CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5

Purpose:
Compliance Sampling Inspection

Facility:
Conrad Farms LLC
19900 Indian Hollow Road
Grafton, Ohio
Lorain County, Ohio
41.192011, -82.101401

NPDES Permit Number: No Permit.

ICIS Tracking Number: OHA000047

Date of Inspection: 4/18/2022

U.S. Environmental Protection Agency (EPA) Representatives:

Anne Marie Vincent, EPA	440-250-1720	vincent.annemarie@epa.gov
Danny Nguyen, EPA	440-250-1709	nguyen.danny@epa.gov

Facility Representatives:

Richard Conrad, Co-owner/Primary Operator	216-396-7015
David Conrad, Co-owner/Secondary Operator	216-924-0657

Inspector Name and Title: Anne Marie Vincent, Life Scientist, Water Enforcement and Compliance Assurance Branch, Multimedia Section

Inspector Signature/ Date:

ANNE VINCENT Digitally signed by ANNE VINCENT
Date: 2022.06.15 13:26:45 -04'00'

Approver Name and Title: Brooke Furio, Multimedia Section Supervisor, Water Enforcement and Compliance Assurance Branch, Multimedia Section

Approver Signature/ Date:

Furio, Brooke Digitally signed by Furio, Brooke
Date: 2022.06.15 14:12:33 -04'00'

1. BACKGROUND

The purpose of this report is to describe, evaluate and document Conrad Farms LLC's compliance with the Clean Water Act (CWA) at its Grafton, Ohio facility on April 18, 2022. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended.

Conrad Farms LLC (Conrad Farms) is a medium dairy animal feeding operation with approximately 225 mature milking cows, 25 dry cows, 125 heifers and 125 calves. Prior to the inspection, EPA had observed potential areas of discharge at Conrad Farms to waters of the United States, namely the East Branch Black River, in aerial photographs.

From aerial photographs it appears that any uncontrolled discharges from drainage swales and/or overflows of containment lagoons/ponds would flow into the East Branch Black River which flows along the southwest, south, and southeast property lines of the facility. The East Branch Black River flows to the Black River which flows into Lake Erie. The East Branch Black River, the Black River and Lake Erie are all waters of the United States and traditional navigable waterways.

2. SITE INSPECTION

Table 1: Site Entry and Opening Conference

Arrival Time:	9:05 a.m.
Temperature:	40° F dropping to low 30s mid-morning
Precipitation:	Rain/wet light snow
Presented credentials?	Yes
Credentials presented to whom and at what time?	Richard Conrad, Co-owner/Primary Operator at 9:20 a.m. Credentials were presented when Richard and David Conrad arrived at the front of the dairy to greet EPA representatives.

The United States Environmental Protection Agency representatives arrived on April 18, 2022, at Conrad Farms LLC in Lorain County, Ohio at approximately 9:05 a.m. EPA Inspectors Anne Marie Vincent and Danny Nguyen donned disposable boot covers. No operators were immediately present upon arrival, however, at approximately 9:20 a.m., EPA was met by Mr. Richard Conrad and Mr. David Conrad, the co-owners of the farm. EPA representatives presented their credentials to Mr. Richard Conrad, co-owner, and primary operator of the farm. After EPA presented their credentials to Mr. Richard Conrad, EPA conducted the entry interview to explain the purpose for the inspection and EPA's authority to conduct the inspection at the Animal Feeding Operation. EPA's authority comes from Section 308 of the Clean Water Act. Mr. Richard Conrad was the primary facility participant during the inspection, as Mr. David Conrad attended to daily dairy operations and participated as he was able in between managing dairy operations.

EPA confirmed the number of dairy cows included 225 mature milking cows, 25 dry dairy cows, 125 heifers and 125 calves. There are no bulls on site. Young male calves are only at the facility for two or three days before being sold. Breeding is done through artificial insemination.

EPA explained that the inspection would include questions from an inspection checklist, a facility walk-through to determine compliance with the Clean Water Act and a closing conference. EPA explained that if a discharge was observed during the walk-through, samples would need to be collected. EPA asked Mr. Richard Conrad if he would want split samples in the event samples were collected. Mr. Richard Conrad declined to receive split the samples.

If photographs or documents were taken, does the facility consider any to be Confidential Business Information (CBI)?	No, per Richard Conrad
Which information does the facility consider to be CBI?	EPA advised Mr. Richard Conrad that if he determined anything on the site was CBI, to inform EPA. Mr. Richard Conrad did not think that anything EPA had discussed or that anything EPA may see on the site would be considered CBI.
EPA vehicle parked in approved location.	Yes. Mr. Richard Conrad stated that EPA's vehicles were parked in an approved location.
Location where EPA vehicle was parked?	North paved driveway in front of the dairy office. Photographs DSCN3762 and DSCN3763.
Disposable boots worn?	Yes.
Other bio-security measures taken (state vet contacted, etc.):	The Ohio State Veterinarian was contacted prior to the inspection to confirm there were no local outbreaks or biosecurity concerns in the area.

2.1 Records Review (The following Records Review tables reflect information provided before the walk-through of the facility, unless otherwise noted.)

Table 2: Documents

Checklist(s) Used
R5 CAFO Inspection Checklist
Facility Documents Reviewed:
None.

Table 3: Facility Description

Type of Animal	**Number of Animals**	**Capacity**	**Type of Confinement**
Milking Cows	225	225	East and West Freestall Barns
Dry Cows	25	25	Bedded Pack Barn
Heifers	125	125	Heifer Barn is 25% freestalls and 75% bedded pack in pens.
Calves	125	125	Bedded Pack Barn
Bulls	0	N/A	N/A
Minimum Number of Animals in previous 5 years:			500 minimum total animals in the last 5 years.
Maximum Number of Animals in previous 5 years:			510 maximum total dairy animals in the last 5 years.
Number of Animals that are stabled/confined and/or fed/maintained for 45 days or more in previous 12 months:			500 total animals.
Amount of Liquid Manure Generated per year:			Richard Conrad estimated 2 million gallons, but he was not sure.
Amount of Solid Manure Generated per year:			Not known.
Does the facility have an NPDES Permit?			No.
SIC or NAICS code:			0241
CAFO Designation/Defined Date (If a designated CAFO)			Defined as CAFO by the size and a discharge through a point source to waters of the United States.
Do animals have direct access to WOUS?			No.
Are crops, vegetation, forage growth, or post-harvest residues sustained in the normal growing season over any portion of the lot or facility where animals are kept?			No.
What is the area (acres) of the production area?			Approximately 15 acres.
What is the area (acres) of the pasture?			No Pasture.
How many employees (not counting family members)?			5 non-family employees with 3 being part-time high school students.

Other facilities under common ownership (name and address):
None, per Richard Conrad.

Table 4: Livestock Waste Storage

Type of Storage	**Storage Capacity**	**Type of Liner**	**Depth Markers Present**	**Last Time Waste was Removed**	**Amount of Waste Removed**	**Days of Storage**
Smaller (north) Manure Lagoon (Constructed 1990s – NRCS design)	450,000 gallons	Concrete bottom floor with compacted clay sides.	None.	April 2022 Had just begun pumping manure out for land application in 2022.	Combined volume with south manure lagoon, 165,000 gallons total.	Combined with south manure lagoon = estimated 5 months.
Larger (south) Manure Lagoon (Constructed early 2000s – NRCS design)	600,000 gallons	Concrete bottom floor with compacted clay sides.	None.	April 2022 Had just begun pumping manure out for land application in 2022.	Combined volume with north manure lagoon, 165,000 gallons total.	Combined with north manure lagoon = estimated 5 months.
Series of Three Sediment Pods (NRCS designed) Sediment Pods are defined in the report narrative, Section 2.2.	Unknown	Earthen	None. Pods estimated at 3 feet deep.	Liquids pumped from last pod via an automatic float in a reception sump. Liquids are pumped into the south retention pond.	Unknown. Solids are also removed from pods and land applied as needed. Solids were removed Fall 2021.	Unknown
South Retention Pond	Unknown	Unknown	None	Liquids are removed 2 times per year for land application or liquid is pumped into both manure lagoons to	Unknown	Unknown

				further liquify the manure to improve its pumpability.		
Silage/Feed Storage Pad/Emergency Used Bedding Storage	40,000 square feet	Concrete Storage Pad	Not Applicable	Pile observed on silage/feed pad during inspection. Waiting to be land applied.	Not Applicable	Only used when interior used bedding storage areas within the heifer, dry cow and nursey barns are full.
Solid Stacking/ Used Bedding Storage Areas (within the heifer, dry cow, and nursery barns)	Unknown	Concrete floor	None.	Weather Permitting, will begin in April 2022.	None removed yet at time of inspection.	Heifer and dry cow barns can store approximately 3 to 4 months of bed pack. The nursery has less inside storage for used pen-pack.
Records at site of storage structure design?				Richard Conrad was unsure of the current location of the original as-built drawings for the storage structures.		
Is manure stored for the short term? **If yes, describe where it is stored, how it is drained and where it drains to.**				Yes, when stackable pen-pack solids storage areas within the animal barns are full and land application cannot be conducted, the additional pen-pack solids are stored uncovered on the silage/feed storage pad. Any run-off from leachate or storm water on the silage/feed storage pad drains towards the east edge of the concrete storage pad which is designed and graded to flow south into the south retention pond.		
Are records kept of the level of manure in the storage structures?				No.		
When was the last time a storage structure was emptied, either partially or completely?				Richard Conrad had stated that the facility had just begun pumping manure out of the manure lagoons for land application for the first time this year in April 2022 prior to the inspection.		

