

April 6, 2017

**Jamal Solaimanian, PHD., P.E
Engineer Supervisor Permits Branch, Office of Water Quality
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317**

I would like to go on record stating that the C&H Hog Farms draft permit 5264-W was improperly approved by ADEQ and should be denied. The information I am presenting in my discussion, I feel is relevant. It includes historical and current information about storage and land application of liquid waste from a swine facility based on documents provided by ADEQ website.

I tried to understand the sequence of the permitting process for this facility from 2012 through the present. I have not been able to. Referenced materials were downloaded directly from the Arkansas ADEQ Website.

I am not the best communicator, so please bear with me. I made notes on the downloaded documents (excerpts) and highlighted areas to help me comment and ask my questions. The document excerpts I included were troubling (appear to be missing information, information that might have been overlooked or possibly never provided). There are some additional comments about Compliance Inspections and Harbor Drilling Study I included in this discussion. I will try to make the case that this facility should have never been permitted in 2012, and allowed to continue operations, and later have Major Modifications to the original permit approved, and now a change to a new permit. The information I present suggest possible lack of full documentation for the original permit approvals, post construction inspection before facility came online and the permit was approved. Please review Cover Sheets and documents below.

QUESTIONS

Please answer each question in complete detail to help me, and maybe others, understand the permitting approval process. I want to repeat, I feel all of my questions are relevant.

(Examples: pre-construction plans, post-construction, final inspection and letter of consensus for the permit to be approved for operation as well as modification of the permit and oversight by ADEQ in the form of Compliance Inspections after the facility is operational).

Engineering plans were prepared by DeHaan, Grabs & Associates LLC, consulting engineers in accordance with ADEQ rules and regulations...

Is this statement correct?

In accordance with ADEQ policy, the NOI has been reviewed and has been determined to be complete

Is this statement correct?

Please review selected sheets in Appendix A. (Some are from the original NOI_NMP 2012 in a “side by side” comparison of the “As Built” plans. There is a third that relates to the plans for the mahor modification for the pond liners and cover. Please pull up the original plans as well to help answer the following question. They are provided at these links:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/ARG590001_NOI_20120625.pdf

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/ARG590001_As%20Built%20Engineering%20Plan%20Sheets_20130412.pdf

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/ARG590001_Complete%20Application%20Packet_20150519.pdf

Do the plans provided by the ADEQ online meet the following statements directly below?

“Engineering plans were prepared by DeHaan, Grabs & Associates LLC, consulting engineers in accordance with ADEQ rules and regulations...

In accordance with ADEQ policy, the NOI has been reviewed and has been determined to be complete”

Are the three sets of plans listed above “complete”? (NOI_NMP, As Built and the Major Modification pond liners and cover), pay special attention to the sheets I included below before you answer.

Did someone at ADEQ check over these plans as being complete and sign off on them? If so could you provide this information?

If ADEQ did review the plans and found missing information is that a deficiency? Please answer in complete detail. If one did find there was missing information from Certified Arkansas Professional Engineer Plans, would this allow the permitting to continue without a complete set of plans, or would the permitting process halt until things were corrected? Other words, if ADEQ saw they were missing a card out of the deck would they go ahead and issue the permit or wait until the information was provided?

Again, I am trying to understand the Permitting Process from beginning until when the facility was deemed permitted by ADEQ and approved for operation.

Once a facility is built, does a inspector(s) from ADEQ come out to the site and review the plans and compare to what has been built to the actual design plans and if there are no deficiencies, sign off on it?

Or does one take the site inspection back to the ADEQ panel of various degrees of expertise’s and ask for a letter of consensus so that it has been reviewed by several experts in various fields and then the permit is approved based on a consensus who deemed the As Built as worthy of a permit?

Please explain in detail and provide the form or whatever was used to inspect the facility and say that it meets state and federal requirements.

There appeared to be an application for a Permit to Construct listed in the NOI_NMP 2012, Is there a “Permit to Construct”? Please answer in detail. Please provide this information if it is available.

Is there a “Construct Authorization Permit” from ADEQ? Please answer in detail. Please provide this information if it is available.

Based on Section 1.5 of the CAFO General Permit (ARG590000), 1.5.1.5 Submit an ADEQ Form 1 and plans and specifications that stamped by Professional Engineer in Arkansas for construction of pond(s). Was this done? Please explain in detail. Please provide the documentation.

Please review selected sheets in Appendix B for my next questions and comments.

In addition, I ask you to please review: ARG590001 NOI and NMP 20120625.pdf (F-4) C&H Hog Farms - May 18, 2012 Newton County, Arkansas

Please pay special attention to Section 1.6 HOLDING POND LINER This section appears to cover some important design specifications relating to Clay Liners.

“Liner material shall not contain significant amounts of organic material, frozen material, ice or rocks larger than four inches in diameter and shall not be placed on a frozen surface”.

Based on the photographic logs and comments from the First Compliance Inspection (07/23/2013) and the Second Compliance Inspections (01/23/2014) with notations like “gravel to cobble-sized coarse content within the liner clay” and “large rocks in liner” combined with “rocks larger than four inches in diameter.”

Do the two Clay Liners meet the Design Specifications stated in the NOI NMP2012 Section 1.6? This is extremely important to my understanding, so please answer in detail, this is relevant to the original permit and subsequent Major Modification of the permit to allow synthetic liners that may some day cover those Cobble-Sized Rocks, as well as the future Compliance Inspections integrity to the public.

I want go into the written exchange between the Compliance Inspectors report, response by C&H Hog Farms and what they said they did to address some of the deficiencies for Pond 2. I do think it is worth reading and see that some of the deficiencies appear have not been addressed and others appear to still exist. Is this “self-regulation” at work?

The main thing I feel is very important is that original Clay Liner appears to have tomahawk size limestone rocks in them. Do the Clay Liners meet the wording in the NOI_NMP 2012 and the state

requirements? I realize this may be a re-run question but it is important and deserves an answering. Thanks for your patience.

Will ADEQ allow a set of synthetic liners be placed over these flawed Clay Liners that have cobble-size coarse material clearly still in them?

Please review Appendix C. This is a public comment I made in opposition of the Major Modification (synthetic liners and cover) for the same reason I mentioned above. I added it to show it was relevant then and is still relevant.

Please review selected sheets in Appendix D for my next questions and comments I address next.

Please compare the “As Built” Plan (State of Arkansas Certified 04//12/2013) Plan sheets 7 & 10 to the (State of Arkansas Certified 08/04/2016) “Surveyed Boring Location”. I combined the two images, rotating the “As Built” Plans to align approximately as to compare. I realize there is a difference in scale and I can not tell you exactly where the boring (or Borehole) is located on those drawing, but feel they are clearly lower elevation than the elevation of the “Boring Location” as stated.

What is the actual surface elevation (ground elevation or the top of the Borehole where Harbor Drilling Study recorded in detail their locations directly below that Lat/Lon/Elevation? Harbor reported their findings (field notes and final report) in Below Ground Surface (BGS) in feet.

