

**COMPLAINT RECORD**

*Pig Haven conf. file  
- Carroll county  
File: 11/06-10*

Date complaint received: 11-7-06

Complaint Number: \_\_\_\_\_

Received by Field Office 4 Or Central Office \_\_\_\_\_

Taken by manz

**COMPLAINANT**

Name: anonymous

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

County: \_\_\_\_\_

\_\_\_\_\_

Zip Code: \_\_\_\_\_

**COMPLAINT AGAINST**

Name: Juergens Feed / Steve Muegerich

Phone: \_\_\_\_\_

Address: 32263 190<sup>th</sup> St

County: \_\_\_\_\_

(Verify mailing address)

Zip Code: \_\_\_\_\_

- Program Area:**
- Wastewater
  - Water Supply
  - Air
  - Solid Waste
  - Feedlots
  - LUST/UST
  - Flood Plain
  - Misc.
  - Storm Water

**STATEMENT OF COMPLAINT:**

*conf. site located in  
Sec 14, Glidden T*

Complainant stated that a tile line runs off of the confinement's property and enters the roadside ditch. The liquid coming out of the tile line smells like manure and is black in color.

Directions: 3 miles East of Glidden, 1 mile North, 1/2 mile East, take driveway for manure pit, on the east side of the driveway (may have to walk a little ways to find the tile outlet).

**For Feedlot Complaints Only:**

County Official Contacted: \_\_\_\_\_

Date: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Left message

Referred to: \_\_\_\_\_ Date: \_\_\_\_\_

Assigned to: AM Date: 11/7/06 By: [Signature]

**ACTION/RESOLUTION AND DATES**

Investigated on 11-9-06

See ROI - glidden 110906 fl. pig haven.....

sample = NH<sub>3</sub>-N = 7250 mg/L

NO/16/06 Monitored

Date closed: \_\_\_\_\_

Initials: \_\_\_\_\_

## AGRICULTURE

**SELECT ONE:**

CONFINEMENT

OPEN FEEDLOT

**SELECT ALL THAT APPLY:**

FISH KILL

ODOR/HEALTH

SPILL/OVERFLOW

SPILL/TRANSPORT

MANURE APPLICATION

DEAD ANIMALS

STOCKPILE/RUNOFF

STOCKPILE/FLIES

MMP

FEEDLOT RUNOFF

SETBACK REQUIREMENTS

OP CERT/CONFINEMENT

OP CERT/COMMERCIAL



# STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

November 15, 2006

Pig Haven  
Attn: Steve Hugerich  
620 West 3<sup>rd</sup> St  
Carroll, IA 51401

SUBJECT: Animal Feeding Operations Complaint Investigation  
Complaint No: 11/06-10 Carroll County

Dear Mr. Hugerich:

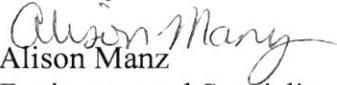
On November 7, 2006, this office received an anonymous complaint regarding manure flowing out of a tile line at the Pig Haven confinement facility located in Section 14, Glidden Township, Carroll County, Iowa. Specifically the complainant stated that a brown liquid with a manure odor was flowing out of a tile line near the concrete manure storage structure located at the facility. On November 9, 2006, an investigation was conducted. A copy of the report is enclosed.

During the investigation it was verified that a groundwater lowering tile outlets near the concrete manure storage structure. While the pump was not running and the tile line was not flowing during this investigation, field tests of the liquid pooled in the outlet area were conducted. The ammonia concentration of the liquid was more than 250 mg/L. A sample of the liquid was obtained and was submitted to the University Hygienics Laboratory to be analyzed. Copies of the results of analysis will be submitted to you when I receive them.

It is required that an engineer licensed in the State of Iowa evaluate the concrete structure to determine if it is leaking. The evaluation must be submitted to this office by **January 1, 2007**.

If you have any questions concerning this letter please email me at [Alison.manz@dnr.state.ia.us](mailto:Alison.manz@dnr.state.ia.us) or call me at (712) 243-1934 / office or (712) 250-0219 / cell.

Sincerely,

  
Alison Manz  
Environmental Specialist  
Field Services and Compliance

ARM:fl/glidden110906.fl.pig haven letter.manz.doc

Enc. Report of Investigation

cc: Animal Feeding Operations Section, DNR, Des Moines  
Pisgah Pig confinement file, Harrison County

**Suspense: January 1, 2007 – engineering evaluation submitted to FO4**

Field Office #4, 1401 Sunnyside Lane, Atlantic, Iowa 50022 / 712-243-1934 / FAX: 712-243-6251

# IOWA DEPARTMENT OF NATURAL RESOURCES

## Report of Investigation

**INVESTIGATION DATE:** Current: 11-9-06      **Last:**

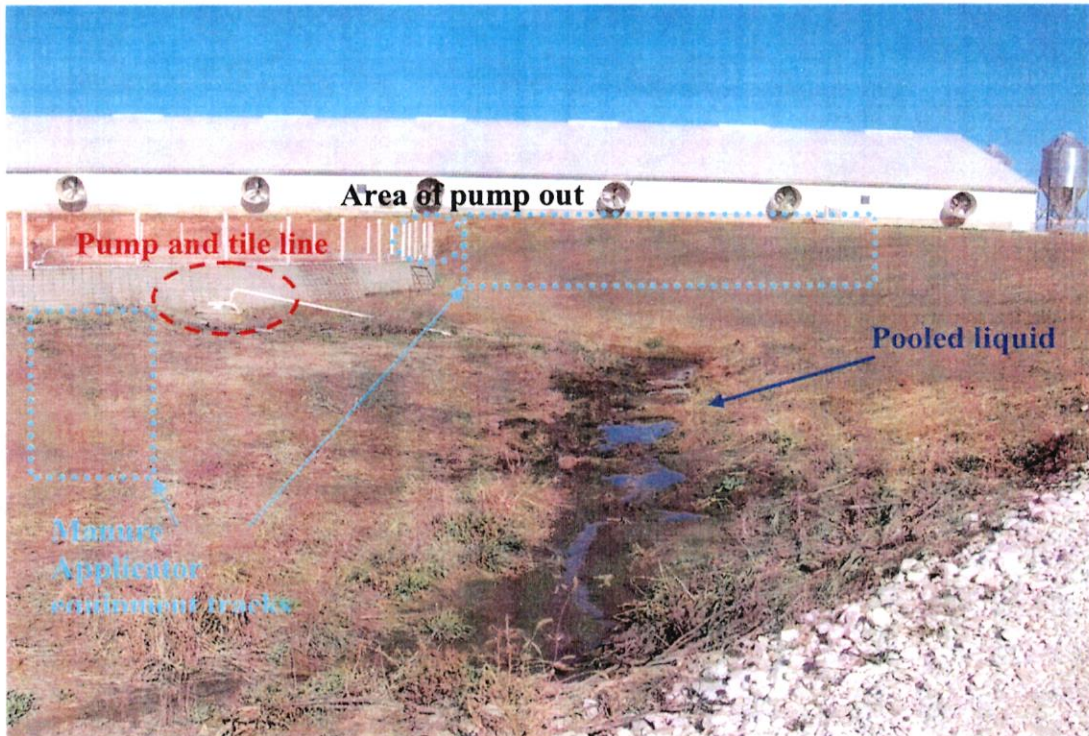
**TO:** Pig Haven  
Attn: Steve Hugerich  
620 West 3<sup>rd</sup> St  
Carroll, IA 51401

**RE:** Animal Feeding Operations Complaint Investigation  
Complaint No: 11/06-10  
Carroll County

**PERSONS CONTACTED:** Kevin Pietig, Site Manager  
Steve Hugerich, Environmental Manager

On November 7, 2006, this office received an anonymous complaint regarding manure flowing out of a tile line at the Pig Haven confinement facility located in Section 14, Glidden Township, Carroll County, Iowa. Specifically the complainant stated that a brown liquid with a manure odor was flowing out of a tile line near the concrete manure storage structure located at the facility. On November 9, 2006, an investigation was conducted.

During the investigation it was observed that a tile line does outlet near the concrete manure structure. However, according to Kevin Pietig, Site Manager, a groundwater lowering tile was installed at the base of the structure when it was constructed. A pump is located in a wet well that pumps the groundwater through the tile line onto the surface of the ground. Liquid was pooled on the ground. Photos below document the observations made during the investigation.