What amount of manure or process wastewater was removed the last time the storage structure was emptied, either partially or completely?	Richard Conrad estimated that the facility had pumped 165,000 gallons of manure out of the manure lagoons in the week prior to the inspection. (22 loads x 7,500 gallons per load)
Do the facility personnel inspect and keep records of all diversion devices?	Personnel inspect diversion devices during daily operations, but no records are kept of these inspections.
Do the facility personnel inspect and keep records of all impoundments?	Personnel inspect impoundments during daily operations, but no records are kept of these inspections.
Do the facility personnel inspect and keep records of all the water lines?	Personnel inspect water lines during daily operations, but no records are kept of these inspections.
Do the facility personnel perform routine visual inspections and keep records of the production area?	Richard Conrad stated that facility personnel do perform routine visual inspections of the production area, but they do not keep formal records of those visual inspections.
Does the waste storage system have a managed outfall or discharge point?	There are no designed and managed outfalls or discharge points in the waste storage system. However, EPA observed an overflow discharge of production wastewater from the south retention pond during the inspection. This process wastewater overflow from the pond flowed through the adjacent woods and discharged into the East Branch Black River.
Has the facility had any documented discharges of livestock waste to surface water in the past year?	Richard Conrad stated that he was not aware of any documented discharges of livestock waste to surface waters in the past year. When asked specifically about discharges from the south retention pond, Richard Conrad stated that he was unsure if the south retention pond had had any discharges to surface water in the last year.
Are there safety devices installed around any manure storage ponds? (Barriers at the end of manure push off platforms, fences around pond, signage.)	Yes. There are safety cables that extend across the push ramps into both manure lagoons.
Additional Information:	No.

Table 5: Livestock Waste Management

Describe the way manure is collected and disposed of at the facility:
A skidsteer with a squeegee attachment is used to manually scrape manure solids from the cow lanes and the freestall barns into either the smaller north manure lagoon or the larger south manure lagoon. The areas are scraped approximately three times per day or as needed. Richard Conrad estimated that the amount of liquid manure generated annually was about 2 million gallons, although he wasn't sure of the exact annual volume. Each manure lagoon is emptied down to its concrete floor twice per year. Manure in both manure lagoons is land applied. The facility also pumps liquid from the south retention pond into the manure lagoons when the manure needs to be further liquified so that it is easier to pump out of the lagoons for land application. The transfer of liquid from the south retention pond to the manure storage lagoons is done with a submersible pump and lay-flat overland hoses (approximately 3-inch/4-inch diameter hoses). The south retention pond receives run-off and leachate from the bunkered concrete silage/feed storage pad (which can also be used for short term solid pen-pack storage as needed when interior storage areas are full) as well as the production area process wastewater run-off and storm water run-off that is collected in the sediment pods and pumped into the retention pond. The sediment pods are a series of three shallow depressions along the east side of the facility that contain process wastewater and storm water run-off from the northeast corner of the milking parlor and the cow treatment areas. The pods flow in series from the first pod to the third pod and allow for settling of solids from the process wastewater and stormwater run-off. According to Richard Conrad, the south retention pond is pumped down 2 times per year at which time the liquid and solids are land applied. Liquid from the south retention pond is also used as mix water to thin the manure in the two manure storage lagoons to improve the pumpability of the manure for land application. Production area run-off from the northeast side of the facility including roof run-off and run-off from the unroofed portion of the north end of the animal treatment coral (east of the milking parlor) flows into the swale and subsequently into the series of sediment pods. From the last pod in the series, flow is pumped via a float activated submersible pump to the retention pond at the south end of the facility.
Describe the way used bedding is collected and disposed of at the facility:
Waterbed mattresses covered with a layer of bedding sawdust on top of concrete bases are used for bedding for the milking cows. The sawdust layer on top of each of the waterbed mattresses is raked 3 times per day with new sawdust added once per day. The raked used sawdust is mixed with the manure that is scraped into the manure lagoons. Sawdust and straw pen-pack are used in the barns housing the heifers, dry cows, and the nursery. The pen-pack for heifers and dry cows is collected approximately 3 times per week and pen-pack for the nursery is collected once per week. When pen-pack bedding is collected, new bedding material is added as needed. Used bedding is

generally land applied as it is removed from the barns. However, there is approximately 3 to 4 months of storage capacity for used bedding within the heifer and dry cow barns during wet months and winter weather. Bedding is then land applied as weather permits.	
Are mortality records kept?	Yes.
Describe the way mortalities are managed at the facility:	
The mortalities are stored outside behind the commodity barn while the facility waits for the rendering service to pick up the mortalities. The renderer is George Flescher out of Akron, Ohio. Richard Conrad stated that Mr. Flescher picks up mortalities within a several hours of the request for mortality pick-up.	
What type of method is used to provide drinking water for the animals? **(Drinkers with float system? Nipple waters? If nipple waters, is backflow prevention installed?)**	City water is used for plate cooler water which is then recycled as drinking water for the animals in the holding area adjacent to the milking parlor. In the holding area, drinking water is provided in two large water tubs which are automatically filled while milk is cycling through the plate coolers. Once the plate cooler water cycling stops, the drinkers stop filling. City water is also directly used as make-up water for all drinkers at the dairy. All other fountain style drinkers for the barns are float activated and the water for these drinkers is city water.
Describe the way spilled drinking water is collected and disposed of at the facility:	
Spilled water from the drinkers is scraped into the manure lagoons when the floors of the freestall barns are scraped. Any spilled drinking water in the barns using bedded pen-pack would fall onto the used pen-pack bedding and become part of the bedding. Used pen-pack can be stored within the animal barns for future land application or immediately land applied depending on the land application weather conditions.	
Describe the way mist cooling water is collected and disposed of at the facility:	
The facility has a mist cooling water system. The water for the mist cooling system comes from the clean water pond that Richard Conrad refers to as the farm pond. The mist cooling water would fall to the floor within the barns and either become mixed with the manure solids that are scraped into the manure lagoons or would become mixed with the solid pen-pack material that is routinely removed and land applied or stored within the barns.	
Describe how chemicals are stored and how used or spilled chemicals are collected and disposed of at the facility:	
Bulk chemicals are stored in a curbed section of the chemical room on the east side of the milking parlor. Foot baths are located in the return alleys and the milking parlor. Bulk teat dip chemical containers are located in the chemical room within the curbing. Teat dip is used in the milking parlor. Any teat dip chemical that would spill on the floor would be scraped up with the manure that is pushed to the smaller north manure	

lagoon or flushed during cleaning to the milking parlor floor drain. The milking parlor floor drain discharges by gravity through a tile into an exterior reception sump on the east side of the milking parlor. The reception sump has an automatic float to pump manure flush water from the milking parlor to the smaller north manure lagoon.
Describe the way water that has been used to wash/flush barns are collected and disposed of at the facility:
Flush water is not used in other barns.
Describe where water comes from that is used to clean and/or flush. (Wells, city, etc.)
Two kinds of flush water are used in the milking parlor. Clean water from the farm pond/clean water pond is used for the final floor flush water. Small hoses connected to city water are used for rinsing off the actual milking units. City water is used for the milk tank wash water.
Describe the way feed is contained and how runoff from feed is collected and disposed of at the facility:
Feed is contained on the bunkered concrete silage/feed storage pad. Feed and silage are generally covered, with one end open for access. Any run-off from leachate or storm water on the concrete silage/feed storage pad drains towards the east edge of the storage pad which is designed and graded to flow south into the south retention pond. Feed supplements (soy hulls, soybean meal, dry cow mix and milking cow mix) are stored within the enclosed commodity barn located off the southwest corner of the west freestall barn. New bedding material and straw is stored in a barn on the south side of the dry cow barn.
If a dairy, describe how process wastewater from the plate cooler water is collected and disposed of at the facility:
City water is used for the plate cooler water. The used plate cooler water is recycled as drinking water for the animals. Any spilled water from the drinkers is scraped into the manure lagoons when the floors of the barns are manually scraped. Any spilled drinking water in the barns using pen-pack would fall onto the used pen-pack bedding and become part of the used bedding that is then land applied.
If a dairy, describe how process wastewater from the cleaning of the milking parlor is collected and disposed of at the facility:
The milking parlor floor is manually scraped to remove manure solids first. The manure solids are scraped to the holding area adjacent to the milking parlor. When the holding area floor is scraped, the manure, including the milking parlor floor scrapings, is scraped into the smaller north manure lagoon. The milking parlor has a floor drain that discharges the parlor wash/flush water by gravity through a tile into an exterior reception sump on the east side of the milking parlor. The reception sump has an automatic float to pump parlor wash/flush water from the milking parlor to the smaller north manure lagoon.

If a dairy, describe how process wastewater from the cleaning of the milk tanks is disposed of at the facility:	
City water is used to wash the milk tanks. The process wastewater from the cleaning of the milk tanks flows into a floor drain that directs the wastewater through a tile to the exterior reception sump on the east side of the milking parlor. The reception sump has an automatic float to pump manure flush water from the milking parlor to the smaller north manure lagoon.	
If a dairy, how many times per day are cows milked?	3 times per day.

Table 6: Land Application and Disposal of Manure and Process Wastewater

Does the facility perform and keep records of the manure testing?	Yes, a contracted agronomist is hired to complete annual manure sampling. The records are kept at the dairy.
When was the last time a sample was taken of the manure and/or process wastewater?	Richard Conrad stated that the last manure sampling was conducted in 2021. Richard Conrad stated that manure/wastewater sample results are consistent with little variation in nutrient values.
Describe the process to take the manure and/or process wastewater sample.	Richard Conrad stated that the contracted agronomist collects the manure sample. The facility has the contractor sample each manure lagoon and combine them for a composite sample of the manure from the lagoons. The facility is not sampling the liquids of the south retention pond. The liquids in the south retention pond have been land applied in the past; however, the liquids are routinely used as mix water that is added to both manure storage lagoons to further liquify the manure so that it is easier to pump out of the lagoons.

Number of acres available for land application:	Richard Conrad estimated the facility has approximately 1,150 acres available for land application. Approximately ½ of those acres are owned and ½ of the acres are leased.
Are land application records kept?	Richard Conrad stated that the facility documents load counts, gallons per acre spread rates and other information necessary to be entered into the computer program for fertilizer/land application.
Who applies the manure and process wastewater to the fields?	The facility uses their own equipment to apply manure to the fields. For fields that are further away from the dairy, they hire a custom applicator to transport the dairy's manure to those fields, but the dairy conducts the actual land application. For fields closer in proximity to the dairy, the facility will transport the manure/wastewater to the fields for land application.
Are weather conditions at time of application kept? (24 before – 24 after)	Richard Conrad stated that they do check the weather forecasts for land application purposes. However, facility personnel are not documenting the weather forecasts.
Does the facility perform and keep records of the soil testing?	Richard Conrad stated that the facility uses a contractor to conduct field soil testing and the records are maintained. All fields are sampled on a rotating schedule on alternating years (every other year). Leased fields are also sampled by the farm's contractor. Each application field has a distinct recipe for variable rate fertilizer and seed supplement fertilizer application.