Are both of these State of Arkansas Certified documents correct concerning the surface elevation for the boring (borehole). Other words the elevation in feet directly on top of the borehole? What is the Lat/Lon and Elevation of that particular spot on earth? Is it the same as the As Built map contours indicate?

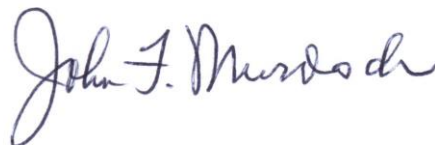
If not please answer in detail. I feel this is very important and relevant as I stated earlier. There have been numerous Surface (or Ground level) as well as Below Ground Surface documenting things like the first NOI_NMP Borings and Benchmarks, Trench Interceptors, Well depths, ERI land and lagoon survey transects. Please clarify.

In closing I want to go on record that this facility should have never been permitted for many reasons, Incompleteness sums it up, also close proximity to fragile areas, below the farm as well as the waste spreading fields, the people and nature. Health risk like exhaust fans only yards from residents and a school, etc, water quality degradation for sure.

As a geologist, I want to go on record as stating there is a very important subsurface component to the movement of water and nutrients below the farm lagoons as well as the waste spreading fields, in general that region. The surface and subsurface area is fragile in many places. If you don't like the words epikarst or karst, call it white rock or whatever. The area over there is blessed with a fairly large supply of good water historically that is a true resource to all that live there. It should be protected by all including the ADEQ to insure its future. Groundwater exists and it goes places not always seen from the surface. Water provides a resource, but it is also located in broad fragile area that needs protection or that resource will be lost. There are many caves, springs and some sink holes in the twin Big Creek Valley and beyond. I will leave the geology and hydrology to the experts; I am only speaking from what I have witnessed over there.

I will leave it to others to cover a more complete explanation of why this was a mistake that could have been prevented. I also feel the information I included was just a small fraction of what "appears" to be in question before it was permitted and again now as the facility goes up for a new permit. There is still time to resolve this. I call on ADEQ to do just that. I read your mission statement and I feel that statement should apply to us all.

**Sincerely,
John Murdoch Geologist
Wesley, AR 72773**

A handwritten signature in blue ink that reads "John F. Murdoch". The signature is fluid and cursive, with the first name "John" and last name "Murdoch" clearly legible.

APPENDIX A

"As Built" Engineering Plans

C & H HOG FARMS GESTATION-FARROWING FARM AS BUILT ENGINEERING PLAN SHEETS

SECTION 26, T 15 N, R 20 W
NEWTON COUNTY, ARKANSAS

DATE: APRIL 12, 2013

SHEET INDEX

SHEET 7 - WASTE STORAGE POND FINAL DESIGN
SHEET 8 - PROPOSED SITE PLAN CROSS SECTION

SHEET 10 - WASTE STORAGE POND & BARN CROSS SECTIONS
SHEET 11 - WASTE STORAGE POND CROSS SECTIONS

SHEET 13 - POND INLET & MAXIMUM BERM DETAILS
SHEET 14 - WASTE STORAGE POND 1 STAGE STORAGE TABLE
SHEET 15 - WASTE STORAGE POND 2 STAGE STORAGE TABLE

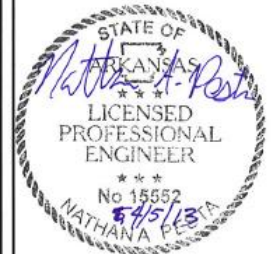
Appears to be **MISSING** sheet 15: **"WASTE STORAGE POND 2 STAGE STORAGE TABLE"**

Important information like:

"25 Year-24 Hour Stage/ MUST PUMP DOWN" or **"25 Year-24 Hour Stage Overflow El."**

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR/G590001_As%20Built%20Engineering%20Plan%20Sheets_20130412.pdf

