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Sample: 12247003 **Lab ID: 30636928003** Collected: 10/20/23 07:00 Received: 11/06/23 10:30 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 901.1	**4.930 ± 0.809 (0.510)** **C:NA T:NA**	pCi/g	11/29/23 08:37	13982-63-3	Ra
Radium-228	EPA 901.1	**4.306 ± 0.857 (0.585)** **C:NA T:NA**	pCi/g	11/29/23 08:37	15262-20-1	

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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Sample: 12248001 **Lab ID: 30636928004** Collected: 10/23/23 12:30 Received: 11/06/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**12.6 ± 2.60 (1.25) C:NA T:86%**	pCi/L	11/17/23 12:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**6.91 ± 1.47 (0.940) C:82% T:80%**	pCi/L	11/20/23 12:29	15262-20-1	

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Sample: 12248003 **Lab ID: 30636928005** Collected: 10/23/23 11:40 Received: 11/06/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**9.86 ± 2.24 (1.17) C:NA T:87%**	pCi/L	11/17/23 12:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**6.13 ± 1.31 (0.764) C:78% T:82%**	pCi/L	11/20/23 12:29	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Sample: 12429001 **Lab ID: 30636928006** Collected: 10/30/23 11:40 Received: 11/06/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**3.08 ± 1.20 (1.22) C:NA T:92%**	pCi/L	11/17/23 12:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**4.03 ± 0.930 (0.620) C:78% T:82%**	pCi/L	11/20/23 12:29	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

Sample: 12429003 **Lab ID: 30636928007** Collected: 10/30/23 12:35 Received: 11/06/23 10:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**4.19 ± 1.39 (1.32)** **C:NA T:94%**	pCi/L	11/17/23 12:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**3.33 ± 0.828 (0.702)** **C:78% T:77%**	pCi/L	11/20/23 12:29	15262-20-1	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

QC Batch: 628294
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30636928001, 30636928002, 30636928004, 30636928005, 30636928006, 30636928007

METHOD BLANK: 3062798
Matrix: Water
Associated Lab Samples: 30636928001, 30636928002, 30636928004, 30636928005, 30636928006, 30636928007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.904 ± 0.436 (0.747) C:77% T:82%	pCi/L	11/20/23 12:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

QC Batch: 628293 | Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 | Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30636928001, 30636928002, 30636928004, 30636928005, 30636928006, 30636928007

METHOD BLANK: 3062796 | Matrix: Water

Associated Lab Samples: 30636928001, 30636928002, 30636928004, 30636928005, 30636928006, 30636928007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.364 ± 0.431 (0.677) C:NA T:86%	pCi/L	11/17/23 12:28	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 35939-HBN 15644
Pace Project No.: 30636928

QC Batch: 629734
QC Batch Method: EPA 901.1
Analysis Method: EPA 901.1
Analysis Description: 901.1 Gamma Spec Ingrowth
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30636928003

METHOD BLANK: 3069931
Matrix: Solid

Associated Lab Samples: 30636928003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.134 (0.346) C:NA T:NA	pCi/g	11/22/23 08:10	Ra
Radium-228	0.077 ± 0.151 (0.753) C:NA T:NA	pCi/g	11/22/23 08:10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: 35939-HBN 15644
Pace Project No.: 30636928

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Ra — The reported Ra-226 results were determined by hermetically sealing the dried, processed sample in an appropriate-sized can. Each sample was stored for a minimum of 21 days to ensure that equilibrium between Ra-226 and daughters Bi-214 and Pb-214 was achieved. Reported Ra-226 results were inferred from gamma peaks attributable to Bi-214 and Pb-214.

Chain of Custody

Four Rivers Sanitation Authority

Document: 35939 - HBN 15644

Results Requested By: 11/19/2023

Report To	Subcontract To
FRSA Laboratory 3501 Kishwaukee St. Rockford, Il. 61109 Phone 815.387.7523 Account # 2222	Pace Analytical Services, LLC 1638 Roseytown Road - Suites 2 Greensburg, PA 15601 Phone (724)850-5600

Item	Lab ID	Collect Date/Time	Collection Site	Matrix	Preserved Containers: HNO3	Preserved Containers: NONE					Requested Analysis: EPA 901.1	EPA 903.1	EPA 904.0									LAB USE ONLY
1	12247001	10/19/2023 22:30	INFLUENT	Aqueous	2	0						X	X									001
2	12247002	10/20/2023 05:00	EFFLUENT	Aqueous	2	0						X	X									002
3	12247003	10/20/2023 07:00	CC	Solid	0	2					X											003
4	12248001	10/23/2023 12:30	2155	Aqueous	2	0						X	X									004
5	12248003	10/23/2023 11:40	2109	Aqueous	2	0						X	X									005
6	12429001	10/30/2023 11:40	2149	Aqueous	2	0						X	X									006
7	12429003	10/30/2023 12:35	2104	Aqueous	2	0						X	X									007

Report	Electronic Data Deliverables	Comments
☐ Standard (Results Only)	☐ Stage 2A	Received by Pace Greensburg
☐ Standard with Batch QC	☐ Stage 2B	Therm ID ___ Corr Factor +/- ___
☐ CLP	☐ Stage 3	Receipt Temp ___
☐ Other ___	☐ Other ___	Corrected Temp ___
		Correct Preservation Y/N

