



STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

July 12, 2011

CERTIFIED MAIL

Agriland FS, Inc.
Attn: Brett Hafner
425 Hwy 1 and 92
Washington, IA 52353

Agriland FS, Inc.
Attn: Curtis Hoakison
1608 160th Street
Casey, IA 50048

NOTICE OF VIOLATION: Iowa Code §455B.186 - Prohibited Discharge
Subrule 567 Iowa Administrative Code (IAC) 61.3(2)"d" -
General Water Quality Criteria
Subrule IAC 567-131.2 - Report of Hazardous Conditions
Rule IAC 567-133 (455B, 455E) - Cleanup Actions and
Responsible Parties

SUBJECT: Unreported release and discharge of wastewater at Agriland FS
1608 160th Street, Casey, Iowa
Adair County, Prussia Township, Section 5
HSI Number: 052311-MAC-1145

Dear Mr. Hafner and Mr. Hoakison:

The Department of Natural Resources (Department) received a report of dead fish at a private farm pond located in Section 5 of Prussia Township, Adair County on May 23, 2011. As you are aware, staff from Field Office #4 conducted an investigation on the same day. During this investigation, field office staff determined that wastewater from your facility located in the NW 1/4 Section 5, T76N, R32W, Prussia Township, Adair County, Iowa reached a water of the state and ultimately caused a fish kill.

Specifically, field office staff determined that liquid in a catchment basin located at your facility was manually released. This liquid was directed into a private farm pond through tile lines and drainage ways and subsequently into an unnamed tributary of the Middle Nodaway River. Field tests collected from the catchment basin, upstream of the pond, and downstream of the pond yielded elevated levels of ammonia as nitrogen. Visual observations of the pond discharge noted a white, yellowish-green foam. Samples were also collected from the catchment basin, upstream of the pond, and downstream of the pond and submitted to the State Hygienic Laboratory for

analysis. The sampling results confirmed elevated levels of ammonia, atrazine, metolachlor, acetochlor, and desethyl atrazine.

In addition, Department Fisheries Bureau staff conducted a separate investigation of the private farm pond to determine the extent of the fish kill. According to the attached report, they observed 6,510 dead green sunfish. It was also reported that there were no visible signs of living fish remaining within the pond. This is likely due to the routine manual release of wastewater from the catchment basin. The private farm pond will likely be restocked this fall.

Furthermore, Department staff observed spilled dry fertilizer at the facility and spills of liquid chemicals on the north side of the facility. These spills were neither reported nor cleaned up properly.

Please refer to the attached Report of Investigation and laboratory analytical results for more details. The purpose of this letter is to notify you of the regulations and our requirements as a result of this investigation.

Failure to report this incident, as well as the unreported spills observed at the facility, to the Department as soon as possible but no later than six hours upon discovery or occurrence of the release is a violation of Subrule 567 IAC 131.2. The investigation also documented a violation of Iowa Code §455B.186 which prohibits the discharge of pollutants to water of the state.

Subrule 567 IAC 61.3(2) General water quality criteria states in part, "waters shall be free from floating debris, oil, grease, scum and other floating materials attributable to wastewater discharges or agricultural practices in amounts sufficient to create a nuisance" and "waters shall be free from substances attributable to wastewater discharges or agricultural practices in concentrations or combinations which are acutely toxic to human, animal, or plant life".

Subrule 567 IAC 133.3(4) states where a source or likely source of contamination is identified, the person or persons responsible for that source or sources shall conduct necessary preventative, investigatory, and remedial actions.

All Iowa Code and Iowa Administrative Codes cited above can be viewed at <http://www.legis.state.ia.us/IowaLaw.html>.

As a result of the aforementioned violations, this matter will be referred to the Department's Legal Services Bureau for enforcement action.

You are required to make every effort to prevent discharges of fertilizers and other pollutants from your business from reaching a water of the state. It is strongly recommended that you communicate with local representatives of the Iowa Department of Agriculture and Land Stewardship to discuss requirements related to the proper transportation, storage, and handling of fertilizers and chemicals.

As discussed during our May 24, 2011 meeting at your facility, the Department is requiring that you complete the following;

1. The spills of liquid chemicals observed on the north side of the facility must be cleaned up as soon as possible and the material disposed of properly. According to a telephone conversation on July 1, 2011, the excavation of contaminated soil was completed on June 29, 2011. **Agriland FS, Inc. must submit a report documenting the cleanup to this office by August 15, 2011.**
2. Agriland FS, Inc. must develop a plan to address the accumulation of liquid (and contaminants) in the catchment basin located on the south side of the facility. Through communication on June 27, 2011, it was learned that Agriland FS, Inc. is currently pumping the liquid into trucks and land applying it at agronomic rates. The plan should include emergency preparations if/when the ground is too wet to allow land application. **Agriland FS, Inc. must submit a written plan to this office by August 15, 2011.**
3. Agriland FS, Inc. must permanently remove the gate valves from the catchment basin located on the south side of the facility. Under no circumstances should the liquid within this catchment basin be manually discharged to water of the state. **Agriland FS, Inc. must submit documentation of the removal of the gate valves to this office by August 15, 2011.**
4. Agriland FS, Inc. must submit a plan outlining housekeeping issues at the facility. The plan must include a schedule regarding "clean-up" of all spilled chemicals. At a minimum, all spills must be cleaned up daily and prior to precipitation events. It is recommended that Agriland FS, Inc. consider all means of making cleanup easier (i.e., installation of concrete pads at areas of routine spillage). **Agriland FS, Inc. must submit the housekeeping plan to this office by August 15, 2011.**
5. The concrete containment basin located beneath the dry fertilizer load out area on the east side of the facility was also full of liquid on the day of this investigation and during our June 16, 2011 visit. This basin cannot contain spills if full of liquid. Additionally, this liquid will become contaminated if mixed with spilled fertilizer. **Agriland FS, Inc. must submit a plan outlining a manageable strategy to address the liquid within the concrete containment basin to this field office by August 15, 2011.**
6. According to interviews conducted on May 23, 2011 and May 24, 2011, Agriland FS, Inc. employees are cleaning sprayer tanks and not containing the wastewater. Additionally, it was reported that hoses are allowed to simply drain onto the ground. This is further evidence of unreported spills that have not been properly cleaned up. **Agriland FS, Inc. must submit a plan outlining a manageable strategy to address the wash water to this field office by August 15, 2011.**
7. Due to the evidence of unreported spills on-site, Agriland FS, Inc. must determine the extent and levels of contamination through a Site Assessment conducted under the supervision of a registered professional engineer, an expert in the field of hydrogeology, or other qualified person. The plan shall be approved by the Department prior to

initiation of the assessment. **Agriland FS, Inc. must submit a Site Assessment Plan to this office by August 15, 2011.** The department reserves the right to require further investigation by the responsible person(s) in order to adequately assess the extent of contamination (i.e., define the plume(s)), and may require a remedial action plan be submitted if necessary. A list of certified groundwater professionals is attached for your reference.

If you have any further questions about this letter, please contact me via e-mail at keith.wilken@dnr.iowa.gov or by telephone at 712-243-1934 / office or 712-250-8646 / cell.

Sincerely,

KW

Keith Wilken
Environmental Specialist
Field Services & Compliance Bureau

Enclosures: Report of Investigation
 Laboratory Analytical Results
 Photographs
 Aerial Photographs
 Fisheries Bureau Report of Fish Kill
 Certified Groundwater Professional List

KW:kw\SP\Casey052311.sp.Agriland FS Fishkill NOV.Wilken.doc

xc: Ed Tormey, IDNR Legal Services Bureau, Des Moines, IA (w/encl.)
Cal Lundberg, IDNR Contaminated Sites Section, Des Moines, IA (w/encl.)
Barb Lynch, IDNR Field Services and Compliance Bureau, Des Moines, IA (w/encl.)
Chris Larson, IDNR Fisheries Bureau, Lewis, IA (w/encl.)
IDNR Emergency Response Section, Des Moines, IA (w/encl.)
IDALS, Attn: Kevin Klommhaus, Wallace Building, 902 E. 9th Street, Des Moines, IA 50319 (w/encl.)
IDALS, Attn: Jim Christensen, Wallace Building, 902 E. 9th Street, Des Moines, IA 50319 (w/encl.)
EPA, Attn: Jamie Green, Toxics and Pesticides Branch, 901 North 5th Street, Kansas City, KS 66101 (w/encl.)
Bill Crees, 1738 - 160th Street, Casey, IA 50048 (w/encl.)
Agriland FS-Casey File (New) Uncontrolled Sites

SUSPENSE: August 15, 2011 -Address 7 aforementioned requirements and submit documentation of such to this field office

IOWA DEPARTMENT OF NATURAL RESOURCES

Report of Investigation

INVESTIGATION DATE: Current: 06/16/2011

Last: 05/23/2011

TO: Agriland FS, Inc.
Attn: Brett Hafner
425 Hwy 1 and 92
Washington, IA 52353

Agriland FS, Inc.
Attn: Curtis Hoakison
1608 160th Street
Casey, IA 50048

RE: Spill Number 052311-MAC-1145
Adair County, Prussia Township, Section 5

PERSONS CONTACTED: Bill Crees, private pond owner
Janet Crees, private pond owner
Curtis Hoakison, Agriland FS, Inc. Location Manager
Brett Hafner, Agriland FS, Inc. Environmental, Health & Safety
Manager
Bryan Hayes, Iowa Department of Natural Resources Biologist II

May 23, 2011

On Monday, May 23, 2011 at approximately 11:45 AM, Melodie Carr (Environmental Specialist, Field Office 4) received a telephone call from Bill Crees. Mr. Crees reported approximately 200 to 300 dead fish in his private pond. It was reported that Crees pond is approximately two acres in size and is located at 1738 160th Street, Casey, Iowa.

At approximately 12:30 PM, Melodie Carr and I arrived at the Crees Pond. We met with Ms. Janet Crees. Ms. Crees informed us that she first noticed the dead fish on Sunday, May 22, 2011 while mowing grass around the pond. Therefore, we were at least one (1) day behind the release from the Agriland catchment basin. The main slug of contamination had likely already passed through the Crees' pond.

Ms. Crees informed us that previous fish kills have been observed in the pond as well. Ms. Crees informed us that she contacted Field Office 4 during these past fish kills and was told that it was likely a natural fish kill. As I understand it, previous investigations were not conducted.

Dead fish were observed at the edges of the Crees' Pond. Photographs were taken for documentation. The pond outlet was observed from the top of the dam. The water was covered in a white/yellowish-green foam. Photographs were taken for documentation. Ms. Crees informed us that the pond outlet routinely exhibited the white/yellowish-green foam observed on the day of this investigation and therefore didn't think anything of it. This is evidence that Agriland FS, Inc. routinely released contamination from the catchment basin.