Is manure transferred off-site to another party?	Richard Conrad stated that occasionally manure/process wastewater is transferred off-site to another party.
Are manure transfer records maintained?	Richard Conrad stated that he does not keep formal manure transfer records. Generally, any manure transfers go to local grain producer's fields within a few miles of the dairy and Conrad Farms transports the manure to be transferred.
Do facility personnel perform periodic inspection of land application equipment?	Richard Conrad stated that visual inspections of the equipment are done during regular operations and use of the equipment, but there are no formal records of the inspections of the equipment.

Table 7: Receiving Surface Waters

Describe the surface flow pathways:	
At the time of the inspection, EPA observed the southeast edge of the south retention pond to be overflowing and discharging into the tall grass area. EPA followed the flow through the grassed area and into the woods located to the southeast of the south retention pond. EPA observed the flow as it continued southeast/east through the woods and then northeast/north along the edge of the woods adjacent to the bank of the East Branch Black River where the flow then discharged into the East Branch Black River.	
How many months out of the year is there flow in the nearest surface water pathway:	According to Richard Conrad, the East Branch Black River flows 12 months out of the year.
Are there any storm water pathways entering the facility?	No storm water pathways were observed entering the facility.
Are there any clean water ponds on site?	Yes. One clean water pond on the west side of the property.
What is the name of the first waterway that is identified as a Traditional Navigable Water (TNW) for surface flow from the facility?	The waterway to the south/southwest/southeast of the facility is the East Branch Black River which is a tributary of the Black River. The Black River is tributary to Lake Erie.
Is the surface water pathway nearest to the facility considered to be ephemeral, intermittent, or perennial?	Perennial waterway.

Has the surface water pathway nearest to the facility been assessed for water quality?	Total Phosphorus, Nitrate-Nitrite, Total Suspended Solids, and *E. coli.* (*Biological and Water Quality Study of the Black River Basin, 2012*)

Table 8: Nutrient Management Plan

NMP on site?	Yes. The facility has a comprehensive nutrient management plan (CNMP).
Date NMP Submitted:	2006
Planner Name/Company:	Agri-Waste Technology, Inc. 5400 Etta Burke Court, Raleigh, North Carolina
Date that the NMP was last updated:	Has not been updated, according to Richard Conrad.
Storage Description:	Information within the CNMP was not reviewed during the inspection.
Amount of Manure Generated:	Information within the CNMP was not reviewed during the inspection.
Capacity of Storage:	Information within the CNMP was not reviewed during the inspection.
Duration of Storage:	Information within the CNMP was not reviewed during the inspection.
Amount of Spreadable Land:	Information within the CNMP was not reviewed during the inspection.
Mortality Management Plan:	Sections of the CNMP were not reviewed during the inspection.
Clean Water Diversion System:	Sections of the CNMP were not reviewed during the inspection.
Direct Contact Prevention Plan:	Sections of the CNMP were not reviewed during the inspection.
Chemical Management Plan:	Sections of the CNMP were not reviewed during the inspection.
Conservation Practices:	The farm has buffer strips along field edges enrolled in federal conservation programs. Enrollment in these paid conservation programs required the CNMP.
Manure Testing Protocols:	Sections of the CNMP were not reviewed during the inspection.
Soil Testing Protocols:	Sections of the CNMP were not reviewed during the inspection.
Land Application Protocols:	Sections of the CNMP were not reviewed during the inspection.
Additional NMP comments:	None.
Does the NMP reflect the current operational characteristics?	According to Richard Conrad, the operational characteristics for liquid manure management are accurately reflected in the CNMP. However, since

	2006, the farm has added the nursery, dry cow, and heifer barns, so the operational characteristics for used dry pen-pack bedding is not accurately reflected in the 2006 CNMP.
Are the number of acres owned/leased consistent with what is listed in the NMP?	According to Richard Conrad, the current number of owned/leased acres is not consistent with the 2006 CNMP. Since 2006, the farm has added 300 to 400 acres that are available for land application.

Table 9: Land Application Records (details of the records reviewed)

Fields available for application this year:	Records not reviewed during inspection.
Timing limitation on fields:	Records not reviewed during inspection.
Annual manure analysis for N and P	Records not reviewed during inspection.
Soil tests for fields (for P) less than 5 years old?	Records not reviewed during inspection.
Inspection of land application equipment documentation:	No records available to review.
Crop:	Records not reviewed during inspection.
Application Rate:	Records not reviewed during inspection.
Crop Yield Goals:	Records not reviewed during inspection.
Timing of land application:	Records not reviewed during inspection.
Method of land application:	Records not reviewed during inspection.
Additional land application information:	Records not reviewed during inspection.

Table 10: Facility Records (details of the records reviewed)

Diversion devices:	No records available for review.
Impoundments:	No records available for review.
Depth marker observations:	No records available for review, no depth markers.
Water Lines:	No records available for review.
Mortality handling:	Rendering service – George Flescher, Akron, Ohio. Receipts not reviewed during inspection.
Storage Structure Design:	Design records were not readily available for review. Richard Conrad was not sure where those records were filed.
Overflow records:	No records available for review.
Crop Yields:	Records not reviewed.
Land Application Dates:	Records not reviewed.
Weather Conditions at time of application (24 before-24 after):	No records available for review.

Test Methods for Manure Testing:	Records not reviewed.
Test Methods for Soil Testing:	Records not reviewed.
Manure Test Results:	Records not reviewed.
Soil Test Results:	Records not reviewed.
Calculations of N and P applied:	Records not reviewed.
Application Methods:	Records not reviewed.
Application Equipment Inspection Dates:	No records available for review.

Table 11: NPDES Permit

Type of permit (General, individual)	No Permit.
Is a copy of the permit on site?	Not Applicable.
Date that the permit was issued:	Not Applicable.
Date that the permit will expire:	Not Applicable.
Permitted number of animal units:	Not Applicable.
Does the permit contain a compliance schedule? If yes, provide a detailed description of the requirements and the status.	Not Applicable.
Have there been any changes made to the production area since the permit was issued? If yes, provide a detailed description.	Not Applicable.
Are there any practices in the permit that are not being done at the facility? (Records kept, inspections performed, etc.)	Not Applicable.

2.2 Walkthrough of the Facility

After completing the initial inspection checklist questions regarding general facility information, EPA started the walk-through of the production area and waterways at approximately 10:00 a.m. ET with Richard Conrad. The walk-through started in the milking parlor at the north end of the Conrad Farms facility. Richard Conrad led EPA through the milking parlor, into the adjacent chemical storage room and then south to the milking parlor cow holding area. A small section of the holding area on the south side of the milking parlor is not roofed. Any precipitation that falls in this unroofed section of the holding area would flow directly into the north manure lagoon via the push ramp or be pushed into the north manure lagoon as manure solids in the holding area are routinely scraped by the skidsteer into the north manure lagoon. At this location Dave Conrad joined Richard Conrad briefly on the walk-through. EPA was also able to observe the cow treatment area adjacent to the cow holding area. The cow treatment area is used for those animal treatment activities that would require the cow to be placed in a catch chute. This area is not used for teat dip or foot bath treatments. The cow treatment area is mostly roofed, but also has a small unroofed section on its north side. EPA observed and

collected photograph documentation of the cow treatment area and the concrete reception sump that receives flush/wash water from the milking parlor (photographs DSCN3674, DSCN3675). The reception sump is located on the exterior east side of the cow treatment area. The reception sump has a float activated pump that pumps the flush/wash water into the smaller north manure lagoon. EPA also observed one of the water tubs in the holding area that provides recycled plate cooler water for the cows to drink.

EPA observed the east and west freestall barns for milking cows. The milking cows are confined in freestall barns on water-filled mattresses with saw dust on top. EPA walked along the exterior of the west side of the west freestall barn and observed the farm pond/clean water pond (Photograph DSCN3676). The clean water pond is designed to overflow via a PVC pipe under the driveway and into a catch basin located on the east side of the driveway in a grassed area on the west side of the west freestall barn's fresh pen section for recently calved cows (Photograph DSCN3759). This catch basin also receives storm water from downspouts on the west barn and runoff from the grass swale on the west side of the west freestall barn (Photographs DSCN3760 and DSCN3761). Richard Conrad stated that this catch basin drains to a surface outlet in the woods on the south end of the farm property and does not outlet to the river.

EPA continued walking south along the driveway and then east between the cow barns to view the manure lagoons on the east side of the facility. EPA observed the smaller north manure lagoon (Photograph DSCN3677) and the larger south manure lagoon (DSCN 3678). EPA observed pumping equipment in place in the larger south manure lagoon as the facility had recently begun land application of lagoon manure for the spring season. EPA continued walking between the west side of the nursery and the fresh straw/sawdust storage barn, and then along the east edge of the concrete silage/feed storage pad. EPA observed run-off from the silage/feed storage pad draining to the concrete drainage trough along the east side of the pad and flowing south into the south retention pond (Photographs DSCN3679, DSCN3680 and DSCN 3681). EPA also observed a pile of stacked used pen-pack on the silage/feed storage pad (Photograph DSCN3682). Richard Conrad explained that when the indoor storage areas for used pen-pack and bedding material are at capacity, the concrete silage/feed storage pad can temporarily be used for emergency storage of the material until land application can take place.