WO# : 30636928

30636928

Tuesday, October 31, 2023 10:11:58 AM
Dates and times are displayed using (-05:00) US/Central
Page 1 of 3

HORIZON

Chain of Custody

Four Rivers
Sanitation Authority

Document: 35939 - HBN 15644

WO#: 30636928
PM: JPH Due Date: 11/29/23
CLIENT: ROCK

Chain of Custody

Four Rivers
Sanitation Authority

Document: 35939 - HBN 15644

Preservative	Transfers	Released By	Date/Time	Received By	Date/Time
HNO3 = Nitric Acid NONE = None	1	MA BN	10/31/23 9:15am	[illegible]	11/6/23 10:30
	2				
	3				
	4				
	5				

WO#: 30636928

PM: JPH Due Date: 11/29/23

CLIENT: ROCK

DC#_Title: ENV-FRM-GBUR-0088 v06_Sample Condition Upon Receipt-Pittsburgh

Effective Date: 09/20/2023

WO# : 30636928

PM: JPH Due Date: 11/29/23

CLIENT: ROCK

Client Name: Four Rivers

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 1Z528972R0326149543

Initial / Date	
Examined By:	TH 11/7/23
Labeled By:	TH 11/7/23
Temped By:	

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No **Seals Intact:** ☐ Yes ☑ No

Thermometer Used: _____ **Type of Ice:** Wet Blue None

Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 1000931	D.P.D. Residual Chlorine Lot #
Chain of Custody Present	✓			1.	
Chain of Custody Filled Out:	✓			2.	
-Were client corrections present on COC		✓			
Chain of Custody Relinquished	✓			3.	
Sampler Name & Signature on COC:		✓		4.	
Sample Labels match COC: TH 11/7/23	✓	✓		5. No dates / times on all bottles.	
-Includes date/time/ID					
Matrix:	WT, SL				
Samples Arrived within Hold Time:	✓			6.	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:		✓		8.	
Sufficient Volume:	✓			9.	
Correct Containers Used:	✓			10.	
-Pace Containers Used		✓			
Containers Intact:	✓			11.	
Orthophosphate field filtered:			✓	12.	
Hex Cr Aqueous samples field filtered:			✓	13.	
Organic Samples checked for dechlorination			✓	14:	
Filtered volume received for dissolved tests:			✓	15:	
All containers checked for preservation:	✓			16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				PH<2/Solid.	
All containers meet method preservation requirements:	✓			Initial when completed TH	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.	
624.1: Headspace in VOA Vials (0mm)			✓	18.	
Trip Blank Present:			✓	Trip blank custody seal present? YES or NO	
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed PS	Date: 11/6/23 Survey Meter SN: 2S014380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

January 05, 2024

Stephen Peterson
Four Rivers Sanitation Authority
3333 Kishwaukee
Rockford, IL 61109

RE: Project: 12660001
Pace Project No.: 30646527

Dear Stephen Peterson:

Enclosed are the analytical results for sample(s) received by the laboratory on December 11, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Justin Horn

Justin P. Horn
justin.horn@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: Craig Cox, Four Rivers Sanitation Authority
Erin Midtsem, Four Rivers Sanitation Authority

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 12660001
Pace Project No.: 30646527

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

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SAMPLE SUMMARY

Project: 12660001
Pace Project No.: 30646527

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30646527001	**12660001**	Water	12/05/23 23:00	12/11/23 09:50
30646527002	**12660002**	Water	12/05/23 23:00	12/11/23 09:50
30646527003	**12660003**	Solid	12/06/23 13:00	12/11/23 09:50

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SAMPLE ANALYTE COUNT

Project: 12660001
Pace Project No.: 30646527

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30646527001	**12660001**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30646527002	**12660002**	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
30646527003	**12660003**	EPA 901.1	MAH	2	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 12660001
Pace Project No.: 30646527

Sample: 12660001 **Lab ID: 30646527001** Collected: 12/05/23 23:00 Received: 12/11/23 09:50 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • No time listed on container label.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 903.1	**0.632 ± 1.24 (2.23) C:NA T:90%**	pCi/L	12/26/23 13:49	13982-63-3	
		Pace Analytical Services - Greensburg				
Radium-228	EPA 904.0	**2.21 ± 1.61 (3.06) C:56% T:53%**	pCi/L	12/22/23 13:04	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 12660001
Pace Project No.: 30646527

Sample: 12660002 **Lab ID: 30646527002** Collected: 12/05/23 23:00 Received: 12/11/23 09:50 Matrix: Water
PWS: Site ID: Sample Type:
Comments: • No time listed on container label.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 903.1	**0.514 ± 0.440 (0.597) C:NA T:89%**	pCi/L	12/26/23 13:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 904.0	**1.05 ± 0.500 (0.837) C:84% T:68%**	pCi/L	12/22/23 13:03	15262-20-1	

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(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 12660001
Pace Project No.: 30646527