GENERAL NOTES



1	AS BUILT	4/12/13
No.	Revision/Issue	Date



C & H HOG FARMS
GESTATION-FARROWING FARM

SECTION 26, T 15 N, R 20 W
NEWTON COUNTY, AR

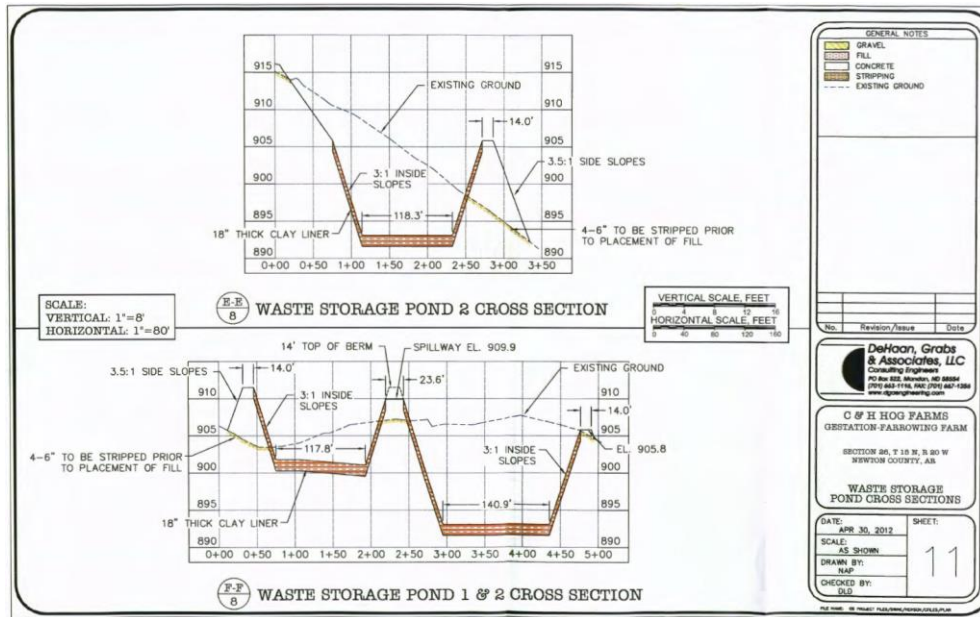
COVER SHEET

DATE: JUN 1, 2012	SHEET:
SCALE: NONE	COVER
DRAWN BY: NAP	
CHECKED BY: DLD	

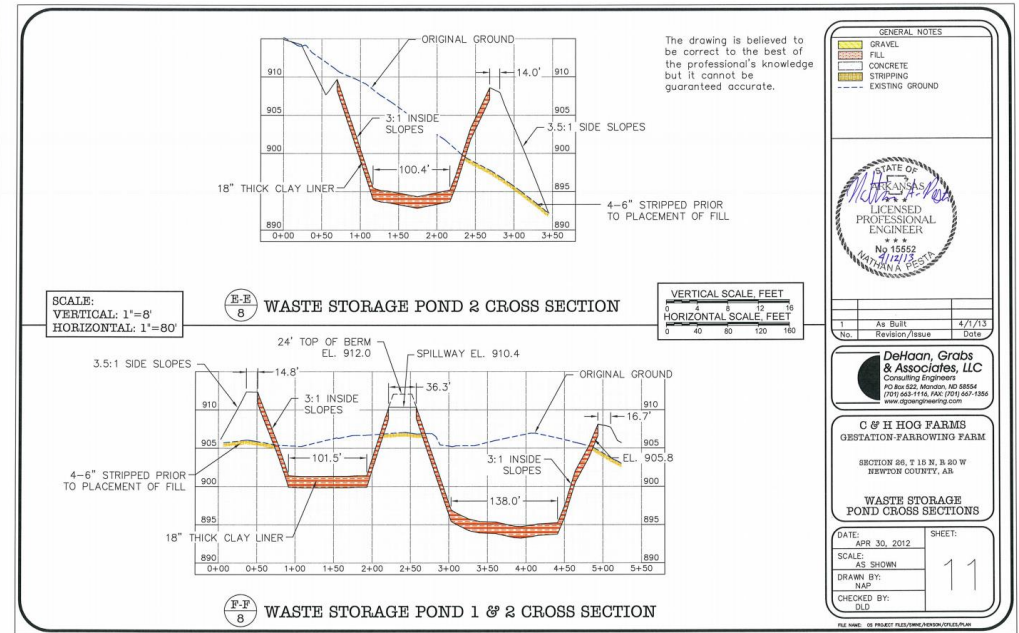
FILE NAME: 06 PROJECT FILES/SMNE/HENSON/CFILES/PLAN

Side by side comparison of select heets from the NOI and the "As Built" Engineering Plans

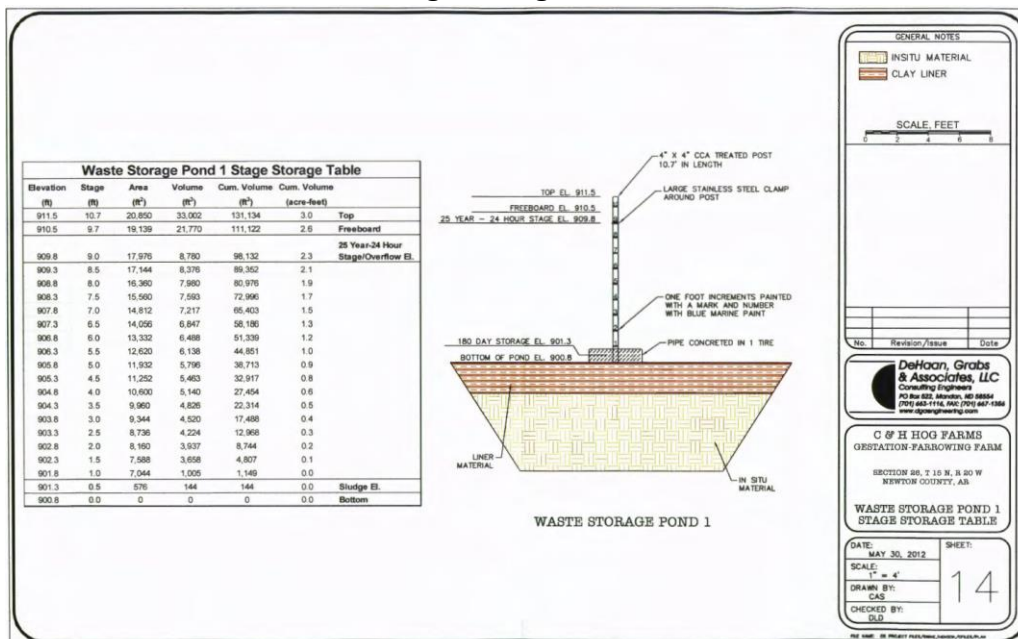
From NOI - Engineering Plans



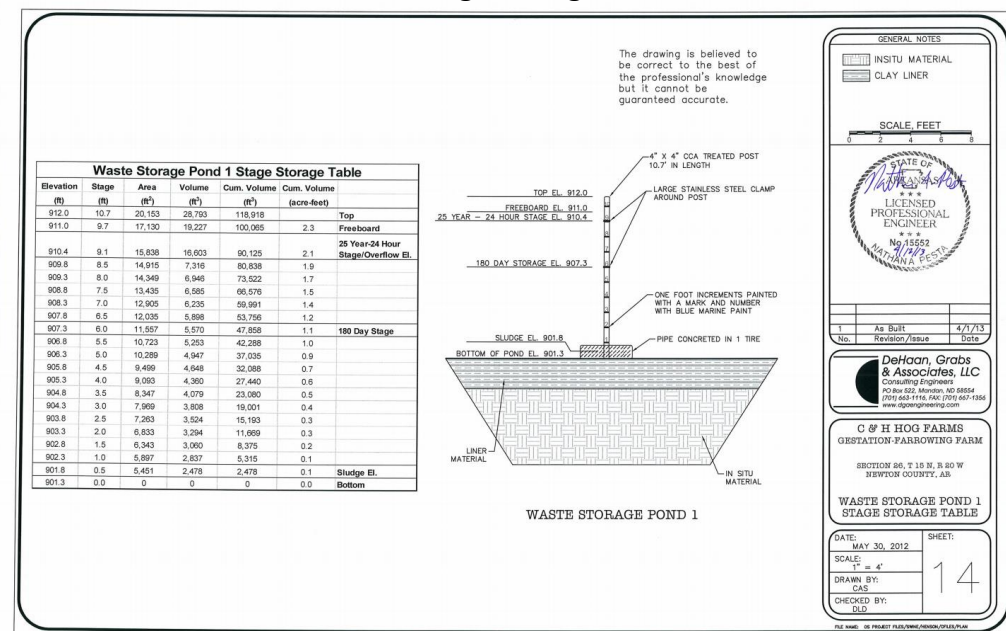
"As Built" Engineering Plans



From NOI - Engineering Plans

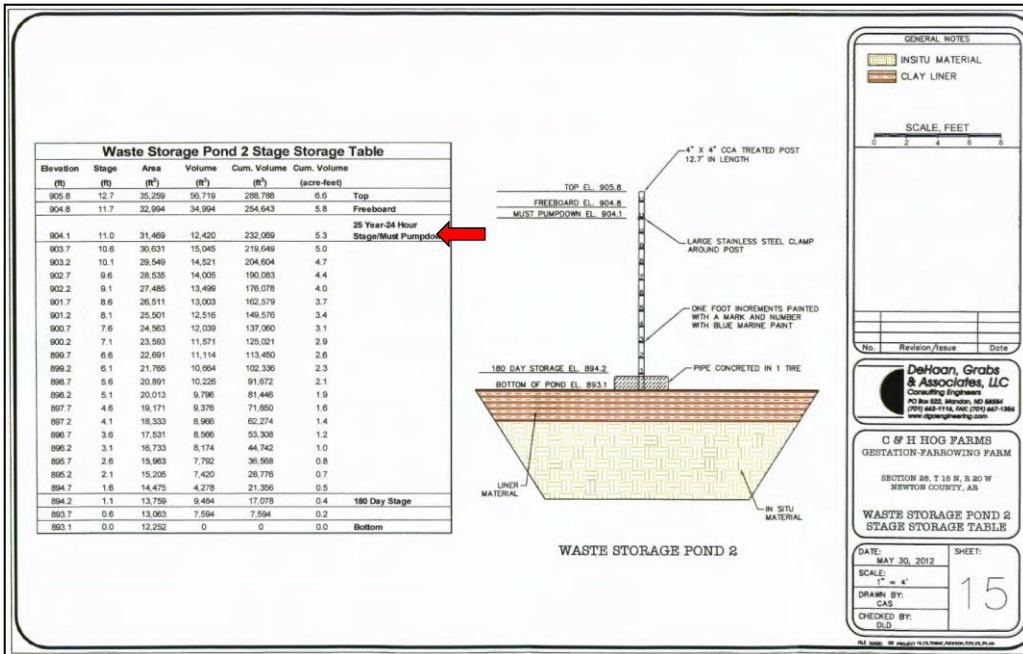


"As Built" Engineering Plans



Side by side comparison of select sheets from the NOI and the "As Built" Engineering Plans

