IOWA DEPARTMENT OF NATURAL RESOURCES
FIELD SERVICES AND COMPLIANCE BUREAU
FIELD OFFICE #2 - MASON CITY IOWA

DATE: **February 6, 2025**

TO: **The Record**

FROM: **Dan Bratrud**

SUBJECT: **Daybreak Foods Complaint #34575 Memo**
3159 Buchanan Ave, Eagle Grove, Sec. 20, Troy Twp, Wright County

On January 24, 2025, this office received a report that the creek north of Daybreak Foods Complex, that flows along 310th Street south of Eagle Grove, looked green. After completing some inspections, I responded to the call that same afternoon. On my way to Daybreak, Brandon Gibson from Daybreak called me and said he would meet me at the office. When I arrived in the area I drove west on 310th Street and observed the green color in the creek, Ditch #49, about one-half mile east of the Buchanan Ave intersection. I continued west on 310th Street approximately on one-eighth of a mile and observed the green color in the creek on the west side of Buchanan Street as well.

I met Brandon Gibson and Dustin Duran at the office. They showed me a video that they had taken on 1/9/2025 of the green color in Ditch #49 east of Buchanan Ave but claimed there was nothing west of the intersection. I told them that I saw the green color on both sides of Buchanan Ave on my way there that day.

We went to Ditch #49 and met Nick Wilson, Daybreak maintenance. We traced the color back to the storm water (STW) pond outlet. There was a large ball of vegetation that the STW discharge was flowing through so I thought it was maybe tannins. There also was one of the stoplogs that had washed through the STW outlet pipe and laid on the rocks below the outfall.

We went to STW pond side of the pipe where I observed several of the stoplogs laying in the grass next to the control structure. We took the cover off from the control structure for the pond and I could see that none of the stoplogs were in place which allowed this to be a free-flowing system. I asked if any of the gentlemen had any idea why the stoplogs had been removed or who would have removed them. None of them knew why or when they had been removed. There was a large number of branches, cornstalks and other vegetation in the pipe, apparently from beavers trying to plug the pipe.

I collected a sample from Ditch #49 just below the STW water pond outfall, the water flowing into the pipe on the pond side, and from Ditch #49 near the Buchanan/310th Street intersection. All three samples tested >3 ppm for ammonia with the HACH field kit. Laboratory samples were collected at all three sites. The laboratory analysis results were received on February 4, 2025, and are listed in the following table.

Location	Ammonia	COD
Daybreak STW outlet	16 mg/L	75 mg/L
Daybreak STW pond	16 mg/L	72 mg/L
Daybreak 310 St & Buchanan Ave	20 mg/L	75 mg/L

I asked if any of the gentlemen that were with me that day had any idea if anything unusual had happened that would have caused the elevated ammonia levels in the STW pond. Mr. Wilson said that he had been all the way around the STW pond and had not found anything entering the STW pond other than the waterline flush water that flows through a tile and enters the STW pond on the west side of the pond.

On January 30, 2025, I did a follow-up visit to Daybreak Foods. I met Nick Wilson, Daybreak Foods maintenance, at the bio-security building and we took his work truck to the storm water pond where we were joined by Dustin Duran, Daybreak Foods General Manager and Stoney Hinshaw, Daybreak Foods General Manager.

We proceeded to the STW pond outlet where I observed the outfall pipe. The flow from the pond had been stopped to the point that there was barely a trickle coming from the pipe. We walked to the pond side of the outlet and looked into the control structure. The stoplogs were in place and the only flow in the structure was some minor leakage through the stoplogs. We discussed a couple options for sealing the cracks in the stoplogs to stop the leaks. We collected a field sample from the STW pond near the outlet pipe. The HACH field kit showed that the ammonia level was still >3 ppm ammonia.

I asked once again if any of the Daybreak staff had any idea who had removed the stoplogs or why they had been removed. All three of gentlemen that were with me claimed that they had no explanation. I asked if any of the Daybreak staff had discovered anything out the ordinary entering the STW pond. All three gentlemen still claimed that the only thing flowing into the pond was the waterline flush water. I asked if we could go to the inlet pipe where that water enters the STW pond. Mr. Hinshaw said we certainly can and that there was even some flow coming out of the pipe earlier that day.