Sample: 12660003 **Lab ID: 30646527003** Collected: 12/06/23 13:00 Received: 12/11/23 09:50 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis
Comments: • No time listed on container label.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
		Pace Analytical Services - Greensburg				
Radium-226	EPA 901.1	**5.222 ± 0.925 (0.564) C:NA T:NA**	pCi/g	01/05/24 09:19	13982-63-3	Ra
Radium-228	EPA 901.1	**4.000 ± 0.902 (0.885) C:NA T:NA**	pCi/g	01/05/24 09:19	15262-20-1	

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: 12660001
Pace Project No.: 30646527

QC Batch: 636377
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30646527001, 30646527002

METHOD BLANK: 3104067
Matrix: Water
Associated Lab Samples: 30646527001, 30646527002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.162 ± 0.247 (0.398) C:NA T:94%	pCi/L	12/26/23 13:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 12660001
Pace Project No.: 30646527

QC Batch: 636384
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30646527001, 30646527002

METHOD BLANK: 3104093
Matrix: Water

Associated Lab Samples: 30646527001, 30646527002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.393 ± 0.345 (0.694) C:82% T:84%	pCi/L	12/22/23 13:03	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: 12660001
Pace Project No.: 30646527

QC Batch: 638633
QC Batch Method: EPA 901.1
Analysis Method: EPA 901.1
Analysis Description: 901.1 Gamma Spec Ingrowth
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30646527003

METHOD BLANK: 3114370
Matrix: Solid

Associated Lab Samples: 30646527003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.131 (0.293) C:NA T:NA	pCi/g	01/02/24 10:44	Ra
Radium-228	0.100 ± 0.142 (0.532) C:NA T:NA	pCi/g	01/02/24 10:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 12660001
Pace Project No.: 30646527

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Ra — The reported Ra-226 results were determined by hermetically sealing the dried, processed sample in an appropriate-sized can. Each sample was stored for a minimum of 21 days to ensure that equilibrium between Ra-226 and daughters Bi-214 and Pb-214 was achieved. Reported Ra-226 results were inferred from gamma peaks attributable to Bi-214 and Pb-214.

Chain of Custody

Four Rivers Sanitation Authority

Document: 36888

Results Requested By: 12/27/2023

Report To	Subcontract To
FRSA Laboratory 3501 Kishwaukee St. Rockford, Il. 61109 Phone 815.387.7523 Account # 2222	Pace Analytical Services, LLC 1638 Roseytown Road - Suites 2 Greensburg, PA 15601 Phone (724)850-5600

Item	Lab ID	Collect Date/Time	Collection Site	Matrix	Preserved Containers: HNO3	Preserved Containers: NONE					Requested Analysis: EPA 901.1	EPA 903.1	EPA 904.0										LAB USE ONLY
1	12660001	12/05/2023 23:00	INFLUENT	Aqueous	2	0						X	X										001
2	12660002	12/05/2023 23:00	EFFLUENT	Aqueous	2	0						X	X										002
3	12660003	12/06/2023 01:00	CC	Solid	0	2					X												003

Report	Electronic Data Deliverables	Comments
☐ Standard (Results Only)	☐ Stage 2A	
☐ Standard with Batch QC	☐ Stage 2B	
☐ CLP	☐ Stage 3	
☐ Other _____	☐ Other _____	

Preservative

HNO3 = Nitric Acid
NONE = None

Received by Pace Greensburg
Therm ID ___ Corr Factor +/- ___
Receipt Temp ___
Corrected Temp ___
Correct Preservation Y/N

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	12/6/23 4:00pm	[signature]	12-11-23 0950
2				
3				
4				
5				

WO# : 30646527

30646527

HORIZON

Pace Analytical Services	DC#_Title: ENV-FRM-GBUR-0088 v06_Sample Condition Upon Receipt-Pittsburgh Effective Date: 09/20/2023

WO#: 30646527
PM: JPH Due Date: 01/03/24
CLIENT: ROCK

Client Name: Four Rivers

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking Number: 1Z528 92R03 2499 5776

Examined By: PS 12/13/23
Labeled By: PS 12/13/23
Temped By: BR 12-11-23

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☑ No

Thermometer Used: — Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 10D0134	D.P.D. Residual Chlorine Lot #
Chain of Custody Present	✓			1.	
Chain of Custody Filled Out:	✓			2.	
-Were client corrections present on COC		✓			
Chain of Custody Relinquished	✓			3.	
Sampler Name & Signature on COC:		✓		4.	
Sample Labels match COC:		✓		5.	
-Includes date/time/ID				no times on bottles	
Matrix:	WT / SL				
Samples Arrived within Hold Time:	✓			6.	
Short Hold Time Analysis (<72hr remaining):		✓		7.	
Rush Turn Around Time Requested:		✓		8.	
Sufficient Volume:	✓			9.	
Correct Containers Used:	✓			10.	
-Pace Containers Used		✓			
Containers Intact:	✓			11.	
Orthophosphate field filtered:			✓	12.	
Hex Cr Aqueous samples field filtered:			✓	13.	
Organic Samples checked for dechlorination			✓	14:	
Filtered volume received for dissolved tests:			✓	15:	
All containers checked for preservation:	✓			16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				PH<2	
All containers meet method preservation requirements:	✓			Initial when completed PS	Date/Time of Preservation
				Lot# of added Preservative	
8260C/D: Headspace in VOA Vials (> 6mm)			✓	17.	
624.1: Headspace in VOA Vials (0mm)			✓	18.	
Trip Blank Present:			✓	Trip blank custody seal present? YES or NO	
Rad Samples Screened <.05 mrem/hr.	✓			Initial when completed BR	Date: 12-11-23 / Survey Meter SN: 2564380