At approximately 1:50 PM, department staff analyzed water at the pond outlet. Field tests yielded 30-60 ppm of ammonia, 6-8 ppm dissolved oxygen, a pH of 8.6, and a temperature of 75 degrees Fahrenheit. In addition, department staff collected lab samples to be analyzed by the State Hygienic Laboratory for ammonia, biochemical oxygen demand, and common herbicides/pesticides.

At approximately 2:15 PM, department staff analyzed water at the pond inlet. Field tests yielded 10-30 ppm of ammonia, 3-4 ppm dissolved oxygen, a pH of 7.4, and a temperature of 82 degrees Fahrenheit. In addition, department staff collected lab samples to be analyzed by the State Hygienic Laboratory for ammonia, biochemical oxygen demand, and common herbicides/pesticides.

At approximately 2:30 PM, Field Office Staff met with Fisheries Staff at the Crees' Pond. Fisheries Staff agreed to conduct a count of dead fish.

Department staff subsequently traversed the stream segment downgradient of the Crees pond. Additional dead fish were not observed.

At approximately 3:30 PM, Ryan Young (Environmental Specialist, Field Office 4), Melodie Carr, and I visited the Agriland FS, Inc. facility located at 1608 160th Street. It was observed that the Agriland FS, Inc. facility is located upgradient of the Crees' pond. Liquid chemical spills were observed on the north side of the facility as we entered. Evidence of past unreported spills (trail of burnt vegetation) was observed on the north side of the facility as we entered. Dry chemical spills were observed on the ground surface throughout the facility as we entered. We met with Mr. Curtis Hoakison, Location Manager. We informed Mr. Hoakison that we were investigating a fish kill downgradient from his facility that appeared to be caused by high levels of ammonia-nitrogen. We asked Mr. Hoakison what occurred at the facility recently that would have caused this. Mr. Hoakison responded that Agriland FS, Inc. staff recently opened a valve on their liquid catchment basin on the south side of the facility. Mr. Hoakison noted that the catchment basin could not contain any more rain water, and therefore the valves were opened to reduce pressure on the basin before the next precipitation event. Mr. Hoakison stated that they routinely wash out their spray tanks on-site, and that this wash water likely ends up in this basin as the wash water is not contained. Mr. Hoakison also noted that the sprayer operators allow hoses to drain onto the ground. The draining of hoses is not contained. This liquid, or residual from it, may also end up in the catchment basin.

Mr. Hoakison was informed that basins which accumulate a water/fertilizer mixture generally exhibit extremely high levels of ammonia-nitrogen. Mr. Hoakison was informed that ammonia levels as low as 5 to 10 ppm can be toxic to fish.

Mr. Hoakison was informed that we observed spilled chemicals on the north side of the facility that have not been reported nor cleaned up. Mr. Hoakison was informed that we observed evidence of other spills (i.e., burnt grass) on the north side of the facility that have not been reported or cleaned up. Mr. Hoakison was informed that we observed spills of dry chemicals on the ground surface that have not been reported or cleaned up.

Mr. Hoakison was present while Department staff analyzed water from the Agriland catchment basin located on the south side of the facility. A field test yielded greater than 300 ppm of ammonia as nitrogen. For reference, our high range ammonia field test kits range from 30 ppm to 300 ppm. In addition, department staff collected lab samples to be analyzed by the State Hygienic Laboratory for ammonia and common pesticides/herbicides.

TABLE A
FIELD TEST RESULTS

Location	Ammonia	Dissolved Oxygen	pH	Temperature (Fahrenheit)
Crees Pond Below Dam Outlet	30 - 60 ppm	6 - 8 ppm	8.6	75 degrees
Crees Pond Inlet	10-30 ppm	3 - 4 ppm	7.4	82 degrees
Agriland Catch Basin	>300 ppm			

TABLE B
LABORATORY ANALYTICAL RESULTS

Location	Ammonia	Atrazine	Metolachlor	Acetochlor	Desethyl Atrazine	Propazine
Agriland Catch Basin	690 ppm	9,000 ppb	240 ppb	410 ppb	260 ppb	<100 ppb
Crees Pond Inlet	14 ppm	52 ppb	5.9 ppb	6.1 ppb	2.0 ppb	0.76 ppb
Crees Pond Below Dam Outlet	32 ppm	130 ppb	13 ppb	16 ppb	3.1 ppb	1.2 ppb

* Refer to the Laboratory Analytical Data Sheets (attached) for a full listing of lab results.

Ammonia - Based on the sample results referenced above, there was a violation of general water quality criteria. Subrule 567 IAC 61.3(2)"d" states, *"Such waters shall be free from substances attributable to wastewater discharges or agricultural practices in concentrations or combinations which are acutely toxic to human, animal, or plant life"*. Furthermore, a Class B(WW-1) stream with a pH of 8.6 has an Acute Criterion for

ammonia as nitrogen of 2.65 mg/l. Laboratory analytical results yielded an ammonia as nitrogen result of 32 mg/l.

Atrazine - According to communication with Mr. Brett Hafner dated July 7, 2011, the following products containing atrazine are used at this facility; Callisto Xtra, Harness® Xtra 5.6L Herbicide, Lexar Herbicide, and Infantry 4L. Mr. Hafner provided a Material Safety Data Sheet (MSDS) for each product. Labels of each product were obtained from the internet. All four products are restricted use pesticides due to ground and surface water concerns.

The Callisto Xtra label states, but is not limited to, *"This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water". "It is a violation of Federal law to use this product in a manner inconsistent with its labeling". "...Dispose of rinsate from steps 1-4 in an appropriate manner".*

The Harness® Xtra 5.6L Herbicide label states, but is not limited to, *"This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark...Do not contaminate water when disposing of equipment wash waters". "It is a violation of Federal law to use this product in a manner inconsistent with its labeling".*

The Lexar label states, but is not limited to, *"This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean water mark...Do not contaminate water when disposing of equipment wash water". "It is a violation of federal law to use this product in a manner inconsistent with its labeling." "Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law."*

The Infantry 4L label states, but is not limited to, *"This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark...Do not contaminate water when disposing of equipment wash water". "It is a violation of federal law to use this product in a manner inconsistent with its labeling". "Wastes resulting from the use of this product are acutely toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law".*

May 24, 2011

On Tuesday, May 24, 2011, at approximately 12:30 PM, Ryan Young, Roger Bruner (Supervisor, Watershed Monitoring and Assessment Section), and I arrived at Agriland FS, Inc. We initially took photographs of the unreported liquid chemical spills on the north side of the facility.

We subsequently met with Mr. Brett Hafner (Environmental, Health & Safety Manager) and Mr. Curtis Hoakison. We summarized our investigation for Mr. Hafner. Mr. Hafner

questioned if we had considered the application of fertilizer on nearby crop ground as contributing to the fish kill. We responded that concentrations observed during our investigation are not typically the result of routine application of fertilizer. Additionally, we noted that visual observations of the pond outlet (refer to attached photographs) are typically not the result of routine application of fertilizer. It was described that the typical application of fertilizer does not cause fish kills. It was described that the evidence collected during our investigation points to a highly concentrated source of contamination such as the catchment basin.

We explained our requirements to Mr. Hafner which consisted of the following;

- Clean up the standing spilled chemicals on the north side of the facility immediately. Mr. Hoakison cleaned up the spilled chemicals with a pump while we were on-site.
- Excavate all spills on the north side of the facility to site and smell criteria. Land apply the excavated soil at an agronomic rate.
- Submit a written plan for adequate disposal of wastewater within the catchment basin on the south side of the facility.
- Remove gate valves from the catchment basin on the south side of the facility.
- Submit a plan to address housekeeping issues (i.e., spillage of chemicals and fertilizers) identified at the facility.
- Submit a plan to address the accumulation of liquid within the concrete basin located beneath the dry fertilizer load-out.
- Address the wastewater resulting from the routine cleaning of tanks.
- The disposal of liquid remaining in hoses to the ground surface must cease immediately.
- Conduct a Site Assessment in accordance with Chapter 133 of the Iowa Administrative Code.

Mr. Hafner noted that he has attempted to educate this facility on the importance of proper storage and handling procedures. We offered to discuss the observed issues with the Agriland FS, Inc. staff. Mr. Hafner declined our offer. Mr. Hafner agreed to begin working on the aforementioned requirements immediately.

Field Office staff discussed the status of Crees' Pond with Fisheries Staff. Fisheries staff informed us that 6, 510 dead fish were counted. They informed us that the monetary value of these dead fish was \$3,254.24. They also reported that there were no visible signs of living fish remaining within the pond.

June 16, 2011

On Thursday June 16, 2011, at approximately 1:20 PM, Melodie Carr and I arrived at the Agriland FS, Inc. facility. We met with Mr. Curtis Hoakison. Mr. Hoakison described to us that Agriland FS, Inc. has been pumping liquid from the catchment basin into trucks where it is subsequently land applied. Mr. Hoakison described that Agriland FS, Inc. was still attempting to line up a contractor to clean up the spills on the north side of the facility. Spilled dry fertilizer was observed on the west side of the dry fertilizer storage facility. We reminded Mr. Hoakison that spilled fertilizer must be cleaned up on a daily basis. We suggested that Agriland FS, Inc. pursue ways of making the cleanup of spilled

fertilizer easier such as the installation of a larger concrete pad. It was observed that the concrete basin beneath the dry fertilizer load out was completely full of liquid. Liquid was actually overflowing the basin and was directed towards the tile intake on the east side of the facility. It is assumed that this tile intake directs water towards the Crees' Pond. Field Office staff collected a lab sample to be analyzed by the State Hygienic Laboratory. We received the laboratory analytical results on June 29, 2011 (attached). The sample yielded 0.12 ppm ammonia. Although this sampling event yielded low levels of ammonia, Agriland FS, Inc. must still submit a manageable strategy for addressing the liquid within this concrete basin. The basin cannot properly contain spills if it is full of liquid. Additionally, observations of storage and handling practices at the facility would indicate that fertilizer may be spilled within the concrete basin. Ammonia laden water cannot be allowed to discharge into the tile intake located on the east side of the facility.

We provided Mr. Hoakison with laboratory analytical results of the catchment basin water sample collected on May 23, 2011. We informed Mr. Hoakison that over 6,000 fish were killed in the Crees' pond. We informed Mr. Hoakison that our Fisheries Staff did not observe any living fish within the Crees' pond. We described that this seems to be evidence that the catchment basin was manually emptied on a routine basis. Mr. Hoakison responded that emptying the catchment basin was performed to address a separate complaint from another neighbor. Therefore, it appears this was an ongoing process.

We subsequently inspected the Crees' Pond. We did not observe any evidence of living fish. It was observed that the white, yellowish-green foam had disappeared from the pond outlet.

Prior to departure, we observed an Agriland FS, Inc. employee sweeping up spilled fertilizer with a broom and dust pan. We also observed an Agriland FS, Inc. employee beginning to pump liquid out of the concrete basin beneath the dry fertilizer load out.