EPA continued walking with Richard Conrad southeast around the southern ends of the new bedding/straw barn and the heifer barn to observe the series of three connected sediment pods on the east side of the facility. Liquid flows from a grassed swale, into the first sediment pod, which in turn flows into the second sediment pod that subsequently flows into the last sediment pod. The series of sediment pods is located at a lower elevation than the rest of the production area. From the higher elevation EPA observed the black corrugated plastic reception sump that receives flow from the last pod of the series. There is a submersible pump in the sump that operates on a float and pumps the collected process wastewater run-off from the last sediment pod into the northeast corner of the south retention pond (Photograph DSCN3683). The process wastewater run-off in the sediment pods is comprised of run-off from the unroofed portion of the cow treatment area (process wastewater), roof run-off from the roofed portion of the cow treatment area,

and roof run-off from the milking parlor. From this elevation, EPA also photographed the series of sediment pods (Photographs DSCN3684 and DSCN3685). Dave Conrad re-joined Richard Conrad on the site walk-through of the sediment pods. EPA and the facility representatives walked downhill to the reception sump for the last sediment pod and photographed the inside of the sump to document the influent pipe from the last sediment pod and the sump effluent pipe that transfers the pumped pod liquid up to the south retention pond (Photograph DSCN3686). EPA photographed the grassed earthen berm constructed between the last sediment pod and the wood line along the bank of the East Branch Black River. This earthen berm extends east and west along the wood line (Photographs DSCN3688 and DSCN3689). EPA then walked the sediment pod flow pathway from the last pod, upstream to where the initial sediment pod swale begins at the northeast corner of the milking parlor building (Photographs DSCN3687, DSCN3690, DSCN3691 and DSCN3692).

After walking the flow path for the series of sediment pods, EPA, Richard Conrad, and Dave Conrad walked the perimeter of the south retention pond. At the northeast edge of the south retention pond, EPA observed a length of black plastic piping rising out of the bank of the pond. Richard Conrad identified that this pipe discharges the liquid flow from the last sediment pod reception sump into the south retention pond. There was also a submersible pump present that is used to transfer liquids from the pond to the manure storage lagoons as needed. EPA photographed the northeast edge of the pond to document the black pipe, submersible pump, and the adjacent blue lay-flat overland hose (Photographs DSCN3693 and DSCN3694). Evidence of solids deposition within the south retention pond was also visible in Photograph DSCN3694. EPA walked south/southwest from the northeast edge of the south retention pond (Photograph DSCN3695) to the southeast edge of the south retention pond. EPA photographed the grassed and partially bermed area to the east of the south retention pond (Photographs DSCN3696 and DSCN3697). At the northeast edge of the south retention pond, EPA observed that the south retention pond was actively discharging. EPA followed the active discharge flow through the grassed area and into the woods located to the south/southeast of the south retention pond. EPA continued to follow the discharge flow southeast through the woods and then northeast/north along the edge of the woods adjacent to the bank of the East Branch Black River where the flow then discharged into the East Branch Black River.

EPA explained to Richard Conrad that due to the active overflow of the pond that was flowing through the woods into the East Branch Black River, EPA would be collecting samples. EPA walked back to the vehicles to gather sampling and monitoring equipment for sample collection. Due to a drop in temperature, the rainfall had become a light snowfall. On the walk back to the south retention pond to conduct sampling, EPA took an additional photograph (DSCN3698) of the run-off flowing along the east edge of the silage/feed storage pad and flowing towards the south retention pond.

EPA began sampling at approximately 12:00 p.m. ET. While sampling and following the flow pathway from the active overflow point on the southeast edge of the south retention pond to the discharge point into the East Branch Black River, EPA documented the

continuous flow path and sample locations with photographs (Photographs DSCN3699 through DSCN3755). EPA also collected field monitoring measurements of temperature, dissolved oxygen, conductance, and pH using a YSI 556 Multi Probe System at each sample location. The YSI 556 was calibrated at the EPA office in Westlake, Ohio prior to the inspection on April 18, 2022. Following the collection of samples and field monitoring measurements from three sample locations, EPA walked back to the vehicles to prepare the sample bottles for E. coli and biochemical oxygen demand analysis for transport to the contract laboratory in Akron, Ohio.

During the walk back to the EPA vehicles, EPA observed the black pipe at the northeast edge of the south retention pond discharging sediment pod liquid into the south retention pond. EPA photographed the flow from the pipe (Photographs DSCN3757 and DSCN3758). EPA also documented the stormwater flow in the drainage swale along the exterior of the west side of the west freestall barn located on the east side of the driveway. The flow in the swale enters into a catch basin located in the grassed area on the west side of the west freestall barn (Photograph DSCN3759) between the commodity barn on the south end and the section of the west freestall barn for recently calved cows. This catch basin receives storm water from downspouts on the west freestall barn as well as runoff from the grass swale (Photographs DSCN3760 and DSCN3761). Richard Conrad stated earlier in the inspection walk-through that this catch basin drains to a surface outlet in the woods on the south end of the farm property and does not outlet to the river.

EPA sampled at the following locations:

1. EPA collected sample S01 from the process wastewater overflow discharge from the southeast edge of the south retention pond.
   (N 41° 11.369', W 82° 06.107')
   (Photographs DSCN3699 and DSCN3700)

2. EPA collected sample S02 from the process wastewater discharge pathway where the flow path curves north/northeast at the east edge of the woods to flow along the edge of the woods. This location is approximately 2/3 of the distance between the south retention pond overflow and the final discharge point into the East Branch Black River.
   (N 41° 11.334', W 82° 06.062')
   (Photographs DSCN3732, DSCN3733 and DSCN3736)

3. EPA collected sample S03 at the location where the process wastewater flow from the south retention pond overflow discharges into East Branch Black River.
   (N 41° 11.3562', W 82° 06.0842')
   (DSCN3751 through DSCN3754).

2.3 Closing Conference and Post-Inspection

EPA (Inspector Vincent) held a closing conference with Mr. Richard Conrad explaining that EPA is concerned with the overflow discharge from the southeast edge of the south retention basin.

Table 12: Post Walk-Through

Were specific Areas of Concern discussed with facility personnel?	Yes.
Who were the Areas of Concern discussed with? Mr. Richard Conrad	
Specific Areas of Concern Discussed: EPA explained that the discharge from the south retention pond was observed to be flowing through the thick grass, south/southeast though the adjacent woods and then finally discharging into the East Branch Black River. EPA exlained that this was a concern because the south retention pond receives process wastewater run-off and leachate from the silage/feed storage pad, as well as the process wastewater run-off and stormwater run-off that is contained in the series of sediment pods and subsequently pumped into the south retention pond. The discharge from the south retention pond therefore is comprised of production area process wastewater and contaminated stormwater. The discharge is an unpermitted discharge.	
Were any deficiencies or areas of concern addressed or fixed during the inspection? If so, list what was done. EPA did not observe any of the areas of concern being addressed at the time of the inspection. However, following the inspection, Mr. Conrad informed EPA on May 9, 2022, that he had hired an environmental consulting firm, ENVi Environmental LLC. Technical consultants from ENVi visited the site on May 2, 2022 and provided a subsequent May 11, 2022 summary letter describing their assessments of the manure and storm water management systems on site. The summary identified that the south retention pond "requires maintenance and redesign to accommodate the waste/water volume that is directed to it." The letter also stated that the pond capacity should be designed to accommodate a 25-year, 24-hour storm event. Additional recommendations were also outlined. A copy of this letter was provided to EPA by Mr. Conrad, and is available in the inspection file for review. Mr. Conrad also provided EPA with photographs of the lowered manure levels in the north and south manure lagoons following land application activities after the inspection. Those photographs are available in the inspection file for review.	
Compliance assistance materials given to facility personnel:	
EPA provided a copy of the 2022 *U.S. EPA Small Business Resources Information Sheet.*	
Exit Time:	Approximately 3:05 p.m ET.
Disposable Boots Left at Facility?	No.

Table 13: Waterway Documentation

List the pathway taken by EPA inspectors to document the waterway at the facility.
EPA walked along the perimeter of the south retention pond and observed the southeast edge of the south retention pond to be overflowing, discharging into the tall grass area. EPA followed the discharge flow through the grassed area and into the woods located to the south/southeast of the south retention pond. EPA continued to follow the discharge flow southeast through the woods and then northeast/north along the edge of the woods adjacent to the bank of the East Branch Black River where the flow then discharged into the East Branch Black River.

Table 14a: Sampling Information

Were samples taken?	Yes.
Were samples split with facility?	No. None Requested
Number of samples taken?	Three.
Was a trip blank created?	Yes.
Identify which sample is the trip blank.	B01
Were field duplicate samples taken (1 duplicate per 20 samples)?	No.
Identify which sample(s) is/are the field duplicate(s)	Not Applicable.
Were equipment blanks taken (if more than one type of equipment was used to collect samples)?	No.
Identify which samples were equipment blanks.	Not Applicable.
List chain of custody for fecal coliform samples:	A Chain of Custody for the samples to be analyzed for *E. coli* and Biochemical Oxygen Demand was filled out and provided to American Analytical Laboratories, Inc. in Akron, Ohio.
Location where samples were preserved:	Samples for analysis of Ammonia, TKN, Total Phosphorus, and Nitrate/Nitrite were preserved when Anne Marie Vincent returned to the EPA office in Westlake, Ohio on April 18, 2022.
Name of people involved with sample preservation:	Anne Marie Vincent
Time of sample preservation:	5:30 p.m. ET
Were samples shipped to a lab?	Yes. Samples for analysis of Ammonia, TKN, Total Phosphorus, Nitrate/Nitrite, TSS and TDS were shipped to the Region 5 EPA Analytical Services Branch lab in Chicago, Illinois.
Name/Address of shipping location:	US EPA Region 5 Analytical Services Branch 536 South Clark Street. 10th Floor Chicago, Illinois, 60605
Date and time that samples were dropped off for shipping:	5/19/2022 3:30 p.m. ET UPS pick up at EPA office Westlake, Ohio
Did all inspectors involved with the sampling sign the chain of custody for each lab used?	Yes.
Weather conditions at the time of sample collection:	Raining turning to Snow
Camera name and type used to photograph sample collection:	Nikon Coolpix W300 SN 31034297

Table 14b: Facility Sample Information

Number	Name	Location/ Lat/Long	Date	Time	Sample Collector and Photographer	Color/ Smell	Photo #	Method of Collection	# of Sulfuric Acid Ampoule Drops
S01	Overflow	Point of overflow discharge at the southeast edge of the south retention pond. N 41° 11.369' W 82° 06.107'	4/18/2022	12:02 p.m.	Anne Marie Vincent	Dark Blackish Green color. No perceptible odor to the sample.	DSCN3699 – DSCN3700	Grab.	50 drops.
S02	Midpoint Flow	Sample of the process wastewater discharge flow collected just past the point where the flow path curves to head north/ northwest along the east edge of the woods, along the bank of the East Branch Black River. N 41° 11.334' W 82° 06.062'	4/18/2022	12:23 p.m.	Anne Marie Vincent	Dark Brown to Blackish color. No perceptible odor to the sample.	DSCN3732, DSCN3733, DSCN3736	Grab.	40 drops.
S03	Discharge	Discharge point where the process wastewater flow from the south retention pond discharges into East Branch Black. River N 41° 11.3562' W 82° 06.0842'	4/18/2022	12:35 p.m.	Anne Marie Vincent	Brown color. No perceptible odor to the sample.	DSCN3751 - DSCN3754	Grab.	30 drops.
B01	Trip Blank	Collected at the government vehicle in driveway.	4/18/2022	1:23 p.m.	Anne Marie Vincent	Clear.	No Photos Taken.	Poured from deionized water jar.	25 drops.