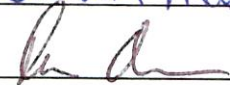
While the pump was not running and the tile line was not flowing during this investigation, field tests of the liquid were conducted. The ammonia concentration of the liquid was more than 250 mg/L. A sample of the liquid was obtained and was submitted to the University Hygienics Laboratory to be analyzed. A follow-up investigation will be conducted in the near future in an attempt to obtain a sample of the liquid flowing out of the tile outlet.

According to Mr. Pietig, manure applicators had been pumping manure out of the structure. However, during the investigation no evidence suggested that manure was spilled from the applicators. It would be likely that if manure had been spilled during pumping, evidence of the spillage would have been observed. The photo on the first page does not document any liquid that could have been spilled by the applicators equipment.

Steve Hugerich, Environmental Manager, was contacted by telephone. It was required that an extension to the tile outlet be added and be directed back into the concrete structure immediately. Mr. Hugerich stated that the tile would be installed that day.

It is required that an engineer licensed in the State of Iowa evaluate the concrete structure to determine if is leaking. The evaluation must be submitted to this office no later than **January 1, 2007**.

**Inspector:** Alison Manz  11-13-06

**Reviewer:** Dan Olson  11/15/06

**Distribution: Field Office: Central Office: Inspected Facility**

**Date Sent:** 11-16-06

Pig Haven  
-Carroll

**From:** "Steve Huegerich" <steveh@jpfco.biz>  
**To:** "Alison Manz" <Alison.Manz@dnr.state.ia.us>  
**Date:** 5/23/2007 8:27 AM  
**Subject:** Re: Pig Haven Complaint # 11/06-10

**CC:** <idroessler@kpltd.com>

Allison,

We have done the repairs on the pit wall. Unfortunately as soon as we got the pit emptied this spring we got 5 inches of rain and was unable to get the floor inspected. Our plan is to empty the pit this fall as soon as the crops are out and have Ivan inspect the floor at this time. I hope this is OK, this spring the rain really put a hamper on what we tried to get done. The tile is still pumping back into the tank.

Thank you,  
Steve Huegerich

----- Original Message -----

From: "Alison Manz" <Alison.Manz@dnr.state.ia.us>  
To: <steveh@jpfco.biz>  
Sent: Monday, March 05, 2007 10:09 AM  
Subject: Re: Pig Haven Complaint # 11/06-10

> Steve-

>

> No problem, as long as the outlet is still directed into the concrete  
> storage structure. I'll change your suspense date from April 1st to May  
> 1st. Thanks for the update.

>

> Alison Manz  
> Environmental Specialist  
> IDNR Field Office #4  
> 1401 Sunnyside Lane  
> Atlantic, IA 50022  
> (712) 243-1934-office  
> (712) 250-0219-cell

>>>> "Steve Huegerich" <steveh@jpfco.biz> 02/26/07 1:28 PM >>>

> Alison,

> The weather and conditions surrounding the area that we need to  
> fix this spring are very wet and snow covered. The letter sent on January  
> 19th suggests that we have repairs made by April 1 2007 I do not think  
> this will be doable because of the weather. I think we could have it  
> completed by May 1st as long as we get some dry weather toward the end of  
> March and April. Let me know what you think.

>

> Thank you,

>

> Steve Huegerich  
> Production Manager  
> Juergens Produce and Feed Co.

>

>

Alison  
FYI  
Google  
Records

**From:** Alison Manz  
**To:** steveh@jpfco.biz  
**Date:** 3/5/2007 9:09:00 AM  
**Subject:** Re: Pig Haven Complaint # 11/06-10

Steve-

Carroll

No problem, as long as the outlet is still directed into the concrete storage structure. I'll change your suspense date from April 1st to May 1st. Thanks for the update.

Alison Manz  
Environmental Specialist  
IDNR Field Office #4  
1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934-office  
(712) 250-0219-cell

Updated  
3/5/07  
[Signature]

>>> "Steve Huegerich" <steveh@jpfco.biz> 02/26/07 1:28 PM >>>  
Alison,

The weather and conditions surrounding the area that we need to fix this spring are very wet and snow covered. The letter sent on January 19th suggests that we have repairs made by April 1 2007 I do not think this will be doable because of the weather. I think we could have it completed by May 1st as long as we get some dry weather toward the end of March and April. Let me know what you think.

Thank you,

Steve Huegerich  
Production Manager  
Juergens Produce and Feed Co.



# STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

January 5, 2006

Pig Haven  
Attn: Steve Hugerich  
620 West 3<sup>rd</sup> St  
Carroll, IA 51401

SUBJECT: Animal Feeding Operations Complaint Investigation  
Complaint No: 11/06-10                      Carroll County

Dear Mr. Hugerich:

As you are aware, on November 9, 2006, I conducted a complaint investigation regarding the concrete manure storage structure at the Pig Haven confinement site located in Section 14, Glidden Township, Carroll County. During the investigation it was verified that the concrete structure was leaking. You subsequently contacted and hired an engineer.

Enclosed with this letter are the results of the samples I obtained from the liquid being discharged from the groundwater lowering tile. While it is my understanding that significant repairs were made to the concrete structure, it is required that an engineering evaluation be submitted to this office. The engineering evaluation must include a report of the engineer's investigation, findings, and actions taken to prevent further violations from occurring. In a November 15, 2006, letter it was required that the evaluation be submitted by **January 1, 2007**. Please submit the evaluation as soon as possible.

If you have any questions concerning this letter please email me at [alison.manz@dnr.state.ia.us](mailto:alison.manz@dnr.state.ia.us) or call me at (712) 243-1934 / office or (712) 250-0219 / cell.

Sincerely,

A handwritten signature in cursive script that reads "Alison Manz".

Alison Manz

Environmental Specialist  
Field Services and Compliance

ARM:fl/glidden122806.fl.pig haven letter.manz.doc

Enc. Results of analysis

cc: Animal Feeding Operations Section, DNR, Des Moines  
Pisgah Pig confinement file, Harrison County

**Suspense: January 1, 2007 – engineering evaluation submitted to FO4**



# Hygienic Laboratory

The University of Iowa

Date of report: 11-28-2006

ALISON MANZ  
EPD 4  
1401 SUNNYSIDE LANE  
ATLANTIC IA 50022

Sample Number 200669061  
Date Received 11-17-2006  
Project 04WQFS  
Date Collected 11-09-2006 11:30  
Collection Site pig haven  
Collection Town  
Description water  
Reference  
Collector MANZ ALISON  
Phone (712) 243-1934  
Purchase Order

Comments

Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.

## Results of Analyses

### Ammonia as N

Analyte	Concentration mg/L	Quantitation Limit mg/L
Ammonia Nitrogen as N	410	0.05

Date Analyzed: 11-22-2006  
Method: LAC10-107-06-1J

Analyst: JK  
Verified: DS

### Description of units used within this report

mg/L - Milligrams per Liter

Quant Limit - Lowest concentration reliably measured

Iowa Laboratory Certification No. 027. AIHA, NELAP, USEPA, NVLAP #101288-0 and other credentials available upon request.

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



# Hygienic Laboratory

*The University of Iowa*

Date of report: 11-28-2006

|||||  
ALISON MANZ  
EPD 4  
1401 SUNNYSIDE LANE  
  
ATLANTIC IA 50022

Sample Number 200669062  
Date Received 11-17-2006  
Project 04WQFS  
Date Collected 11-15-2006 15:40  
Collection Site pig haven  
Collection Town  
Description water  
Reference  
Collector MANZ ALISON  
Phone (712) 243-1934  
Purchase Order

Comments

*Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.*

## Results of Analyses

### Ammonia as N

Analyte	Concentration mg/L	Quantitation Limit mg/L
Ammonia Nitrogen as N	450	0.05

Date Analyzed: 11-22-2006  
Method: LAC10-107-06-1J

Analyst: JK  
Verified: DS

### Description of units used within this report

mg/L - Milligrams per Liter

Quant Limit - Lowest concentration reliably measured

Iowa Laboratory Certification No. 027. AIHA, NELAP, USEPA, NVLAP #101288-0 and other credentials available upon request.

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

Woodbury City

P.O. Post

Denbary Guild Pled.

→ 712-265-1894

Adam Dorale

33157



# STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

September 6, 2007

Pig Haven  
Attn: Steve Hugerich  
620 West 3<sup>rd</sup> St  
Carroll, IA 51401

SUBJECT: Animal Feeding Operations Follow-up Complaint Investigation  
Pig Haven, Section 14, Glidden Township, Carroll County  
Complaint No: 11/06-10

Dear Mr. Hugerich:

During a complaint investigation, conducted on November 9, 2006, it was verified that the concrete manure storage structure at the Pig Haven confinement facility was leaking. On January 16, 2007, I received a copy of the report from your engineer, Ivan Droessler of Kuehl and Payer.