Comments:

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Client

Site 12660001

Page 1 of 1

Profile Number 814

Notes

		Amber Glass					Plastic								Vials					Other									
Sample Line Item	Matrix	AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	GCUB	GJN	12GN	GN	BG1U		
001	WT						2																						
002	WT						2																						
003	SL							2												2									

Container Codes

Glass

GJN	1 Gallon Jug with HNO3	DG9S	40mL amber VOA vial H2SO4
AG5U	100mL amber glass unpreserved	VG9U	40mL clear VOA vial
AG5T	100mL amber glass Na Thiosulfate	VG9T	40mL clear VOA vial Na Thiosulfate
GJN	1 Gallon Jug	VG9H	40mL clear VOA vial HCl
AG1S	1L amber glass H2SO4	JGFU	4oz amber wide jar
AG1H	1L amber glass HCl	WGFU	4oz wide jar unpreserved
AG1T	1L amber glass NA Thiosulfate	BG2U	500mL clear glass unpreserved
BG1U	1L clear glass unpreserved	AG2U	500mL amber glass unpreserved
AG3S	250mL amber glass H2SO4	WGKU	8oz wide jar unpreserved
AG3U	250mL amber glass unpreserved	GN	General

Plastic/Misc.

GCUB	1 gallon cubitainer	EZI	5g Encore
12GN	1/2 gallon cubitainer	VOAK	Kit Volatile Solid
SP5T	120mL coliform Na Thiosulfate		Wipe/Swab
BP1N			Siploc Bag
BP1U			
BP3S			Water
BP3N			olid
BP3U			Non-Aq Liquid
BP3C	250mL plastic NAOH	WP	Wipe
BP2S	500mL plastic H2SO4		
BP2U	500mL plastic unpreserved		

WO#: 30646527
PM: JPH Due Date: 01/03/24
CLIENT: ROCK

Four Rivers
Sanitation Authority

Certified Mail

ADDRESS: 3501 Kishwaukee Street
PO Box 7480
Rockford, IL 61126-7480

DATE: 12/01/2023

TO: Illinois Emergency Management Agency
Attn: Treatment Residuals Exemption
1035 Outer Park Drive
Springfield, IL 62704

RE: FRSA Permit No: 2018-SC63720
Quarterly Radium Cake Monitoring Report

Pursuant to Special Condition 2 of the permit, the Authority has sampled the centrifuge cake and analyzed a sample for Radium from each quarter. The results of the analysis are attached.

Respectfully submitted,

Greg Cassaro
Director of Plant Operations

NPDES ID: ILL027201
Biosolids Status: Active
Facility Name: ROCK RIVER WRD
3333 KISHWAUKEE STREET ROCKFORD, IL 61126

View Annual Report

NPDES FORM 6100-035	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 BIOSOLIDS ANNUAL REPORT	Form Approved. OMB No. 2040-0004. Exp. 03/31/2022

EPA's sewage sludge regulations require certain publicly owned treatment works (POTWs) and Class I sewage sludge management facilities to submit to a Sewage Sludge (Biosolids) Annual Report (see 40 CFR 503.18 (https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_118), 503.28 (https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_128), 503.48 (https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_148)). Facilities that must submit a Sewage Sludge (Biosolids) Annual Report include POTWs with a design flow rate equal to or greater than one million gallons per day, POTWs that serve 10,000 people or more, Class I Sludge Management Facilities (as defined by 40 CFR 503.9 (https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_19)), and facilities otherwise required to file this report (e.g., permit condition, enforcement action, state law). This is the electronic form for Sewage Sludge (Biosolids) Annual Report filers to use if they are located in one of the states, tribes, or territories (https://www.epa.gov/npdes/npdes-state-program-information) where EPA administers the Federal biosolids program.

For the purposes of this form, the term 'sewage sludge (https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_19)' also refers to the material that is commonly referred to as 'biosolids'. EPA does not have a regulatory definition for biosolids but this material is commonly referred to as sewage sludge that is placed on, or applied to the land to use the beneficial properties of the material as a soil amendment, conditioner, or fertilizer. EPA's use of the term 'biosolids' in this form is to confirm that information about beneficially used sewage sludge (a.k.a. biosolids) should be reported on this form.

Public Availability of Information Submitted on and with General Permit Reports

EPA may make all the information submitted through this form (including all attachments) available to the public without further notice to you. Do not use this online form to submit personal information (e.g., non-business cell phone number or non-business email address), confidential business information (CBI), or if you intend to assert a CBI claim on any of the submitted information. Pursuant to 40 CFR 2.203(a), EPA is providing you with notice that all CBI claims must be asserted at the time of submission. EPA cannot accommodate a late CBI claim to cover previously submitted information because efforts to protect the information are not administratively practicable since it may already be disclosed to the public. Although we do not foresee a need for persons to assert a claim of CBI based on the types of information requested in this form, if persons wish to assert a CBI claim we direct submitters to contact the NPDES eReporting Help Desk (NPDESeReporting@epa.gov (mailto:NPDESereporting@epa.gov)) for further guidance.