From NOI - Engineering Plans



"As Built" - Engineering Plans

Appears to be **MISSING** Sheet 15:

"WASTE STORAGE POND 2 STAGE STORAGE TABLE"

"25 Year-24 Hour Stage/Must Pump Down"

"25 Year-24 Hour Stage Overflow El."

Jason Henson
C & H Hog Farms, Inc.
HC 72 Box 10
Mount Judea, AR 72655

From file:
[ARG590001 PN 20150708.pdf](#)

May 7, 2015

**Re: Major Modification Request – Waste Storage Pond Liners and Cover
AFIN: 51-00164, Permit No.: ARG590001**

Mr. John Bailey
Permit Branch Manager
Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Dear Mr. Bailey:

C & H Hog Farms, Inc. is seeking the Department's approval of a major modification request to install pond liners in Waste Storage Ponds 1 and 2. A methane flare system and cover will be installed over Waste Storage Pond 1. This is the only revision we are seeking at this time.

Enclosed are the Notice of Intent (NOI), ADEQ Form 1, Disclosure Statement, and Design plans.

Please do not hesitate to contact me if you have any questions or concerns regarding this request.

Respectfully,

Jason Henson
Jason Henson
C & H Hog Farms, Inc.

Enclosures

C & H HOG FARMS GESTATION-FARROWING FARM ENGINEERING PLAN SHEETS

SECTION 26, T 15 N, R 20 W
NEWTON COUNTY, ARKANSAS

DATE: APRIL 15, 2015

SHEET INDEX

ADDENDUM 1 – WASTE STORAGE POND HDPE LINER DETAILS
ADDENDUM 2 – WASTE STORAGE POND 1 HDPE COVER DETAILS
ADDENDUM 3 – WASTE STORAGE POND 1 BALLAST PIPE DETAILS
ADDENDUM 4 – MISCELLANEOUS DETAILS
ADDENDUM 5 – MISCELLANEOUS DETAILS 2
ADDENDUM 6 – WASTE STORAGE POND 1 BASELINER PANEL LAYOUT
ADDENDUM 7 – WASTE STORAGE POND 2 BASELINER PANEL LAYOUT
ADDENDUM 8 – BASELINER DETAILS
ADDENDUM 9 – UNDER LINER VENT DETAILS

Appears to be MISSING ADDENDUM 9: “Under Liner Vent Details”

This might provide important information like:

How one goes from an existing Clay Liner design to Synthetic Liner(s) and show the vent for the gases below those new liner(s). This would appear to be a very important gap that seems missing in the certified and reviewed copy provided:

File: [ARG590001_PN_20150708.pdf](#)

GENERAL NOTES



No.	Revision/Issue	Date

DeHaan, Grabs & Associates, LLC
Consulting Engineers
PO Box 522, Mandan, ND 58554
(701) 663-1116, FAX: (701) 667-1366
www.dgaengineering.com

**C & H HOG FARMS
GESTATION-FARROWING FARM**

SECTION 26, T 15 N, R 20 W
NEWTON COUNTY, AR

COVER SHEET

DATE: APRIL 15, 2015	SHEET: COVER
SCALE: NONE	COVER
DRAWN BY: NAP	
CHECKED BY: DLD	

FILE NAME: 05 PROJECT FILES/TWINE/HENSON/FILES/PLAN

APPENDIX B

From the original NOI: **(ARG590001 NOI and NMP 20120625.pdf)**

(F-4)

*C&H Hog Farms May 18, 2012
Newton County, Arkansas*

for later use as topsoil or disposed of properly. The impoundment area shall be excavated to the lines and grades as shown on the plans. Any borrow areas outside the impoundment area shall be graded and left in a well-drained condition. The contractor shall be responsible for the removal of excess water from any portion of the job site and all necessary equipment. In addition, the contractor is responsible for ensuring that all applicable permits have been obtained prior to any dewatering. Pumping of ponded water, if necessary during construction, shall be conducted in a timely manner to prevent saturation of large areas of the borrow pit and outletted to an acceptable drainage course as determined by the Engineer. Excavation is considered integral to fill placement, therefore payment will be made for only one.

1.5 HOLDING POND EMBANKMENT

Fill shall be placed at the lowest point along the centerline of the embankment in horizontal layers not to exceed 6 inches in compacted depth to specified densities before placement of a successive layer. The fill shall be placed over the entire length and width of the embankment along one side of the holding pond except in areas where sectionalized construction is authorized by the Engineer. Where less impervious material is encountered in the borrow area, it shall be placed in the outer portions of the embankment (Zone 2 on Plans) as part of each lift and compacted the same as the rest of the embankment if authorized by the Engineer. Rocks larger than 6 inches in diameter shall not be used in the fill. The contractor shall be responsible for any water needed to raise the moisture content of fill material prior to compaction. The contractor shall also provide any equipment necessary to apply this water to fill. Care should be taken to prevent excessive cracking of compacted fill before a successive layer is placed. Compaction shall be performed to each lift by means of controlled travel of compaction equipment so that each lift of the fill area has been uniformly compacted to a final density consistent with 95% Standard Proctor Density (ASTM D-698). Each pass of soil loading and compaction equipment should travel parallel to the centerline of the embankment.


The moisture content at the time of compaction shall be consistent with the requirements of compaction to achieve final density.

1.6 HOLDING POND LINER

The holding pond's final grades shall be over cut by a minimum of 18 inches, scarified and padded with a minimum of 18 inches of well compacted low permeable soil. **Liner material shall not contain significant amounts of organic material, frozen material, ice or rocks larger than four inches in diameter** and shall not be placed on a frozen surface. The liner shall be placed in horizontal layers not to exceed 6 inches in compacted depth. Each lift shall be compacted by means of controlled travel of compaction equipment so that the ...

*DeHaan, Grabs & Associates, LLC F-4
Mandan, ND & Dodge City, KS*

★ **"rocks larger than
four inches in diameter"**

Photographer:	Tony Morris				Witness:	Phillip Campbell	
Photo #	6	Of	6		Date:	07/23/13	Time: 17:21
Description:	Rill erosion and desiccation cracks in Holding Pond liner due to extended exposure.						
							