Due to weather constraints, not all repairs to the structure were made. On January 19, 2007, I sent you a letter stating that, as we agreed, the final repairs to the concrete manure storage structure must be completed by **April 1, 2007**. It was also agreed that until all repairs were made and water samples show that no manure is leaking into the groundwater lowering tile, the tile must continue to outlet back into the manure storage structure.

Please submit a written response to this office stating the status of the structure by **October 1, 2007**. A signed statement from your engineer must also be submitted verifying that the structure is of sound structural integrity.

If you have any questions concerning this letter please email me at [alison.manz@dnr.state.ia.us](mailto:alison.manz@dnr.state.ia.us) or call me at (712) 243-1934 / office or (712) 250-0219 / cell.

Sincerely,

A handwritten signature in cursive script that reads "Alison Manz".

Alison Manz  
Environmental Specialist  
Field Services and Compliance

ARM:fl/glidden082007.cf.pig haven letter.manz.doc

cc: Animal Feeding Operations Section, DNR, Des Moines  
Kuehl and Payer, Attn: Ivan Droessler, 1725 N.Lake Ave, Box 458, Storm Lake, IA 50588  
Pig Haven confinement file, Carroll County

**Suspense: October 1, 2007 – written response to this office**

Field Office #4, 1401 Sunnyside Lane, Atlantic, Iowa 50022 / 712-243-1934 / FAX: 712-243-6251



# STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

December 12, 2007

Pig Haven  
Attn: Steve Hugerich  
620 West 3<sup>rd</sup> St  
Carroll, IA 51401

SUBJECT: Animal Feeding Operations Follow-up Complaint Investigation  
Pig Haven, Section 14, Glidden Township, Carroll County  
Complaint No: 11/06-10

Dear Mr. Hugerich:

As you are aware, during a complaint investigation, conducted on November 9, 2006, it was verified that the concrete manure storage structure at the Pig Haven confinement facility was leaking. After much correspondence it was agreed that final repairs would be completed by **October 1, 2007**. I recently discussed the requirements with Aaron Juergens.

Please submit, in writing, actions taken to repair the concrete. Additionally, this office will need a signed statement from your engineer verifying that such corrections were made in compliance with DNR regulations. This information should be submitted by **January 1, 2008**.

If you have any questions concerning this letter please email me at [alison.manz@dnr.state.ia.us](mailto:alison.manz@dnr.state.ia.us) or call me at (712) 243-1934 / office or (712) 250-0219 / cell.

Sincerely,

A handwritten signature in cursive that reads "Alison Manz". To the right of the signature is a circular stamp containing the initials "RP".

Alison Manz  
Environmental Specialist  
Field Services and Compliance

ARM:fl/glidden120707.cf.pig haven letter.manz.doc

cc: Animal Feeding Operations Section, DNR, Des Moines  
Aaron Juergens, 620 West 3<sup>rd</sup> St, Carroll, IA 51401  
Kuehl and Payer, Attn: Ivan Droessler, 1725 N.Lake Ave, Box 458, Storm Lake, IA 50588  
Pig Haven confinement file, Carroll County

**Suspense: January 1, 2008 – written response to this office and engineer signed statement**



# STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

January 8, 2008

Pig Haven  
Attn: Steve Hugerich  
620 West 3<sup>rd</sup> St  
Carroll, IA 51401

SUBJECT: Animal Feeding Operations Engineering Evaluation  
Pig Haven, Section 14, Glidden Township, Carroll County  
Complaint No: 11/06-10

Dear Mr. Hugerich:

As you are aware, during a complaint investigation, conducted on November 9, 2006, it was verified that the concrete manure storage structure at the Pig Haven confinement facility was leaking. After much correspondence it was agreed that final repairs would be completed by **October 1, 2007**. On January 7, 2007, I received a letter from your engineer, Ivan Droessler, of Kuehl and Payer.

It appears as if all requirements have been satisfied and that the tank is no longer leaking. In accordance with the improvements made to the tank and the recommendations made by your engineer, you may begin normal utilization of the tank.

If you have any questions concerning this letter please email me at [alison.manz@dnr.iowa.gov](mailto:alison.manz@dnr.iowa.gov) or call me at (712) 243-1934 / office or (712) 250-0219 / cell.

Sincerely,

A handwritten signature in black ink that reads "Alison Manz". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Alison Manz  
Environmental Specialist  
Field Services and Compliance

ARM:fl/glidden010807.cf.pig haven letter.manz.doc

cc: Animal Feeding Operations Section, DNR, Des Moines  
Aaron Juergens, 620 West 3<sup>rd</sup> St, Carroll, IA 51401  
Kuehl and Payer, Attn: Ivan Droessler, 1725 N.Lake Ave, Box 458, Storm Lake, IA 50588  
Pig Haven confinement file, Carroll County



www.kpltld.com

**KUEHL AND PAYER, LTD.  
CONSULTING ENGINEERS  
LAND SURVEYORS  
MANAGEMENT CONSULTANTS**

Robert F. Payer, P.E. Donald D. Etler, P.E.  
Neal R. Kuehl, P.E. Curtis R. Wiseman, P.E.  
Ivan D. Droessler, P.E. Tom W.G. Edgerton, P.L.S.  
J. Scott Shevel, P.L.S. Kent L. Rode, P.E.  
Jeffrey M. Krueger, P.L.S.

January 4, 2008

Iowa Department of Natural Resources  
Attn: Ms. Alison Manz  
Field Services and Compliance  
Field Office #4  
1401 Sunnyside Lane  
Atlantic, IA 50022



Re: Animal Feeding Operations Complaint Investigation  
Complaint No. 11/06-10, Pig Haven Swine Confinement

Dear Ms. Manz:

Our letter report dated January 15, 2007, outlined our investigation on November 22, 2006 and the repairs completed by Juergen's Produce on November 23, 2006. In summary our investigation along with the ground water samples taken on November 22, 2006, confirmed that manure storage tank was leaking. We believed the manure was able to seep out of the concrete tank through voids along a cold joint in the tank wall caused by poor concrete placement. The repairs completed on November 23, 2006, should have addressed this seepage except for at the south end of the cold joint in the tank wall. Because of the wet and cold weather after Thanksgiving in 2006 the additional patching did not get accomplished as planned. Therefore, the patching of this joint from the outside of the wall was recommended in the spring of 2007, after the tank was pumped down below the elevation of the cold joint.

Juergen's Produce was not able to complete the patching work on the tank during the spring of 2007, due to wet weather conditions. Therefore, you had agreed to provide Juergen's Produce until October 1, 2007, to complete the repairs. Again, wet weather conditions in August through September delayed crop harvest and manure application. Therefore, Juergen's Produce did not get the manure tank on the Pig Haven site emptied until November of 2007. They then proceeded with excavating along the tank to do the patching of the cold joint along the southwest side of the tank. Rusty Tigges of Juergen's Produce exposed the footing of the tank and found apparent seepage at the base of the wall. He called me and reported his finding. I recommend the tank be emptied completely and a concrete curb with bentonite waterstop placed around the inside perimeter of the tank. On November 27, 2007, I met Aaron Juergens, Steve Hugerich, Rusty Tigges and Mike Parkis on site to review the repairs made. Pictures

1725 N. Lake Ave., P.O. Box 458,  
Storm Lake, IA 50588  
Phone 712.732.7745 or 866.732.7745  
Fax 712.732.6293 e-mail kp@kpltld.com

1609 US Hwy. 18 E., P.O. Box 715,  
Algona, IA 50511  
Phone 515.295.2980 or 866.295.2980  
Fax 515.295.3176 e-mail kp\_algona@kpltld.com

2002 West Main, Sac City, IA 50583  
Phone 712.662.7859  
Fax 712.662.7038  
e-mail kp\_sac@kpltld.com

Ms. Alison Manz, IDNR

January 4, 2008

Page 2

were taken of the repairs and are enclosed. The tank had been emptied and the floor power washed around the perimeter. Straw bales had been used to make a manure barrier approximately 8 feet back from the inside of the tank. Rusty Triggles and Mike Parkis had placed a concrete fillet around the entire inside perimeter of the tank. The following steps were followed:

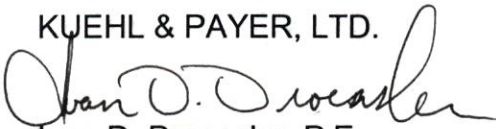
1. No. 4 bars, grade 60, were drilled and hammer placed every 4 feet along inside perimeter of the tank. The dowels extended into the floor 3 inches and extend upwards of the floor surface 3 inches. These dowel bars were installed approximately within 4 inches of the pit wall.
2. Bentonite pellets were placed at the base of the wall along the entire perimeter inside of the dowel bars.
3. A concrete fillet approximately 8 inches x 8 inches on the inside of the wall was placed using 4,000 psi concrete mix.