Please note that EPA may contact you after you submit this report for more information regarding your sewage sludge management program.

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0004). Responses to this collection of information are mandatory in accordance with EPA regulations (40 CFR 503.18, 503.28, and 503.48). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information are estimated to average 3 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden including through the use of automated collection techniques to the Director, Regulatory Support Division, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Program Information

Please select all of the following that apply to your obligation to submit a Sewage Sludge (Biosolids) Annual Report in compliance with 40 CFR part 503. The facility is:

- a POTW with a design flow rate equal to or greater than one million gallons per day
- a POTW that serves 10,000 people or more

In the reporting period, did you manage your sewage sludge or biosolids using any of the following management practices: land application, surface disposal, or incineration?

☑ YES ☐ NO

If your facility is a POTW, please provide the estimated total amount of sewage sludge produced at your facility for the reporting period (in dry metric tons). If your facility is not a POTW, please provide the estimated total amount of biosolids produced at your facility for the reporting period (in dry metric tons).

3473.2

Reporting Period Start Date: 01/01/2022 **Reporting Period End Date:** 12/31/2022

Treatment Processes

Processes to Significantly Reduce Pathogens (PSRP):
Anaerobic Digestion

Processes to Further Reduce Pathogens (PFRP):

Physical Treatment Options:
Preliminary Operations (e.g., sludge grinding, degritting, blending)
Thickening (e.g., Gravity and/or Flotation Thickening, Centrifugation, Belt Filter Press, Vacuum Filter, Screw Press)

Other Processes to Manage Sewage Sludge:
Methane or Biogas Capture and Recovery
Other Treatment Process

Other Treatment Process Text Area

Temporary sludge storage (centrifuge cake is stored in a covered building for less than 8 months.)

Analytical Methods

Did you or your facility collect sewage sludge or biosolids samples for laboratory analysis? ☑ YES ☐ NO

Analytical Methods

- EPA Method 7471 - Mercury (CVAA)
- Standard Method 4500-N - Nitrogen
- Standard Method 4500-Norg - Organic Nitrogen
- Standard Method 2540 - Total Solids
- Standard Method 2540 - Volatile Solids
- EPA Method 1311 - Toxicity Characteristic Leaching Procedure
- Standard Method 9221 - Fecal coliform

Other Analytical Methods

- Other Specific Oxygen Uptake Rate Analytical Method
  Other Analytical Methods Text Area:

EPA 200.8 Arsenic, EPA 200.8 Cadmium, EPA 200.8 Chromium, EPA 200.8 Copper, EPA 200.8 Lead, EPA 200.8 Molybdenum, EPA 200.8 Nickel, EPA 200.8 Selenium, EPA 200.8 Zinc, EPA 200.8 Beryllium, EPA/625/R-92/013 Helminth Ova, EPA/625/R-92/013 Enteric Viruses, Standard Method 5520 Oil and Grease, EPA 420.1 Phenol, EPA-Methods of Soil-Rev 2nd Ed Part 2, 1982 Nitrate

Sludge Management - Land Application

ID: 001

Amount: 3172

Management Practice Detail: Agricultural Land Application

Bulk or Bag/Container: Bulk

Handler, Preparer, or Applier Type: Off-Site Third-Party Handler or Applier

NPDES ID of handler:

Facility Information:
Stewart Spreading
3870 N. Route 71
Sheridan, IL 60551
US

Contact Information:
Billie Marko
Compliance, Reporting and Administration
815-695-5667
billie@stewartspreading.com

Pathogen Class: Class B

Sewage Sludge or Biosolids Pathogen Reduction Options:

- Class B-Alternative 2 PSRP 3: Anaerobic Digestion

Sewage Sludge or Biosolids Vector Attraction Reduction Options:

- Option 1 - Volatile Solids Reduction
- Option 10 - Sewage Sludge Timely Incorporation into Land

Did the facility land apply bulk sewage sludge when one or more pollutants in the sewage sludge exceeded 90 percent or more of any of the cumulative pollutant loading rates in Table 2 of 40 CFR 503.13?

☐ YES ☑ NO ☐ UNKNOWN

Monitoring Data

INSTRUCTIONS: Pollutants, pathogen densities, and vector attraction reduction must be monitored when sewage sludge or biosolids are applied to the land. Please use the following section to report monitoring data for the land application conducted by you or your facility in the reporting period for this SSUID. These monitoring data should be representative of the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID (40 CFR 503.8(a) (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_18)). All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis. EPA will be using these data to demonstrate compliance with EPA's land application requirements (40 CFR 503, Subpart B).