June 22, 2011

At approximately 11:30 AM, I contacted Mr. Bill Crees by telephone. I advised Mr. Crees that Fisheries Staff found no visible signs of living fish within his pond. I advised Mr. Crees that the pond should be allowed to clean itself out over the next couple of months. I advised Mr. Crees to contact the Department in the fall if he would like assistance with restocking the pond.

June 27, 2011

Mr. Brett Hafner contacted me by telephone. Mr. Hafner informed me that Agriland FS, Inc. is pumping liquid out of the catchment basin and land applying it at agronomic rates. He informed me that cleanup of the liquid chemical spills observed on the north side of the facility is currently on hold due to the weather. He informed me that the elimination of the gate valves in the catchment basin are also on hold due to the weather. He informed me that the requested written plans have not been addressed due to budgetary revisions within Agriland FS, Inc.

I informed Mr. Hafner that 6,510 fish were killed in the Crees' Pond. I informed Mr. Hafner that our Fisheries Staff did not observe any living fish within the pond. Mr. Hafner was advised that the pond will likely be restocked. Mr. Hafner was advised that Field Office staff will keep a close watch on the Agriland FS, Inc. facility to ensure this incident is not repeated.

Mr. Curtis Hoakison contacted me by telephone. According to Mr. Hoakison, a contractor will begin cleanup on the north side of the facility on Wednesday morning, June 29, 2011. I informed Mr. Hoakison that I was unavailable that morning. Mr. Hoakison was reminded that all contamination should be excavated to site and smell criteria.

July 1, 2011

At approximately 9:50 AM, Mr. Brett Hafner contacted me by telephone. Mr. Hafner informed me that contaminated soil was excavated on June 29, 2011 and fresh dirt was hauled in as backfill. Mr. Hafner also claimed that the spilled dry fertilizer observed at the facility during our June 16, 2011 visit was spilled earlier the same day.

July 6, 2011

E-mail communication to Mr. Hafner requesting information on the type of atrazine used at the facility or copies of Material Safety Data Sheets (MSDS).

July 7, 2011

Mr. Hafner forwarded MSDS via e-mail for Callisto Xtra, Lexar, Infantry 4L, and Harness®Xtra 5.6L. All four pesticides contain atrazine.

Inspector:

KW

Keith Wilken, Environmental Specialist

Reviewer:

Holly Vandemark

7-12-11

Holly Vandemark, Environmental Specialist Senior/Acting Supervisor

Distribution: Field Office: Central Office: Inspected Facility

Date Sent: 7/12/11

KW:kw\SP\Casey052311.sw.Agriland FS Fish Kill ROI.Wilken.Doc



State Hygienic Laboratory

The University of Iowa

Date of report: 06-07-2011

|||||
KEITH WILKEN
IDNR-FO 4
1401 SUNNYSIDE LANE

ATLANTIC IA 50022

Sample Number 2011017244
Date Received 05-24-2011
Project 05WQFK
Date Collected 05-23-2011 13:50
Collection Site crees pond below dam outlet
Collection Town Adair County
Description surface water
Reference
Collector WILKEN KEITH
Phone (712) 243-1934
Purchase Order

Comments

Adair County, Prussia Township, Section 5
Upon arrival, sample met container and preservation requirements for the analysis requested;
EXCEPT: sample temperature exceeds 6 degrees celsius.
Please review carefully your sample results for additional analyte comments or method exceptions.

Results of Analyses

Nitrogen Containing Herbicides

Analyte	Concentration ug/L	Quantitation Limit ug/L
Atrazine	130	20
Cyanazine	<1	1
Metolachlor	13	1
Alachlor	<1	1
Metribuzin	<1	1
Butylate	<1	1
Trifluralin	<1	1
Acetochlor	16	1
Desethyl Atrazine	3.1	1
Desisopropyl Atrazine	<1	1
Simazine	<1	1
Ametryn	<1	1
EPTC	<1	1
Prometon	<1	1
Propachlor	<1	1
Propazine	1.2	1
Dimethenamid	<1	1
Butachlor	<1	1

Date Analyzed: 06-01-2011 21:14

Analyzed at: Iowa City

Method: EPA 507

Date Prepared: 05-25-2011

Analyst: VR
Verified: PB
Analyst: PM
Verified: KB

Page 1 - Continued on next page



State Hygienic Laboratory

The University of Iowa

Page 2
Sample Number 2011017244

Ammonia as N

Analyte	Concentration mg/L	Quantitation Limit mg/L
Ammonia Nitrogen as N	32	0.05

Date Analyzed: 05-31-2011

Analyzed at: Ankeny

Analyst: JAB

Method: LAC10-107-06-1J

Verified: TAB

Total Biological Oxygen Demand (5 day)

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Biochemical Oxygen Demand (5 day)	61	2

Date Analyzed: 05-25-2011 07:30

Analyzed at: Ankeny

Analyst: JE/BR

Method: SM 5210B

Verified: TAB

Description of units used within this report

mg/L - Milligrams per Liter

ug/L - Micrograms per Liter

Quant Limit - Lowest concentration reliably measured

The results of this report relate only to the items analyzed. This report shall not be reproduced except in full without the written approval of the laboratory.

Iowa Environmental Laboratory IDs are: Ankeny #397, Iowa City #027, Lakeside #393.

If you have any questions please call Client Services at 800/421-IOWA (4692) or 319/335-4500. Thank you.



State Hygienic Laboratory

The University of Iowa

Date of report: 06-07-2011

|||||
KEITH WILKEN
IDNR-FO 4
1401 SUNNYSIDE LANE

ATLANTIC IA 50022

Sample Number 2011017243
Date Received 05-24-2011
Project 05WQFK
Date Collected 05-23-2011 15:20
Collection Site crees pond inlet
Collection Town Adair County
Description surface water
Reference
Collector WILKEN KEITH
Phone (712) 243-1934
Purchase Order

Comments

Adair County, Prussia Township, Section 5
Upon arrival, sample met container and preservation requirements for the analysis requested;
EXCEPT: sample temperature exceeds 6 degrees celsius.
Please review carefully your sample results for additional analyte comments or method exceptions.

Results of Analyses

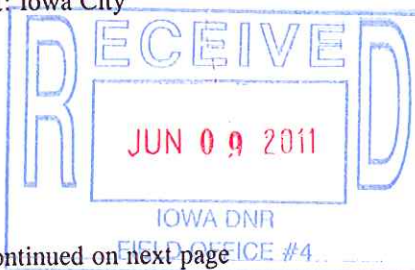
Nitrogen Containing Herbicides

Analyte	Concentration ug/L	Quantitation Limit ug/L
Atrazine	52	10
Cyanazine	<0.1	0.1
Metolachlor	5.9	0.1
Alachlor	<0.1	0.1
Metribuzin	<0.1	0.1
Butylate	<0.1	0.1
Trifluralin	<0.2	0.2
Acetochlor	6.1	0.1
Desethyl Atrazine	2.0	0.1
Desisopropyl Atrazine	0.48	0.1
Simazine	0.26	0.1
Ametryn	<0.1	0.1
EPTC	<0.2	0.2
Prometon	<0.1	0.1
Propachlor	<0.1	0.1
Propazine	0.76	0.1
Dimethenamid	<0.1	0.1
Butachlor	<0.1	0.1

Date Analyzed: 06-01-2011 20:42
Method: EPA 507
Date Prepared: 05-25-2011

Analyzed at: Iowa City

Analyst: VR
Verified: PB
Analyst: PM
Verified: KB



Page 1 - Continued on next page



State Hygienic Laboratory

The University of Iowa

Page 2
Sample Number 2011017243

Ammonia as N

Analyte	Concentration mg/L	Quantitation Limit mg/L
Ammonia Nitrogen as N	14	0.05

Date Analyzed: 05-31-2011

Analyzed at: Ankeny

Analyst: JAB

Method: LAC10-107-06-1J

Verified: TAB

Total Biological Oxygen Demand (5 day)

Analyte	Concentration mg/L	Quantitation Limit mg/L
Total Biochemical Oxygen Demand (5 day)	27	2

Date Analyzed: 05-25-2011 07:30

Analyzed at: Ankeny

Analyst: JE/BR

Method: SM 5210B

Verified: TAB

Description of units used within this report

mg/L - Milligrams per Liter

ug/L - Micrograms per Liter

Quant Limit - Lowest concentration reliably measured

The results of this report relate only to the items analyzed. This report shall not be reproduced except in full without the written approval of the laboratory.

Iowa Environmental Laboratory IDs are: Ankeny #397, Iowa City #027, Lakeside #393.

If you have any questions please call Client Services at 800/421-IOWA (4692) or 319/335-4500. Thank you.



State Hygienic Laboratory

The University of Iowa

Date of report: 06-07-2011

|||||
KEITH WILKEN

IDNR-FO 4

1401 SUNNYSIDE LANE

ATLANTIC IA 50022

Sample Number 2011017245
Date Received 05-24-2011
Project 05WQFK
Date Collected 05-23-2011 16:48
Collection Site agriland catch basin
Collection Town Adair County
Description surface water
Reference
Collector WILKEN KEITH
Phone (712) 243-1934
Purchase Order

Comments

Adair County, Prussia Township, Section 5
Upon arrival, sample met container and preservation requirements for the analysis requested;
EXCEPT: sample temperature exceeds 6 degrees celsius.
Please review carefully your sample results for additional analyte comments or method exceptions.

Results of Analyses

Nitrogen Containing Herbicides

Analyte	Concentration ug/L	Quantitation Limit ug/L
Atrazine	9000	400
Cyanazine	< 100	100
Metolachlor	240	100
Alachlor	< 100	100
Metribuzin	< 100	100
Butylate	< 100	100
Trifluralin	< 100	100
Acetochlor	410	100
Desethyl Atrazine	260	100
Desisopropyl Atrazine	< 100	100
Simazine	< 100	100
Ametryn	< 100	100
EPTC	< 100	100
Prometon	< 100	100
Propachlor	< 100	100
Propazine	< 100	100
Dimethenamid	< 100	100
Butachlor	< 100	100

Date Analyzed: 06-03-2011 14:48

Analyzed at: Iowa City

Analyst: VR

Method: EPA 507

Verified: PB

Date Prepared: 05-25-2011

Analyst: PM

Verified: KB

Page 1 - Continued on next page



State Hygienic Laboratory

The University of Iowa

Page 2
Sample Number 2011017245

Ammonia as N

Analyte	Concentration mg/L	Quantitation Limit mg/L
Ammonia Nitrogen as N	690	0.05

Date Analyzed: 05-31-2011

Analyzed at: Ankeny

Analyst: JAB

Method: LAC10-107-06-1J

Verified: TAB

Description of units used within this report

mg/L - Milligrams per Liter

ug/L - Micrograms per Liter

Quant Limit - Lowest concentration reliably measured

The results of this report relate only to the items analyzed. This report shall not be reproduced except in full without the written approval of the laboratory.

Iowa Environmental Laboratory IDs are: Ankeny #397, Iowa City #027, Lakeside #393.