We drove around to the inlet pipe and observed a very small dribble coming from the pipe. I was able to catch enough of the water in one of the HACH field kit vials to do a test for ammonia. The sample immediately precipitated in the vial and turned a bright red/orange color indicating a high ammonia content. I showed the result to the Daybreak staff and told them that I believe we found our answer to the high ammonia content in STW pond.

I stressed the importance of keeping the stoplogs in place and not discharging any of the STW pond water without first sampling for contaminants. We discussed what else could be done to avoid any further discharge. Mr. Hinshaw said that they would plan to rent a pump and pump the pond water to the wastewater lagoon to lower the STW pond level at least 12" – 18" below the outlet pipe. That would hopefully allow enough time for them to figure out a long-term solution. I told the Daybreak staff the discharge was a violation and that an NOV would be issued. I also mentioned that further enforcement was likely and that referral for monetary penalty was being considered.

I asked if I could get a look at how the waterline flush water was being discharged from the buildings. Mr. Wilson offered to drive me along the west side of the production buildings and show me the system. We drove to the first of 20 production buildings on the west side of the Daybreak Compound. We stopped at the furthest north building and Mr. Wilson pointed out the discharge pipe coming out of the wall at approximately eight feet off the ground.

Mr. Wilson said the waterlines need to be flushed on a regular basis to keep the lines from air locking and stopping the flow of water to the chickens. He explained that the water flows to ground to an area of rock and then just soaks into the ground and/or flows into the tile surface intakes located between the buildings. That is the water that is discharging to the STW pond. All 20 production buildings have the pipe that discharges the flush water.

As we drove along the west side of the buildings I observed two piles of processed egg shells stockpiled on concrete slabs. Mr. Wilson explained that the egg shells are piled there during the winter months and during the crop growing season but are land applied in the spring and fall. He also said that when the litter is cleaned out of the barns it is loaded into the trucks along that driveway on the west side of the buildings. I commented that there are quite a number of things going on there that could cause ammonia-laden water to enter the tile surface intakes; however, the waterline flush water is likely the main source.

We briefly discussed some possible options for changing the way they manage the flush water. I asked Mr. Wilson if he would try to catch a laboratory sample from the inlet pipe to the STW pond. He agreed to collect a sample so I left two bottles for ammonia laboratory samples with him. I told him that I would follow up again to see if they had pumped the pond down and whether or not he had been able to collect a sample.

A POA was requested to be submitted by March 28, 2025. An NOV was issued for a general water quality violation.

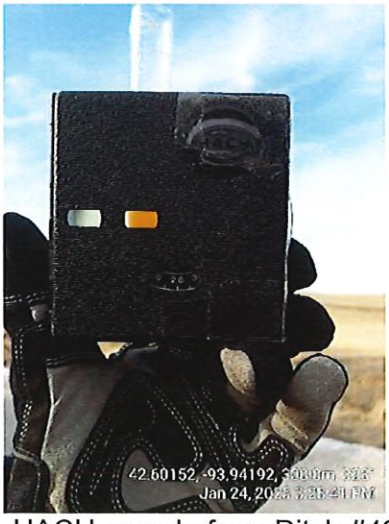
Ditch #49 west of 310th & Buchanan Ave.

STW pond outfall with vegetation ball.

Branches and cornstalks in the control structure.

Sample site in Ditch #49 below STW pond outfall.

HACH field sample from Ditch #49 below the outfall.



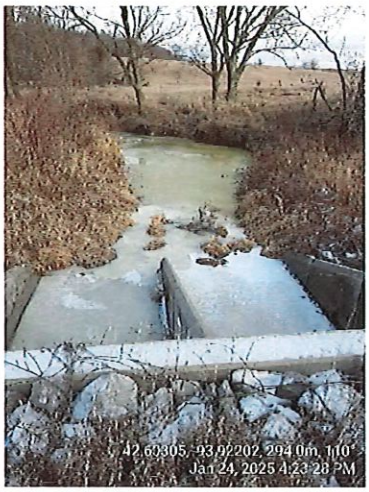
HACH sample from Ditch #49 At 310th St & Buchanan Ave.

All pictures on this page were taken on January 24, 2025.


HACH sample from STW pond.


Green color in Ditch #49 approximately 700 feet east of 310th & Buchanan.


Ditch #49 approximately one half mile east of 310th & Buchanan.