It was during our field visit that we further reviewed the cold joint in the south portion of the tank wall. I directed that additional patching was necessary to ensure this cold joint would not leak. Two areas were marked for repair. Due to cold weather conditions, this additional patching was not completed until December 20 and 21, 2007. Rusty Tigges and Mike Parkis again performed the repairs and took additional pictures to document their work. The cold joint in the tank wall was to be chipped and ground out to remove loose material and then blown out and sealed with a non-shrink grout. They even re-patched a portion of the joint that was repaired last year to ensure no leakage.

With this letter I am certifying that the walls and floor of this tank are sound and the leakage issue with this tank has been addressed. It should be noted that it will take some time for the Chloride and Ammonia Nitrogen levels in the ground water around the tank to drop, because of the past years of seepage. However, again the environmental risk of this seepage has been minimal because the groundwater that is collected by the tile system is pumped to the surface and filtered through over 900 feet of vegetated road ditch prior to reaching waters of the State. In addition, the soils around the tank are clay soils with a low permeability. Therefore, I do not feel is necessary to monitor the groundwater for Chloride and Ammonia Nitrogen. I recommend the department accept the repairs and allow normal use of the tank.

Respectfully Submitted,

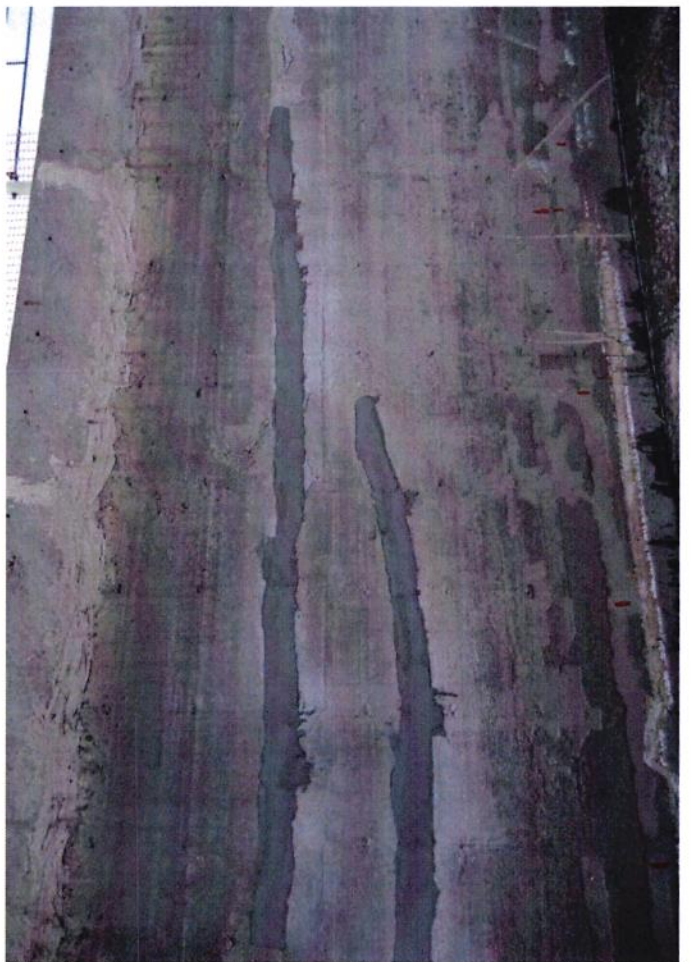
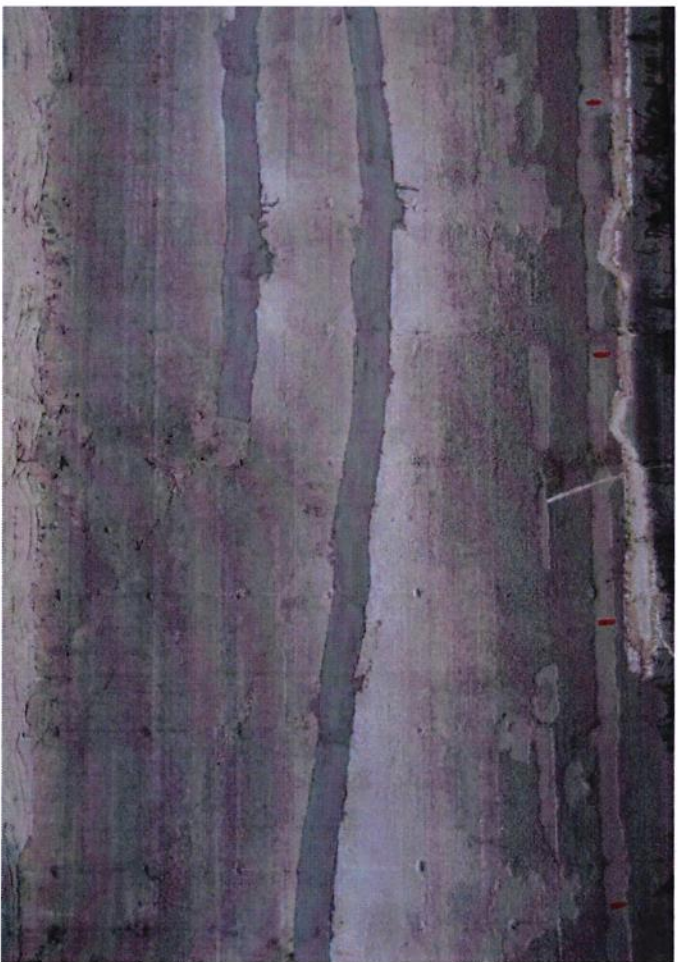
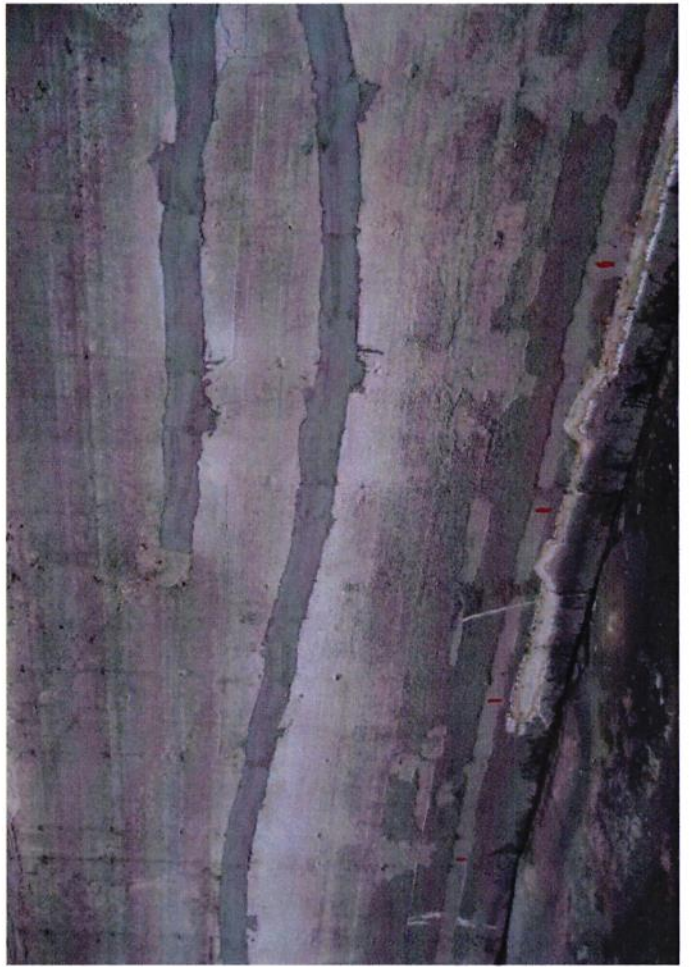
KUEHL & PAYER, LTD.