If you have any questions please call Client Services at 800/421-IOWA (4692) or 319/335-4500. Thank you.



State Hygienic Laboratory

The University of Iowa

Date of report: 06-29-2011

|||||
KEITH WILKEN
IDNR-FO 4
1401 SUNNYSIDE LANE

ATLANTIC IA 50022

Sample Number	2011022234
Date Received	06-23-2011
Project	05WQFK
Date Collected	06-16-2011 14:30
Collection Site	agriland load out basin
Collection Town	Adair County-prussia
Description	surface water
Reference	SECTION 5
Collector	WILKEN KEITH
Phone	(712) 243-1934
Purchase Order	

Comments

*Upon arrival, sample met container and preservation requirements for the analysis requested;
EXCEPT: sample temperature exceeds 6 degrees celsius.
Please review carefully your sample results for additional analyte comments or method exceptions.*

Preliminary Results of Analyses

Ammonia as N

Analyte	Concentration mg/L	Quantitation Limit mg/L
Ammonia Nitrogen as N	0.12	0.05

Date Analyzed: 06-29-2011
Method: LAC10-107-06-1J

Analyzed at: Ankeny

Analyst: AB
Verified: DS

Description of units used within this report

mg/L - Milligrams per Liter

Quant Limit - Lowest concentration reliably measured

The results of this report relate only to the items analyzed. This report shall not be reproduced except in full without the written approval of the laboratory.

Iowa Environmental Laboratory IDs are: Ankeny #397, Iowa City #027, Lakeside #393.

If you have any questions please call Client Services at 800/421-IOWA (4692) or 319/335-4500. Thank you.

March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above and Below: Dead fish observed in the Crees' Pond.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above and Below: Dead fish observed in the Crees' Pond.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above and Below: Dead fish observed in the Crees' Pond.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above: Dead fish observed in Crees' Pond. Below: White, yellowish-green foam observed at pond outlet.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above and Below: White, yellowish-green foam observed at pond outlet.



March 23, 2011 Fish Kill Investigation

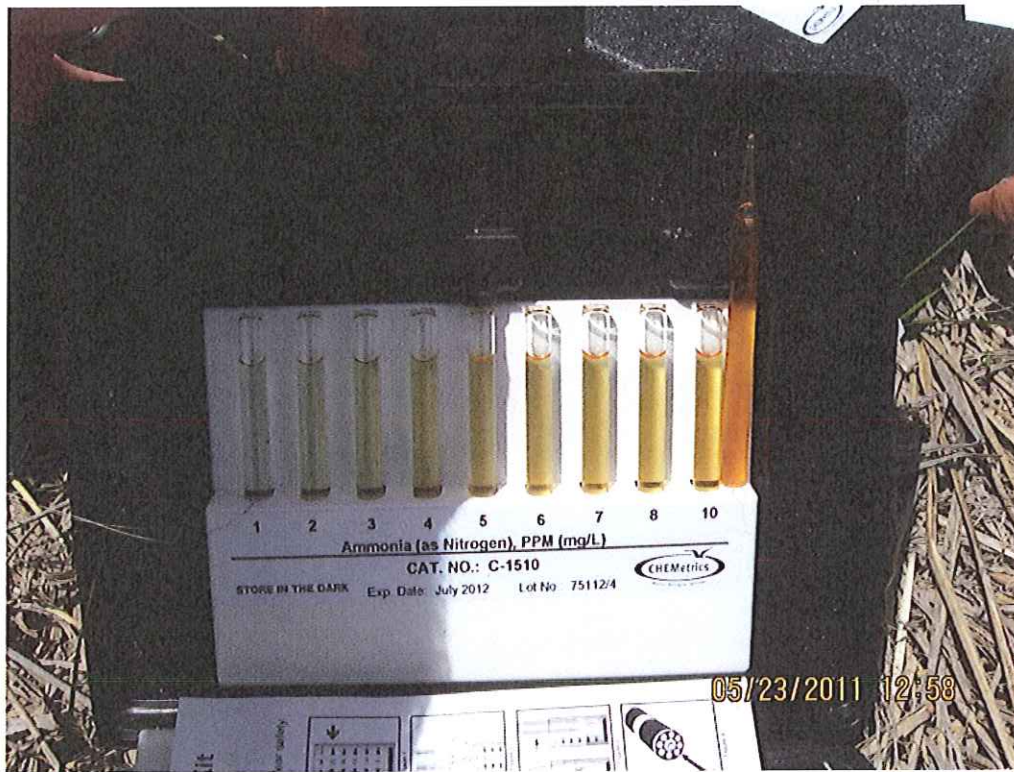
Digital Photographs and Aerial Photographs with Diagrams



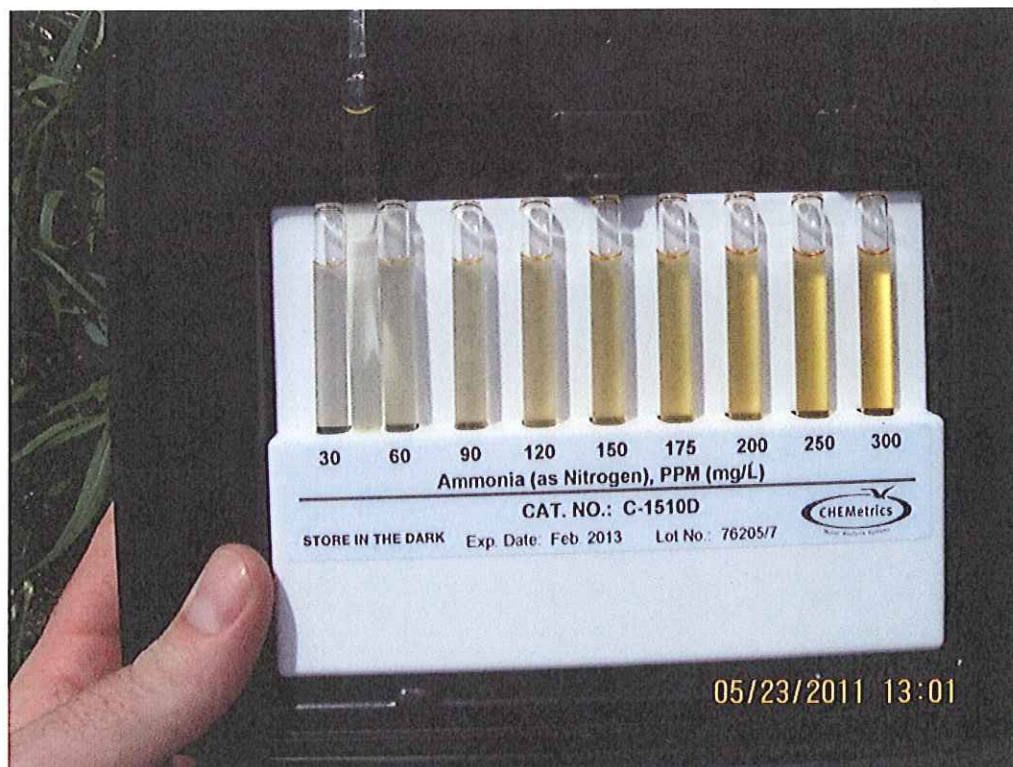
Above: White, yellowish-green foam observed at pond outlet.

March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams

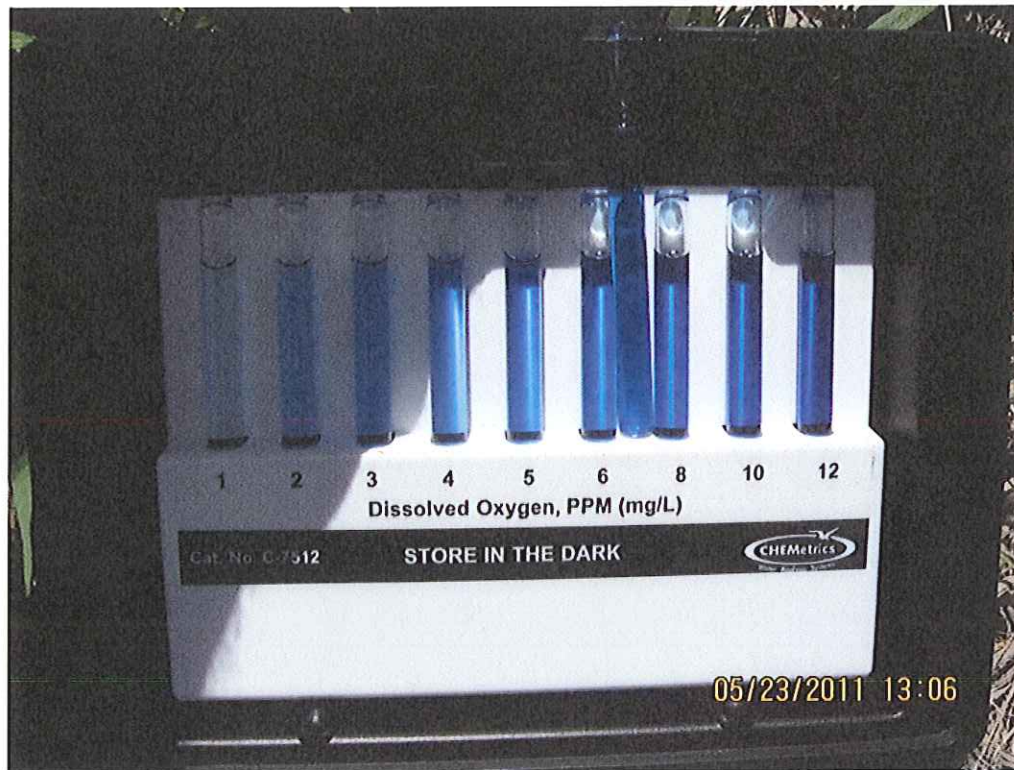


Above: Low range ammonia test kit analysis at pond outlet. Below: High range ammonia test kit analysis at pond outlet. Sample results 30 - 60 ppm ammonia as nitrogen.