1st Compliance Inspection and Report

Description: “Large rocks in liner”

“gravel to cobble-sized coarse content within the liner clay”

Water Division NPDES Photographic Evidence Sheet

Location: C&H Hog Farm, Newton County

Photographer: Tony Morris

Witness: Phillip Campbell

Photo #

5

Of

6

Date: 07/23/13

Time:

12:03

Description:

Rill erosion in Settling Basin liner, large rocks in liner Signs of liner deterioration.

"large rocks in liner" ★



Photographer: Tony Morris

Witness: Phillip Campbell



ARKANSAS
Department of Environmental Quality

First Compliance Inspection and Report.
Letter to C&H Hog Farms September 10, 2013



September 10, 2013

Jason Henson
C & H Hog Farms
HC 72 Box 10
Mt. Judea, AR 72655

<https://www.adeq.state.ar.us/downloads/WebDatabases/InspectionsOnline/073447-insp.pdf>

Re: Compliance Assistance Inspection (Newton Co)
AFIN: 51-00164, Permit No.: ARG590001

Dear Mr. Henson:

On July 23, 2013, members of the Water Division Inspection Branch performed a compliance assistance inspection (hereinafter "inspection") of the above referenced facility located near Mt. Judea in Newton County. The inspection was conducted in accordance with the provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated thereunder. At the time of the inspection, I noted the following:

- 1.) A copy of the site-specific Nutrient Management Plan (NMP) was not available upon request per Part 3.2.2.2 of the permit.
- 2.) No means of managing farm mortality was observed onsite. The facility NMP calls for composting and rendering; however, no equipment or structures for managing this waste stream was observed onsite. Since the farm will soon be in full production and will be generating a steady waste stream of dead pigs and afterbirth, the composting and/or rendering equipment mentioned in the NMP must be onsite and capable of managing such waste.

3.) The wastewater pond liners were observed to have erosion rills, desiccation cracks and gravel to cobble-sized coarse content within the liner clay. If the liner is to be exposed for extended periods of time, it should be protected from deterioration by erosion and desiccation.

- 4.) During the review of the land application site maps, it was noted that a discrepancy may exist in the numbering of Field #5 and whether the field labeled as "Field 5" on the WMP map(s) is covered under a land-use agreement. This discrepancy must be resolved prior to beginning land application activities. Please revise the site map(s) and resubmit each map(s) to the Department.
- 5.) A review of the "Overall Site Map" found in Section F of the NMP did not appear to include buffer zones around all ponds, streams, and drainages. Per Condition 4.2.1.5 of the permit, please ensure all manure, litter, and process wastewater is not applied closer

WATER DIVISION

8001 NATIONAL DRIVE / POST OFFICE BOX 8913 / LITTLE ROCK, ARKANSAS 72219-8913 / TELEPHONE 501-682-2199 / FAX 501-682-0910
www.adeq.state.ar.us

SEE: Inspection - Photo 1 dated 01/24/2014 to see results of "items that require your immediate attention" and actions taken concerning cobble-sized coarse content in the clay liner...

(Continued)

than 100 feet to any down gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters; 300 feet of Extraordinary Resource Waters (ERW) as defined by the Department's Regulation No. 2; within 50 feet of property lines; or 500 feet of neighboring occupied dwellings. Attached to the inspection checklist are images of the land application fields with identified drainage features which were lacking buffers zones on the aforementioned map (see attachments 1-3). You may wish to flag or mark buffers and setbacks prior to land application activities.

- 6.) Condition 4.2.1.7 states, "wastes shall not be applied to slopes with a gradient of more than 15%." It appears Field #4 may contain slopes greater than 15%; and therefore, may not be usable for land application. The steep portion of Field #4 is marked in pink on the attached images (see attachments 1-3) included in the inspection checklist.

★ Although this was a compliance assistance inspection, the above items require your immediate attention. You must submit a written response to these findings to the Water Division Inspection Branch of this Department. This response should be mailed to the address at the bottom of the first page of this letter or e-mailed to Water-Inspection-report@adeq.state.ar.us. The response should contain documentation describing the course of action taken to address each item noted. This corrective action should be completed as soon as possible; however, the written response with all necessary documentation (i.e. photos) and individual item target completion dates is due by **September 24, 2013.**

If you have any questions or would like to discuss this inspection in greater detail, please contact me at 501-682-0659 or by e-mail at bolenbaugh@adeq.state.ar.us.

Sincerely,



Jason Bolenbaugh
Inspection Branch Manager
Water Division

cc: Water Division Permits Branch

SEE: Inspection - Photo 1 dated 01/23/2014 to see results of "items that require your immediate attention" and actions taken concerning cobble-sized coarse content in the clay liner...



Jason Henson
C & H Hog Farms, Inc.
HC 72 Box 10
Mount Judea, AR 72655

September 20, 2013

**Re: Compliance Assistance Inspection (Newton Co)
AFIN: 51-00164, Permit No.: ARG590001**

Jason Bolenbaugh
Inspection Branch Manager
Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

Dear Mr. Bolenbaugh:

Please accept this letter as the written response to your correspondence dated September 10, 2013, regarding the inspection performed at C & H Hog Farms near Mt. Judea in Newton County on July 23, 2013. The responses are numbered to correspond with the observations cited in your letter.

- 1.) The site-specific Nutrient Management Plan (NMP) has been onsite since construction began and was located in the office in the bottom drawer of the file cabinet at the time of the compliance assistance inspection. All three farm owners are aware of the exact location where the NMP is stored. Clearly, there was a miscommunication or misunderstanding about what the inspectors asked us to provide because the NMP would have been produced had it been clear to the owner that the inspectors wished to see a copy of it. C & H Hog Farms considers this action item complete.
- 2.) This was an inaccurate observation. C & H Hog Farms received approval from ADEQ in April 2013 to include the incineration method for farm mortality disposal in the NMP. (See "Approval of Construction Certification and WNMP Revisions" letter dated 4/15/13 posted on ADEQ's website, which is also included with this letter as an attachment) The integrator required C & H Hog Farms to have an operational means of managing farm mortality on the farm before hogs could be delivered to the premises. The incinerator has been onsite since April 2013 and was operational prior to the time the first hog ever arrived at the farm. The incinerator is located on the south side of the barns, directly west and in the line of sight of Pond 1. The inspectors walked around the entire bank of Pond 1 and would have easily been able to see the incinerator from this viewpoint. All owners and employees of the farm are aware of where the incinerator is located and would have been happy to point the incinerator out to the inspectors if it had

(Continued)

Mr. Jason Bolenbaugh
September 20, 2013
Page 2

been clear that we were being asked to do so. C & H Hog Farms considers this action item complete.

3.) Immediately after this issue was brought to our attention by the inspectors, we performed the necessary maintenance on the minor erosion rills and desiccation cracks on Pond 2 and will continue to monitor this pond for any further deterioration. C & H Hog Farms considers the immediate action item complete and will continue to perform routine maintenance.

4.) C & H Hog Farms is working with an engineer to revise the maps as requested. Land application activities will not occur on Field 5 until the discrepancy is resolved.

5.) C & H Hog Farms is aware of the buffer zone requirements outlined in the permit and will adhere to said requirements during land application activities. C & H Hog Farms considers this action item complete.