Name of Laboratory where samples for *E. coli* and Biochemical Oxygen Demand analysis were taken:
American Analytical Laboratories Inc., Akron, Ohio.

Name of Laboratory where nutrients and general chemistry samples were taken:
EPA Region 5 Analytical Services Branch Laboratory, Chicago, Illinois.

Table 14c: Facility Sample Analysis Results Summary

Number	Name	Date	Time	E. coli (CFU/100ml)	BOD (mg/L)	Nitrate-Nitrite (mg/L)	Total Phosphorus (mg/L)	Ammonia-Nitrogen (mg/L)	TKN (mg/L)	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)
S01	Overflow	4/18/2022	12:02 p.m.	68,000 ****	610 ***	U	24.6 *	74.4 **	127 **	1240	300
S02	Midpoint Flow	4/18/2022	12:23 p.m.	10,000 ****	600 ***	0.22	15.3 *	37.5 *	69.1 *	954	192
S03	Discharge	4/18/2022	12:35 p.m.	15,000 ****	530 ***	0.48	11.4 ^	29.8 *	49.5 *	830	1520
B01	Trip Blank	4/18/2022	1:23 p.m.	BRL	BRL	U	U	U	U	U	U

Key:

mg/L	=	Milligrams per liter.
CFU/100ml	=	Colony forming units per 100 ml
BRL	=	Analyte not detected at or above the reporting limit.
U	=	Not detected
^	=	Dilution factor of 5
*	=	Dilution factor of 10
**	=	Dilution factor of 20
***	=	Dilution factor of 300
****	=	Dilution factor of 1000

Table 14d: Field Monitoring Results for Sample Locations

Number	Name	Date	Time	Temperature °C	Specific Conductance (µS/cm)	pH (Standard Units)	Dissolved Oxygen (%)
S01	Overflow	4/18/2022	12:02 p.m.	5.4	1931	7.28	10.0
S02	Midpoint Flow	4/18/2022	12:23 p.m.	1.32	1338	7.27	77.3
S03	Discharge	4/18/2022	12:35 p.m.	1.74	1213	7.34	80.2

Field monitoring measurements of temperature, dissolved oxygen, conductance, and pH were collected using a YSI 556 Multi Probe System. The YSI 556 was calibrated at the EPA office in Westlake, Ohio prior to use in the field.
Specific conductance is a temperature compensated conductivity measurement.

Key:

°C	=	Degree Celsius
µS/cm	=	Microsiemens per centimeter

Key

A	North Manure Lagoon
B	South Manure Lagoon
FWP	Clean Water Pond
CSR	Chemical Storage Room

1	Milking Parlor
2	Unroofed Section of Cow Treatment Area
3	Roofed Section of Cow Treatment Area
4	East Freestall Barn
5	West Freestall Barn
6	Fresh Pen Area for Recently Calved Cows
7	Commodity Barn
8	Dry Cow Barn
9	Fresh Straw/Sawdust Storage Barn
10	Heifer Barn
11	Nursery

Drainage Swale Directing Process Wastewater to the Sediment Pod Series

Approximate Location of the Reception Sump for the Series of Sediment Pods

Process Wastewater Run-off Flow

Cow Holding Area for Milking Parlor

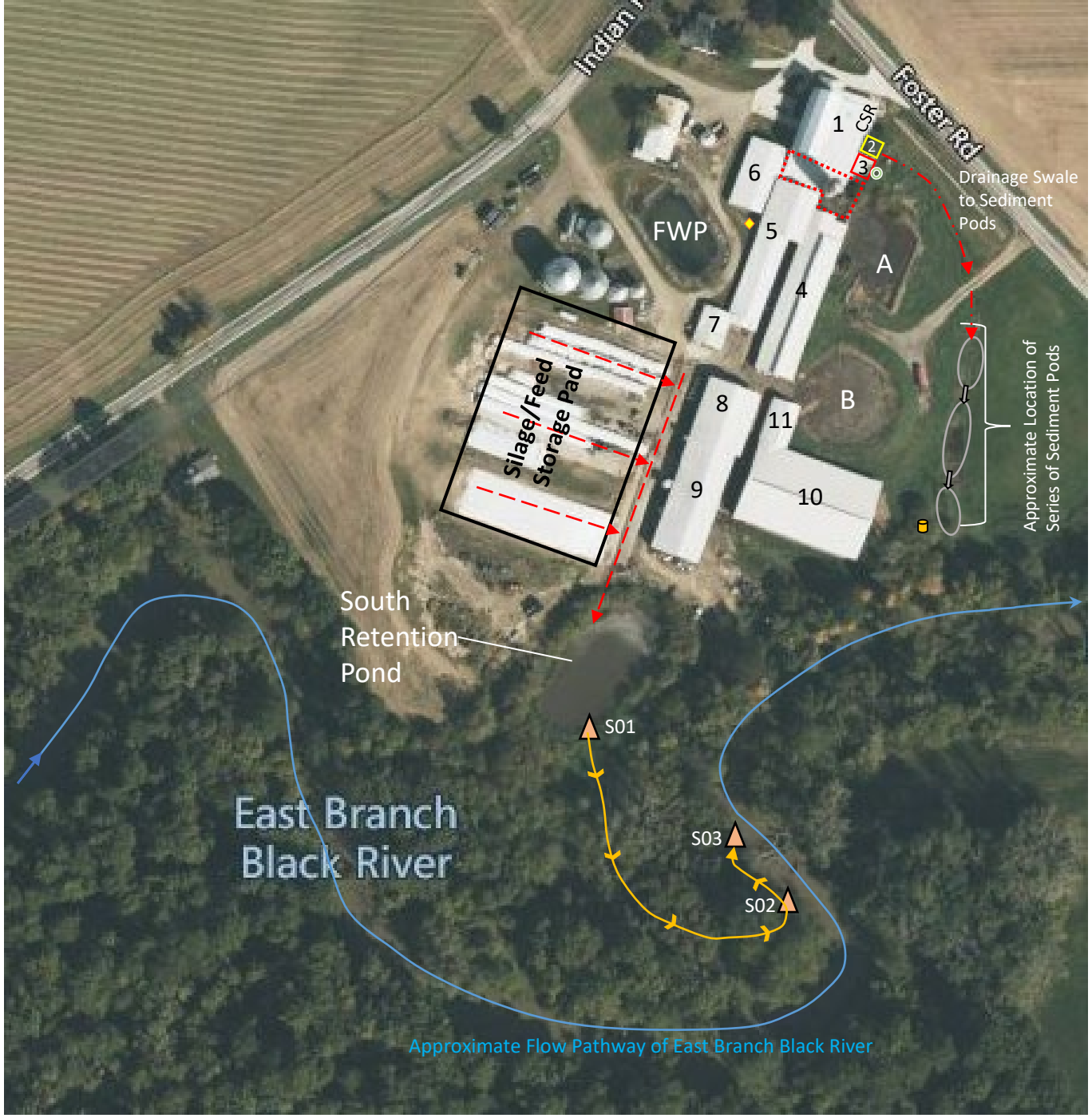
Stormwater Swale Catch Basin

Sample Locations (approximate)

Note: S01 is also the location of the observed overflow from the South Retention Pond.

Approximate Location of the Reception Sump for Milking Parlor Wash/Flush Water

Approximated Flow Pathway of Process Wastewater from South Retention Pond to the Discharge Point into East Branch Black River



Aerial Map Annotated by Anne Marie Vincent, Multimedia Section, US EPA (June 2022)

Conrad Farms LLC
EPA Inspection 04/18/2022
All photos taken by Anne Marie Vincent, Life Scientist/Inspector, U.S. EPA
Camera: Nikon Coolpix W300 (SN 31034297)

1: DSCN3674
Description: The animal treatment area is used for activities that would require the cows to be restrained in a catch chute. The animal treatment area has both a roofed section and unroofed section. Process wastewater flows into the grassed swale that directs flow into the series of three sediment pods.
Location: Exterior east side of milking parlor building.
Camera Direction: Northeast.
Date/Time: 04/18/2022 / 10:08 a.m.

2: DSCN3675
Description: Southern end of animal treatment area. View of concrete reception sump (see arrow) that receives milking parlor flush water, and discharges it via a float activated sump pump through a pipe, into the north manure lagoon.
Location: Exterior east side of milking parlor building.
Camera Direction: East.
Date/Time: 04/18/2022 / 10:08 a.m.

3: DSCN3676
Description: Clean water pond
Location: West side of the west freestall barn. White PVC pipe is the pond overflow that drains to a catch basin. The outlet pipe from the catch basin discharges as a ground surface outlet in the adjacent woods to the south/southeast.
Camera Direction: Northwest.
Date/Time: 04/18/2022 / 10:22 a.m.

4: DSCN3677
Description: View of the smaller north manure lagoon.
Location: Northeast corner of the east freestall barn.
Camera Direction: North/northeast.
Date/Time: 04/18/2022 / 10:28 a.m.

5: DSCN3678
Description: Larger south manure lagoon. Pumps and hoses set up for manure withdrawl for land application. View of the heifer barn in background.
Location: Southeast corner of the east freestall barn, north of the heifer barn.
Camera Direction: Southeast.
Date/Time: 04/18/2022 / 10:28 a.m.

6: DSCN3679
Description: Process wastewater run-off from the silage/feed storage pad is designed to flow from the southeast corner of the silage/feed storage pad, south into the south retention pond. Arrow shows general direction of flow.
Location: Southeast corner of the silage/feed storage pad.
Camera Direction: South.
Date/Time: 04/18/2022 / 10:39 a.m.