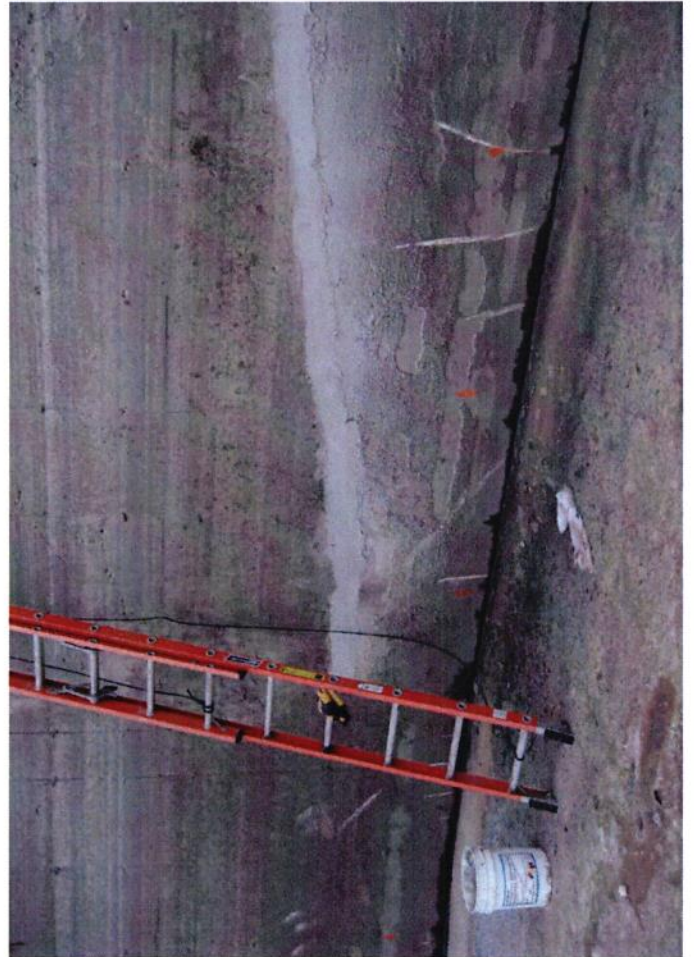
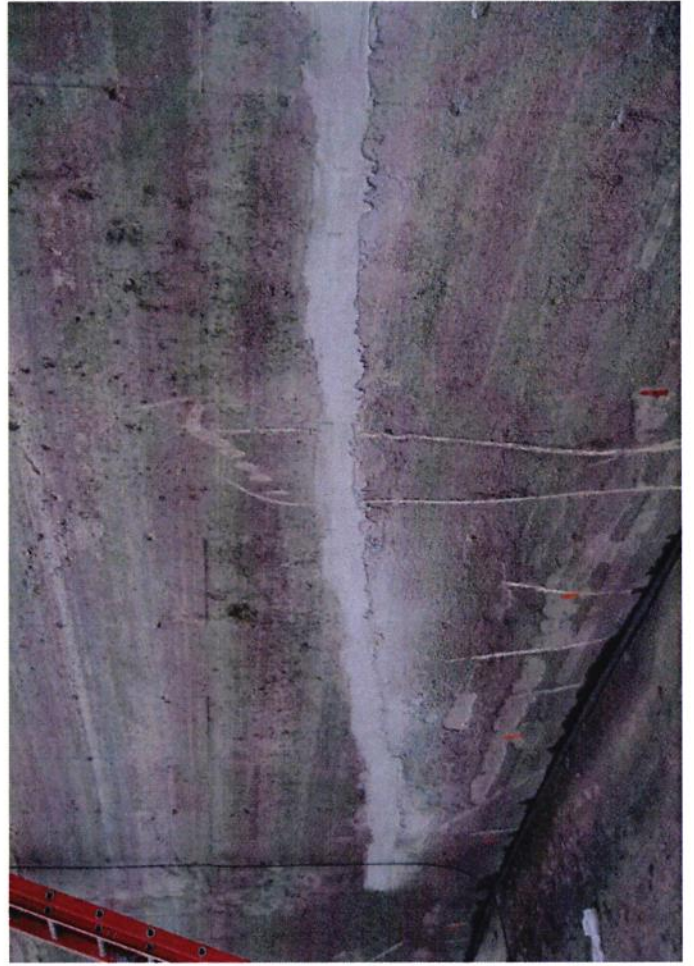
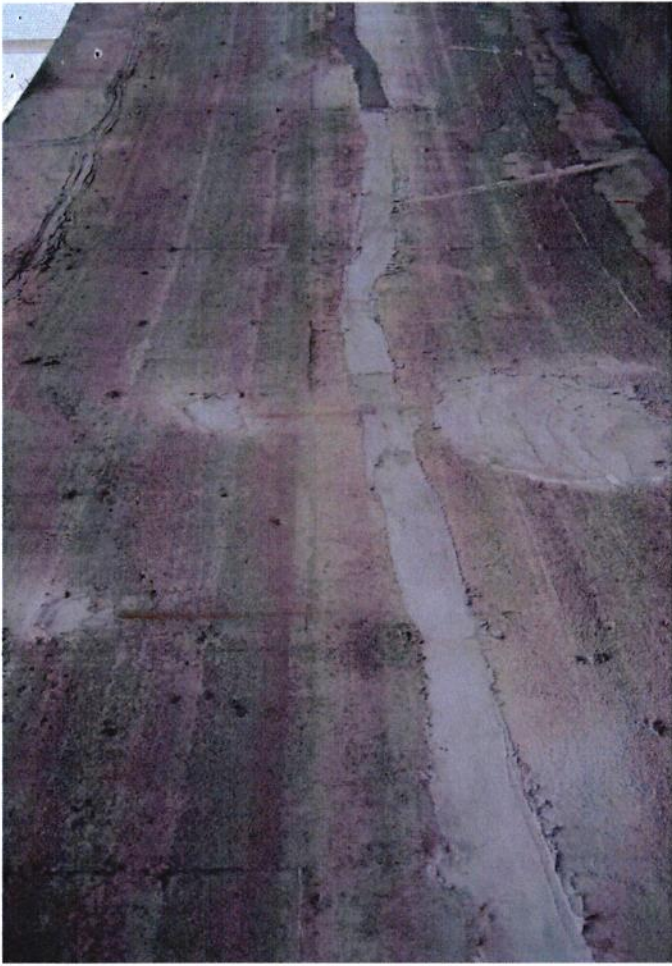