March 23, 2011 Fish Kill Investigation

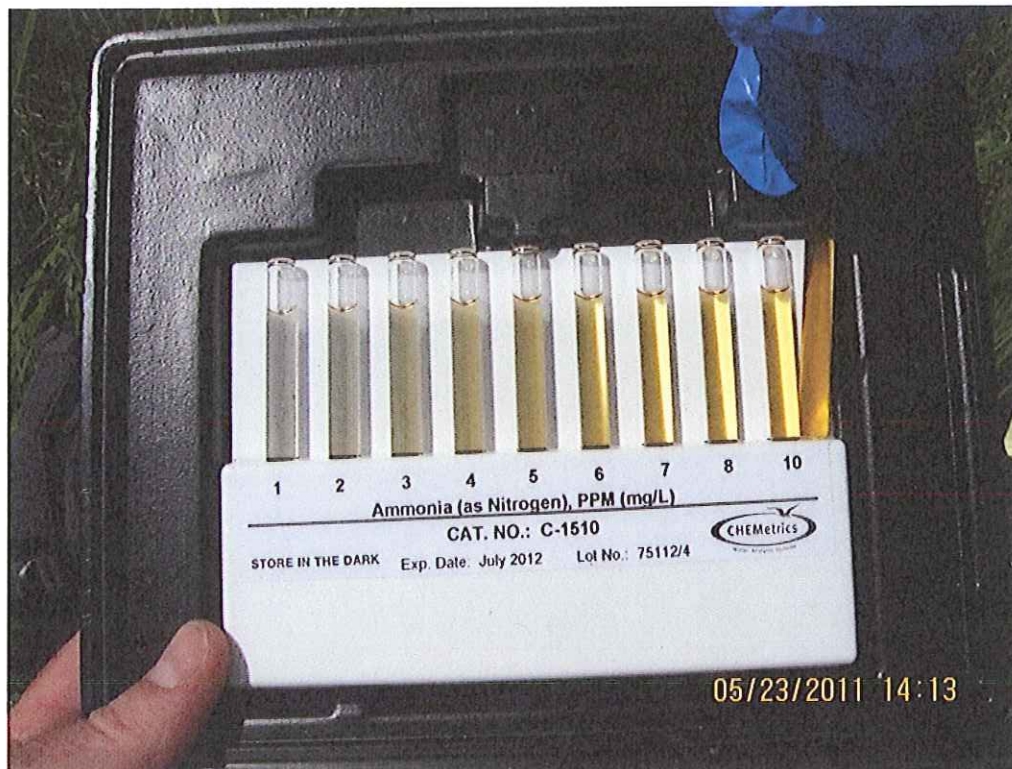
Digital Photographs and Aerial Photographs with Diagrams



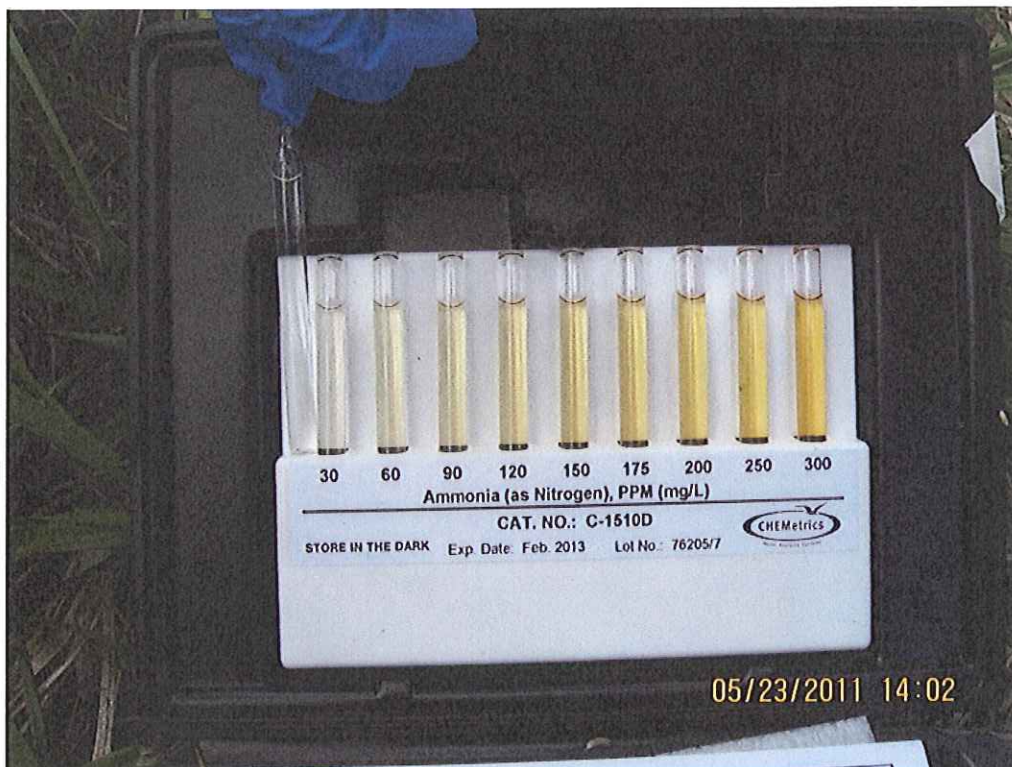
Above: Dissolved oxygen test kit analysis at pond outlet. Sample results 6 - 8 ppm of dissolved oxygen.

March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



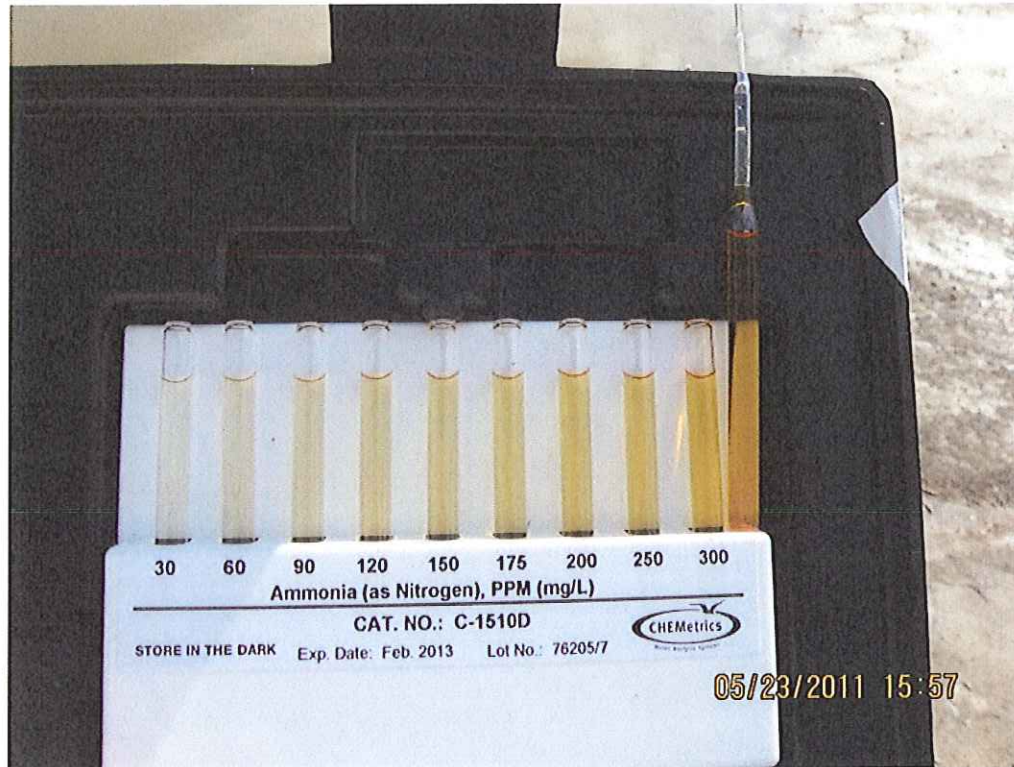
Above: Low range ammonia test kit analysis at pond inlet. Below: High range ammonia test kit analysis at pond inlet. Sample results 10 - 30 ppm of ammonia as nitrogen.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams

Below: High range ammonia test kit analysis at Agriland catchment basin located on south side of facility. Sample results >300 ppm ammonia as nitrogen.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams

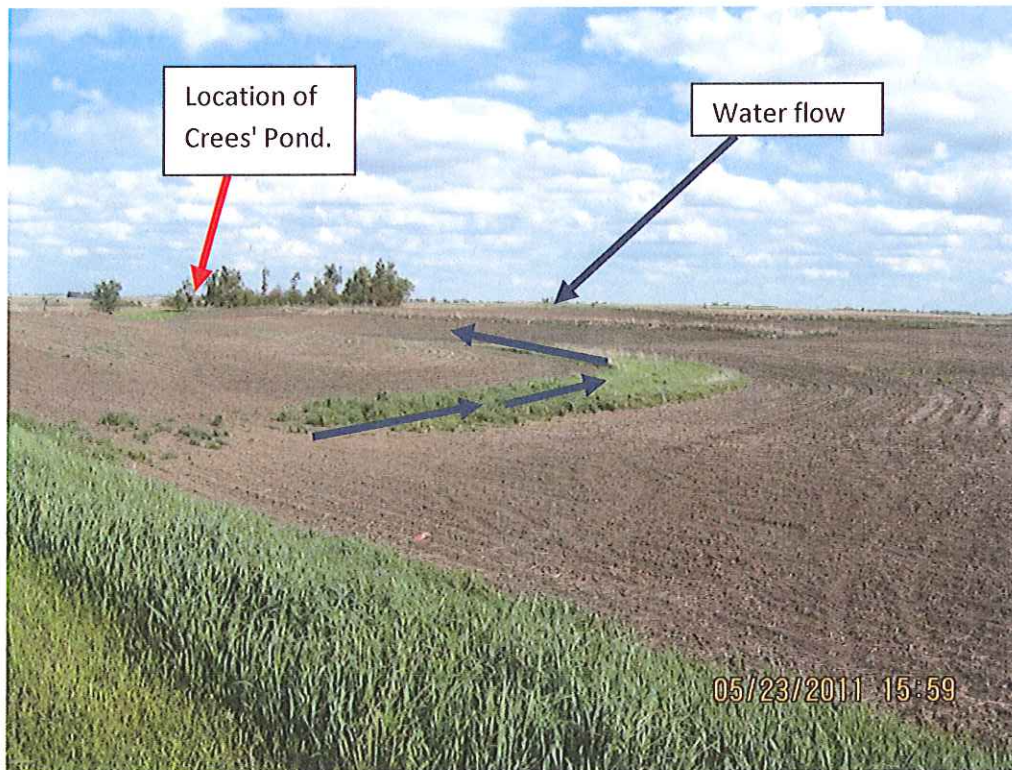


Above and Below: Photograph of Agriland catchment basin. Note the two intakes located inside the basin. These intakes are operated by a manual gate valve.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above: Photograph while standing on catchment basin berm. Liquid released from basin flows towards Crees' Pond. Below: Evidence of unreported spills (burnt grass) on north side of facility.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above: Evidence of unreported spills (burnt vegetation). Below: Unreported liquid chemical spill on north side of facility.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above and Below: Unreported liquid chemical spills observed on north side of facility.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above: North side of facility. Liquid chemical spill and evidence of past spills observed in ditch. Below: Agriland catchment basin on south side of facility.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above: Agriland catchment basin on June 16. Below: Dry fertilizer spilled on west side of dry fertilizer storage facility. Recommend a larger concrete pad to aid in cleanup of spilled fertilizer.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above and Below: Spilled dry fertilizer.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams



Above and Below: Concrete basin located beneath dry fertilizer load out filled to capacity with liquid. Liquid leaving basin on east and west sides. Liquid directed towards tile intake.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams

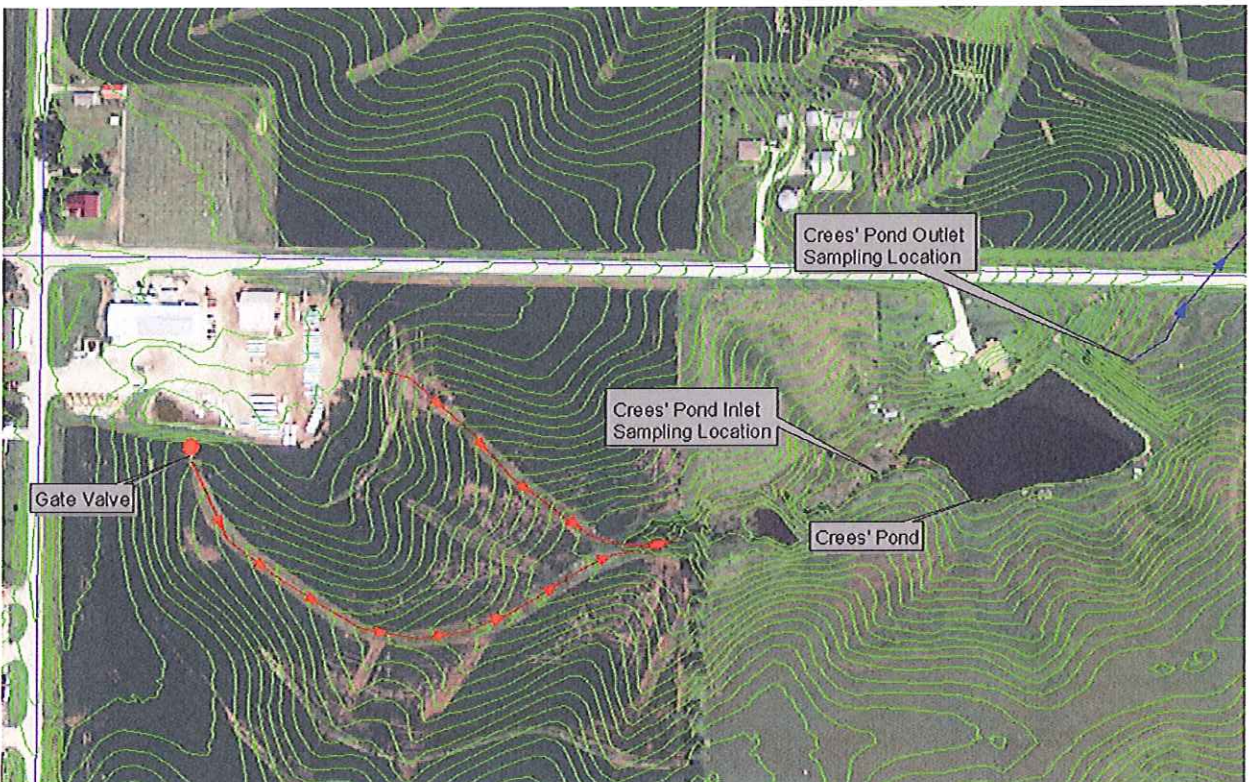
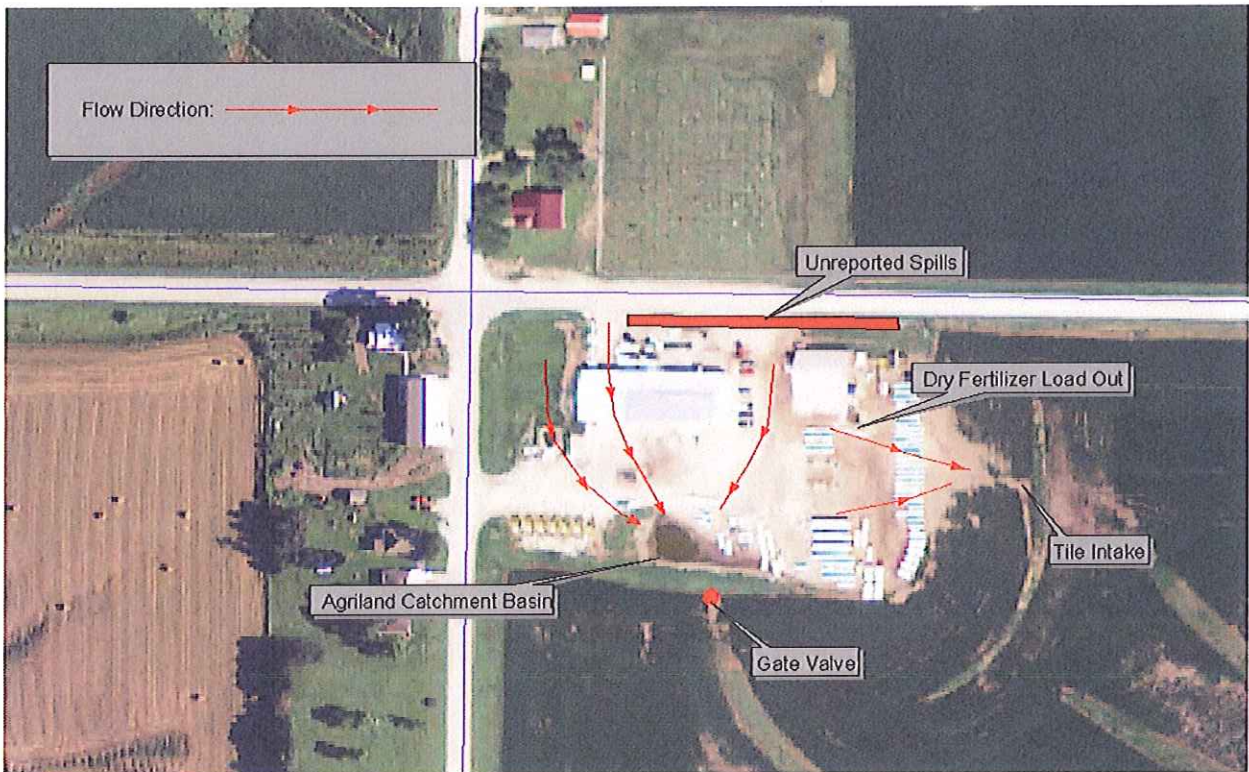


Above and Below: Concrete basin located beneath dry fertilizer load out filled to capacity with liquid.
Liquid leaving basin on east and west sides. Liquid directed towards tile intake.



March 23, 2011 Fish Kill Investigation

Digital Photographs and Aerial Photographs with Diagrams





Memorandum

Southwest Regional Office • Iowa Department of Natural Resources

To: Joe Larscheid, Chief
Fisheries Bureau
Iowa Department of Natural Resources

From: Bryan Hayes, Natural Resources Biologist II
Iowa Department of Natural Resources

Date: July 1, 2011

RE: Crees' Pond Fish Kill (Adair County)



Date Investigated: May 23rd and 24th, 2011.

Name of Water Body: Crees' Private Pond (Adair County)

Investigator(s): Bryan Hayes - Natural Resource Biologist II (Fisheries), Mark Boucher – Natural Resources Technician II (Fisheries), Chris Stahr – Natural Resources Aide (Fisheries)

Location: The fish kill occurred in a private pond owned by Bill and Janet Crees Section 5 T76N R32W in Adair County.

Cause of Kill: Employee's of Agriland FS Canby location opened a valve on a holding pond releasing contaminated water with ammonia into a ditch that flows into Crees' pond. The contaminated elevated ammonia levels in the pond to levels lethal to fish.

Responsible Party: Agriland FS
Canby Location
1608 – 160th St.
Casey, IA 50048
641-746-3328
641-746-3330 (Fax)
Email – canby@agrilandfs.com

Corporate Office: Agriland FS
421 N. 10th St.
Winterset, IA 50273
515-462-5353

Methods: Fish kill assessment was made by traversing the entire perimeter of the pond producing a total count of dead fish. Investigation and monetary values of fish were based upon procedures outlined in American Fisheries Society, Special Publication 30 and Iowa Administrative Code Chapter 113.



Fish Killed:

<u>SPECIES</u>	<u>NUMBER KILLED</u>	<u>MONETARY VALUE</u>
Green Sunfish 1" - <2"	249	\$87.15
Green Sunfish 2" - <3"	4,204	\$1,849.76
Green Sunfish 3" - <4"	1,940	\$1,202.80
Green Sunfish 4" - <5"	81	\$63.18
Green Sunfish 5" - <6"	17	\$18.53
Green Sunfish 6" - <7"	15	\$23.10
Green Sunfish 7" - <8"	4	\$9.72
Total	6,510	\$3,254.24

Expenses for fish kill –Crees' Private Pond (Adair County)

Investigation time:	Hourly Rate	Hours	Total	@ .128 % overhead
Bryan Hayes - NR Biologist	\$31.35	5.5	\$172.42	\$194.49
Mark Boucher - NR Tech.	\$25.20	4	\$100.80	\$113.70
Chris Stahr NR - Aide	\$9.77	3	\$29.31	\$29.31
Total				\$337.50

Vehicle Mileage:	Date	Miles	Mileage	Total
Vehicle 1229	5/24/11	70	\$0.39	\$27.30

Grand Total	\$3,619.04
--------------------	-------------------

Cc: Chris Larson, Regional Fisheries Supervisor
Keith Wilken, Environmental Specialist