7: DSCN3680
Description: Process wastewater run-off from the silage/feed storage pad is designed to flow from the southeast corner of the silage/feed storage pad, south into the south retention pond.
Location: Southeast corner of the silage/feed storage pad.
Camera Direction: South.
Date/Time: 04/18/2022 / 10:39 a.m.

8: DSCN3681
Description: View looking north at the concrete drainage pathway for silage/feed storage pad process wastewater run-off along the eastern edge of the pad area.
Location: Southeast corner of the silage/feed storage pad.
Camera Direction: North.
Date/Time: 04/18/2022 / 10:43 a.m.

9: DSCN3682
Description: View of one of the bunkers on the concrete silage/feed storage pad where used pen-pack (to the left in the photograph) has been temporarily stored.
Location: Bunker on the silage/feed storage pad.
Camera Direction: East
Date/Time: 04/18/2022 / 10:45 a.m.

10: DSCN3683
Description: The black corrugated plastic reception sump (center-right in the photograph) receives flow from the last sediment pod in the series.
Location: East of the east end of the heifer barn.
Camera Direction: East.
Date/Time: 04/18/2022 / 10:46 a.m.

11: DSCN3684
Description: View of the second to last sediment pod in the series on the east side of the facility, as seen from the slighlty higher elevation off of the east end of the heifer barn. The beginning of the last sediment pod can be seen just off the right edge of the photograph.
Location: East of the east end of the heifer barn.
Camera Direction: East/Northeast.
Date/Time: 04/18/2022 / 10:47 a.m.

12: DSCN3685
Description: View of the beginning of the series of three sediment pods (center right in photograph) on the east side of the facility, as seen from the slighlty higher elevation off of the east end of the heifer barn. Arrow shows general direction of flow.
Location: East of the east end of the heifer barn.
Camera Direction: North/northeast.
Date/Time: 04/18/2022 / 10:47 a.m.

13: DSCN3686
Description: There is a submersible pump in the plastic reception sump that receives flow from the last sediment pod in the series. The pump operates on a float and pumps the collected production area storm water and process wastewater run-off from the last sediment pod into the northeast corner of the south retention pod.
Location: East of the east end of the heifer barn.
Camera Direction: Down.
Date/Time: 04/18/2022 / 10:50 a.m.

14: DSCN3687
Description: Last sediment pod in the series. The pod is surrounded by a raised earthen berm on its east, edge, south and west banks. Arrow shows general direction of flow.
Location: Lower elevation to the east of the heifer barn.
Camera Direction: North/northwest.
Date/Time: 04/18/2022 / 10:53 a.m.

15: DSCN3688
Description: Rasied vegetated earthen berm constructed to the south of the last sediment pod, between the pod and the woodline along the bank of the East Branch Black River. This earthen berm extends east and west along the woodline. This is the view to the east.
Location: South of the last sediment pod.
Camera Direction: East.
Date/Time: 04/18/2022 / 10:53 a.m.

16: DSCN3689
Description: Rasied vegetated earthen berm constructed to the south of the last sediment pod, between the pod and the wood line along the bank of the East Branch Black River. This view is of the earthen berm extending to the west along the woodline.
Location: South of the last sediment pod.
Camera Direction: West/southwest.
Date/Time: 04/18/2022 / 10:53 a.m.

17: DSCN3690
Description: First sediment pod in the series of three pods. The series of sediment pods is located at a slightly lower elevation to the rest of the production area. The north side of the heifer barn is visible in the background. The grassed berm in the upper right of the photograph is the berm of the larger south manure lagoon.
Location: East of the north manure lagoon (at a lower elevation to the rest of the facility).
Camera Direction: South.
Date/Time: 04/18/2022 / 10:56 a.m.

18: DSCN3691
Description: View of the drainage swale that directs production area stormwater run-off to the series of sediment pods. This view is looking upstream towards the northeast corner of the milking parlor building and animal treatment area where run-off flow begins. The production area stormwater run-off in this drainage swale is from the northeast side of the facility and includes roof run-off from the milking parlor, roof run-off from the cow treatment area, and process wastewater/stormwater surface run-off from the unroofed portion of the north end of the animal treatment area. Arrows show general direction of flow.
Location: East side of the facility on east side of the access driveway.
Camera Direction: Northwest.
Date/Time: 04/18/2022 / 10:56 a.m.

19: DSCN3692
Description: View of the drainage swale looking upstream towards the northeast corner of the milking parlor building and animal treatment area where the production area stormwater/process wastewater run-off flow begins. Production area stormwater run-off from the unroofed portion of the cow treatment area (process wastewater), roof run-off from the roofed portion of the cow treatment area, and the milking parlor roof run-off flows into the swale and then into the series of sediment pods. Arrows show general direction of flow.
Location: East side of the facility on west side of the access driveway.
Camera Direction: West.
Date/Time: 04/18/2022 / 10:57 a.m.

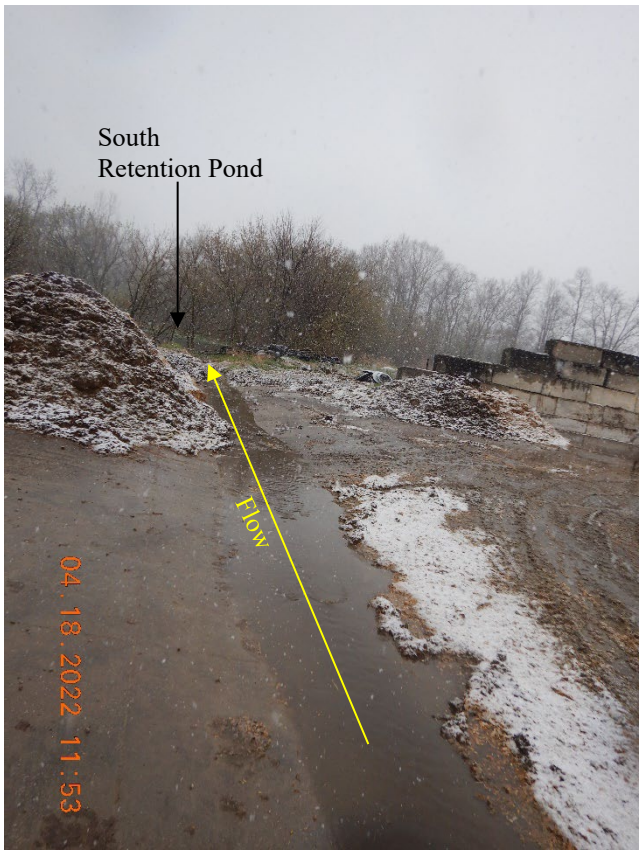
20: DSCN3693
Description: Northeast edge of the south retention pond. EPA observed a length of black plastic piping rising (circled in yellow) out of the bank of the pond. This pipe discharges the liquid flow from the sediment pod reception sump into the south retention pond. The red submersible pump and blue lay-flat overland hose are used to transfer liquids from the south retention pond to the manure storage lagoons.
Location: South of the barns.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 11:12 a.m.

21: DSCN3694
Description: Northeast edge of the south retention pond. The black plastic piping (circled in yellow) rising out of the bank of the pond discharges the liquid flow from the sediment pod reception sump into the south retention pond. Evidence of solids deposition within the south retention pond was visible. Silage and feed solids carried in the process wastewater run-off from the silage/feed storage pad would discharge into this south retention pond. The silage/feed storage pad is also used for emergency stacking storage capacity for used penpack bedding; and, at those times, the process wastewater run-off from the silage/feed storage pad may also contain manure solids which would be discharged to this south retention pond as well. Fine sediments may also be contributed by the liquids pumped from the sediment pod series reception sump into the south retention pond.
Location: South of the barns.
Camera Direction: Southwest.
Date/Time: 04/18/2022 / 11:12 a.m.

22: DSCN3695
Description: View along the east edge of the south retention pond (pond to the left in photograph). Woody vegetation is growing along the edge of the pond.
Location: South retention pond located south of the barns.
Camera Direction: North/Northeast.
Date/Time: 04/18/2022 / 11:13 a.m.

23: DSCN3696
Description: View from the east edge of the south retention pond. Note the secondary raised earthen berm southeast of the south retention pond.
Location: East edge of south retention pond looking towards the woodline.
Camera Direction: East/Southeast.
Date/Time: 04/18/2022 / 11:13 a.m.

24: DSCN3697
Description: View from the east edge of the south retention pond. Note the secondary raised earthen berm southeast of the south retention pond. The East Branch Black River can be seen in the upper left corner of the photograph between the trees.
Location: East edge of south retention pond looking towards the woodline.
Camera Direction: Southeast/South.
Date/Time: 04/18/2022 / 11:13 a.m.



25: DSCN3698
Description: Silage/feed storage pad process wastewater run-off is designed to drain east towards the eastern edge of the pad, and then south/southeast into the south retention pond.
Location: Eastern edge of silage/feed stroage pad near southeast corner of the pad where drainage flows towards the south retention pond.
Camera Direction: South.
Date/Time: 04/18/2022 / 11:53 a.m.

26: DSCN3699
Description: The south retention pond was observed to be overflowing from its southeast edge. sample S01 was collected from the point of overflow.
Location: Southeast edge of the south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:09 p.m.

*Note: From Photograph DSCN3699 through Photograph DSCN3756, the photographs document the flow pathway of the process wastewater discharge from the south retention pond, through the grass and woods; the discharge into the East Branch Black River; and, the selected sampling locations.

27: DSCN3700
Description: Close up view of the overflow point from the south retention pond where sample S01 was collected.
Location: Southeast edge of the south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:09 p.m.

28: DSCN3701
Description: View of the flow pathway of the process wastewater discharge from the south retention pond overflow into the adjacent grassed area. Arrow shows direction of flow.
Location: Overflow point at the southeast edge of the south retention pond.
Camera Direction: East/Southeast.
Date/Time: 04/18/2022 / 12:10 p.m.