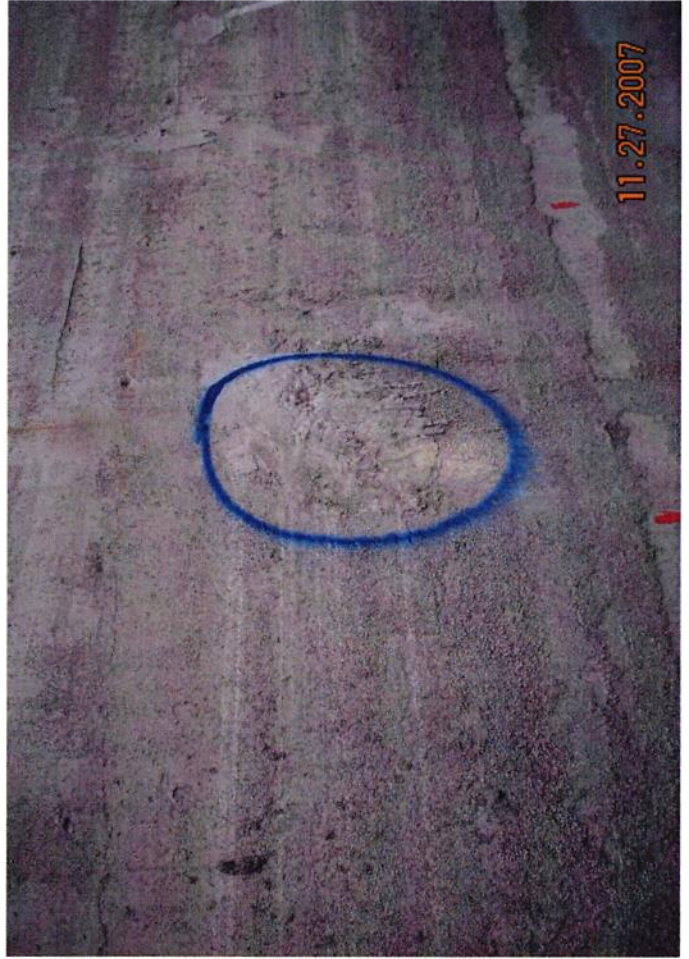
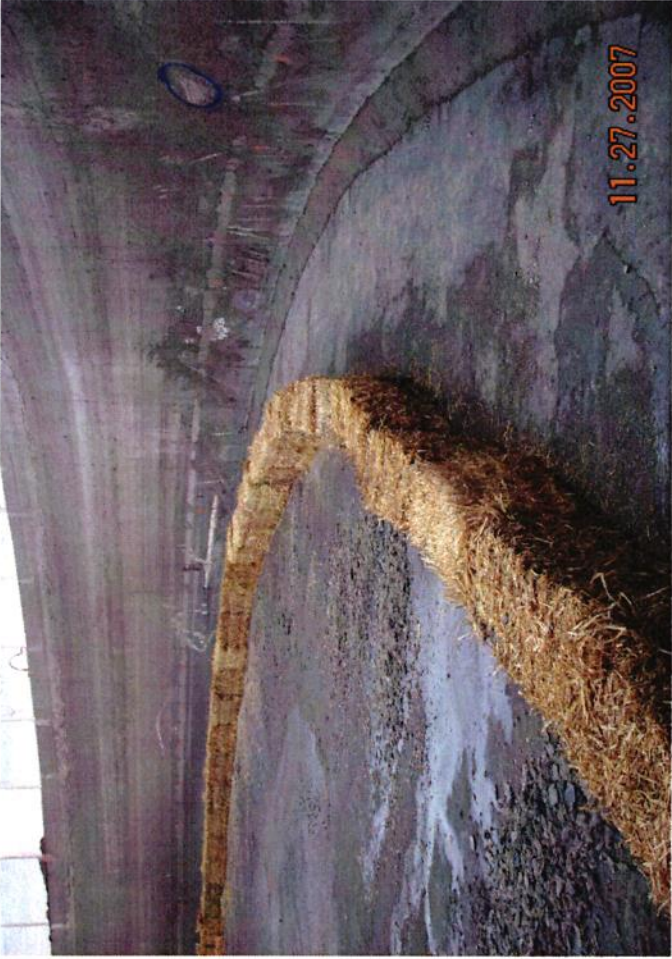
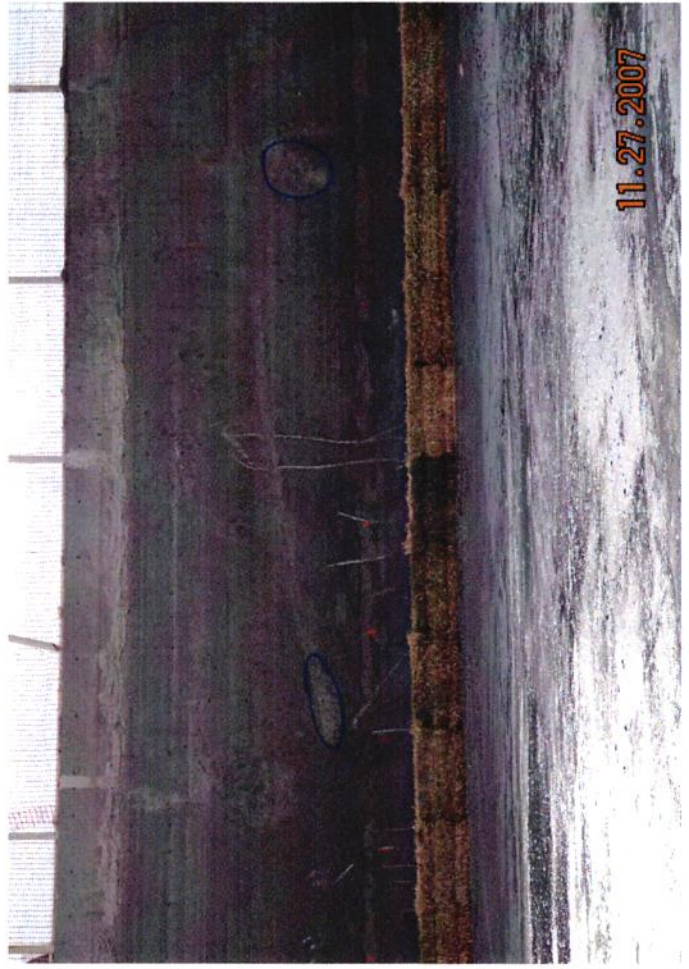
Ivan D. Droessler, P.E.

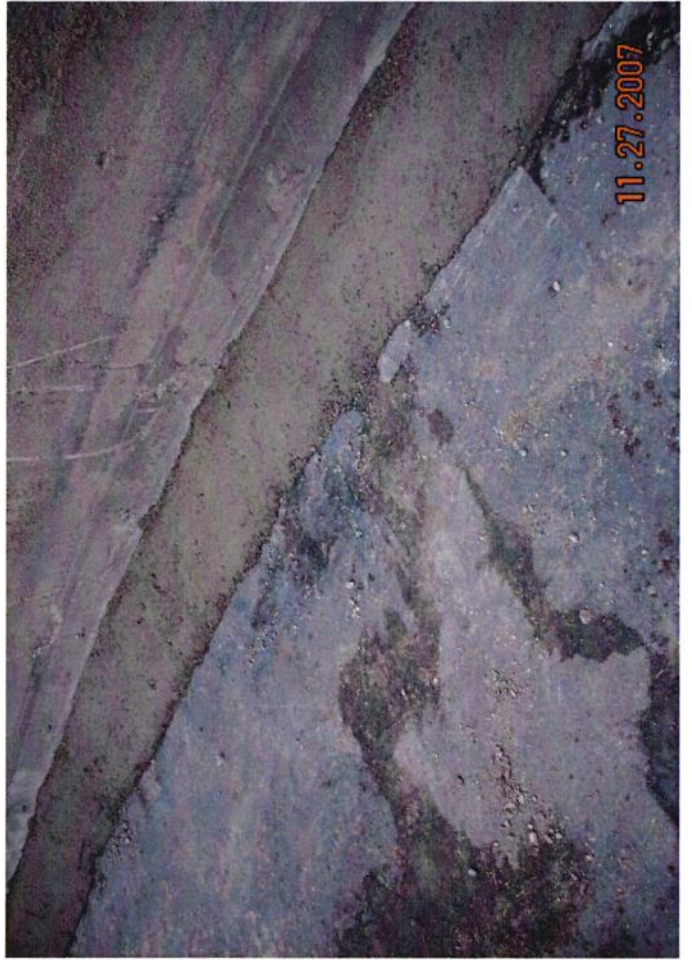
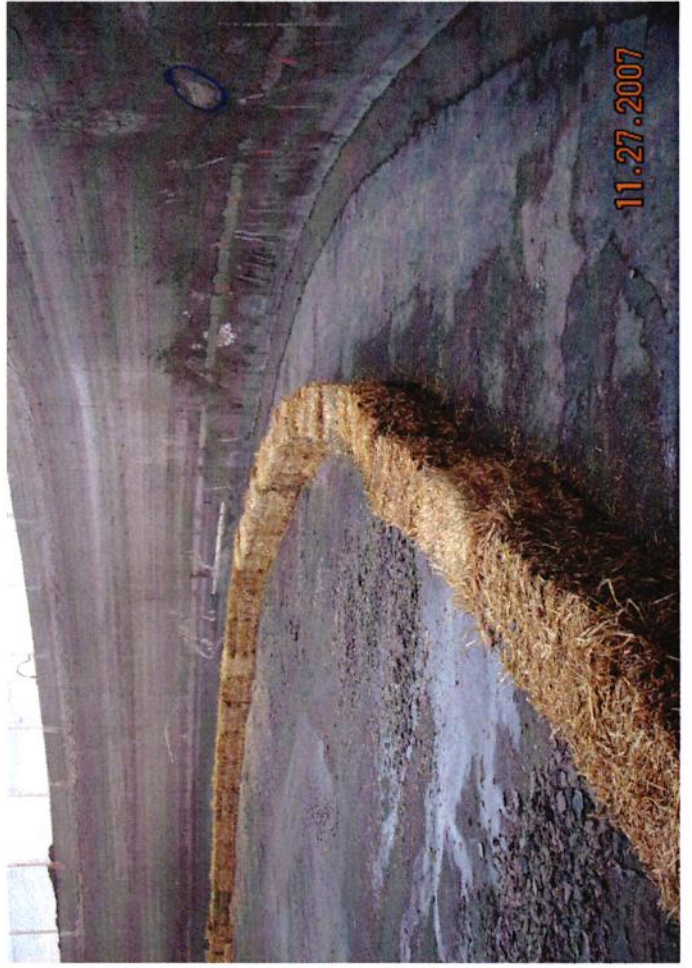
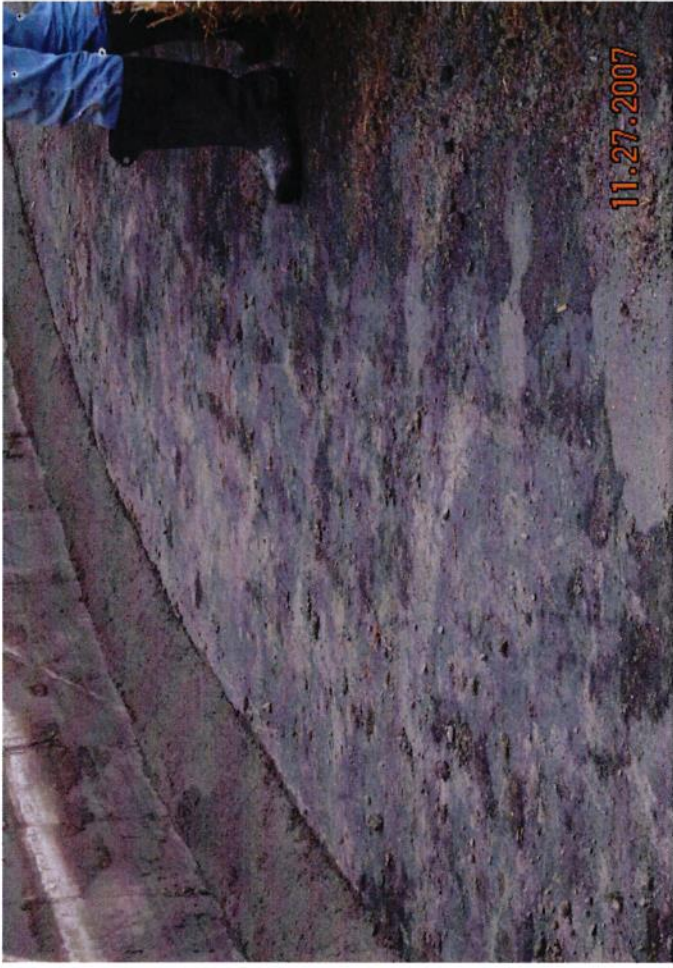
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c: Mr. Aaron Juergens