Ditch #49 east of Davis Ave One mile east of 310th & Buchanan Ave.


Boone River approximately one mile east of the confluence with Ditch #49.


HACH sample of STW pond still >3 mg/L ammonia taken on 1/30/2025.

First five pictures on this page taken on January 24, 2025.


HACH sample of STW pond inlet taken 1/30/25


Waterline flush pipe through the wall on the north building.


Egg shell pile between buildings taken 1/30/2025.

THE UNIVERSITY OF IOWA | STATE HYGIENIC LABORATORY

ANALYTICAL REPORT

1-800-421-IOWA (4692)

Collection Location	Collector and Phone	Client Reference	Accession #
daybreak stw pond SEC 20 TROY TWP WRIGHT CO	bratrud dan 641/424-4073		2568791
	Collected	**Received**	**Project**
	2025-01-24 15:40	2025-01-28 09:58	04wqfs

Report To

DAN BRATRUD
IDNR-FO 2

2300 15TH ST SW
MASON CITY, IA 50401-5630

Sample Description

Sample Type
Non-Drinking Water

Sample Source

Sample Note(s)
1

RESULTS OF ANALYSIS - FINAL REPORT

TEST	RESULT (mg/L)	QUANT LIMIT	ANALYSIS NOTE(S)
Ammonia as N, EPA 350.1			
Ammonia nitrogen as N	**16**	**0.05**	
Chemical Oxygen Demand, SM 5220 D			
Chemical Oxygen Demand	**72**	**10**	

SAMPLE AND ANALYSIS NOTES

1. Unless otherwise noted, the sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.

ANALYSIS INFORMATION

TEST	ANALYZED	SITE	RELEASED	ANALYSIS PREP
1. Ammonia as N, EPA 350.1	2025-02-03 08:41 MLS	3201	2025-02-03 10:27 DLS	
2. Chemical Oxygen Demand, SM 5220 D	2025-02-04 08:55 MLS	3201	2025-02-04 14:58 KAR	

DESCRIPTION OF UNITS

mg/L = Milligrams per Liter

SITE(S) PERFORMING TESTING

3201 STATE HYGIENIC LABORATORY ANKENY, IOWA LABORATORIES COMPLEX, 2220 S ANKENY BLVD, ANKENY, IA 50023; Phone 515/725-1600; Fax 515/725-1642; Michael D. Schueller, M.S., Associate Director; Michael A. Pentella, Ph.D., D(ABMM), Director; IOWA ENVIRONMENTAL LAB ID #397

Collection Location	Collector and Phone	Client Reference	Accession #
daybreak stw outlet SEC 20 TROY TWP WRIGHT CO	bratrud dan 641/424-4073		2568789
	Collected 2025-01-24 15:05	Received 2025-01-28 09:58	Project 04wqfs

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DAN BRATRUD
IDNR-FO 2

2300 15TH ST SW
MASON CITY, IA 50401-5630

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Sample Source	
Sample Note(s)	1

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Ammonia as N, EPA 350.1			
Ammonia nitrogen as N	**16**	**0.05**	
Chemical Oxygen Demand, SM 5220 D			
Chemical Oxygen Demand	**75**	**10**	

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THE UNIVERSITY OF IOWA | STATE HYGIENIC LABORATORY

ANALYTICAL REPORT

1-800-421-IOWA (4692)

Collection Location	Collector and Phone	Client Reference	Accession #
daybreak 310th st & buchanan SEC 20 TROY TWP WRIGHT CO	bratrud dan 641/424-4073		2568790
	Collected	**Received**	**Project**
	2025-01-24 15:20	2025-01-28 09:58	04wqfs

Report To

DAN BRATRUD
IDNR-FO 2

2300 15TH ST SW
MASON CITY, IA 50401-5630

Sample Description

Sample Type
Non-Drinking Water

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Sample Note(s)
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Ammonia nitrogen as N	**20**	**0.05**	
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Chemical Oxygen Demand	**75**	**10**	

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The result(s) of this report relate only to the items analyzed. Where the laboratory has not been responsible for the sampling stage the results apply only to the sample as received. This report shall not be reproduced except in full without the written approval of the laboratory. If you have any questions, please call Client Services at 800/421-IOWA (4692) or 319/335-4500.