6.) C & H Hog Farms is aware of Condition 4.2.1.7 and has no intention of land applying to any slope with a gradient of more than 15%. C & H Hog Farms considers this action item complete.

If you have any questions regarding our responses, please contact me by email at chhogfarmsinc@yahoo.com.

Sincerely,

JASON HENSON

Jason Henson
C & H Hog Farms, Inc.

Enclosure

Water Division Photographic Evidence Sheet

Location:	C&H Hog Farms		
Photographer:	Jason Bolenbaugh	Date:	1/23/2014
Witness:	John Bailey, Jason Henson	Time:	12:02
		Photo #:	1
Description:	Inside of Holding Pond 2. Note erosion rills and unstabilized banks. Holding Pond Must Pumpdown elevation is indicated in red on the Must Pumpdown gauge.		



2nd Compliance Inspection and report after correspondence by ADEQ to C&H asking for “immediate action” and response by C&H that they immediately took care of erosion rills and desiccation cracks on Pond 2? It appears the rills; cracks and cobble-size content are still present based on this second and follow up inspection? (See photo and field notes)

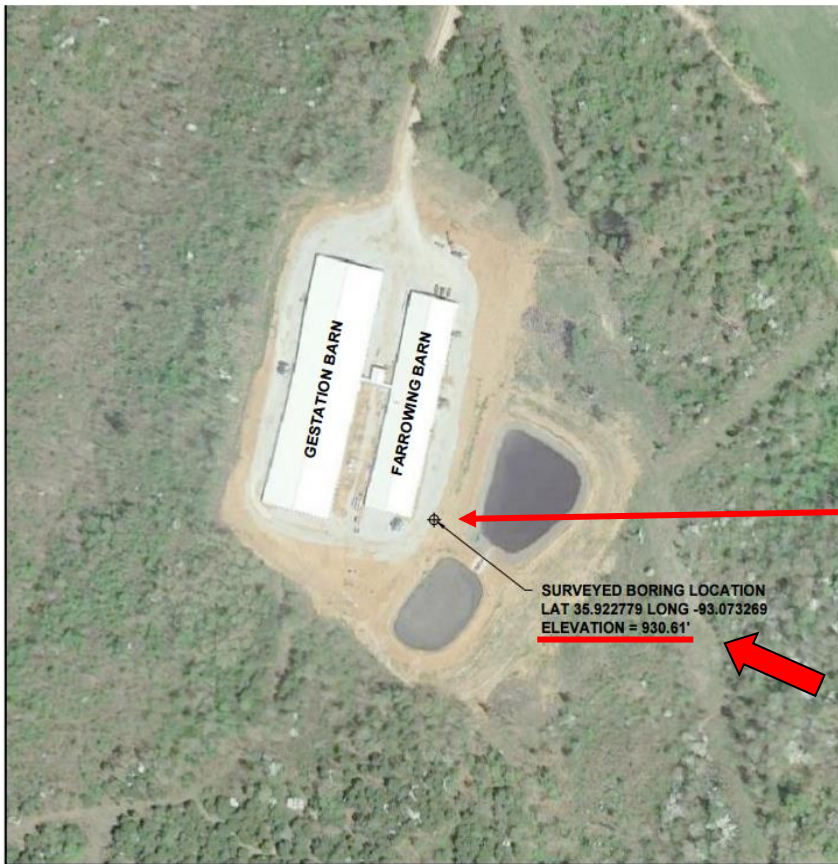


APPENDIX C

A link to my public comments in opposition to the Major Modification of the Permit for the Pond Liners and Cover (08/10/2015). I tried to point out what appears to be an already flawed Clay Liner, so why go over that without correcting possible major deficiencies. It was relevant then and is still relevant.

https://www.adeg.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/ARG590001_J%20Murdoch%20Public%20Comment%203_20150810.pdf

APPENDIX D



Certification

I hereby certify that the above described and depicted information is true and accurate to the best of my ability and that the positional accuracy is at or above the minimum standards for an Arkansas land survey.

Johnny R. Tweedle
JOHNNY R. TWEEDLE



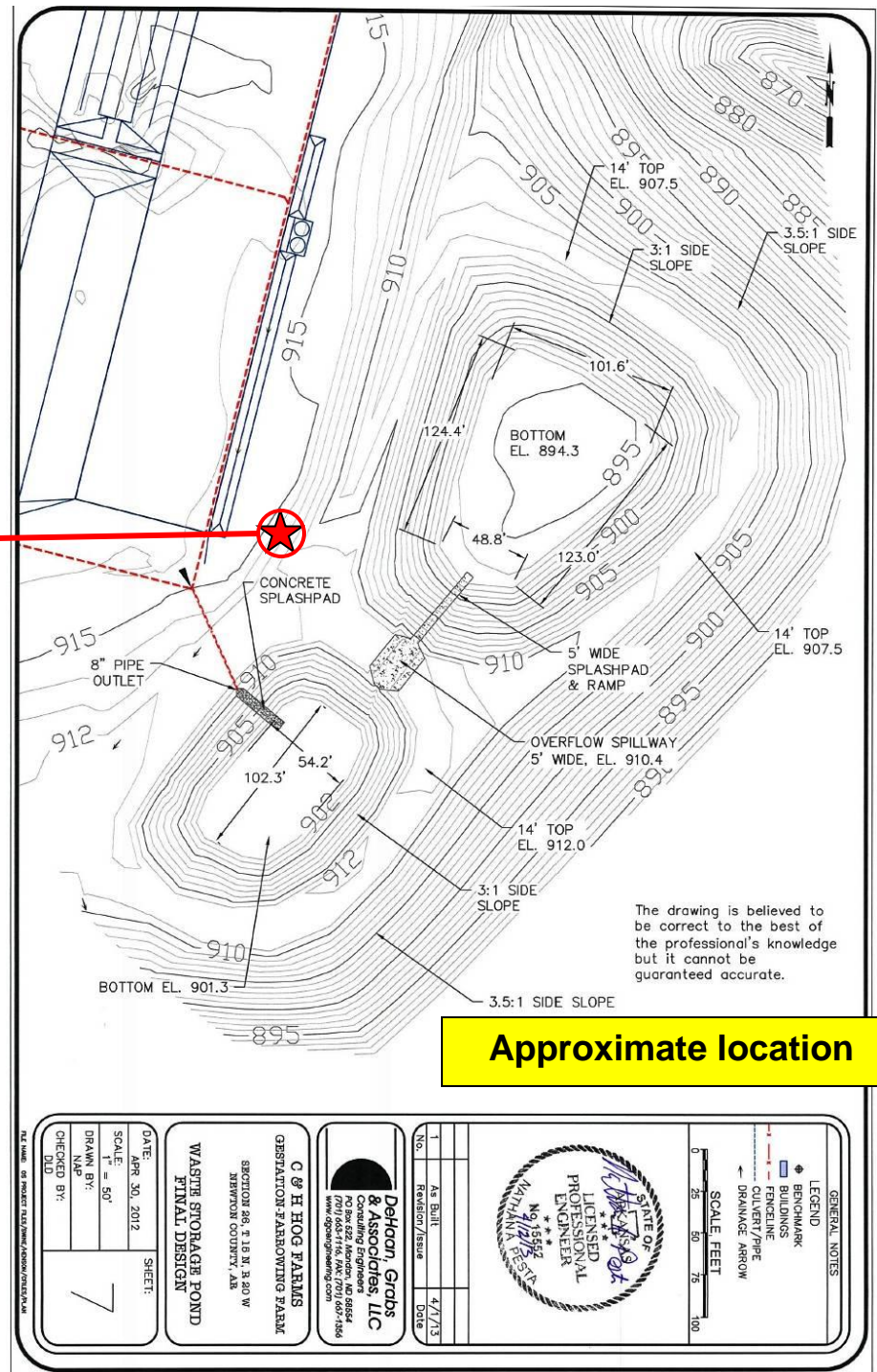
SCALE: 1" = 200'
200' 100' 0' 200'