# STATE OF IOWA

CHESTER J. CULVER, GOVERNOR  
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
RICHARD A. LEOPOLD, DIRECTOR

January 19, 2007

Pig Haven  
Attn: Steve Hugerich  
620 West 3<sup>rd</sup> St  
Carroll, IA 51401

SUBJECT: Animal Feeding Operations Complaint Investigation  
Pig Haven, Section 14, Glidden Township, Carroll County  
Complaint No: 11/06-10

Dear Mr. Hugerich:

During a complaint investigation, conducted on November 9, 2006, it was verified that the concrete manure storage structure at the Pig Haven confinement facility was leaking. On January 16, 2007, I received a copy of the report from your engineer Ivan Droessler Kuehl and Payer.

Due to weather constraints, not all repairs to the structure were made. It is my understanding that the final repairs will be made this spring. It is anticipated that these repairs will be completed no later than **April 1, 2007**. Additionally, until all repairs are made and water samples show that no manure is leaking into the groundwater lowering tile, the tile must continue to outlet back into the manure storage structure.

If you have any questions concerning this letter please email me at [Alison.manz@dnr.state.ia.us](mailto:Alison.manz@dnr.state.ia.us) or call me at (712) 243-1934 / office or (712) 250-0219 / cell.

Sincerely,

A handwritten signature in cursive script that reads "Alison Manz".

Alison Manz  
Environmental Specialist  
Field Services and Compliance

ARM:fl/glidden011907.fl.pig haven letter.manz.doc

cc: Animal Feeding Operations Section, DNR, Des Moines  
Kuehl and Payer, Attn: Ivan Droessler, 1725 N.Lake Ave, Box 458, Storm Lake, IA 50588  
Pisgah Pig confinement file, Harrison County

**Suspense: April 1, 2007 – final repairs made to manure structure and this office notified**



ACEC  
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**KUEHL AND PAYER, LTD.  
CONSULTING ENGINEERS  
LAND SURVEYORS  
MANAGEMENT CONSULTANTS**

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Neal R. Kuehl, P.E.

Ivan D. Droessler, P.E.

J. Scott Shevel, P.L.S.

Jeffrey M. Krueger, P.L.S.

Donald D. Etler, P.E.

Curtis R. Wiseman, P.E.

Tom W.G. Edgerton, P.L.S.

Kent L. Rode, P.E.

January 15, 2007

Iowa Department of Natural Resources

Attn: Ms. Alison Manz

Field Services and Compliance

Field Office #4

1401 Sunnyside Lane

Atlantic, IA 50022



Re: Animal Feeding Operations Complaint Investigation  
Complaint No. 11/06-10, Pig Haven Swine Confinement

Dear Ms. Manz:

Per your letter dated November 15, 2006, Juergens Produce of Carroll, Iowa was to hire an engineer licensed in the State of Iowa to evaluate the open top reinforced concrete storage tank of their swine confinement farrowing operation located in SE 1/4 of SW 1/4, Section 14 of Glidden Township, Carroll County, Iowa. Ron Juergens is the owner of Juergens Produce and Pig Haven and Mr. Steve Huegerich is the facility manager.

The structure in question is a 120 foot diameter reinforced concrete manure storage tank. Manure generated in the west gestation and breeding barns are collected in shallow flush pits located below the barns. The manure is then flushed to this 120 foot diameter concrete storage tank. Juergens Produce originally constructed this tank in 1992 as part of a 2,226 head breeding, gestation, and farrowing operation. In 2005, they expanded this operation to 3,710 head. We were the engineer for the permitting of the expansion. The current operation consists of six (6) separate barns. Along the west side of the site, the furthest south barn is a 61'-0" x 296'-0" breeding and gestation facility with sow capacity of 850. The second existing barn is a 60'-0" x 232'-0" gestation barn with a sow capacity of 720. The third barn a farrowing barn which measures 54'-0" x 292'-0" with a capacity of 240 sows and litters. The fourth barn measuring 38'-0" x 416'-0" is used for isolation and holds 500 gilts. The two east barns built in 2005, consist of a new farrowing barn measuring 63'-0" x 208'-0" with a capacity of 200 sows and a new deep pitted gestation building measuring 300'-0" x 77'-1" with a capacity of 1,200 head. The total animal weight capacity of the expanded operation is 1,456,000 lbs.

1725 N. Lake Ave., P.O. Box 458,  
Storm Lake, IA 50588  
Phone 712.732.7745 or 866.732.7745  
Fax 712.732.6293 e-mail kp@kpltd.com

1609 US Hwy. 18 E., P.O. Box 715,  
Algona, IA 50511  
Phone 515.295.2980 or 866.295.2980  
Fax 515.295.3176 e-mail kp\_algona@kpltd.com

423 West Main, Sac City, IA 50583  
Phone 712.662.7859  
Fax 712.662.7038  
e-mail kp\_sac@kpltd.com

The circular reinforced concrete tank was constructed with a tile drainage line around the footing to control the high water table around the tank. The outlet for this tile system is a circular concrete sump with a pump system. As water collects into the sump, a float kicks on the pump with the water discharging on the surface downstream of the pump. The surface discharge flows south across the Pig Haven site to the county road ditch. The discharge then would flow east 946 feet before reaching to Doe Brook. Doe Brook is not a major water source and, therefore, the minimum required separation distance from this facility is 500 feet. The Department in response to an anonymous complaint inspected the Pig Haven Site on November 9, 2006. Your inspection report noted that the pump from this tile system was not flowing at the time of the inspection but that field test of the liquid collected from the surface around the tank found the ammonia concentration to be over 250 mg/L. It should be noted that manure pumping operations had taken place from this storage tank the proceeding month. Therefore, the surface water sampled could have been contaminated with spillage from the pumping operation.

#### **Field Inspection, November 22, 2006:**

Kuehl & Payer, Ltd. performed an on site inspection on November 22, 2006. I arrived on site at 11:10 a.m. and pictures of this inspection are enclosed. Steve Huegerich, Facility Manager, Kevin Pietig, Site Operation Manager, and Rusty Triggles, Maintenance Foreman were on site for the inspection. We performed a visual inspection of the tank walls from the surface. A cold joint line in the concrete was noticeable in the west wall starting at the inlet pipe and extending southwest approximately 80 feet. Moisture appeared to be seeping into the tank from this joint line. In addition, there appeared to be seepage under the PVC inlet pipe. The remainder of the tank wall looks good with no signs of cracking. The cold joint line would have occurred from poor construction procedures. The placement of the concrete probably began in this area and continued clockwise around the tank. By the time the forms were filled and concrete placement returned to the beginning location the concrete in the bottom of the forms was setting up and vibration was not extended down the forms to penetrate the surface prior to addition concrete being placed over top.