4/27/2011

STATE OF IOWA CERTIFIED GROUNDWATER PROFESSIONALS

BUSINESS CITY	ST	BUSINESS NAME	LAST NAME	FIRST NAME	BUSINESS ADDRESS	BUS ZIP	BUS PHONE	CERT #
ALTON	MN	BONESTROO	CONSTANT	DAVID C.			(507) 529-6045	1018
AMES	IA	NORTHWEST ENVIRONMENTAL	RUPPERT	DANIEL	PO BOX 401	51003	(712) 756-4732	1418
AMES	IA	ENVIRONMENTAL RESOURCE SERVICES	HARDY	STEVEN B.	519 LYNN AVENUE	50014	(515) 231-2288	1070
AMES	IA	MINER ENVIRONMENTAL CONSULTANTS	MINER	WILLIAM E.	PO BOX 461	50010	(515) 232-4957	1081
ANKENY	IA		JAWORSKI	CHRISTY L.		50023	(515) 289-1522	1651
ANKENY	IA	CASEY'S MARKETING COMPANY	REAMS-WIDDER	JILL	PO BOX 3001	50021-8045	(515) 965-6238	1642
AURORA	IL	GES	KETTINGER	THOMAS T.	1050 CORP BLVD, SUITE C	60504	(414) 747-2444	1706
BETTENDORF	IA	ANTEA GROUP	PUCK	BRENT	985 LINCOLN RD, SUITE 220	52722-4156	(563) 355-9785	1943
BETTENDORF	IA	TERRACON ENVIRONMENTAL, INC	BRIMEYER	JOHN F.	870 - 40TH AVENUE	52722	(563) 355-0702	1585
BURLINGTON	IA	KLINGNER & ASSOCIATES	BROSS	BRYAN C.	610 N 4TH, SUITE 100	52601	(319) 752-3603	2016
CEDAR RAPIDS	IA	BRAUN INTERTEC ENVIRONMENTAL, INC	BERTCH	EDWARD D.	5915 FOURTH ST SW, #100	52404	(319) 365-0961	1595
CEDAR RAPIDS	IA	FOTH INFRASTRUCTURE & ENVIRONMENT	BEEBE	RONN	4200 GLASS ROAD NE	52402	(319) 365-9565	2033
CEDAR RAPIDS	IA	GEOSERVICES	BERCHENBRITER	DEAN	1242 - 27TH STREET NE	52402	(319) 431-3445	1099
CEDAR RAPIDS	IA	HOWARD R. GREEN COMPANY	HUSMAN	ROBIN	PO BOX 9009	52409	(319) 841-4000	1928
CEDAR RAPIDS	IA	HOWARD R. GREEN COMPANY	PALS	DIANE A.	PO BOX 9009	52409	(319) 841-4327	1941
CHICAGO	IL	CONESTOGA-ROVERS & ASSOCIATES	HUBBARTT	DEREK	8615 W BRYN MAWR AVE	60631	(773) 380-9933	1620
CHICAGO	IL	URS CORPORATION	GEORGIEW	GALINA	100 S WACKER DR, #500	60606	(312) 939-1000	1689
CORALVILLE	IA	STANLEY CONSULTANTS, INC	ORIANO	JULIE	2658 CROSSPARK RD, #100	52241-3212	(319) 626-5330	1703
DAVENPORT	IA		ALBRECHT	SUE		52804	(563) 326-2048	1863
DAVENPORT	IA	FOREST ROAD CONSULTING, INC	GAINES	JOHN	51 FOREST ROAD	52803-3651	(563) 441-2900	1223
DAVENPORT	IA	PRESTON ENGINEERING INC	KING	JAMES R.	4436 N BRADY STREET	52806	(563) 388-8288	1054
DAVENPORT	IA	ROCK RIVER CONSULTING	LAWRENCE	FRED W.	213 E DENISON AVENUE	52809-2804	(309) 314-2496	1514
DAVENPORT	IA	SENECA ENVIRONMENTAL SERVICES	DERYNCK	NEIL P.	7241 GAINES STREET CT	52806	(563) 332-8000	1238
DAVENPORT	IA	SENECA ENVIRONMENTAL SERVICES	DIEHL	MARK	7241 GAINES STREET CT	52806	(563) 332-8000	1630
DAVENPORT	IA	SENECA ENVIRONMENTAL SERVICES	FELDERMAN	TODD	7241 GAINES STREET CT	52806	(563) 332-8000	2044
DAVENPORT	IA	SENECA ENVIRONMENTAL SERVICES	KILLIP	SCOTT E.	7241 GAINES STREET CT	52806	(563) 332-8000	1420
DENVER	IA	BLACKHAWK ENVIRONMENTAL TESTING	THURMAN	OLLIE R.	PO BOX 85	50622	(319) 984-6600	1146
DES MOINES	IA		THUNE	GINGER		50311	(515) 988-1626	1873

BUSINESS CITY	ST	BUSINESS NAME	LAST NAME	FIRST NAME	BUSINESS ADDRESS	BUS ZIP	BUS PHONE	CERT #
DES MOINES	IA	ATC ASSOCIATES INC	LENZ	BRIAN R.	3609 KINGMAN BLVD	50311	(515) 277-5125	1639
DES MOINES	IA	CITY OF DES MOINES, ENGINEERING DEPT	McGUFFIN	DAVID N.	400 ROBERT RAY DRIVE	50309-1891	(515) 283-4028	1591
DES MOINES	IA	CITY OF DSM, AVIATION DEPT	WHEELER	JOHN L.	5800 FLEUR DRIVE, RM #201	50321	(515) 256-5302	1508
DES MOINES	IA	GAB ROBINS	REINDERS	STEVE	4685 MERLE HAY RD. #106	50322	(515) 276-8161	1871
DES MOINES	IA	IOWA DNR	BRUNER	D. ROGER	WALLACE STATE OFFICE BLDG.	50319-0034	(319) 560-6128	1423
DES MOINES	IA	IOWA DNR	CARDINALE	ROCHELLE	WALLACE STATE OFFICE BLDG.	50319-0034	(515) 242-8488	1846
DES MOINES	IA	IOWA DNR	HUMMEL	RUTH A.	WALLACE STATE OFFICE BLDG.	50319-0034	(515) 281-8997	1405
DES MOINES	IA	IOWA DNR	MEYER	KATE	WALLACE STATE OFFICE BLDG	50319-0034	(515) 242-8491	1702
DES MOINES	IA	IOWA DNR	OSBORN	LEE E.	WALLACE STATE OFFICE BLDG.	50319-0034	(515) 281-8135	1215
DES MOINES	IA	IOWA DNR	SLATTENOW	SKIPP R.	WATER SUPPLY SECTION	50309-4611	(515) 725-0461	1872
DES MOINES	IA	IOWA DNR	WHITE	JEFFREY H.	WALLACE STATE OFFICE BLDG.	50319-0034	(515) 281-8925	1173
DES MOINES	IA	MWH AMERICAS, INC	BOOTMAN	JASMINE	11153 AURORA AVENUE	50322-7904	(515) 253-0830	1914
DES MOINES	IA	MWH AMERICAS, INC	MALCOMSON	ROBERT S.	11153 AURORA AVENUE	50322-7904	(515) 253-0830	1652
DES MOINES	IA	MWH AMERICAS, INC	SHAWDA	ANGELIQUE B.	11153 AURORA AVENUE	50322-7904	(515) 253-0830	2024
DES MOINES	IA	MWH AMERICAS, INC	STANLEY	SCOTT R.	11153 AURORA AVENUE	50322-7904	(515) 253-0830	1653
DES MOINES	IA	MWH AMERICAS, INC	VARSA	STEPHEN	11153 AURORA AVENUE	50322-7904	(515) 253-0830	1636
DES MOINES	IA	MWH AMERICAS, INC	WOMBACHER	DAVID C.	11153 AURORA AVENUE	50322-7904	(515) 253-0830	1033
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	BAKER	JENNIFER	PO BOX 3360	50316-0360	(515) 261-7759	2086
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	BINNING	DARREN	PO BOX 3360	50316-0360	(515) 261-7705	1899
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	CARPENTER	JENNIFER	PO BOX 3360	50316-0360	(515) 261-7750	2057
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	COFFELT	LISA A.	PO BOX 3360	50316-0360	(515) 261-7726	1926
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	DAVISON	ADAM B.	PO BOX 3360	50316-0360	(515) 261-7732	2042
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	DOWN	MEGAN	PO BOX 3360	50316-0360	(515) 261-7701	2008
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	NAGEL	LESLIE	PO BOX 3360	50316-0360	(515) 261-7717	2029
DES MOINES	IA	SENECA ENVIRONMENTAL SERVICES	RAMM	JAMES M.	PO BOX 3360	50316-0360	(515) 261-7715	1659
DES MOINES	IA	TERRACON ENVIRONMENTAL, INC	SENSENBRENNER	DENNIS R.	600 SW 7TH, SUITE M	50309	(515) 244-3184	1066
DES MOINES	IA	TERRACON ENVIRONMENTAL, INC	WISEMAN	MARK C.	600 SW 7TH, SUITE M	50309	(515) 244-3184	1148
DUBUQUE	IA	IIV ENGINEERS & SURVEYORS, PC	BLOK	ROBERT W.	4155 PENNSYLVANIA	52002	(563) 556-2464	1270
FARMINGTON	CT	HRP ASSOCIATES	KELTNER	DAN	197 SCOTT SWAMP RD	06032	(860) 674-9570	1986
FREEMPORT	IL	FEHR-GRAHAM & ASSOCIATES	OGDEN	JEFF	221 E MAIN, SUITE 200	61032	(815) 235-7643	1676
GRIMES	IA	MAREK INDUSTRIES	MAREK	JAMES C.	9588 NW 74TH PLACE	50111	(515) 986-3466	1071
GRIMES	IA	MCFADDEN ENVIRONMENTAL, INC	MCFADDEN	KENNETH M.	722 SW KENNYBROOK DRIVE	50111	(515) 986-1755	1097