SURVEYED BORING LOCATION
C & H HOG FARM - SITE LAYOUT MAP
MT. JUDEA
NEWTON COUNTY, ARKANSAS

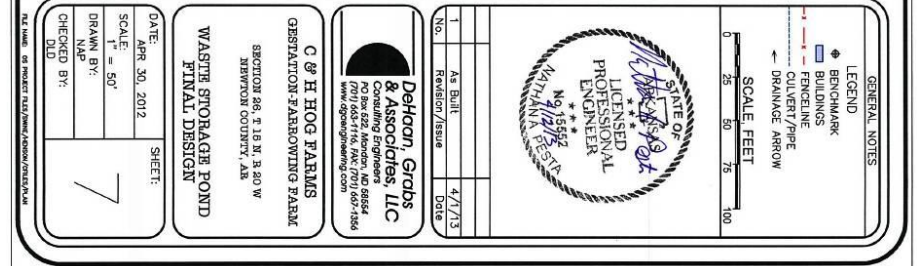


Surveyed Boring Elevation = 930.61'?



Approximate location

The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.




Both drawings are certified by the State of Arkansas. Please explain the actual surface elevation for the Harbor Drilling Study borehole that all of the subsurface data was referenced to (BGS).



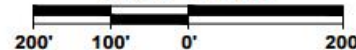
Certification

I hereby certify that the above described and depicted information is true and accurate to the best of my ability and that the positional accuracy is at or above the minimum standards for an Arkansas land survey.


JOHNNY R. TWEEDLE

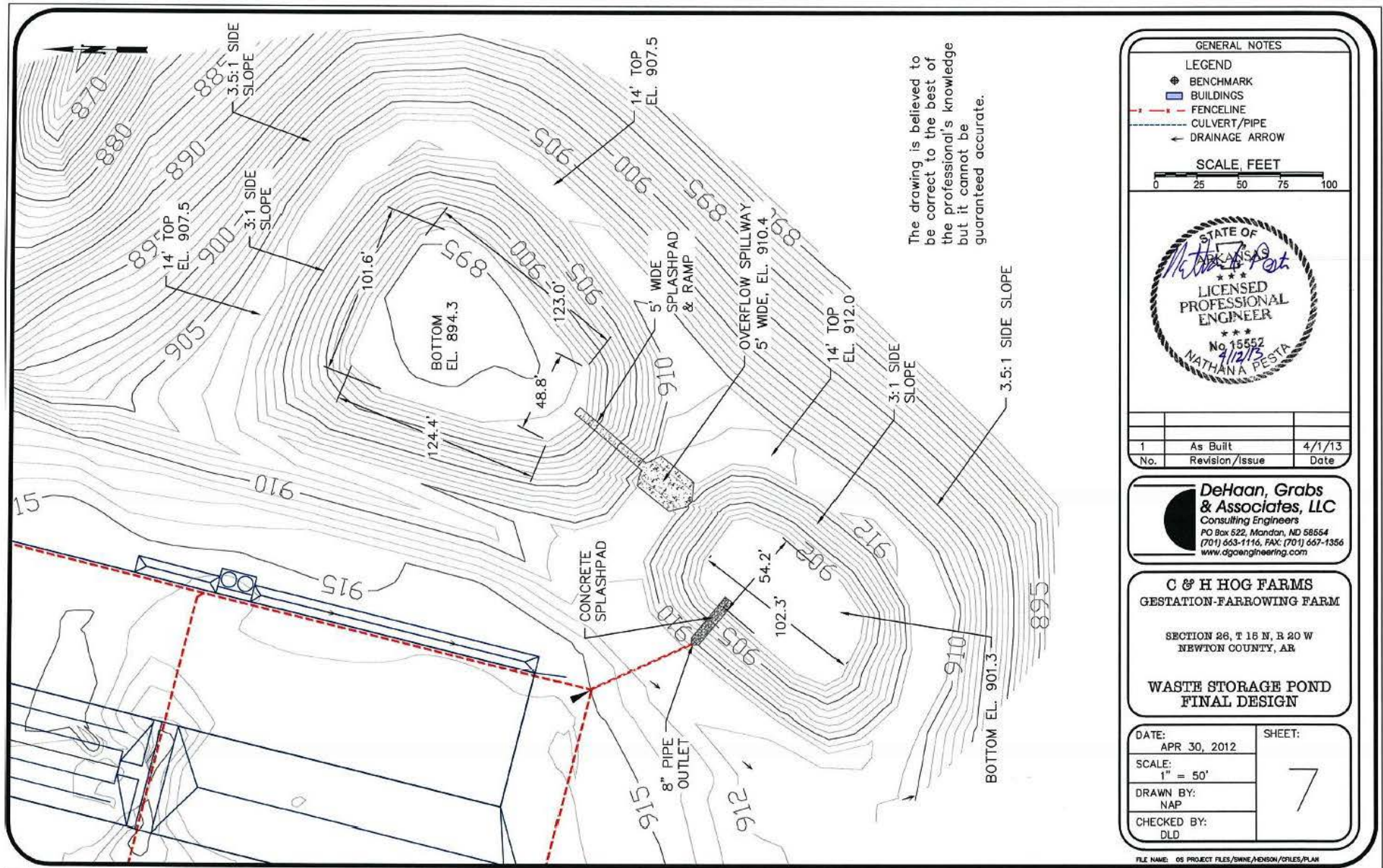


SCALE: 1" = 200'