As part of the inspection, the inlet pipe was excavated by Rusty Triggles exposing approximately 10 feet of the pipe. The soil along this 10 inch diameter PVC pipe was saturated for approximately 3 feet back from the wall. Beyond three (3) feet the soil was not saturated and did not smell of organics. However, roughly 6 feet back from the wall we located a bell pipe fitting in the line. The pipe was cracked and during excavation, a piece of the pipe broke out.

In addition to the visible inspection, we also collected a water sample from the tile drainage system. When I arrived on site, I noted that the discharge pipe from this tile system was directed into the storage tank. We pumped water into a five gallon bucket and then filled sampling bottles for the testing of chloride and Ammonia Nitrogen. These samples were delivered to Mangold Environmental Testing, Inc. in Storm Lake, Iowa for testing.

### **Repairs Recommended:**

The repairs recommended included repairing the broken inlet pipe and sealing around the tank wall penetration with a non-shrink grout. The cold joint in the tank wall was to be chipped and ground out to remove loose material and then blown out and sealed with a non-shrink grout. Rusty Triggles was in charge of the performing the repairs with his plan to complete the repairs in the next two to three days. I departed the site at 12:50 p.m.

### **Repair Field Inspection:**

I was contracted by Rusty Triggles on November 23, 2006, that the repairs were nearing completion. I then performed an on site inspection of the repairs on Monday, November 27, 2006. Pictures of the repairs are also enclosed. The grout use for sealing the joint is Summitville S-400, a chemical resistant 100% solids epoxy, TCA Formula AAR II HT.

The inlet pipe had been repaired with a new section of PVC installed by Mr. Triggles. The concrete wall at the penetration of the inlet pipe had been sand blasted clean and grout applied. The seal looked good. In addition, Mr. Triggles and his assistant had chipped, grounded and sand blasted the cold joint in the concrete. Pictures provided by Juergens Produce of the repair work show the procedures followed. The application of the grout looked good and no signs of seepage existed except for the far south end of the cold joint. Mr. Triggles explained that seepage was coming in during their patching operation and they could not get the joint to completely seal off. They had also excavated along the outside of the tank in this area and found saturated soil above the tile system and could not clean up the wall to patch from the back side due to groundwater. Because the weather was getting cold they did not want to leave the excavation open to freeze and backfilled the trench. We agreed that this area of tank was to be excavated again and the joint sealed from the back side with good clay soil used for backfill and compacted along the tank wall.

### **Water Sample Results:**

A copy of the test results from the sample collected on November 22, 2006 is enclosed. The Chloride and Ammonia Nitrogen levels of 120 mg/L and 170 mg/L respectively confirm that leakage has been occurring from this manure storage tank.

### **Summary:**

The ground water samples confirm the leakage has been occurring from this manure storage tank. It should, however, be noted that the environmental risk of this seepage has been minimal for the groundwater collected by the tile system is pumped to the surface and filtered through over 900 feet of vegetated road ditch prior to reaching waters of the State.

Ms. Alison Manz, IDNR

January 15, 2007

Page 4


We believe the manure has been able to seep out of the concrete tank through voids along a cold joint in the tank wall caused by poor concrete placement. The repairs completed should address this seepage except for at the south end of the cold joint in the tank wall. Because of the wet and cold weather after Thanksgiving the additional patching did not get accomplished as planned in December. This is why this report was not submitted by January 1, 2007. Therefore, the patching of this joint from the outside of the wall should be performed this spring after the tank is pumped down below the elevation of the cold joint. We will want to inspect the patching work this spring before any backfilling is completed.

It will be necessary to monitor the effectiveness of the repair work by resampling and testing of the groundwater for Chloride and Ammonia Nitrogen. We would recommend this be done three months after the last patching is completed. This will allow time for containments to flush through out the tile water. Until tests show the tank is not leaking, the discharge from the tile system should continue to be pumped back into the concrete storage tank. If leakage continues to be apparent this next summer we would recommend that the floor of the tank be inspected next fall after emptying is possible and the floor can be washed clean. However, due to the voids found along the cold joint in the tank wall we believe this to be the source of the leakage problem. A cold joint should have been less likely in the concrete work of the tank floor and due to solids in the manure and cracks that may exist in the floor would most likely fill and seal up.

It is the owner's responsibility to keep us informed in regard to the patching and to arrange with us in June of 2007, to resample the groundwater around the tank.

Respectfully Submitted,

KUEHL & PAYER, LTD.



Ivan D. Droessler, P.E.

c: Mr. Ron Juergens  
Mr. Steve Huegerich



MANGOLD ENVIRONMENTAL TESTING, INC.

2004 EXPANSION BLVD  
(712) 732-7786

STORM LAKE, IA 50588  
FAX (712) 732-3925

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December 08, 2006

Page 1 of 1

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PO BOX 458  
STORM LAKE, IA 50588

COPY

Receiving Information: 11/22/2006 14:25

15 degrees C

Work Order Number: 2006110208

Type	Location		Result	Analyst	Method	Collection Information	Analysis Date/Time
Lab ID	Analyte						
Grab	Grd Water Sump					Droessler Ivan 11/22/2006 11:45	
348793	Chloride		120	mg/L LDA	300.0		11/29/2006
348793	Ammonia Nitrogen		170	mg/L BB	350.2		11/27/2006

Sample Comments: Pig Haven

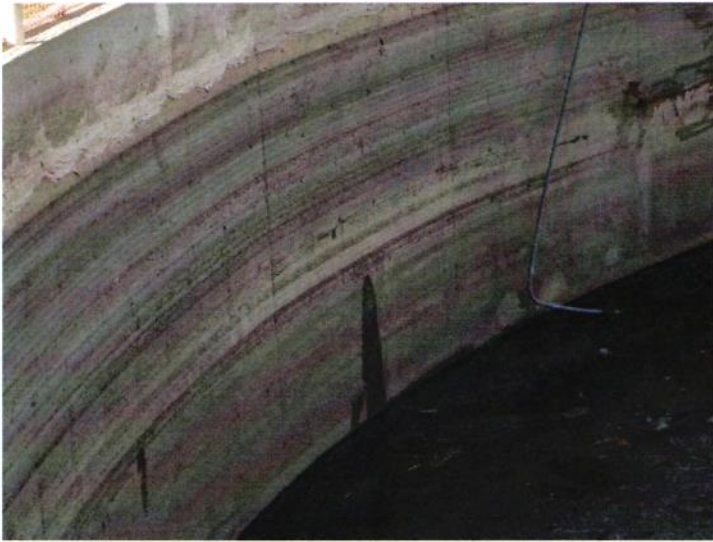
Prepared and Submitted by:  
MANGOLD ENVIRONMENTAL TESTING, INC.

Brent L. Mangold, Manager

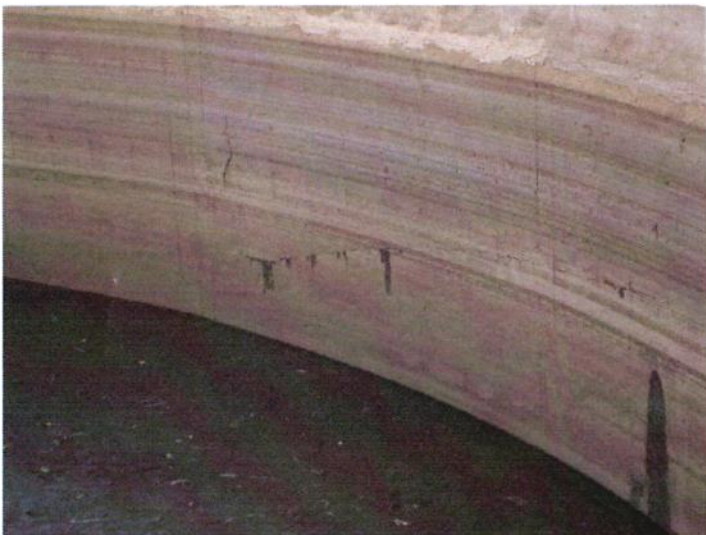
Iowa Laboratory Certification Number 002

Accuracy \* Dependability \* Quality \* Service

**FIELD INSPECTION**  
**11-22-06**



**FIELD INSPECTION**  
**11-22-06**



**REPAIRS BY JUERGENS PRODUCE**  
**11-23-06 AND 11-24-06**



**REPAIRS BY JUERGENS PRODUCE  
11-23-06 AND 11-24-06**



# REPAIR INSPECTION

11-27-06