BUSINESS CITY	ST	BUSINESS NAME	LAST NAME	FIRST NAME	BUSINESS ADDRESS	BUS ZIP	BUS PHONE	CERT #
GRIMES	IA	TRILEAF CORPORATION	PRESCOTT	JARAD	3000 SE GRIMES BLVD, STE 500	50111	(515) 986-5151	2003
GRIMES	IA	TRILEAF ENVIRONMENTAL & PROPERTY	MUEGGENBERG	ERIC J.	3000 SE GRIMES BLVD.	50111	(515) 986-5151	1993
IOWA CITY	IA	GREEN WAY ENVIRONMENTAL CONSULTING	OSTBY	MAXWELL E.	PO BOX 3310	52244-3310	(319) 541-1467	1978
IOWA CITY	IA	VJ ENGINEERING	GOODRICH	JAMES E	506 E COLLEGE ST	52240	(319) 351-2166	2072
IOWA FALLS	IA	MARTIN MARIETTA MATERIALS	KEPHART	BETHANY	PO BOX 550	50126	(515) 859-3355	2011
JOHNSTON	IA	FOTH INFRASTRUCTURE & ENVIRONMENT	BACEHOWSKI	DANIEL	8191 BIRCHWOOD CT, SUITE L	50131	(515) 254-1393	2085
JOHNSTON	IA	GEODE ENVIRONMENTAL, LLC	WIDDER	RAY	PO BOX 845	50131	(515) 309-2183	1624
JOHNSTON	IA	SHAW ENVIRONMENTAL & INFRASTRUCTURE TRAIL	SHEKAR	F. DOUGLAS	5749 NW 92ND CT	50131-2237	(515) 975-1384	1161
JOHNSTON	IA	SHEKAR ENGINEERING, PLC	GUSTAFSON	CHANDRA	8938 HIGHLAND OAKS DR	50131	(515) 334-5082	1580
KANSAS CITY	MO	BURNS & MCDONNELL	HUMENIK	TREVOR	PO BOX 419173	64141-0173	(816) 822-3464	2010
LAWRENCE	KS	EMR INCORPORATED	KNIGHTLY	JEFFREY A.	3200 HASKELL AVENUE	66046	(785) 842-9013	2037
LENEXA	KS	KNIGHTLY ENVIRONMENTAL INC (KEI)	GOODENKAUF	JOHN	PO BOX 15104	66285-5104	(913) 888-1985	1145
LINCOLN	NE	HWS CONSULTING GROUP, INC	MUCKENHAUPT	OWEN L.	825 "J" STREET, BOX 80358	68501-0358	(402) 479-2205	1255
LINCOLN	NE	SOLSTICE COMPANY, INC	RICHMOND	PETER	200 S 28TH ST, SUITE 1	68510	(402) 730-0367	1622
MARION	IA		FIKNESS	JEFFREY	2470 CLARK AVE	52302	(319) 373-7821	2025
MINNEAPOLIS	MN	ARCADIS	SALES	ANDREW	430 FIRST AVENUE N, #720	55401	(612) 373-0253	2059
MISSION	KS	KENNEDY/JENKS CONSULTANTS	ROHLFS	JOSHUA	5800 FOXRIDGE DR, #304	66202	(913) 385-7299	2076
N KANSAS CITY	MO	LEGGETTE, BRASHEARS & GRAHAM INC	HOLLANDSWORTH	ROBERT M.	405 E 19TH AVENUE, SUITE A2	64116	(816) 421-7766	1644
NEW BALTIMORE	MI	ADVANCED REMEDIATION TECHNOLOGIES	WILLIS	THOMAS K.	50410 LAGAE STREET	48047	(586) 725-5189	1929
OMAHA	NE	ATC ASSOCIATES, INC	SEYMOUR	WILLIAM F.	11117 MOCKINGBIRD DR	68137	(402) 697-9747	1674
OMAHA	NE	GEOTECHNICAL SERVICES, INC	CONZETT	JEFFREY	7050 S 110TH ST	68128	(402) 339-6104	2082
OMAHA	NE	HDR ENGINEERING	SYROCKI	MICHAEL J.	8404 INDIAN HILLS DRIVE	68114-4049	(402) 399-1286	1568
OMAHA	NE	KLEINFLEDER	POTTS	LARA L.	3730 S 149TH ST, SUITE 107	68144	(402) 331-2260	1924
OMAHA	NE	PEMC CO. LLC	GROSS	KEITH J.	13952 ARBOR CIRCLE	68144	(402) 657-4910	1101
OMAHA	NE	RDG GEOSCIENCE & ENGINEERING	KALINSKI	JON	10360 SAPP BROTHERS DRIVE	68138	(402) 894-2678	1152
OMAHA	NE	RDG GEOSCIENCE & ENGINEERING	LEVIER	ROBERT	10360 SAPP BROTHERS DRIVE	68138	(402) 894-2678	1526
OMAHA	NE	RDG GEOSCIENCE & ENGINEERING	WILKINSON	KRIS	10360 SAPP BROTHERS DRIVE	68138	(402) 894-2678	1654
OMAHA	NE	SABERPROBE LLC	JORDAN	JOHN D.	14506 SCHRAM RD	68138	(402) 253-8866	1838
OMAHA	NE	TERRACON ENVIRONMENTAL, INC	MILLER	DAVID	15080 A CIRCLE	68144	(402) 330-2202	1648
OMAHA	NE	THIELE GEOTECH, INC	BRUNKEN	ROBERT T.	13478 CHANDLER RD	68138-3716	(402) 556-2171	1843
OMAHA	NE	URS CORPORATION	O'DELL	KOREY	12120 SHAMROCK PLAZA	68154	(402) 952-2691	2035
OMAHA	NE	URS CORPORATION		HOLLY L.	12120 SHAMROCK PLAZA	68154	(402) 952-2591	1836

BUSINESS CITY	ST	BUSINESS NAME	LAST NAME	FIRST NAME	BUSINESS ADDRESS	BUS ZIP	BUS PHONE	CERT #
PERRY	IA	MARINE POLLUTION CONTROL	NEWTON	ROLAND C.	504 RESEARCH DR	50220	(313) 477-6733	1481
POLK CITY	IA	HEARTLAND ENVIRONMENTAL SERVICES	KOBERDAHL	STEVEN M.	10050 NW LAKE DR	50226	(515) 984-9166	1151
ROCK ISLAND	IL	MISSMAN, STANLEY & ASSOC	KAMMERMAN	SCOTT L.	1011 - 27TH AVE, PO BOX 6040	61201	(309) 788-7644	1626
ROCK ISLAND	IL	ROCK ISLAND CORPS ENGINEERS	GUSTAFSON	STEVE	PO BOX 2004	61204-2004	(309) 794-5202	1905
ROCKFORD	IL	FEHR-GRAHAM & ASSOCIATES	ZIRKLE	JOEL P.	1920 DAIMLES RD	61112	(815) 394-4700	1341
SCOTCH GROVE	IA	GEOSOURCE, INC	BEHRENS	SCOTT	15331 - 130TH AVENUE	52310-8321	(319) 465-2030	1083
SHOREVIEW	MN	ANTEA GROUP	ANDERSON	RICHARD D.	5910 RICE CREEK PKY, #100	55126	(651) 639-9449	2060
SIoux CITY	IA	STEFFEN ENGINEERING & TESTING INC	STEFFEN	JERRY E.	PO BOX 745	51102	(712) 277-3017	1035
SIoux FALLS	SD	GEOTEK ENGINEERING/TESTING SERVICES	CHAP	THOMAS J.	909 E 50TH STREET N	57104	(605) 335-5512	1177
SIoux FALLS	SD	GEOTEK ENGINEERING/TESTING SERVICES	DELANGE	KEITH	909 E 50TH STREET N	57104	(605) 335-5512	1368
SIoux FALLS	SD	GEOTEK ENGINEERING/TESTING SERVICES	WATTS	LINDA J.	909 E 50TH STREET N	57104	(605) 335-5512	1169
SIoux FALLS	SD	TETRA TECH, INC	CARD	BRUCE W.	601 E 48TH STREET N	57104	(605) 332-5371	2084
SPRINGFIELD	IL	AMERICAN ENVIRONMENTAL CORP	BROOMHEAD	SIMON P.	3700 W GRAND AVENUE, SUITE A	62707	(217) 585-9517	1989
SPRINGFIELD	IL	CSD ENVIRONMENTAL	TRUESDALE	JOSEPH	2220 YALE BLVD	62703	(217) 522-4085	2064
ST PAUL	MN	AECOM, INC	BECK	DARYL	332 MINNESOTA ST, E-1000	55101	(651) 222-0841	1913
ST PAUL	MN	AECOM, INC	GEISER	KURT M.	322 MINNESOTA ST, SUITE E 1000	55101	(651) 222-0841	1582
ST PAUL	MN	CONESTOGA-ROVERS & ASSOCIATES	AHRENS	CHARLES E.	1801 OLD HWY 8, SUITE #114	55112	(651) 639-0913	1963
ST PAUL	MN	CONESTOGA-ROVERS & ASSOCIATES	BLUMKE	JAMES M.	1801 OLD HWY 8, SUITE #114	55112	(651) 639-0913	1962
ST PAUL	MN	LEGGETTE, BRASHEARS & GRAHAM INC	BROWN	DAVID J.	8 PINE TREE DRIVE, #250	55112	(651) 490-1405	1201
ST PAUL	MN	SUMMIT ENVIROSOLUTIONS	JOHNSON	BRUCE D.	1217 BANDANA BLVD. NORTH	55108	(651) 842-4204	1310
URBANDALE	IA	ALLENDER BUTZKE ENGINEERS	EDDS	DONALD D.	3660 - 109TH STREET	50322	(515) 252-1885	1298
URBANDALE	IA	APEX COMPANIES LLC	HRUBY	DAVID	10052 JUSTIN DR, SUITE L	50322	(515) 727-8025	2073
URBANDALE	IA	APEX COMPANIES LLC	PARRISH	CALEY A.	10052 JUSTIN DR, SUITE L	50322	(515) 727-8025	1936
URBANDALE	IA	GROUNDWATER SERVICE & SUPPLY, INC	WADE	BRAD	3311 - 109TH STREET	50322	(515) 331-2103	1236
URBANDALE	IA	MAGELLAN PIPELINE	GROVER	TRISTAN T.	2650 -106TH, #105	50322	(515) 276-0547	1671
WATERLOO	IA	ATC ASSOCIATES	ERHARDT	ANGELA M.	223 E 4TH ST, SUITE D	50703	(319) 233-0441	1885
WATERLOO	IA	ATC ASSOCIATES	HIESTERMAN	GAYLEN D.	223 E 4TH ST, SUITE D	50703	(319) 233-0441	1619
WEST CHICAGO	IL	TRICORE ENVIRONMENTAL LLC	RODECK	SHAWN	1800 W HAWTHORNE LN, SUITE P	60185	(630) 520-9973	1979
WEST DES MOINES	IA	ANTEA GROUP	NELSON	JESSE	4401 WESTOWN PKY, SUITE 108	50266	(515) 223-7493	2002
WEST DES MOINES	IA	ANTEA GROUP	SMAIL	KIRBY	4401 WESTOWN PKY, SUITE 108	50266	(515) 771-6758	1826
WEST DES MOINES	IA	AON RISK SERVICES	GASTINEAU	JAMES	2700 WESTOWN PKWY, #320	50266	(515) 440-7016	1615
WEST DES MOINES	IA	BARKER, LEMAR & ASSOCIATES	BUELOW	TIMOTHY C.	1801 INDUSTRIAL CIRCLE	50265	(515) 256-8814	1628

BUSINESS CITY	ST	BUSINESS NAME	LAST NAME	FIRST NAME	BUSINESS ADDRESS	BUS ZIP	BUS PHONE	CERT #
WEST DES MOINES	IA	BARKER, LEMAR & ASSOCIATES	CALVERT	LEAH	1801 INDUSTRIAL CIRCLE	50265	(515) 256-8814	2017
WEST DES MOINES	IA	BARKER, LEMAR & ASSOCIATES	DRAUR	THOMAS	1801 INDUSTRIAL CIRCLE	50265	(515) 256-8814	1694
WEST DES MOINES	IA	BARKER, LEMAR & ASSOCIATES	FIFE	DARREN	1801 INDUSTRIAL CIRCLE	50265	(515) 256-8814	2058
WEST DES MOINES	IA	BARKER, LEMAR & ASSOCIATES	JUWARKER	SID A.	1801 INDUSTRIAL CIRCLE	50265	(515) 256-8814	1988
WEST DES MOINES	IA	MPS ENGINEERS	PRADHAN	AMIT A.	4949 WESTOWN PKY #165-126	50266	(515) 221-9832	1577
WEST DES MOINES	IA	MPS ENGINEERS	SHETYE	UMESH	119 - 19TH STREET, STE 201	50265	(515) 221-9832	1519
WEST DES MOINES	IA	IMPACT SEVEN	PETERSON	RYAN L.	5550 WILD ROSE LANE, SUITE 400	50266	(515) 661-6163	1966
WHITE BEAR LAKE	MN	STANTEC CONSULTING	RIEMER	ANDREW C.	4444 CENTERVILLE RD. #140	55127	(651) 225-5050	1944
WINTERSET	IA	PAULY ENVIRONMENTAL, LLC	PAULY	STEVE	1931 - 265TH STREET	50273-8339	(515) 462-4210	1144