Compliance Monitoring Periods

INSTRUCTIONS: Please use the table below to identify the start date and end date for each compliance monitoring period. You can adjust the start and end dates as needed. Please note that the compliance monitoring periods cannot overlap and that each compliance monitoring period must have a start date that is equal to or less than the end date. The number of compliance monitoring periods is based on the number of metric tons (dry weight basis) of sewage sludge or biosolids land applied in the reporting period (summed across all land application SSUIDs). For example, you will need to provide monitoring data for 12 compliance monitoring periods for each land application SSUID when you land apply 15,000 or more metric tons (dry weight basis) of sewage sludge or biosolids (summed across all land application SSUIDs) in the reporting period (see 40 CFR 503.16 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_116)).

Compliance Monitoring Event No. 1 | **Compliance Monitoring Period Start Date:** 01/01/2022 | **Compliance Monitoring Period End Date:** 02/28/2022

Do you have analytical results to report for this monitoring period? ☑ YES ☐ NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

☐ YES ☑ NO

Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	4.8	
Cadmium	=	1.9	
Copper	=	1020	
Lead	=	27	
Mercury	=	0.4	
Molybdenum	=	16.5	
Nickel	=	34.6	
Selenium	=	5.5	
Zinc	=	1370	

Pathogen And Vector Attraction Reduction

Note: Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova [see 40 CFR 503.31(f) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(f))]. The following units should be used for pathogen data (see 40 CFR 503.32 (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.32)):

- Density of fecal coliform in the sewage sludge shall be reported as Most Probable Number per gram of total solids (dry weight basis).
    - When using the Class B - Alternative 1 management option, the density of fecal coliform in the sewage sludge shall be reported as Most Probable Number or Colony Forming Units per gram of total solids (dry weight basis) expressed as the geometric mean of the results of seven individual samples of sewage sludge.
- Density of Salmonella sp. bacteria in the sewage sludge shall be reported as Most Probable Number per four grams of total solids (dry weight basis).
- Density of enteric viruses shall be reported as plaque-forming unit per four grams of total solids (dry weight basis).
- Density of Helminth Ova. shall be reported as viable helminth ovum per four grams of total solids (dry weight basis).

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Vector Attraction Reduction Selected Options	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	Option 1 - Volatile Solids Reduction	=	72.4	

Note: Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents [see 40 CFR 503.31(k) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(k))]. The following units should be used for vector attraction reduction data (see 40 CFR 503.33) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33):

- Solids, total volatile, shall be reported as percent removal. See calculation procedures in "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" (https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge), EPA-625/R-92/013, 1992, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268) [see 40 CFR 503.33(b)(1) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33#p-503.33(b)(1))]. Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air [see 40 CFR 503.31(l) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(l))].
- Specific Oxygen Update Rate (SOUR) shall be reported as milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius. SOUR is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge [see 40 CFR 503.31(h) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(h))].

Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	4.75	
Cadmium	=	1.85	
Copper	=	982	
Lead	=	26.4	
Mercury	=	0.35	
Nickel	=	33.45	
Selenium	=	5.2	
Zinc	=	1305	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	69709	

Compliance Monitoring Event No. 2 **Compliance Monitoring Period Start Date:** 03/01/2022 **Compliance Monitoring Period End Date:** 04/30/2022

Do you have analytical results to report for this monitoring period? ☑ YES ☐ NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

☐ YES ☑ NO

Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	4.5	
Cadmium	=	1.5	
Copper	=	1010	
Lead	=	24.7	
Mercury	=	0.6	
Molybdenum	=	14.7	
Nickel	=	33	
Selenium	=	6.2	
Zinc	=	1400	

Pathogen And Vector Attraction Reduction

Note: Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova [see 40 CFR 503.31(f) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(f))]. The following units should be used for pathogen data (see 40 CFR 503.32 (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.32)):

- Density of fecal coliform in the sewage sludge shall be reported as Most Probable Number per gram of total solids (dry weight basis).
    - When using the Class B - Alternative 1 management option, the density of fecal coliform in the sewage sludge shall be reported as Most Probable Number or Colony Forming Units per gram of total solids (dry weight basis) expressed as the geometric mean of the results of seven individual samples of sewage sludge.
- Density of Salmonella sp. bacteria in the sewage sludge shall be reported as Most Probable Number per four grams of total solids (dry weight basis).
- Density of enteric viruses shall be reported as plaque-forming unit per four grams of total solids (dry weight basis).
- Density of Helminth Ova. shall be reported as viable helminth ovum per four grams of total solids (dry weight basis).

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Vector Attraction Reduction Selected Options	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	Option 1 - Volatile Solids Reduction	=	73.6	

Note: Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents [see 40 CFR 503.31(k) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(k))]. The following units should be used for vector attraction reduction data (see 40 CFR 503.33) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33):

- Solids, total volatile, shall be reported as percent removal. See calculation procedures in "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" (https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge), EPA-625/R-92/013, 1992, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268) [see 40 CFR 503.33(b)(1) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33#p-503.33(b)(1))]. Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air [see 40 CFR 503.31(l) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(l))].
- Specific Oxygen Update Rate (SOUR) shall be reported as milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius. SOUR is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge [see 40 CFR 503.31(h) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(h))].

Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	4.2	
Cadmium	=	1.45	
Copper	=	960.5	
Lead	=	24.25	
Mercury	=	0.55	
Nickel	=	32.9	
Selenium	=	6.15	
Zinc	=	1400	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	71583	

Compliance Monitoring Event No. 3 **Compliance Monitoring Period Start Date:** 05/01/2022 **Compliance Monitoring Period End Date:** 06/30/2022

Do you have analytical results to report for this monitoring period? ☑ YES ☐ NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

☐ YES ☑ NO

Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	4	
Cadmium	=	1.6	
Copper	=	1010	
Lead	=	29.5	
Mercury	=	0.7	
Molybdenum	=	15.3	
Nickel	=	29.8	
Selenium	=	7.9	
Zinc	=	1140	

Pathogen And Vector Attraction Reduction

Note: Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova [see 40 CFR 503.31(f) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(f))]. The following units should be used for pathogen data (see 40 CFR 503.32 (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.32)):

- Density of fecal coliform in the sewage sludge shall be reported as Most Probable Number per gram of total solids (dry weight basis).
    - When using the Class B - Alternative 1 management option, the density of fecal coliform in the sewage sludge shall be reported as Most Probable Number or Colony Forming Units per gram of total solids (dry weight basis) expressed as the geometric mean of the results of seven individual samples of sewage sludge.
- Density of Salmonella sp. bacteria in the sewage sludge shall be reported as Most Probable Number per four grams of total solids (dry weight basis).
- Density of enteric viruses shall be reported as plaque-forming unit per four grams of total solids (dry weight basis).
- Density of Helminth Ova. shall be reported as viable helminth ovum per four grams of total solids (dry weight basis).

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Vector Attraction Reduction Selected Options	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	Option 1 - Volatile Solids Reduction	=	72	

Note: Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents [see 40 CFR 503.31(k) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(k))]. The following units should be used for vector attraction reduction data (see 40 CFR 503.33) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33):

- Solids, total volatile, shall be reported as percent removal. See calculation procedures in "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" (https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge), EPA-625/R-92/013, 1992, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268) [see 40 CFR 503.33(b)(1) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33#p-503.33(b)(1))]. Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air [see 40 CFR 503.31(l) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(l))].
- Specific Oxygen Update Rate (SOUR) shall be reported as milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius. SOUR is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge [see 40 CFR 503.31(h) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(h))].

Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	3.9	
Cadmium	=	1.55	
Copper	=	983	
Lead	=	26.55	
Mercury	=	0.65	
Nickel	=	27.6	
Selenium	=	7.25	
Zinc	=	1095	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	62388	

Compliance Monitoring Event No. 4 **Compliance Monitoring Period Start Date:** 07/01/2022 **Compliance Monitoring Period End Date:** 08/31/2022

Do you have analytical results to report for this monitoring period? ☑ YES ☐ NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

☐ YES ☑ NO

Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	15.9	
Cadmium	=	2.2	
Copper	=	1030	
Lead	=	33.5	
Mercury	=	0.8	
Molybdenum	=	16.1	
Nickel	=	40.5	
Selenium	=	7.8	
Zinc	=	1160	

Pathogen And Vector Attraction Reduction

Note: Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova [see 40 CFR 503.31(f) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(f))]. The following units should be used for pathogen data (see 40 CFR 503.32 (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.32)):

- Density of fecal coliform in the sewage sludge shall be reported as Most Probable Number per gram of total solids (dry weight basis).
    - When using the Class B - Alternative 1 management option, the density of fecal coliform in the sewage sludge shall be reported as Most Probable Number or Colony Forming Units per gram of total solids (dry weight basis) expressed as the geometric mean of the results of seven individual samples of sewage sludge.
- Density of Salmonella sp. bacteria in the sewage sludge shall be reported as Most Probable Number per four grams of total solids (dry weight basis).
- Density of enteric viruses shall be reported as plaque-forming unit per four grams of total solids (dry weight basis).
- Density of Helminth Ova. shall be reported as viable helminth ovum per four grams of total solids (dry weight basis).

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Vector Attraction Reduction Selected Options	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	Option 1 - Volatile Solids Reduction	=	69.6	

Note: Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents [see 40 CFR 503.31(k) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(k))]. The following units should be used for vector attraction reduction data (see 40 CFR 503.33) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33):

- Solids, total volatile, shall be reported as percent removal. See calculation procedures in "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" (https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge), EPA-625/R-92/013, 1992, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268) [see 40 CFR 503.33(b)(1) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33#p-503.33(b)(1))]. Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air [see 40 CFR 503.31(l) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(l))].
- Specific Oxygen Update Rate (SOUR) shall be reported as milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius. SOUR is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge [see 40 CFR 503.31(h) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(h))].

Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	10.15	
Cadmium	=	2.2	
Copper	=	1000.5	
Lead	=	33.05	
Mercury	=	0.8	
Nickel	=	37.9	
Selenium	=	7.15	
Zinc	=	1155	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	54713	

Compliance Monitoring Event No. 5 **Compliance Monitoring Period Start Date:** 09/01/2022 **Compliance Monitoring Period End Date:** 10/31/2022

Do you have analytical results to report for this monitoring period? ☑ YES ☐ NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

☐ YES ☑ NO

Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	6.7	
Cadmium	=	2.3	
Copper	=	1070	
Lead	=	45.2	
Mercury	=	0.6	
Molybdenum	=	16.3	
Nickel	=	39.8	
Selenium	=	6.9	
Zinc	=	2020	

Pathogen And Vector Attraction Reduction

Note: Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova [see 40 CFR 503.31(f) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(f))]. The following units should be used for pathogen data (see 40 CFR 503.32 (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.32)):

- Density of fecal coliform in the sewage sludge shall be reported as Most Probable Number per gram of total solids (dry weight basis).
    - When using the Class B - Alternative 1 management option, the density of fecal coliform in the sewage sludge shall be reported as Most Probable Number or Colony Forming Units per gram of total solids (dry weight basis) expressed as the geometric mean of the results of seven individual samples of sewage sludge.
- Density of Salmonella sp. bacteria in the sewage sludge shall be reported as Most Probable Number per four grams of total solids (dry weight basis).
- Density of enteric viruses shall be reported as plaque-forming unit per four grams of total solids (dry weight basis).
- Density of Helminth Ova. shall be reported as viable helminth ovum per four grams of total solids (dry weight basis).

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Vector Attraction Reduction Selected Options	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	Option 1 - Volatile Solids Reduction	=	69.5	

Note: Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents [see 40 CFR 503.31(k) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(k))]. The following units should be used for vector attraction reduction data (see 40 CFR 503.33) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33):

- Solids, total volatile, shall be reported as percent removal. See calculation procedures in "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" (https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge), EPA-625/R-92/013, 1992, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268) [see 40 CFR 503.33(b)(1) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33#p-503.33(b)(1))]. Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air [see 40 CFR 503.31(l) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(l))].
- Specific Oxygen Update Rate (SOUR) shall be reported as milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius. SOUR is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge [see 40 CFR 503.31(h) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(h))].

Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	6.2	
Cadmium	=	2.2	
Copper	=	1055	
Lead	=	41.6	
Mercury	=	0.6	
Nickel	=	39.65	
Selenium	=	6.35	
Zinc	=	1595	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	53659	

Compliance Monitoring Event No. 6 **Compliance Monitoring Period Start Date:** 11/01/2022 **Compliance Monitoring Period End Date:** 12/31/2022

Do you have analytical results to report for this monitoring period? ☑ YES ☐ NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

☐ YES ☑ NO

Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113), EPA's regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 (http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	5.5	
Cadmium	=	1.8	
Copper	=	934	
Lead	=	28.9	
Mercury	=	0.8	
Molybdenum	=	14.8	
Nickel	=	36.2	
Selenium	=	7	
Zinc	=	1380	

Pathogen And Vector Attraction Reduction

Note: Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova [see 40 CFR 503.31(f) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(f))]. The following units should be used for pathogen data (see 40 CFR 503.32 (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.32)):

- Density of fecal coliform in the sewage sludge shall be reported as Most Probable Number per gram of total solids (dry weight basis).
    - When using the Class B - Alternative 1 management option, the density of fecal coliform in the sewage sludge shall be reported as Most Probable Number or Colony Forming Units per gram of total solids (dry weight basis) expressed as the geometric mean of the results of seven individual samples of sewage sludge.
- Density of Salmonella sp. bacteria in the sewage sludge shall be reported as Most Probable Number per four grams of total solids (dry weight basis).
- Density of enteric viruses shall be reported as plaque-forming unit per four grams of total solids (dry weight basis).
- Density of Helminth Ova. shall be reported as viable helminth ovum per four grams of total solids (dry weight basis).

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Vector Attraction Reduction Selected Options	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	Option 1 - Volatile Solids Reduction	=	70.8	

Note: Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents [see 40 CFR 503.31(k) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(k))]. The following units should be used for vector attraction reduction data (see 40 CFR 503.33) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33):

- Solids, total volatile, shall be reported as percent removal. See calculation procedures in "Environmental Regulations and Technology - Control of Pathogens and Vector Attraction in Sewage Sludge" (https://www.epa.gov/biosolids/control-pathogens-and-vector-attraction-sewage-sludge), EPA-625/R-92/013, 1992, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268) [see 40 CFR 503.33(b)(1) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.33#p-503.33(b)(1))]. Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air [see 40 CFR 503.31(l) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(l))].
- Specific Oxygen Update Rate (SOUR) shall be reported as milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius. SOUR is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in the sewage sludge [see 40 CFR 503.31(h) (https://www.ecfr.gov/current/title-40/chapter-I/subchapter-O/part-503/subpart-D/section-503.31#p-503.31(h))].

Monthly Average Pollutant Concentration Data for All Sewage Sludge or Biosolids Applied to Land

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis or Pass/Fail)	If No Data, Select One Of The Following
Arsenic	=	5.35	
Cadmium	=	1.7	
Copper	=	919	
Lead	=	20.75	
Mercury	=	0.6	
Nickel	=	35.65	
Selenium	=	6.4	
Zinc	=	1210	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	60855	

Sludge Management - Surface Disposal

Sludge Management - Incineration

Sludge Management - Other Management Practice

Additional Information

Please enter any additional information that you would like to provide in the comment box below.

Additional Attachments

Name	Created Date	Size

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

Certified By: Greg Cassaro (GCASSARO)

Certified On: 01/17/2023 8:15 AM