SURVEYED BORING LOCATION
C & H HOG FARM - SITE LAYOUT MAP
MT. JUDEA
NEWTON COUNTY, ARKANSAS

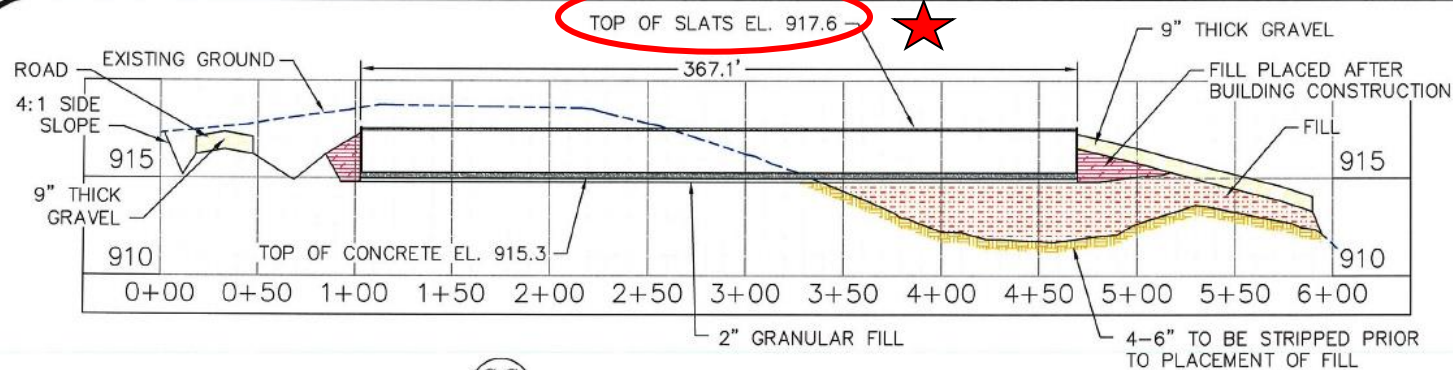




Elevations appear lower in elevation than the "Surveyed Boring Location" 930.61' ?

The surface elevation for the "Top of Slats" (Barn Floor) = 917.6'

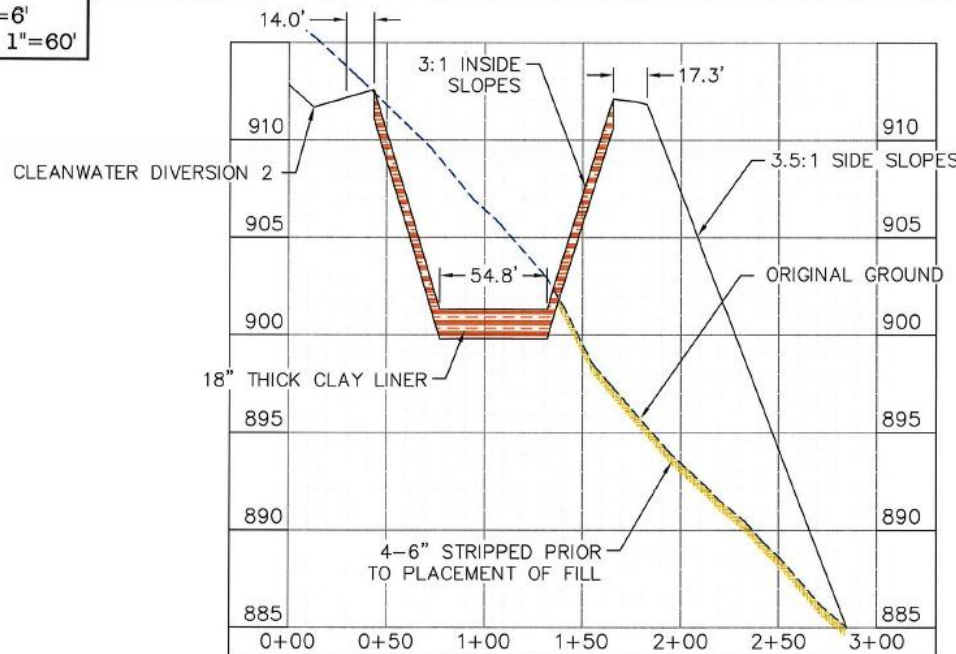
The state certified "Surveyed Boring Location" borehole is at surface elevation = 930.61' but physically appears lower in elevation than the Barn Floor.



SCALE:
VERTICAL: 1"=6'
HORIZONTAL: 1"=60'

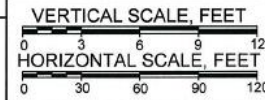
C-C
8

BARN CROSS SECTION



D-D
8

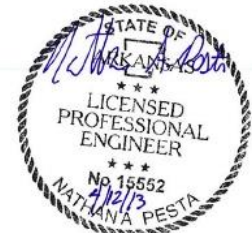
WASTE STORAGE POND 1 CROSS SECTION



The drawing is believed to be correct to the best of the professional's knowledge but it cannot be guaranteed accurate.

GENERAL NOTES

- GRAVEL
- FILL
- CONCRETE
- STRIPPING
- EXISTING GROUND



1	As Built	4/1/13
No.	Revision/Issue	Date

DeHaan, Grabs & Associates, LLC
Consulting Engineers
PO Box 522, Mandon, ND 58554
(701) 663-1116, FAX: (701) 667-1356
www.dgaengineering.com

C & H HOG FARMS
GESTATION-FARROWING FARM

SECTION 26, T 15 N, R 20 W
NEWTON COUNTY, AR

**WASTE STORAGE POND
& BARN CROSS SECTIONS**

DATE: APR 30, 2012	SHEET:
SCALE: AS SHOWN	10
DRAWN BY: NAP	
CHECKED BY: DLD	

FILE NAME: 06 PROJECT FILES/ENR/ENR/SECTION/FILES/PLAN

From: [J. Murdoch](#)
To: [Water Draft Permit Comment](#)
Subject: [BULK] Katherine McWilliams - C&H Hog Farms 5264-W
Date: Thursday, April 06, 2017 2:22:27 PM
Attachments: [Public Comment_jfm.pdf](#)

From: [Solaimanian, Jamal](#)
To: [Deardoff, Amy](#)
Subject: FW: [BULK] 5264-W -C&H Hog Farms Public Comment and Questions to ADEQ
Date: Thursday, April 06, 2017 2:51:15 PM
Attachments: [Public Comment_jfm_.pdf](#)

Jamal Solaimanian, Ph.D., P.E.

Engineering Supervisor
Office of Water Quality, ADEQ
501-682-0620
jamal@adeq.state.ar.us

From: J. Murdoch [mailto:jfmurdoch3@gmail.com]
Sent: Thursday, April 06, 2017 2:13 PM
To: Solaimanian, Jamal
Subject: [BULK] 5264-W -C&H Hog Farms Public Comment and Questions to ADEQ

Jamal,

I wanted to send my comments to you to help me understand the process. I know you have worked in this area for some time and hopefully you can break it down to where I can follow this whole deal since 2012. My information and questions may seem heavy on the historical but I assure you, I feel this is on going from 2012 and is relevant today.

I want to go on record as being opposed to this permit.

Sincerely,
John Murdoch

From: [Robinson, Kelly](#)
To: [Deardoff, Amy](#); [McWilliams, Katherine](#)
Subject: FW: [BULK] C&H Hog Farms 5264-W
Date: Thursday, April 06, 2017 3:51:56 PM
Attachments: [Public Comment jfm .pdf](#)

Kelly Robinson

Public Information Officer
5301 Northshore Drive
North Little Rock, AR 72118

501-682-0916

From: Goff, Patricia
Sent: Thursday, April 06, 2017 3:32 PM
To: Robinson, Kelly
Subject: FW: [BULK] C&H Hog Farms 5264-W

From: J. Murdoch [<mailto:jfmurdoch3@gmail.com>]
Sent: Thursday, April 06, 2017 2:38 PM
To: Commissioners
Subject: [BULK] C&H Hog Farms 5264-W