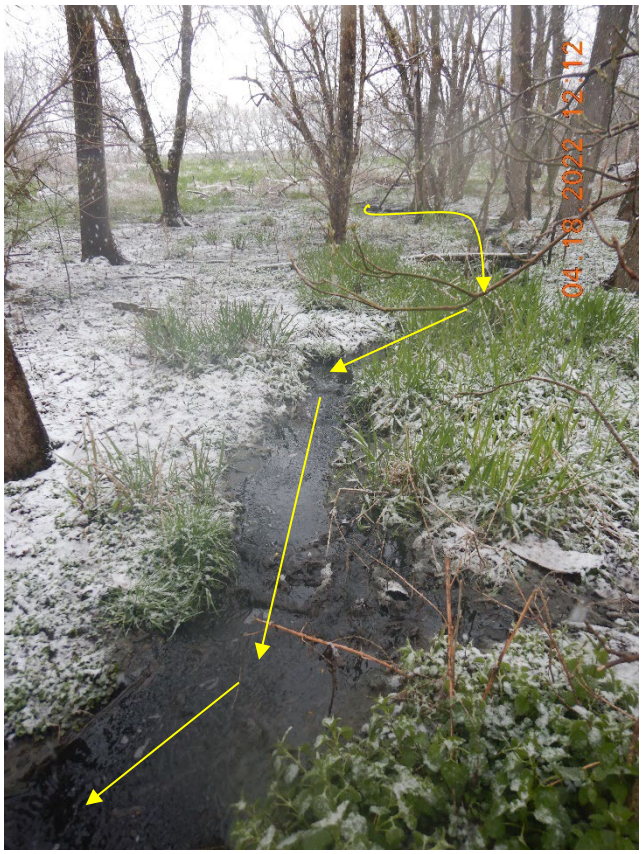
29: DSCN3702
Description: View of the flow pathway of the process wastewater discharge from the south retention pond overflow through the adjacent grassed area as it reaches the woodline located to the south/southeast of the pond.
Location: Grassed area between the southeast edge of the south retention pond and the woodline.
Camera Direction: South/Southeast.
Date/Time: 04/18/2022 / 12:10 p.m.

30: DSCN3703
Description: View of the flow pathway of the process wastewater through the grassed area as it enters the woodline located to the south/southeast of the pond. The general direction of flow is identified with arrows.
Location: Edge of grassed area adjacent to the woods south/southeast of the south retention pond.
Camera Direction: South/Southeast.
Date/Time: 04/18/2022 /12:10 p.m.

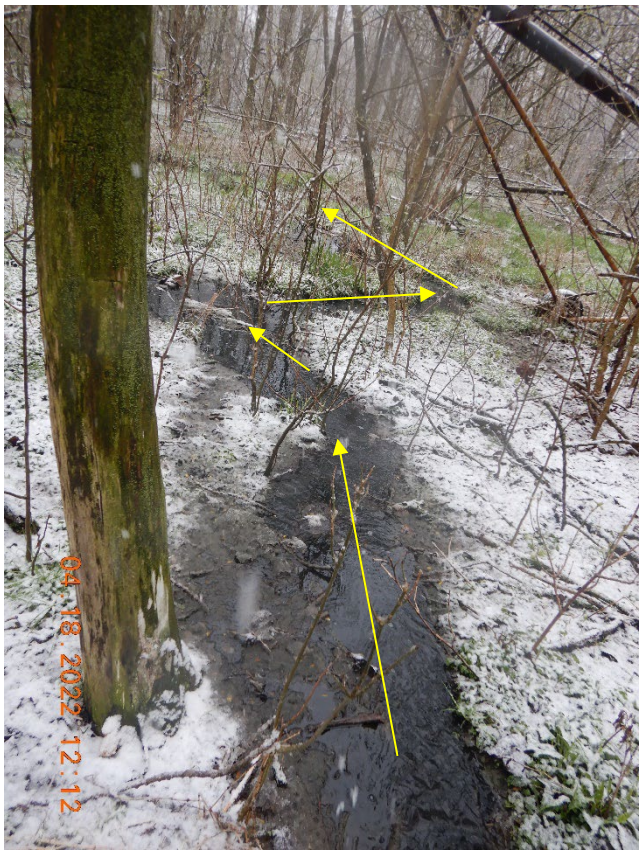
31: DSCN3704
Description: View of the flow pathway of the process wastewater discharge as it enters the woods, looking back towards the south retention pond through the grassed area as it enters the woodline located to the south/southeast of the pond. Direction of flow is from the right side towards the left lower corner of the photograph.
Location: Just inside the woods where the woodline and edge of the grassed area meet, south/southeast of the south retention pond.
Camera Direction: West/Northwest.
Date/Time: 04/18/2022 / 12:11 p.m.

32: DSCN3705
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow immediately after Photograph DSCN3704. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:11 p.m.

33: DSCN3706
Description: Flow pathway of process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3705. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: South/Southwest.
Date/Time: 04/18/2022 / 12:11 p.m.



34: DSCN3707
Description: Flow pathway of the process wastewater discharge through the woods, looking upstream, towards the south retention pond. Photograph looking back towards area seem in Photograph DSCN3706. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: Northwest.
Date/Time: 04/18/2022 / 12:12 p.m.



35: DSCN3708
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3706. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: South/Southwest.
Date/Time: 04/18/2022 / 12:12 p.m.

36: DSCN3709
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3708. Flow direction from right side of photograph to left side of photograph. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: Northwest.
Date/Time: 04/18/2022 / 12:13 p.m.

37: DSCN3710
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3709. Flow direction from center-right of photograph (between the two trees) to the lower left edge of the photograph. Arrows show general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:13 p.m.

38: DSCN3711
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3710. Flow direction from center-right of photograph to the lower left edge of the photograph. Arrows show general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:13 p.m.

39: DSCN3712
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3711. Flow direction from the lower-right quadrant of the photograph, through the center of the photograph towards the upper left quadrant of the photograph. Arrows show general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: South.
Date/Time: 04/18/2022 / 12:13 p.m.

40: DSCN3713
Description: Flow pathway of the process wastewater discharge through the woods, close-up view of section of flow winding through trees from Photograph DSCN3712. Flow direction from lower-right of photograph through the center of the photograph. Arrows show general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: South.
Date/Time: 04/18/2022 / 12:13 p.m.

41: DSCN3714
Description: Flow pathway of the process wastewater discharge through the woods, looking upstream towards the location of Photograph DSCN3712. Arrows show general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: West/Northwest.
Date/Time: 04/18/2022 / 12:14 p.m.

42: DSCN3715
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3713. An arrow shows the general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:15 p.m.

43: DSCN3716
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3715. Arrows show general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: West/Northwest.
Date/Time: 04/18/2022 / 12:15 p.m.

44: DSCN3717
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3716. Arrows show general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:15 p.m.

45: DSCN3718
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3717. An arrow shows the general direction of flow.
Location: Woods south/southeast of the south retention pond.
Camera Direction: South.
Date/Time: 04/18/2022 / 12:15 p.m.

46: DSCN3719
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3718, looking upstream towards location of Photograph DSCN3718. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: West/Southwest.
Date/Time: 04/18/2022 / 12:16 p.m.

47: DSCN3720
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3719. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond
Camera Direction: West/Southwest
Date/Time: 04/18/2022 / 12:16 p.m.

48: DSCN3721
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3720. Flow direction from right to left in the photograph. Arrows show general direction of flow.**Location**: Woods south/southeast of south retention pond.
Camera Direction: Southwest.
Date/Time: 04/18/2022 / 12:16 p.m.

49: DSCN3722
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3721. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: South/Southwest.
Date/Time: 04/18/2022 / 12:16 p.m.

50: DSCN3724
Description: Close-up view of the process wastewater discharge flow pathway from Photograph DSCN3722 to show ripples of flow movement. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: South/Southwest.
Date/Time: 04/18/2022 / 12:16 p.m.

*NOTE: Photograph DSCN3723 was not inlcuded in photograph log due to it being a blurry duplicate of DSCN3724.

51: DSCN3725
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3724. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: South/Southwest.
Date/Time: 04/18/2022 / 12:16 p.m.

52: DSCN3726
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3725. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:17 p.m.

53: DSCN3727
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3726. Flow direction from right towards lower left corner in the photograph as flow begins to head east towards the river. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: West/Southwest.
Date/Time: 04/18/2022 / 12:17 p.m.

54: DSCN3728
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3727. Flow direction from right to left in the photograph, headed east towards the river. Arrows show general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: South/Southwest.
Date/Time: 04/18/2022 / 12:17 p.m.

55: DSCN3729
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3728. Arrow shows general direction of flow.
Location: Woods south/southeast of south retention pond.
Camera Direction: South/Southeast.
Date/Time: 04/18/2022 / 12:17 p.m.

56: DSCN3730
Description: Flow pathway of the process wastewater discharge through the woods, next section of flow in sequence after Photograph DSCN3729 as flow begins to turn north/northwest along the edge of the woods adjacent to the bank of the East Branch Black River. Arrows show general direction of flow.
Location: East edge of woods (southeast of south retention pond) along the bank of the East Branch Black River.
Camera Direction: East/Southeast.
Date/Time: 04/18/2022 / 12:17 p.m.

57: DSCN3731
Description: View of the Flow pathway of the process wastewater discharge looking upstream just before the flow begins to head north/northwest along the edge of the woods adjacent to the bank of the East Branch Black River. Arrows show general direction of flow.
Location: East edge of woods (southeast of south retention pond) along the bank of the East Branch Black River.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:18 p.m.

58: DSCN3732
Description: This is the next section of flow (looking downstream) in the flow pathway of the process wastewater discharge sequence after Photograph DSCN3730 as flow exits the woods and curves north/northwest, flowing along the east edge of the woods, adjacent to the East Branch Black River. Arrows show general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:18 p.m.

59: DSCN3733
Description: Additional view looking upstream at the flow pathway of the process wastewater discharge from the location for Photograph DSCN3732 as the flow exits the woods and curves north/northeast, flowing along the east edge of the woods, adjacent to the East Branch Black River. Arrows show general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:19 p.m.

60: DSCN3734
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3733. Arrows show general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:19 p.m.

61: DSCN3735
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3734. Arrow shows general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:19 p.m.

62: DSCN3736
Description: Sample S02 was collected from the process wastewater discharge pathway after it turns to head north/northwest along the east edge of the woods along the bank of the East Branch Black River. Photographs DSCN3733 and DSCN3732 also provide a general overview of the sample location for S02. Arrows show general direction of flow. An orange triangle identifies the approximate location of sampling in the flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: Northwest.
Date/Time: 04/18/2022 /12:27 p.m.

63: DSCN3737
Description: Additional photograph of sample location S02 from the flow pathway of the process wastewater discharge after it curves to head north/northwest along the east edge of the woods along the bank of the East Branch Black River. Photographs DSCN3733 and DSCN3732 also provide a general overview of the sample location for S02. Arrows show general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:27 p.m.

64: DSCN3738
Description: Flow pathway of the process wastewater discharge (looking upstream towards sample location S02) along the east edge of the woods adjacent to the bank of the East Branch Black River. This section of flow was captured Photograph DSCN3735 looking downstream. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: South.
Date/Time: 04/18/2022 / 12:29 p.m.

65: DSCN3739
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3738. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: East/Southeast (Down).
Date/Time: 04/18/2022 / 12:29 p.m.

66: DSCN3740
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3739. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: East.
Date/Time: 04/18/2022 / 12:29 p.m.

67: DSCN3741
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3740. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:29 p.m.

68: DSCN3742
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3741. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:29 p.m.

69: DSCN3743
Description: View looking upstream at the flow path documented in Photographs DSCN3738 through DSCN3741. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: South.
Date/Time: 04/18/2022 / 12:30 p.m.

70: DSCN3744
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3742. A solid line arrow shows the general direction of flow for the process wastewater discharge pathway. Clear colored run-off from the top edge of the woodline (dotted arrow) was observed to be flowing into the drainage pathway of the process wastewater discharge.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:31 p.m.

71: DSCN3745
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3744. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:31 p.m.

72: DSCN3746
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3745. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: Northwest.
Date/Time: 04/18/2022 / 12:31 p.m.

73: DSCN3747
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3746. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:31 p.m.

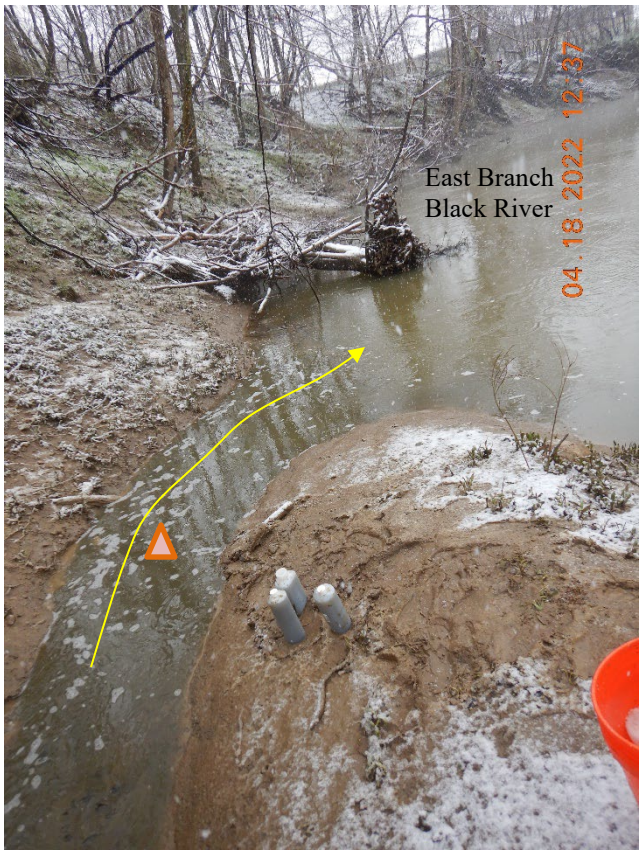
74: DSCN3748
Description: View looking upstream at the flow path documented in Photographs DSCN3746 through DSCN3747. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: Southwest.
Date/Time: 04/18/2022 / 12:31 p.m.

75: DSCN3749
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3747. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: Southwest.
Date/Time: 04/18/2022 / 12:31 p.m.

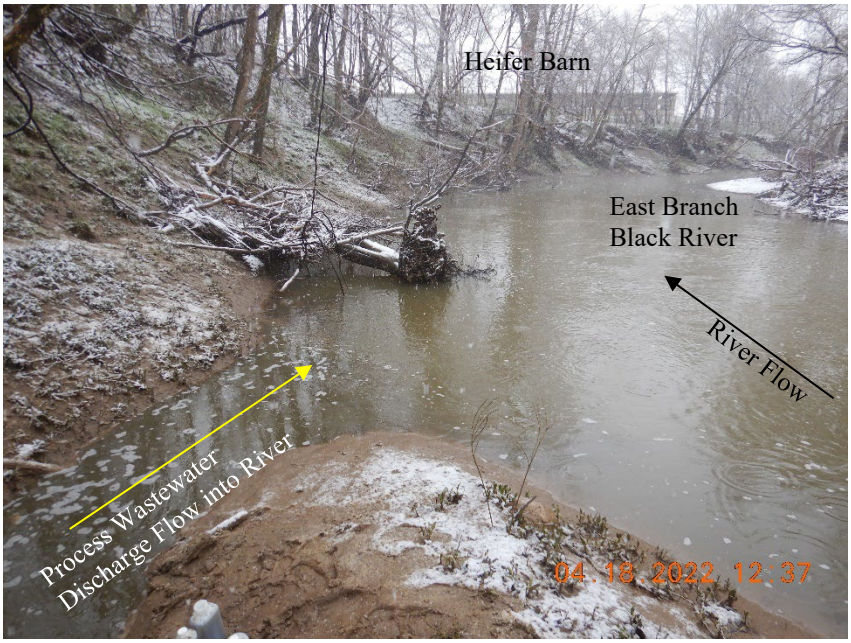
76: DSCN3750
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3749. An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:31 p.m.

77: DSCN3751
Description: Flow pathway of the process wastewater discharge along the east edge of the woods adjacent to the bank of the East Branch Black River, next section of flow in sequence after Photograph DSCN3750. An arrow shows the general direction of flow. The flow pathway of the process wastewater discharge discharges here into the East Branch Black River.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:31 p.m.

78: DSCN3752
Description: Location in the flow pathway of the process wastewater discharge where sample S03 was collected (identified with an orange triangle) . An arrow shows the general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: West.
Date/Time: 04/18/2022 / 12:37 p.m.



79: DSCN3753
Description: View of the approximate S03 sample location in the flow pathway of the process wastewater discharge(orange triangle) in relation to the discharge pathway's confluence with the East Branch Black River. An arrow shows the general direction of flow into the river.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North.
Date/Time: 04/18/2022 / 12:37 p.m.



80: DSCN3754
Description: The flow pathway of the process wastewater discharge from the south retention pond travels through the woods and discharges into the East Branch Black River. The Conrad Farms heifer barn is visible to the north.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North.
Date/Time: 04/18/2022 / 12:37 p.m.

81: DSCN3755
Description: East Branch Black River. The Conrad Farms heifer barn is visible to the north. Arrow shows general direction of flow.
Location: East edge of woods along the bank of the East Branch Black River.
Camera Direction: North.
Date/Time: 04/18/2022 / 12:37 p.m.

NOTE: The photograph of the Oregon 300 GPS screen (DSCN3756) was not included in the photograph log

82: DSCN3757
Description: While returing to the EPA vehicles with the collected samples, EPA observed liquid discharging into the south retention pond from the black plastic piping rising out of the bank of the pond. This pipe discharges the liquid flow from the sediment pod sump into the south retention pond. The liquid can be seen entering the pond just to the left of the red submersible pump, in the center of the photograph (circled in yellow).
Location: Northeast edge of the south retention pond, south of the barns.
Camera Direction: North/Northwest.
Date/Time: 04/18/2022 / 12:51 p.m.

83: DSCN3758
Description: Additional photograph of liquid discharging into the south retention pond from the black plastic piping rising out of the bank of the pond. The fan pattern of the liquid coming out of the black plastic pipe is visible to the right of the red submersible pump and below the center point of the photograph (circled in yellow).
Location: Northeast edge of the south retention pond, south of the barns.
Camera Direction: Southwest.
Date/Time: 04/18/2022 / 12:52 p.m.

84: DSCN3759
Description: The precipitation run-off in the grassed swale flows around the west and south sides of the fresh pen area for recently calved cows (part of the west freestall barn) and enters into a catch basin located in the grassed area at the end of the swale on the south side of the fresh pen area. This catch basin (dark black grate visible in grass, circled in yellow in the photograph) receives storm water from downspouts on the west freestall barn as well as run-off accumulated in the grassed swale (Photographs DSCN3760 and DSCN3761). Richard Conrad stated earlier in the inspection walk-through that this catch basin drains to a surface outlet in the woods on the south end of the farm property and does not outlet to the river. An arrow shows the general direction of flow in the swale.
Location: South side of fresh pen area on the west side of the west freestall barn.
Camera Direction: North/Northeast.
Date/Time: 04/18/2022 / 12:55 p.m.

85: DSCN3760
Description: EPA observed precipitation run-off in the grassed swale on the west side of the fresh pen area for recently calved cows (part of the west freestall barn). The swale flowed around the fresh pen area of the west freestall barn and into a catch basin as described in Photograph DSCN3759. An arrow shows the general direction of flow in the swale.
Location: West side of fresh pen area of the west freestall barn.
Camera Direction: North/Northeast.
Date/Time: 04/18/2022 / 12:55 p.m.

86: DSCN3761
Description: EPA observed the precipitation run-off in the grassed swale (Photograph DSCN3760) to be flowing east around the south end of the fresh pen area towards the catch basin. Refer to Photograph DSCN3759 for catch basin description. An arrow shows the general direction of flow in the swale.
Location: South side of fresh pen area on the west side of the west freestall barn.
Camera Direction: Northeast.
Date/Time: 04/18/2022 / 12:56 p.m.

87: DSCN3762
Description: Entry driveway at front of milking parlor where EPA vehicles were parked. Parking location approved by Richard Conrad.
Location: Entry driveway at front of milking parlor.
Camera Direction: West.
Date/Time: 04/18/2022 / 3:01 p.m.

88: DSCN3763
Description: Conrad Farms entry driveway and sign. Foster Road is just off the right side of the photograph.
Location: Entry driveway at front of milking parlor.
Camera Direction: West.
Date/Time: 04/18/2022 / 3:01 p.m.